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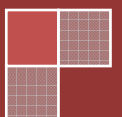
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Prof. Dr. J. Ana Donaldson - AECT President
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Message from the Editor-in-Chief

Dear Colleagues,

We are very pleased to publish Special Issue Volume 1 for INTE-2018, ITICAM 2018 & IDEC 2018 conferences. This issue covers the papers presented at International Conference on New Horizons in Education, International Trends and Issues in Communication & Media Conference and International Distance Education Conference which were held in Paris, France. These papers are about different research scopes and approaches of new developments and innovation in education, communication, media and technology.

Call for Papers

TOJET invites you article contributions. Submitted articles should be about all aspects of educational technology. The articles should be original, unpublished, and not in consideration for publication elsewhere at the time of submission to TOJET. Manuscripts must be submitted in English. TOJET is guided by its editors, guest editors and advisory boards. If you are interested in contributing to TOJET as an author, guest editor or reviewer, please send your CV to tojet.editor@gmail.com.

November, 2018

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A Case Study On Lecturers' Perception On Peer Observation

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Abstract

This research paper aimed to explore the perceptions of a group of lecturers in the selected college programme towards the notion of peer observation in teaching, in the context of their course. The study also sought to understand the perceived benefits of the process towards teaching and learning, as well as any disadvantages or limitations of this process within the context of its implementation in the college programme. In this qualitative case study, four participants were identified from the college programme via a non-random purposive sampling, gaining data from interviews and observation documents. Findings indicated that while teachers perceived the peer observation process to be beneficial in terms of constructive and useful feedback, reflective teaching, exposure to a variety of teaching practices as well as greater awareness on own teaching styles and views, there were challenges with the form used in the process, over-generalisation made from infrequent observations due to time constraints and the lack of positive communication, which instilled fear and nervousness towards peer observation. The findings provide an insider's perspective on the strengths and challenges as experienced by the participants who underwent peer observation. This will benefit both practitioners and policy makers in further understanding the various aspects of peer observation as well as the sensitivities that might arise while implementing and conducting peer observation. This will also potentially benefit institutions of learning and teachers who are keen to engage in peer observation.

Introduction

The purpose of this study is to gain a greater understanding on pre-university lecturers' experiences with and perception towards peer observation in teaching, as well as its effectiveness in the context of their educational institution's programme. Based on this, a central question and several sub-questions were constructed, refined and reviewed for viability concerning the objective of the research study (Wilkinson, 2003). These questions were then used to guide the researcher in the process of data collection, such as the construction of interview questions. Based on the purpose identified above, the following research questions were developed to further clarify the focus of the study.

1. What are teachers' perceptions on peer observation as a tool in enhancing their teaching practices?
2. What do teachers perceive as benefits from peer observation?
3. What do teachers perceive as disadvantages and/or limitations of peer observation?
4. From the teachers' perspectives, how can the existing peer observation process be improved?

The Study

Bell (2005) describes peer observation among teachers as a "collaborative, developmental activity" (p.3) where teachers get to share their teaching ideas, understand the effectiveness of their teaching, and reflect on their own practices. Apart from using peer observation as a tool for professional development, peer observation of teaching is also commonly used to manage and monitor teachers' development or performance (Peel, 2005). While there are many benefits to be obtained from peer observation of teaching, studies also indicate that teachers view this process with scepticism and negativity (Lomas & Nicholls, 2005). As such, the study seeks to explore the perceptions of a group of lecturers from a local college, to identify if their views are similar to the general view of teachers on this area. In order to understand the perceptions of the lecturers in terms of their experiences with peer observation in teaching within the context of their programme, the ontology of the research was deemed to be inclined towards the subjectivist, interpretivist and constructivist paradigms, where "reality is constructed, rather than set in stone" (Broom & Willis, 2007, p.25). A qualitative case study approach was adopted to obtain rich descriptions and quality information (Yin, 2014). Interviews with different sources were conducted using interview protocol that was developed to map closely to the research questions. This was to ensure that information collected would yield findings that are more convincing and accurate (Yin, 2014, p.119-120). The selection of participants for this case study, who were lecturers from the pre-university programme selected for this study were done via a non-random purposive sampling. This could "purposefully inform an understanding of the research problem and the central phenomenon in the study" (Creswell, 2013, p.156), which was also supported by Kumar (2005), who pinpointed the usefulness of purposeful sampling in describing something in which little was known, for instance, the context of this particular research. With the strategy, participants were selected based on criterion and maximum variation. Criterion strategy can be described as the selection of participants based on a set minimum criteria revolving the area to be researched upon, while maximum variation strategy was used in choosing participants from diverse backgrounds so as to accumulate a wide range of data, which "increases the likelihood that the findings reflected differences or

different perceptions” in this study (Nair & Jain, 2014, p.20). In terms of the sample size, four participants were identified from the pre-university programme. The relatively small sample size was not considered an issue for a qualitative case study, as “the sample size here is usually a function of the purpose” (Punch, 2004, p.55). To achieve maximum variation, the selection of participants was done across different subject areas or disciplines, as well as the level of experience in teaching. Participants would also have to achieve the minimum criterion of having undergone the peer observation process as done in the selected college programme at least once, in order to be eligible for the research study. Interviews, which are question and answer sessions in a one-on-one or a small group setting, were conducted to collate in-depth information from different individuals for this research study (Driscoll, 2011). Prior to the interviews, a set of questions which was mapped to the research questions was designed for data to be collected in a structured and coherent manner (Kim, 2008). The interview guide approach was adopted, whereby topics and issues covered were outlined in advance, although the researcher had the discretion to decide on the question sequence and structure during the actual interview sessions. The outline allowed the data collection process to be more systematic for each participant, while maintaining a conversational setting during the interviews. Anticipated logical gaps in data can also be minimised by the situational structure of the interviews, thereby increasing the comprehensiveness of collected data (Cohen et. al., 2007). A written consent was obtained from the interviewees after sufficient explanation had been given on the purpose of the research study, including their rights as participants to maintain anonymity, confidentiality and privacy of data collated from them. The interviews were done face-to-face, as its advantages include the ability of unscripted follow up, probing questioning methods as well as the presence of non-verbal communication, which proves to be useful in providing greater insight (Soh & Cheah, 2016). Its reliability was enhanced with the usage of an audio recorder, whereby taped interviews were then transcribed as a “necessity... in accurately recording information” (Creswell, 2013, p.166). Upon consent, the researcher should also receive access to participants’ peer observation documents, which were essentially records of peer observation templates by the participants themselves. This artefact was vital “to establish a knowledge gap... which ties into the chain of evidence in the form of major/minor causes” and effects to the lesson (Nair & Jain, 2015, p.75).

Findings

Table 1: Summarised Qualitative Content Analysis - Interview Transcripts

Themes	Subthemes	
Perception of peer observation	<ul style="list-style-type: none"> · Tool for personal and professional development, not for evaluation · Learning tool for new and senior lecturers · Implementation is heavily dependent on the teaching culture 	
Context of peer observation	<ul style="list-style-type: none"> · Requirement for appraisal · Initial suspicion and resistance due to lack of knowledge · Shift from a one-sided approach 	
Benefits of peer observation	To the observee	To the observer
	<ul style="list-style-type: none"> · Constructive and useful feedback · Greater awareness on own teaching style and technological tools 	<ul style="list-style-type: none"> · Exposure to a variety of teaching practices · Challenges own teaching views
Limitations of peer observation	Challenges	Suggestions
	<ul style="list-style-type: none"> · Generic “one-size-fits-all” form · Overgeneralisation from infrequent observations · Time constraints due to workload and clashes in timetables · Fear and nervousness due to lack of positive verbal and nonverbal communication 	<ul style="list-style-type: none"> · Discipline-specific form, guidance on form-filling · Pre-observation discussion · Follow up peer observations · Assigned peer observation timetable · Positive, encouraging gestures by the observer

Note: The categories do not necessarily represent a single experience, but rather the collective elements of peer observation in the context of the site of study, as perceived by the group of lecturers.

Several themes emerged during the analysis of data via a qualitative content analysis approach, which were then classified and categorised in the following manner (see Table 1). The following analysis is divided into

four key themes: 1) perception on peer observation as a tool to enhance teaching practice, 2) contextual description of peer observation, 3) benefits of peer observation, and 4) limitations of peer observation, accompanied by relevant suggestions for improvement.

In regard to the first research question about teachers' perception of peer observation as a tool to enhance teaching practice, it was evident from the interviews that peer observation is able to serve as a "powerful vehicle for situated learning" (Karagiorgi, 2012, p. 456), within the context of the educational programme. However, it is important to note that this can only be made possible when the appropriate school culture is fostered, as highlighted by one of the participants, in order to ensure the effectiveness of its implementation.

In regard to the second research question about teachers' perception on the way peer observation is done within the context of this study, the participants involved appeared to have similar perceptions that this process was a requirement for them as lecturers, as part of appraisal. This can be seen as a typical case of many higher educational institutions, where formality was sought to establish peer observation in a structured way, in order to cultivate a more standardised experience (Hammersley-Fletcher & Orsmond, 2004). Understandably, there was resistance and suspicion surrounding its implementation in the early stages, which was often the case when observation is constructed as part of appraisal and deemed as managerialist (Peel, 2005). Whilst making peer observation mandatory might contradict its intended meaning as a developmental model (Gosling, 2002), the programme should be explicit in its intention in executing peer observation and how its staff can benefit from this so as to minimise opposition or superficial implementation, where staff might only get involved with peer observation by observing peers at a minimum for the sake of compliance.

In regard to the third research question about teachers' perception on the benefits of peer observation process within the context of this study, both observers and observees felt strongly about the benefits of peer observation. For the observers, the perception of a greater awareness on their own teaching styles from observations, leading to adoptions of new teaching techniques they observed is aligned to Bandura's theory of observational learning (Hergenhahn, 1982). Views on peer observation feedback were inclined on the positive side, based on the experiences of getting constructive feedback from peer observers, also known as critical friends (Shortland, 2010), who were perceived to "provide a unique perspective on their teaching style offering suggestions for improvement and reinforcement of strengths" (Thampy et. al, 2015, p.309). Nonetheless, feedback should also be neutral and accompanied by concrete evidence, in which training should be provided so that the process could be maximised to its full potential (Thampy et. al, 2015).

In regard to the fourth research question about teachers' perception on the limitations of the peer observation process within the context of this study, findings had suggested that all teachers involved in the study did not follow a specified structure and format appropriately, leading to confusion and differences in anecdotal responses. There was variation of responses on the execution for pre- and post-observation sessions in the process, as well as on the usage of the peer observation form. Although all participants mentioned the form as a weakness in this process, all but one failed to indicate a focus on other sources of information available, for example student feedback results, lesson plan or teaching aids. This revealed that when peer observations were done by teachers who did not undergo proper training, or even validated observation procedures, accompanied by the absence of moderation or quality assurance action plans, any outcome or feedback which arose from the observation could not adequately provide a bearing on a teacher's teaching capability as "the correlation between judgements and teacher quality is much lower" (Boustead, 2015). As such, providing sufficient training to those involved in the observation process is vital to ensure the success of its implementation. Time constraints, which was perceived to be problematic, might be related to the nature of peer observation within the educational system in the programme. Shortland (2004) argued that pragmatic issues such as the lack of resources to expedite the process in terms of time allocated for preparation and feedback, or pre- and post-observation sessions, the process might be rendered meaningless. Besides, nervousness and fear concerning the process of peer observation could be prevalent among newer teachers, as senior observers could potentially increase the level of anxiety for the novice teachers, which was caused by a perceived summative quality assurance aspect of peer observation (Thampy et. al., 2015).

Conclusion

It is important to acknowledge that this study was exploratory, as such it contained several limitations. Primarily, the views expressed by the participants in this study cannot be simplistically generalised without considering other variables such as the views of the management, students and other documentary evidence, which were not explored in depth within the context of this study. Furthermore, the present findings could not adequately support the matching between teachers' perception and the actual practice of peer observation in the context of this study.

Nonetheless, it is deemed that these preliminary findings could become the starting point for future research in this area, which calls for a deeper level of analysis. To conclude, peer observation serves as a promising professional development tool in developing high-quality educators, which could then be linked to performance management within the programme and institution as a whole.

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A Case Study On The Dimensions Of Tutorial Action By Areas Of Knowledge In The University

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Abstract

As an educational institution, universities consider university tutorials to be a crucial aspect to promote the individual learning of students as well as transferable competences for life and their professional development, within the European High Education Area (EHEA). To this extent, in terms of the efficiency of tutoring, the different social, economic, political and cultural transformations that have an effect on students, lecturers and the university community in general must be taken into account. The aim of this paper is to analyse the different Tutoring and Guidance Action Plans for Students (hereinafter, TGAPS) from the point of view of the university institution, specifically the University of Las Palmas de Gran Canaria (hereinafter, ULPGC), taking into account the challenges set forth in the management and organisation of the university strategy with regard to this issue. Therefore, a content analysis of the tutoring actions in place in various Schools and Schools of the ULPGC will be carried out, by studying the different TGAPS introduced, and taking the academic, professional and personal dimensions of the tutorial into account. The results demonstrate that there are different practices within the tutoring action, albeit disorganised, weak and with no ties between the three aforementioned dimensions. The conclusions show the need of developing coordination from the different experiences of the high-level educational institution, in addition to introducing common measures from each area of knowledge. Moreover, it is important to organise creative and innovative tutoring actions that take into consideration the context of uncertainty that frames the tutoring action and the guidance procedures from the University.

Keywords: *Areas of knowledge; University; Dimensions; Guidance; Tutorial.*

Introduction

The globalization of the economy, the accelerated progress of Information and Communication Technologies (hereinafter ICTs) and the new ways of working have led to the emergence of inevitable new questions regarding the management and organisation of high-level educational institutions and their action in terms of counselling and tutoring students. This means that university tutoring rises amidst a sea of uncertainty, and appears to be 'adrift' in a context that does not understand timelines in the long term and strips students and lecturers from certainty (Sennett, 2000).

Within the framework of the European High Education Area (hereinafter, EHEA), tutorials acquire a relevant role in the teaching function of lecturers. The aim is to explicitly state and systematise the role that each lecturer performs spontaneously as a guide and facilitator in the learning process of students. Changes in the teaching-learning process, which require European convergence, should be accompanied by a change in the tutoring process. The EHEA intends to improve the quality of assessment and accountability, and requests further emphasis on the outputs (procedures and results), as well as the compatibility, comparability and transfer among the European Union university systems (Martinez, 2009). To this extent, the management of tutoring action from the university as an educational institution contemplates university tutoring as a crucial action to promote the independent learning of students and the development of transferable competences for their life and professional career.

Tutoring is an educational activity that is linked, with more or less intensity, to university since its origins (Gordon & Gordon, 1990). A consolidated tutoring model can prove extremely effective in the creation of integrated or transversal competencies, conceived as pathways to knowledge (Lee, 2009). In other words, they behave as shared attributes that can be generated in any degree or field: the development of certain cognitive, methodological, technological and linguistic abilities; the capability of expressing feelings, of self-reflection, of teamwork, social commitment, decision-making, among others (Lapeña et al, 2011).

Nowadays, university students need to know, more than ever, how to interpret their experiences, take into account different points of view and give meaning to their life. Based on this logic, the challenge of university studies is to become a training platform whereby students graduate with a clearer personal and professional project, together with the knowledge required to confront the creation of their life-long career (Lobaro & Ilvento, 2013).

The training of students based on continuous learning, prioritising self-learning and the creation of new educational modalities whereupon the student is the main actor in the training process, translates in the lecturers becoming, albeit not exclusively, guides, facilitators and creators of learning opportunities (Sánchez et al, 2011). University

tutoring is seen as a function that assists, guides and supports students during their learning customisation procedure and the development of personal and professional competences throughout their career, the dynamic horizon of their life project being a personal and professional project (Lobato & Echeverría, 2013). Subsequently, this paper will analyse the different proposals set forth in the Tutoring and Guidance Action Plan for Students (hereinafter, TGAPS) of a specific university, focusing on three dimensions and different areas of knowledge. In the context of the EHEA, university tutoring should be managed based on three dimensions: academic or training tutorials, career tutorials and personal tutorials (Álvarez & Álvarez, 2015).

Academic or training tutorials

These tutorials relate to the informative and training tasks carried out by each lecturer, within the framework of their module, in order to monitor the learning process of their students. It could be described as the continuous exchange between the lecturer and the learners to counsel and guide the learning process in a specific area of study (Álvarez & González, 2008).

Therefore, these tutorials will be managed as part of the teaching process in order to develop actions aimed at the academic guidance and counselling of students. To this extent, all lecturers should organise and plan this section of academic tutorials, an essential accessory and counterpoint of teaching (Zabalza, 2003).

This type of academic tutorial can either be in person or online, due to the multiple resources provided by ICTs.

Professional or career tutorials

This dimension refers to a more integral view of the tutoring intervention in the university context, whereby the guidance task of lecturers is not wholly limited to the academic environment and the fulfilment of their module. Instead, it goes beyond this, monitoring the whole educational process and stimulating the student's personal and professional maturity. Hence, the degree tutor also carries out assistance tasks and guides students from the moment they are admitted until the completion of their studies (Álvarez, 2005). Within this context, there are authors who talk about curriculum focused tutorials (Zabalza, 2003; Villar & Alegre, 2004), whereby the tutor not only mediates between the group and the lecturers, but also coordinates with other course lecturers and the degree. The information and training activities that the degree tutor carries out with students will depend on the stage at which their students are.

At the beginning, they focus on aspects which will help them adapt to university life. During the intermediate years, they work on aspects related to the curriculum, whilst the final years focus on more vocational aspects and the transition and introduction to the labour world (Álvarez & González, 2008).

Personal tutorials

Personal tutorials focus on studying and mainly solving personal psychological issues that affect the student's academic performance (Álvarez & González, 2008).

The complex reality burdened with multiple changes, in society and at university, needs to be managed from the logic of a multidimensional tutorial that takes into account the academic, professional and personal environment of the student.

The Study

Aim The aim of this paper is to study the aspects fulfilled within the organisational framework of the vast areas of knowledge regarding the academic, professional and personal dimensions for the development of tutorials for university students.

Method. Analysis of the complex reality of the Tutoring Action Plans of the different Schools of a specific university within the EHEA framework. This perspective leads to a deeper understanding of the reality, surpassing the description (Sandín, 2003). Thus, different tutoring actions can be contrasted to offer a global overview from which aspects initially ignored will emerge (Taylor & Bodgan, 1984). The procedure chosen is called content analysis (Bardin, 1996; Mayring, 2000) as the technique for objectively and systematically understanding a stated aspect in order to focus on and explain this reality.

Sample. A content analysis of the TGAPSs of an average type university with 22,987 students and 1,585 lecturers has been carried out. The 14 TGAPSs established in the 14 schools of the University of Las Palmas de Gran Canaria have been analysed and grouped by area of knowledge, which are divided as follows (See Table 1): Engineering and Architecture (4); Health Sciences (2); Sciences (1); Arts and Humanities (3) and Social and Legal Sciences (4).

Table 1.
Schools by area of knowledge

ENGINEERING AND ARCHITECTURE	<ul style="list-style-type: none"> - School of Architecture - School of Telecommunications and Electronic Engineering - School of Computer Engineering - School of Industrial and Civil Engineering
HEALTH SCIENCES	<ul style="list-style-type: none"> - School of Health Sciences - School of Veterinary
SCIENCES	<ul style="list-style-type: none"> - School of Marine Sciences
ARTS AND HUMANITIES	<ul style="list-style-type: none"> - School of Philology - School of Geography and History - School of Translation and Interpreting
SOCIAL SCIENCES AND LAW	<ul style="list-style-type: none"> - School of Education Sciences - School of Law - School of Economy, Business and Tourism - School of Physical Activity Sciences and Sport

Source: Own creation.

Instrument. On the basis of the theoretical references and current TGAPs, a protocol has been designed to systematise data collection (Bardín, 1996), based on the University School under study. These are classified by area of knowledge and then analysed using the three dimensions of university tutoring and their variables. To this extent, the study takes into account the three dimensions of university tutoring: Teaching or Academic, Professional or Career, and Personal (Álvarez & Álvarez, 2015). The analysis of each dimension has been performed taking into consideration the following variables (See table 2):

Table 2.

Dimensions and variables of university tutoring

DIMENSION	VARIABLES
ACADEMIC OR TRAINING	TRAINING TASK INFORMATIVE TASK TEACHING ROLE
PROFESSIONAL OR CAREER	CAREER GUIDANCE MATURITY
PERSONAL	PSYCHOLOGICAL RELATIONS PERFORMANCE

Source: Own creation.

Procedure and data analysis. Overall, two different parts were identified. The first part identifies the authors and research carried out on the object of the study which problematize the tutoring action within the EHEA framework, the different actions to be taken into account from the point of view of the management and organisation of a higher educational institution. The second part consists in accessing the reality of the different TGAPs of the university under study and performing a content analysis of the mentioned dimensions, based on the classification criteria of the dimensions and their variables: Academic, Professional and Personal (Álvarez & Álvarez, 2015).

Results

Due to the vast amount of data, the results of the TGAPs have been synthesised by area of knowledge, based on the three dimensions studied in the framework of university tutoring.

Area of Sciences

This area of knowledge includes the School of Marine Sciences. The Training Task, with regard to the *Academic Dimension*, addresses the guidance during the admission process and the degrees offered by the School; information and guidance on the study plan; training offer; guidance in the learning process; and guidance

mechanisms towards the final dissertation. Within the Informative Task, information is given on consolidation courses and on the Olympics and the Scientific Summer Camps. Regarding the Teaching Role, the following aspects are worked on: academic integration; student support for their academic project; awaken their interest in Marine Sciences; and constantly update the web page.

The Professional or Career Dimension addresses the counselling given when choosing external internships and support during their introduction to the job market and continuous learning (Career). The Guidance variable focuses on the availability and use of resources for learning, and guidance on professional options. With regard to Maturity, information on mobility is promoted.

Finally, in the *Personal Dimension*, within the Psychological variable, the school has a specific programme on attention to diversity. In terms of Relations, promoting participation in management organisms is defended together with the adaptation to the structure and dynamics of the School.

Area of Health Sciences

Regarding the *Academic Dimension*, the School of Health Sciences takes into consideration study planning, the management of the institution and the application of knowledge within the Training Task. The School of Veterinary has no actions contemplated to this regard. From the point of view of the Informative Task, the School of Veterinary offers information on the university, the organisation of the degree and school, procedures for a loan and the use of the library. Meanwhile, the School of Health Sciences provides information on the teaching project of each module, preferable previous knowledge and learning activities for each module. The Teaching Role variable is addressed by the School of Veterinary by means of the module results report. Likewise, the School of Health Sciences promotes actions such as: promoting the profile of vocational admission; knowledge consolidation courses available; solutions to learning issues; support to attaining studies; and promoting participation in academic and cultural activities.

Within the *Professional Dimension*, in terms of the Career variable, the School of Veterinary offers information on professional outcomes. The School of Health Sciences offers information on postgraduate courses (masters and PhD), specializations, guidance in decision making, choosing their curriculum path, support in study continuation programmes, and support entering the labour market. The other variables are only addressed by the School of Health Sciences, which provides guidance on the structure of the study plan (Guidance), information on mobility and support during the development of their professional project (Maturity).

In the *Personal Dimension*, with regard to the Psychological variable, the School of Health Sciences addresses the promotion of responsible attitudes, commitment during training, self-learning, psycho-pedagogical attention (referral to the university's counselling office) and the identification of students who risk failing. To this extent, the School of Veterinary addresses customised student attention, a support service to assist academic needs, personal counselling, support to students with special educational needs, and the identification of academic failure. In the remaining variables, only with School of Health Sciences addresses the integration and adaptation to university life and promotes team work competences (Relations) and teaching study techniques; responsibility and involvement in studies, together with attention to student who have temporarily put their studies on hold (Performance).

Area of Architecture and Engineering

The *Academic Dimension*, specifically the Training Task variable, focuses on the organisation of courses and seminars that complete the training. Regarding the Teaching Role, the four Schools coincide on the importance of guidance in the structure, competences and contents of the degrees. In addition, two of them, the School of Architecture and the School of Engineering in Telecommunications and Electronics, address actions on technique and teaching methodologies among lecturers.

With regard to the *Professional or Career Dimension*, the four schools' tutoring action focuses on professional guidance, support in creating the professional project and training in job searching.

Within the *Personal Dimension*, the School of Architecture and the School of Engineering in Telecommunication and Electronics address the promotion of students' self-knowledge (Psychological). Additionally, the four schools highlight the importance of university life integration (Relations) and counselling in study and work techniques (Performance).

Area of Arts and Humanities

The School of Geography and History addresses the *Academic Dimension* from actions for supporting planning and guidance in the election of modules (Training Task), the offer of information on study plans (Informative Task) and guidance for academic decision making. Similarly, it includes the coordination of the lecturing team and problem solving (Teaching Role) as actions that must be attended within academic tutoring. Within this dimension, the School of Philology addresses two actions related to two of the three variables described: tutoring mechanisms for the dissertation (Training Task) and student monitoring (Teaching Role).

With regard to the Career variable, the *Professional Dimension* of both faculties provides actions related to counselling for external internships, a global overview of the training process and support for the professional project and entry to the labour market. In the Guidance variable, both faculties defend guidance in personal, social and academic training. They also promote mobility and international exchanges (Maturity).

In the *Personal Dimension*, within its TGAPS framework, the School of Geography and History focuses on self-knowledge, self-esteem, values and attitudes of students (Psychological). The School of Philology does not appear to have any actions regarding the Psychological aspect of its students. Regarding the Relations variable, the School of Geography and History addresses the support in assertive communication, interpersonal relationships and promoting student participation in the School. To this extent, the School of Philology addresses actions on adapting and the importance of cohabitation rules. With regard to the Performance variable, the School of Geography and History addresses counselling in study and work techniques. The TGAPS for the School of Translation and Interpreting are not published, thus, it was not possible to analyse it in the framework of its area of knowledge.

Area of Social Sciences

The *Academic Dimension* of the four faculties takes into account guidance and monitoring of the dissertation (Training Task). The School of Education Sciences includes the academic curriculum design within this variable. Regarding the Informative Task variable, all the faculties in this area address information on the study plans and degrees offered by the centre. Within the Teaching Role variable, monitoring the academic activity of students and their teaching-learning process is addressed as a tutoring action, as well as promoting the admission of new students.

The School of Education Sciences and Physical Activity and Sport include teacher coordination and support to study plans to guarantee the best attainment possible. The School of Education Sciences works on guidance in decision making, review and compliance of teacher projects, sharing resources, experiences and teaching practices: implication in the use of the online platform, academic motivation for students, mediation in problems and the assembly of cultural activities (Teaching Role).

The four schools, with regard to the *Professional or Career Dimension*, promote guidance in the academic curriculum, work insertion and continuous training (Career). Furthermore, the School of Education Sciences addresses continuous training and the acquisition of an overall view of the training process. Regarding the Guidance variable, the four schools include guidance in academic decision making, guidance in the learning process, professional guidance and work insertion. In terms of Maturity, the four schools aim to provide students with a general view of the university and the school, guidance for mobility and guidance during external internships.

Within the *Personal Dimension*, the School of Law, the School of Economy, Business and Tourism, and the School of Physical Activity Sciences and Sport have a Psycho-pedagogical cabinet for the Psychological variable. The School of Education Sciences advocates personal commitment, independent learning, development of responsibility, self-knowledge and self-esteem, values and attitudes. With regard to the Relation variable, the School of Law, the School of Economy, Business and Tourism, and the School of Physical Activity Sciences and Sport address the integration of university students and student participation (Relations). In addition to these aspects, the School of Education Sciences also includes the development of teamwork competences, assertive communication and interpersonal relationships. The Performance variable is only addressed by the School of Education Sciences, which sets forth actions related to study habits and techniques, and ways of learning.

Conclusions

In the area of Health Sciences, there is not a balance between the schools that comprise it. The School of Health Sciences provides a clear presentation of tutoring actions by addressing all the dimensions, whilst the School of Veterinary has a weak TGAPS which barely touches the Professional Dimension of tutoring. It also has a weak Academic Dimension whereby its actions are merely administrative, such as processing student loans and grants or the use of the library. Within the Personal Dimension, it only includes the Psychological variable and highlights the support of special educational needs and academic failure, but it does not provide any preventive measures or general personal counselling.

In the area of Social Sciences, the tutoring actions set forth by the School of Education Sciences stand out, as they address an array of objectives and activities from the three dimensions of university tutoring. They emphasise the attention to aspects relative to the academic curriculum design, the review and supervision of teaching projects, which must follow a set of clear guidelines for teacher planning. This provides coherence to the school's area of knowledge and its application in tutoring actions and quality management.

In the area of Architecture and Engineering, there is harmony among its four schools at this university as they all address tutoring actions in the framework of the three dimensions equally.

With regard to the area of Arts and Humanities, the Personal Dimension stands out due to the concern of the School of Geography and History in aspects related to assertive communication and interpersonal relationships. Curiously, the neighbouring school, Philology, whose main focus is the study of languages and communication, does not

address, in the TGAPS framework, anything related to communication. The area of Sciences stands out for only having one school at this university: the School of Marine Sciences. It's TGAPS clearly balances the three dimensions and emphasises the academic and continuous training of its students.

Therefore, it would appear that tutoring action and the challenges set forth by university tutoring within the EHEA framework are diverse and complex. It is clear that there are diverse tutoring action practices that attain the three dimensions: Academic, Professional and Personal (Álvarez & Álvarez, 2015), but they are scattered, and do not strengthen or assemble from a more complex and engaged strategy. To this regard, it is noticeable that schools that are close to each other do not share mechanisms or tutoring actions that they could establish jointly by area of knowledge and academic complicity.

Thus, the need of coordinating the actions and experiences in which there are common parameters attaining the three dimensions and by area of knowledge is debated, as there could be encounters and guidelines that converge from the different TGAPSs, such as the importance of organising creative and innovative tutoring actions which take into account the context of uncertainty (Sennett, 2000; Bauman, 2007).

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A Community Service Practices Course Project Model: My Syrian Students

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Abstract

The aim of the study is to investigate the opinions of preservice teachers in social studies department related to the community service practices course project called "our guest students" whose target group is Syrian students. In accordance with this purpose, the study was designed with case study method, which is one of the qualitative research methods. The sample of the study consisted of 4 preservice teachers studying their third year at Social Studies Education Department in the Faculty of Education of a state university during the academic year 2017-2018. Sampling of the study was performed according to criterion sampling, a type of purposeful sampling. The data of the study was gathered through semi-structured interview, photographs and a message application. The data was analysed with descriptive analysis method. At the end of the study, it was found out that (a) social studies teacher candidates are experiencing lack of knowledge about Syrian students, (b) they have difficulties in finding and implementing activities for them, (c) they should be educated about the Syrians, (d) they have developed positive opinions about the Syrians. Proposals for these results have been drawn up.

Key Words: *Social Project, Community Service Practices, Learning by Servicing, Syrian Students, Preservice teachers in Social Studies Department*

1. Introduction

Awareness towards global problems is much lower than the desired level. In order to raise awareness to these global issues, probably the most effective way is to raise conscious people, and so universities, nongovernmental organizations and political corporations should carry out projects that are realistic and applicable (Aydın, 2016, preface). On the university basis, these projects are conducted through scientific studies, or based on voluntariness, or within the framework of courses. Considering the university courses, we come across community service practices, a course compulsory in all departments of education faculties.

According to Sönmez (2009) education affects the whole society and the most essential factor in this system is teachers. In this sense, community service practices course is of critical importance in order for preservice teachers not to be grown isolated from the society. In the light of this, considering that one of the most basic social problems in Turkey today is the issue of Syrian refugees, conducting activities aimed at Syrian refugees within the frame of community service practices course is regarded as crucial. Preservice teachers would absolutely give priority to Syrian students with this regard.

The reason why the study included preservice teachers in the department of social studies is that many topics and learning outcomes of community service practices course and a lot of notions regarding the issue of refugee, which is one of the problems of today's world, such as citizenship, human rights, immigration, exile, refugee, asylee, multiculturalism, awareness, empathy, respect, tolerance etc. are closely related to social studies program. In addition, when it is considered that the emergence of social studies courses is because immigrant children will become socialised (İnan, 2014), it can be clearly seen that this issue is highly associated with social studies and preservice teachers in this fields. Then, this being the case, what kind of activities will our preservice teachers in the social studies field do, what kind of problems will they experience in these activities, what kind of solutions will they find for these problems and most importantly what will be the contributions of these activities to these preservice teachers?

1.1. The Aim of the Study

The aim of the study is to investigate the opinions of preservice teachers in social studies department related to their social project aimed at Syrian students.

1.2. The Importance of the Study

It is believed that the result of the study is of critical importance as it enlightens issues such as the activities, the problems experienced and the solutions related to these problems for preservice teachers who will carry out a project aimed at our Syrian students in community service practices course. In the literature, no scientific study has been encountered concerning community service practices towards Syrian students. Also, in some studies it was emphasized that trainings related to the adaptation of the students with immigrant status should be provided and projects should be developed to involve these students in education (Çakırer Özservet, 2015)

1.3. Sub-goals

- What are the reasons of the preservice teachers in social studies department to choose the project called "My Syrian Students"?
- What kind of activities did the preservice teachers in social studies do within the frame of the " My Syrian Students " project?

- What kind of problems did the preservice teachers in social studies experience and how did they solve these problems?
- What are the contributions of the " My Syrian Students " project to the preservice teachers in social studies?

2. Method

2.1. Design of the Study

The study was designed with case study method, which is one of the qualitative research methods. According to Merriam (2013), case study is the method in which a limited system is described and analysed in a detailed way. The thing that is to be studied should be a limited system such as only one person, program, group, organization etc. This study focused on a school, a group of 8 preservice teachers voluntarily servicing there and their experiences related to this school. As Creswell stated (2016) in case study method, detailed information is gathered with multiple information sources and the case analysis is conducted. In this study, thanks to experiences of the preservice teachers related to the activities that they conducted with Syrian students, the data was gathered through multiple information sources- semi structured interview, documents and reports- and then analysed.

2.2. Sample of the Study

The sample of the study consisted of preservice teachers studying their third year at Social Studies Education Department in the Faculty of Education of a state university in Republic of Turkey during the academic year 2017-2018. Some activities were performed during 7 weeks by the preservice teachers in a state-funded secondary school in the city center where the university is located. In the study, the opinions of totally 4 preservice teachers were received on these activities. Sampling of the study was performed according to criterion sampling, a type of purposeful sampling. Yıldırım and Şimşek (2013) suggested that purposeful sampling enables in dept analysis of the cases that are considered to have rich information. In the criterion sampling, a type of purposeful sampling, the criterion used was "participating in the project voluntarily and not having experience and knowledge about the educating of Syrian students. The group went to the school regularly every Friday and conducted activities for about 3 hours daily during 10 weeks. Since the size of the sample is just a case considering the focus group of the study, working with a group of 8 was considered to be satisfactory. Moreover, when weekly reports and studies were analysed, it was seen that notions and processes started to repeat and data saturation was observed with one group.

2.3. Roles of Researcher

The researcher in this study don't have the role of participant, he watched the process, conducted the focus group discussion and analysed the related documents and reports. The researcher has been following social project and community service practices courses closely for about 5 years and has certificates of appreciation within the context of community service practices and carry out studies on social projects.

2.4. Data Collection Tools

The data of the study was gathered through document analysis (reports, photographs, magazine article) and semi-structured interview.

Semi-structured interviews were performed in social studies seminar room. The room had a u-shaped table as well as adjustable and comfortable chairs. For the interview, 7 questions that are suitable for a conversational atmosphere and daily language use were prepared. Depth interview was tried to be performed with 8 probes emerged during the interview. In the preparation process of the questions, the literature was reviewed and right after forming first draft of the items, opinion of an expert in the field was referred to. The piloting of the questions was conducted with some preservice teachers formerly accomplishing projects in the community service practices course. The interview was fulfilled by the researchers. It took one hour.

Diaries: The diaries kept by the preservice teachers after each week's activities are reviewed.

2.5. Analysis of Data

The data obtained from interview was analysed with descriptive analysis method. In this method, the data gathered is summarised and interpreted according to the pre-determined themes. The data can be arranged considering the themes on which the research questions center (Yıldırım and Şimşek, 2013). In this study, the data was also designed according to the themes on which interview questions focused. The analysis of the data was conducted in the following process:

- For descriptive analysis, the frame was designed according to interview questions. The themes that were dealt with were the reasons to choose the project, the contribution of the project, problems encountered in the project, recommendations for the project, the project and course relationship and the opinions of other stakeholders.

- Right after determining the thematic frame, the next step was processing the data. The interview was transferred to computer medium without making any changes and 16 pages of data was gathered. The data was shown to the participants and they were informed that they would remain anonymous and the data would be used for scientific reasons. The coding was conducted first and then themes were put into the final form. The main themes were determined with agreement-disagreement method.
- In the following step, the findings were started to be described. Under each theme, direct quotations were presented.
- Finally, the findings were interpreted so as to reveal cause effect relationships.

2.6. Credibility, Transferability and Consistency

In the study, regarding the credibility, expert opinion was referred to, participant confirmation was achieved. While preparing the questions for interview, expert opinions were obtained from field experts and Turkish education experts. After the whole study was finished, it was examined by the experts in the field. After the interviews, the participants were provided with the last version of the study and asked if there were any parts to be corrected or clarified to maintain member checking. Member checking was carried out through a specific meeting for this purpose.

Within the scope of transferability in the study detailed description was performed and purposeful sampling was used. After the data obtained from interview was described comprehensively, direct quotations were often given place to. For purposeful sampling, criterion sampling was used.

In order to maintain consistency in the research, during the coding process of the data gathered from the interviews, consistency in conceptualisation was taken into consideration.

As for the confirmability in the study, the coding and results of the study were examined by the expert in the field.

2.7. Ethical Issues

The participants of the study participated in “My Syrian Students” projects voluntarily. Their consent was taken to conduct interviews. After the study was finished, the results that they had been waiting for excitedly were checked and then confirmed by them again. Symbolic codes were used in the quotations (Turkish teacher:T; Teacher trainees:TT. Data gathered from interviews will be kept in archives for a while.

3. Findings And Discussion

3.1. The prior knowledge and attitudes of teacher trainees about Syrian students’ education in Turkey

All teacher trainees participated in the research study stated that they do not know anything about Syrian students’ education (TT3 “I do not know anything about it”). Teacher trainees have a positive view about Syrian students’ attending in the Turkish National Education System but they have a negative view about the process after (TT1 “When we think that they will live in Turkey from now on, it is a correct decision for them to attend in the Turkish National Education System. However, this process could be hard because the main problem is language”).

3.2. What problems should be resolved about Syrian students?

When we compare the expressions of the school principal and Turkish teacher who teaches Turkish in the preparatory class and the observations of teacher trainees in the process, we have the following problems:

Learning Turkish: Turkish teacher states that Syrian students do not want to learn Turkish because they think that they would return to Syria because they have acquaintances who have already returned to Syria. However, when the diaries of teacher trainees have examined, it can be understood that Syrian students have learnt Turkish (TT2 “There is no problem in their understanding, there is not much trouble in their speaking, too”).

Cultural differences: It is seen that there is not a hand washing habit, there is a difference in eating and drinking culture, and there is a cultural difference in not holding hand. When the diaries of teacher trainees have examined, it is seen that holding hand is not a problem, students have held their hands during plays (TT1 “We saw that there was no problem in holding hand as the teachers said before. When we said them to make a circle, everyone held their hands and made a circle”). They have done activities for other problems.

Family: Parental indifference (not attending in parents’ meetings, not preparing student for school in the mornings depending on sleeping until late hours, T “I am calling the family but they do not come”), early marriages (there are some engaged students in the secondary school, T: I have a thirteen-years-old student, their parents do not send him/her to school because he/she will marry), violence, non-communication among family members, the integrity of the family.

Physiological and economic need: It is underlined that the number of children who do not get enough food is high and this situation affects learning very much. It is also emphasized that there are students working for economic

needs (T “Most of the children are hungry, I want support for this problem. They are hungry until 3 o’clock”). It is stated that there is no problem with the clothing in the diaries (TT2 “In general, their appearances are neat and tidy, but they do not have school bags, they come to school with nylon bag”).

The desire of violence: It has been underlined that violence tendencies are more common depending on the family, but it is emphasized that they do not have peer violence and they see it as a form of communication (T “They communicate by hitting each other. It is normal for them”). It is also said that they swear in Arabic and Turkish. A teacher trainee’s diary also confirms this. (TT4 “I heard they used insulting words for each other”). When we examine the diaries, it appears that there are some opposite statements about negative behaviour which containing violence (TT4 “They are generally fine. They are very respectful”).

Get engaged at an early age, the worse it has been adopted: The point that needs to be emphasized seriously is the engagement of students in their 11-12 year olds (most of them get engaged with the people older than them) and the worst thing is that they have adopted this situation. (TT 2 “Our another student give this respond ‘I am angry when somebody says bad word to my love’, then we have learnt that she is engaged with a man, 24-25 years old and her fiancé works”).

3.3. The Activities Done

Activities done by teacher trainees in their projects called "My Syrian Students" in the context of the Community Service Practices Course are:

Meeting and warming towards each other: It seems that the first week has been completed with meeting games, cake and beverage delivery and role-model interview activities. When the meeting games are examined, it seems that they are creative drama based. Activities have been done at the school garden because they are action-based. Activities have been held at the school grounds because they are motion-based. Before they started the games, they introduced themselves and stated their goals. They then played the games they planned (TT 1: We went to school garden. When we went outside, we told them what our aim was, why we were there, what we were going to do, and then we did our first meeting activity which was called ‘tell your name with an action’). The dodgeball was played in accordance with their wishes to warm towards each other. After the games, in order to eliminate the hand washing problem, female teacher trainees started the hand washing habit with the girls and the male teacher trainees started the hand washing habit with the boys. Then, they went to the class and cakes and beverages were provided (it is seen that physiological needs are also important). Male teacher trainee (TT4) who already knew Arabic performed the role model activity through his own story. This activity has been shown to be effective (TT3 “Our friend, TT4, took their attention with an effective speech. Even after this talk, the students started to ask questions”).

The importance of communication and introducing the Turkish Culture: It draws attraction that robot touring game, one of the warm-up games, have been played for the importance of communication. It is stated that the purpose of the game is to show the importance of communication (TT2 “We have tried to show them how difficult it can be to communicate and negotiate by doing this activity”). As a second activity, it appears that a presentation related to the importance of the language was prepared and some materials in the presentation were explained by dramatization. (TT1 “We tried to explain the importance of this topic with the help of the presentation we prepared on the importance of language. TT4 and TT3 explained some items by dramatization so that they would not be bored while listening to the presentation”). It has been seen that introducing Turkish culture is at the forefront. The role-model interview seems to have been done again as the third activity. Moreover, a role model (a journalist who came to Turkey from Syria) are presented. Until this stage, teacher trainees seem to be willing to design an activity, use activity-based tasks, give importance to draw attention, and use the activities which are relevant to the topic.

The topic is over: It seems that teacher trainees have started with their warm-up games every week. In the third week “wolf father” game was played. Looking at the content of the game, it appears that it is intended to warm up but it is not related to the subject. (TT4 “First, we played 'wolf father' game as both a warming towards each other and a warm-up game”). Teacher trainees have begun to think that the topics related to the importance of Turkish language and cultural education are handled enough, and there is no more activity to be done. They have organized a game-based activity in an academican counselling to identify new problems. The result of the game which is sticking happy and sad emojis on the wall and expressing their emotions by throwing ball shows that Syrian students have problems which every students can have. This may give us a clue that Syrian students in Turkey have a normal student life. The only extreme problem is getting engaged at an early age.

Picnic and theatre activity: It is seen that teacher trainees gave up the activities related to the importance of communication and culture teaching and turned into the activities aiming at enjoying in the following weeks. (TT2 “Our goal here is to have fun together and most importantly to bring them together the theatre”). It appears that there are also students who cannot get permission from their family, which confirming the family indifference which is included in the problems.

On values and cultures: Teacher candidates have noticed two things. The first one is the activity which Syrian students have always wanted is game. Secondly, out-of-class activities are distracting. For this reason, activities are done in the class. Teacher candidates are seen to have an interview activity both for themselves and for Syrian

students to recognize their culture. While doing this, the point that they are paying attention to is the warning of the course adviser: “not to make them adopt the culture, both they should know that their culture will be preserved but to know the culture here is for their benefit”. We generally see that the culture is usually dealt with through food culture. Because when the teacher pointed out the difference in culture, he/she stated the spice odor density in the class as a problem. Understanding their culture and introducing the Turkish food culture have been aimed. (TT1 “We started with the food culture and they said that they ate the food at the floor table. We mentioned on the food culture in the east and west”). Then, it is seen that some general etiquette rules in society are mentioned: giving seat at a bus, not taking anything from their neighbor’s garden without permission, not smoking. It seems that there is also a conversation about the problem of early engagement, which is seen as an urgent situation determined the previous week. It is seen that in order to draw attention on this situation, TT1 gave some examples in his/her life. It is seen that the role modelling activity is also carried out here.

Respecting cultures through local games: After the activities aiming at entertainment, it is seen that the activities related to the culture have started to be done after the warning of the counsellor. After the meeting game, it is seen that the teacher trainees are learning the local games of the Syrian students and playing together. They stated that they did it to show that they respect their culture. (TT 4 “After the game we played our local games with our students. It has become a good tool to show that we respect our students’ cultures and values and do not exclude them”).

Saying goodbye and evaluation: It is seen that the teacher trainees have left with emotional satisfaction from the project which they started with anxiety (TT2 “Firstly, I was anxious about the project because I did not know how it would be, but in the last week, I was sad”), have observed the positive changes in the target group (TT2 “The most important thing they said: ‘We will continue to the school, won’t leave it, we will be a teacher like you’). In the last week, they finished the project by carrying out an activity on what the students have gained. Of course, there are still problems. This study is a problem of the continuing of girls’ education lives which we confront again and again (TT2: While my male students answered confidently, my female students said I wanted to be a teacher ashamedly. They also added: Of course, if my parents give permission”).

4. Result and Discussion

Teacher trainees who participate in the research have a positive attitude towards the education of the Syrian students, this is a situation that makes happy when it is thought that there are some research studies (Topkaya ve Akdağ, 2016) including social studies teachers who have partly negative attitude. When we deal with the expressions of the teacher trainees, it is seen that they only consider ‘language’ as a possible problem related to Syrian students’ education. The relevant literature also supports their assumptions in this regard: Language problem, in other words, the difference of language and alphabet (ERG, 2016: 46) is the first problem of the Syrian students who enrolled the schools (ÇOÇA, 2015; Gözübüyük Tamer, 2017: 131).

Due to language problems, the level of education of Syrian students is not at the enough level (Sağlam ve Kanbur 2017: 310). They also confirmed that there was a problem in the school where they carried out the project in the result of the interviews with the Turkish teacher. However, they limited themselves to the importance of Turkish language within their competence. Although they did activities on the first week in terms of language, it is seen that they did not include this topic in subsequent activities because they realized that Syrian students could communicate in Turkish in the process.

It is seen that activities with the intention of introducing Turkish culture are frequently tried to be included. It has been seen that cultural promotion events are not held for a few weeks and when they are done, they are confined only to food culture and certain rules of etiquette and they are forced to attend new activities. It is suggested that teacher trainees should educate social science teacher trainees about the activities that will enable the Syrians to acquire the cultural characteristics necessary for living with the Turks.

Activities are generally based on play, dramatization and conversation, and there are no different activities. It is recommended that such projects include alternative activities. Particularly, students’ demand of playing game draws the attention. In the relevant literature (Gökşen, 2015), it is suggested to play games for Syrian students especially for therapy.

The project has contributed both to teacher trainees and Syrian students. This achievement is affective satisfaction. When we look at the purposes of community service practices, it seems that such a gain is requested (Kamer, 2009). However, it seems that the gains are not sufficient. It is recommended that such projects be well structured and that certain learning objectives be set at the beginning of the project.

One of the educational situations that arise in the project is the continuity of the educational life of the girls, especially. It is known that parents are not willing to send girls to the school (Seta & Theirwold, 2017).

It is also emphasized in the relevant literature (Gencer, 2017) that there is an equal enrolment rate for males and females in primary and secondary schools but this ratio changes against the females in secondary education, marriage at an early age and females who cannot get permission from their parents to go to school are obstacles to schooling and steps should be taken in this regard.

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A Community Service Practices Course Project Model: Social Cinema

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Abstract

The aim of the study is to investigate the opinions of preservice teachers in social studies department related to the community service practices course project called "social cinema" whose target group is students in village primary and secondary schools. In accordance with this purpose, the study was designed with case study method, which is one of the qualitative research methods. The sample of the study consisted of 8 preservice teachers studying their third year at Social Studies Education Department in the Faculty of Education of a state university during the academic year 2017-2018. Sampling of the study was performed according to criterion sampling, a type of purposeful sampling. The data of the study was gathered through semi-structured interview and photographs. The data was analysed with descriptive analysis method. At the end of the study, it was found out that the reasons for choosing this project, contribution of the project to preservice teachers, the problems they encountered in the project and the solutions they found, suggestions for the persons who will carry out similar projects.

Key words: *Social Project, Community Service Practices, Equality of Opportunity in Education Preservice teachers in Social Studies Department*

1. Introduction

Awareness towards global problems is much lower than the desired level. In order to raise awareness to these global issues, probably the most effective way is to raise conscious people, and so universities, nongovernmental organizations and political corporations should carry out projects that are realistic and applicable (Aydın, 2016, preface). On the university basis, these projects are conducted through scientific studies, or based on voluntariness, or within the framework of courses. The project "Social Cinema" conducted by preservice teachers who are in a department of social studies at a state university, is project that starts with volunteering and integrated into community service practices course. This project, which is based on school-based, well-known activities, is concerned with the relationship between social studies preservice teachers and community service practices course and it is discussed contributions of project.

1.1. The Aim of the Study

The aim of the study is to investigate the opinions of preservice teachers in social studies department related to the community service practices course project called "social cinema" whose target group is students in village primary and secondary schools.

1.2. The Importance of the Study

It is believed that the result of the study is of critical importance as it enlightens issues such as the activities, the problems experienced and the solutions related to these problems for preservice teachers who will carry out a project aimed at students in village primary and secondary schools in community service practices course. It is possible to obtain information on many activities carried out in schools. However, there was no scientific study of these activities.

1.3. Sub-goals

- What are the reasons of the preservice teachers in social studies department to choose the project called "social cinema"?
- What kind of activities did the preservice teachers in social studies do within the frame of the "social cinema" project?
- What kind of problems did the preservice teachers in social studies experience and how did they solve these problems?
- What are the contributions of the "social cinema" project to the preservice teachers in social studies?
- What are the suggestions of the preservice teachers in social studies for those who will carry out similar projects to "social cinema"??
- Is there a relationship between our social cinema project and community service practices course according to the opinions of preservice teachers in social studies?

2. Method

2.1. Design of the Study

The study was designed with case study method, which is one of the qualitative research methods. According to Merriam (2013), case study is the method in which a limited system is described and analysed in a detailed way.

The thing that is to be studied should be a limited system such as only one person, program, group, organization etc. This study focused on a school, a group of 8 preservice teachers voluntarily servicing there and their experiences related to this school. As Creswell stated (2016) in case study method, detailed information is gathered with multiple information sources and the case analysis is conducted. In this study, thanks to experiences of the preservice teachers related to the activities that they conducted with students in primary and secondary, the data was gathered through multiple information sources- semi structured interview, documents and reports- and then analysed.

2.2. Sample of the Study

The sample of the study consisted of preservice teachers studying their third year at Social Studies Education Department in the Faculty of Education of a state university in Republic of Turkey during the academic year 2017-2018. Some activities were performed during 10 weeks by the preservice teachers in a state-funded secondary school in the city center where the university is located. In the study, the opinions of totally 8 preservice teachers were received on these activities. Sampling of the study was performed according to criterion sampling, a type of purposeful sampling. Yıldırım and Şimşek (2013) suggested that purposeful sampling enables in dept analysis of the cases that are considered to have rich information. In the criterion sampling, a type of purposeful sampling, the criterion used was "participating in the project voluntarily and participating within the course". Since the size of the sample is just a case considering the focus group of the study, working with a group of 8 was considered to be satisfactory. Moreover, when weekly reports and studies were analysed, it was seen that notions and processes started to repeat and data saturation was observed with one group.

2.3. Roles of Researcher

The researcher in this study don't have the role of participant, he watched the process, conducted the focus group discussion and analysed the related documents and reports. The researcher has been following social project and community service practices courses closely for about 5 years and has certificates of appreciation within the context of community service practices and carry out studies on social projects.

2.4. Data Collection Tools

The data of the study was gathered through document analysis (photographs) and semi-structured interview. Semi-structured interviews were performed in social studies seminar room. The room had a u-shaped table as well as adjustable and comfortable chairs. For the interview, 7 questions that are suitable for a conversational atmosphere and daily language use were prepared. Depth interview was tried to be performed with 8 probes emerged during the interview. In the preparation process of the questions, the literature was reviewed and right after forming first draft of the items, opinion of an expert in the field was referred to. The piloting of the questions was conducted with some preservice teachers formerly accomplishing projects in the community service practices course. The interview was fulfilled by the researchers. It took four hour. In addition, photos taken during the action phase have been examined

2.5. Analysis of Data

The data obtained from interview was analysed with descriptive analysis method. In this method, the data gathered is summarised and interpreted according to the pre-determined themes. The data can be arranged considering the themes on which the research questions center (Yıldırım and Şimşek, 2013). In this study, the data was also designed according to the themes on which interview questions focused. The analysis of the data was conducted in the following process:

- For descriptive analysis, the frame was designed according to interview questions. The themes that were dealt with were the reasons to choose the project, the contribution of the project, problems encountered in the project, recommendations for the project, the project and course relationship and the opinions of other stakeholders.
- Right after determining the thematic frame, the next step was processing the data. The interview was transferred to computer medium without making any changes and 32 pages of data was gathered. The data was shown to the participants and they were informed that they would remain anonymous and the data would be used for scientific reasons. The coding was conducted first and then themes were put into the final form. The main themes were determined with agreement-disagreement method.
- In the following step, the findings were started to be described. Under each theme, direct quotations were presented.
- Finally, the findings were interpreted so as to reveal cause effect relationships.

2.6. Credibility, Transferability and Consistency

In the study, regarding the credibility, depth oriented data was tried to be collected, expert opinion was referred to, participant confirmation was achieved. In order to collect depth oriented data, probes were included during the interviews. While preparing the questions for interview, expert opinions were obtained from field experts and Turkish education experts. After the whole study was finished, it was examined by the experts in the field. After the interviews, the participants were provided with the last version of the study and asked if there were any parts to be corrected or clarified to maintain member checking. Member checking was carried out through a specific meeting for this purpose. Member checking meeting was photographed with the consent of the participants. This evidence will be kept in archives for a while.

Within the scope of transferability in the study detailed description was performed and purposeful sampling was used. After the data obtained from interview was described comprehensively, direct quotations were often given place to. For purposeful sampling, criterion sampling was used.

In order to maintain consistency in the research, during the coding process of the data gathered from the interviews, consistency in conceptualisation was taken into consideration.

As for the confirmability in the study, the coding and results of the study were examined by the expert in the field.

2.7. Ethical Issues

The participants of the study participated in social cinema projects voluntarily. Their consent was taken to conduct interviews. After the study was finished, the results that they had been waiting for excitedly were checked and then confirmed by them again. Symbolic codes were used in the quotations. Data gathered from interviews will be kept in archives for a while.

3. Findings

3.1. The Name and Content of the Project

The social cinema project has started on voluntary basis in the second class (TT4 “This project is a project entirely on a voluntary basis”) and then integrated into community service practices in the third class. The project name is given by the teacher trainee (TT2) who is the initiator of the project. It is seen that he/she gave this name because he/she has wanted to attribute to the social sciences teaching department and also he/she has thought that the most deprived activity in the project is cinema (TT2 “This name emphasizes on the cinema activity, one of the most important activities, as well as attributes to the social studies teaching department. The reason of the importance of cinema activity is that other activities can be reached everywhere, but there are certain places for cinema”). Although there are some group members who found the name suitable, there are also some members who think that ‘social’ term is suitable but ‘cinema’ term should be changed because the project covers many activities, not only cinema. What are these various activities: (a) wearing theater costumes and clown clothes, make-up and then many children games aiming at warming towards each other (dropping the handkerchief, skipping rope), playing games that are played with ball (volleyball), and dancing with music. (b) Revised Snow White and Seven Dwarfs Show. (c) Aşuk and Maşuk show. (d) hand, face painting and handprint, (e) various catering (fruit juice, cake, candy, chocolate, etc.), (f) constituting a box office, giving tickets, popcorn and beverages and getting them to watch an animation film, (g) organizing traditional competitions with book reward (gunnysack race, tug of war) and finally, having a souvenir photo taken with all students and group members.

3.2. The reasons for carrying out the project

So why did they volunteer for such a project and they continued the project in the second year? It seems that the main reason of the teacher trainees for carrying out this project is to eliminate the inequality of opportunity to some extent (TT2: “the difference between the children live in rural areas and urban areas”) that they have observed and experienced (“We have seen, known and experienced (TT8)”) before.

Although the preparation of the project is a long time period, the stage of action lasts for one day. Here the question of how much equal opportunity can be achieved comes to mind. Teacher trainees are aware that their activity is short and limited (TT3 “Even if it was only a day”). However, it is believed in the affect that will create and it is seen as a secondary goal to enable the target group to achieve cognitive and affective gains with magic touches (TT8 “We want to show a different world, to arouse curiosity, to contribute to their future dreams and visions”).

The purpose of teacher trainees was not a romantic “TT8: romantic” attempt with their own statements. The activities they did were not “a favour, a donation, etc. (TT8)”. It is perceived they were right-based. Although they have emphasized on the gain of “smile” in their purposes, it seems that they have had profound and prospective aims and they have not had an aim like “Everybody laughed, was happy and it was over” (TT8).

Another aim of teacher trainees is to experience teaching experience. It is already seen as an important experience for teacher trainees “to be together with the students, understand their desires, needs, feelings and thoughts” (TT6).

In the teacher trainees expressions, it was also seen their having the value of altruism as a trigger factor (TT7 “We were volunteer to do this, it was not a content of a lesson, we carried out this project because we really wanted to reach these students and make them happy”).

Teacher trainees can always serve as a volunteer for specific purposes. But the answer to the question why the similar service is done next year comes to an important condition. The answer is the feedback from the target group (TT5 “to have a smile on children's face”). It is seen that the feedback reinforces the teaching love that exists in the teacher trainees and that it provides the continuation of the project. It is also seen that the sensitiveness value that can be considered as one of the project gains is important in the continuation of the project (TT2 “when the school where the activities done and the situation of the children at this school are seen, the students at the other schools are thought and they are asked to do something for them”).

3.3. The outcomes of the project

Values and skills contributed by the project are:

Teacher trainees express that they develop empathy when they prepare the activities (TT 3 “when we decided to carry out this project, we decided the activities by putting ourselves in their place”).

Teacher trainees state that while they were planning the activities, their creative thinking skills developed (TT1 “we tried to find creative activities in order to offer better and more enjoyable time. This situation has contributed to our creative thinking skills”).

Since the teacher candidates must make effective presentations when they are looking for sponsors and also the students they will talk to are talking with the dialects belonging to the local people, they must express an effective speech. It is stated that this situation has made contribution to use the Turkish language skill well and correctly.

“Cooperation” is the value that two teacher trainees (TT2 and TT 8), one of them being project manager, regards as the most important contribution (TT2 “The most important contribution of this project is cooperation. Because you want to do something and you have a very nice project idea. However, this alone is not enough. You cannot suffice to everything...”). It also seems to have contributed to the intra-group communication and collaboration skills related to the cooperation (TT1 “We carried out this project with a group. For this reason, our intra-group communication skills and cooperation skills”).

Teacher trainees seem to provide emotional satisfaction (TT7 “First and most importantly, I felt good because I made those children happy”).

During the project preparation phase and the project action phase, it is seen that the teacher trainees encounter many problems and find solutions to these problems (TT1 “Both before and during the project, they had to find immediate, fast and effective solutions to the problems that occurred during the project. When we look at it from this side, it has made positive contributions to our problem-solving skills”).

3.4. Encountered problems and the solutions to these problems

The problems encountered during the project are:

Teacher trainees have indicated that the budget is the most important problem (TT 5 “The biggest problem was the fund problem”). It is seen that they solve the budget problem by holding a kermes in the universities they are affiliated with and separating the settlement of Denizli city center by regions and looking for sponsors in groups (TT3 “we found a solution by separating the fund into groups and making sponsor negotiations”).

Finding the costumes, which is related to the budget but is a more specific issue, draws attention as another problem. It is understood that this problem is solved by asking for the groups in the university, renting from the shops and creative touches to individual costumes (TT5 “it was difficult to find a costume for the activity. We also collaborated with other groups, rented them, and solved them with our own costumes”).

The action phase of the project takes a full day, but the preparation phase involves a long period of time. For this reason, the time problem emerges as another important problem (TT5: “Those who have decided to do the project are beginning to realize that this project is a tiring and a long process). This problem seems to be due to the fact that the project is not structured, namely not well planned (TT 5 “they should dot the i's and cross the t's”). It appears that self-devotion has been made as a solution (TT7 “sometimes we had time to go home late, we could not sleep”).

During the project preparation phase, there was a problem of finding an activity that is linked to the time problem (TT5 “it was a problem that the project would not include what activities were involved in the project at the planning stage”). It can be thought this situation is originated from that these teacher trainees have started the project in the second grade and they have not taken any lessons to design educational activities. For this reason, it is seen that the activities are very well known events (theater and cinema, competitions). They stated that they used voting and consensus techniques when setting events (TT3 “We decided that activities by stating our own opinions, voting these opinions and then we chose the activities best rated”).

School directors and even teachers' apathy to the project was seen as a major problem (TT8 “The second major problem was the lack of interest and communication of school directors. Besides, the teachers were indifferent,

too. They only preferred watching). This problem seems to have been partially solved by individual efforts (TT2 “doing everything by yourself and not expecting everything from the school management are the things wanted”). The impossibility of the school was expressed as another problem (TT1 “we have problems arising from the impossibility of the school”). They seem to have solved these impossibilities by individual efforts (TT1 “we took for the missing things such as projector, sound system, etc. by providing from our university”).

Decision of the school where the project will be carried out is expressed as one of the important problems. It has been tried to find a school that was in need (TT5: “Choosing a school was one of the biggest problems. Because determining which school really needs this project was a big problem”). It has been seen that this problem has been solved by talking to the municipality. As the second problem related to school determination, we confront with the bureaucracy (TT1 “It was one of the important problems to get official permissions and solve the problems”). This problem seems to have been solved by planning as an activity of the project student group and taking the permission through this group (TT3 “We found a solution by showing official things under the club name”).

It was stated that the transportation problem was also experienced and this problem was solved through the municipality (TT5 “We had the transportation problem but the municipality solved it”).

When the suggestions part is taken into consideration, there is a problem that there must be some values for group work. It is emphasized that mutual respect value is important (TT2 “They must respect each other and care about each idea”).

When the suggestions part is taken into consideration, it is seen that project introduction is a problem (TT8: “and most importantly they should promote the project for its future”). They also emphasized the need to promote with social media (TT3 “Social project activity should be promoted on the social media”). At the same time, it was emphasized that “the photos of the events should be combined for the interview with the authorities in the school” (TT3) and the brochures should be prepared.

In sum, it is seen that the teacher trainees faced with many problems and found solutions to them. In this process, the importance of “patience” value was understood from the expressions (TT4 “They must first be patient, they should not give up because of the first problem they have and they should go over the problem”). It was stated that they will receive the reward of being patient with the feedback from the target group (TT6 “The smiles of the students take away all the tiredness”, TT4 “They should put all of them in the background when they think children’s happiness”).

3.5. The Relevance of Community Service Practices Course

Teacher trainees stated that if the social cinema project is taken within the scope of the course, it will be carried out for being “compulsory” and “taking notes”, so it should be based on “volunteerism” (TT 5 “To me, making such a good project under a course to take note reduces the value of the project. Such volunteerism and willingness increase this project’s value”).

Teacher trainees who stated that they are related to the community service practices, established this relationship because they saw children as a part of the society (TT1 “Social cinema is a project of community service practices course. Because it appeals to a target audience within the society”). Nevertheless, they make feel from the continuation of this expression that it should be based voluntary.

It is also non-negligible that there is a facilitative function of the course in formal procedures (TT3: “Only for the formal procedures, it should be shown in the scope of the course”).

When talking about volunteering, it is seen that the value of altruism is emphasized (TT5 “It must be done voluntarily without waiting for nothing”).

In sum, the social cinema project has been linked to the fact that it is based on volunteerism, emphasizing the value of altruism, if it is in the scope of the course, it will be considered as compulsory and taking notes, serving only children who are in a part of society.

4. Result And Discussion

The social cinema name is based on the attribution to the identity and the most valuable activity in the project. The project is not just about cinema activity, but about eight separate events.

The real purpose of this project is to provide equality of opportunity, at least partially as a right. The initiating factors of the project are teaching love and altruism value. The factors that enable the project to continue are the feedbacks from the target group and the sensitiveness value it generates.

It is seen that the project has made contribution to the teacher trainees’ developing empathy, creative thinking, speaking Turkish language well and correctly, problem solving, communication and cooperation skills, the values of cooperation and sensitiveness and also it is seen to make students have an emotional pleasure.

When we look at the purposes of community service practices course, it seems that the teacher candidate should gain the benefits such as improving the sensitivity to social problems, defining the society, and tasting the pleasure of serving the community (Kamer, 2009). It is also parallel to the findings of other studies (Çetin ve Sönmez, 2009;

Tanrıseven, Üredi, ve Yanpar Yelken 2010; Yılmaz, 2011) in which the community service practices is useful to teacher trainees

Teacher trainees have emphasized that the project should remain voluntary based by linking to the value of altruism. It is known that there is altruism value (Furco, 1996, s.4) in the nature of volunteerism in their participation in activities in which they focus on the services they are supposed to benefit and the benefits of the service recipients.

In the light of these findings, it is suggested to study the contribution of the project for the teacher trainees in detail and specially, and also it is suggested that those who want to gain these contributions by carrying out this project should examine the experiences of the people in this study well.

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A Comprehensive Quality Management System For Effective Qa&Qc Of An Undergraduate Civil Engineering Technology Programme

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Abstract

Committed to the highest standard of quality in the provision of higher education in the professional field of civil engineering technology, a comprehensive Quality Management System (QMS) was developed as the essential framework to effectively oversee the QA&QC processes as well as to meet the stakeholders' expectations at all levels. The fully online integrated system captures real-time data for continual monitoring anytime, anywhere. It comprises of 3 primary sub-systems, namely the Student Assessment System (SAS), OBE System (OBESys) and the Student Information System (SMP), which are harmonized with the greater university-wide anchor system named Total Campus Integrated System (TCIS), incorporating all ancillary arms in the operation of the institution. This paper explains on the operational environment supported by the various centralized offices related to academic and non-academic development of students, such as the Academic Management Office, Information Technology Centre, University and Industry Relation Office, among others. The policies and mechanisms adopted for attracting and retaining outstanding staff on board is also discussed, in conjunction with a constructive and supportive leadership at the helm. In addition, assessment mechanisms for both staff and students are elaborated to show the holistic monitoring and close-the-loop improvement exercises in place for effective QA&QC. Besides, participation of the industry via programme review, industrial engagement at course level, research and consultation projects and others are highlighted to ensure relevance of the engineering technology programme with current market needs and expectations. In a nutshell the QMS executed is shown to not only coordinate but consolidate the various work processes in the machinery of the University, ensuring the seemingly stand-alone offices to have their outputs seamlessly advanced to the overall good performance of the academic programme.

Introduction

Quality assurance and control as well as quality management systems are not modern notions. Ancient Egyptians defined quality as 'a sign of perfection', such as demonstrated in the architectural precision and aesthetics of the royal tombs of pyramids (Elshennawy, 2004). In the academia, quality could be interpreted as relating to academic standards (Cheng, 2011), though Brink further elaborated that quality could be the answer to the question of 'is it good?', while standards address the question of 'is it good enough?' (Brink, 2010). However, quality in education is closely related to 4 main purposes: preparation for sustainable employment, preparation for life in a democratic society, personal development as well as development and maintenance of a broad knowledge base, i.e. lifelong learning (Bergen, 2011). Assessment of stakeholders' satisfaction on the educational processes, organisation and outcomes would serve well for institutions of higher learning to take necessary and timely preventive or corrective measures to upkeep the quality of the programmes offered, though the reliability of the inputs depend very much on the techniques and instruments adopted to acquire data (Ham & Hayduk, 2003).

Continual Quality Improvement

For continual improvement, the educational programme is evaluated regularly to keep in line with current development and to align it with the needs of stakeholders. In this regards, the Faculty, as well as the University have applied a comprehensive PDCA (Planning, Doing, Checking and Acting) cycle to ensure successful execution of all processes related to PEOs, PLOs and CLOs. The PDCA cycle of the overall quality management at different levels. At the University level, the PDCA cycle is fundamentally framed on the basis of the University's long term strategic plan (UTHM Blueprint). The University's blueprint as outlined in the central policy framework is supported by implementation of relevant processes involving the Faculty, its departments, units and individual staff members. The blueprint is revised accordingly whenever deemed necessary in order to ensure the set targets are systematically achieved. The quality assurance at this level is ascertained with annual internal auditing processes, i.e., the internal auditing, which are managed by centre for Academic Development and Training (CAD), and external auditing, i.e. ISO by SIRIM. The auditing ensures that the structure and quality of task implementation complies with set procedures and regulations. In addition, the University has also developed the Internal Complaints and Suggestions Channel System (SACAD), as one of the channels for students and staff to give feedbacks concerning the University at any time.

From Programme Outcomes To Quality Improvement

Figure 1 summarizes the overall inter-relationship between PEOs, PLOs and CLOs, which collectively contribute to the assessment of PLO attainment of the Programme. Represented in a pyramidal arrangement from bottom-up are the tasks / activities carried out and assessed in each course of the Programme, followed by the CLOs for each of the course, which cumulatively build up the respective PLOs or POs at a higher order, and finally culminating in the attainment of PEOs measurable after a certain lapse from graduation. On the left wing of the pyramid are listed the instruments of assessment for each component, namely SAS for gauging the attainment of CLOs at course level, OBESys for measuring the achievement level of PLOs cumulatively from the contributing CLOs throughout a student's study, and finally Tracer Study for evaluating the graduates' attainment of PEOs 3-5 years after completion of the Programme. Assessment data collected with the aid of the instruments are then analysed to identify the strength and weaknesses of the components in formulating short and long term improvement strategy for the Programme as a whole, i.e. close-loop CQI practices. Understandably, the intricately related system requires the change in one component to have an influence on the others to various degrees.

It follows that a discourse on the attainment of PLOs alone cannot illustrate the full picture of the effective further development and improvement of the Programme. The overall structure of the Programme would be affected in one way or another for every change made to any of the component. To address the particular concern of Criterion 2 in terms of adoption of the POs' assessment outcomes for improvement of the Programme, it is apparent from Figure 1 that the attainment level for each PLO for individual students can be retrieved and reviewed via the OBESys. Indeed, performance of the entire cohort of students can also be analysed for comparison purposes simply by the sorting function of the OBESys. These findings are then used for identifying unforeseen shortcomings, untapped potential as well as uncharted waters for betterment of the Programme. Also, these reports serve as useful references for reviewers of the Programme (e.g. External Examiner) to gain valuable insights of the Programme, guiding them to make informed decisions or recommendations in their reviews.

All these help make the process of making relevant and spot-on improvement to the Programme a timely and orderly one. The real-time data management of OBESys allows students' performance to be monitored closely, particularly in terms of the time-dependent, cumulative attainment of PLOs. In other words, review of the PLOs' attainment need not be postponed till the end of the student's study, but can be accessed and analysed at any point of time with a display of the accrued merits for each PLO. The following discourse details out the infrastructure for quality assurance and control of academic programmes in the University, primarily under the umbrella of quality management system, i.e. MS ISO 9001: 2008. In general, UTHM implements Quality Academic Practices under the systematic approach outlined in MS ISO 9001: 2008. Through the implementation of MS ISO, review of the academic curriculum in terms of stakeholders' input is conducted in accordance to RPK-02 Curriculum Review Procedures. The Tracer Study is also conducted to serve as an informative tool to ascertain the employability of graduates, preferred or dominant fields of work, potential career prospect, among others for continuous improvement of the Programme.

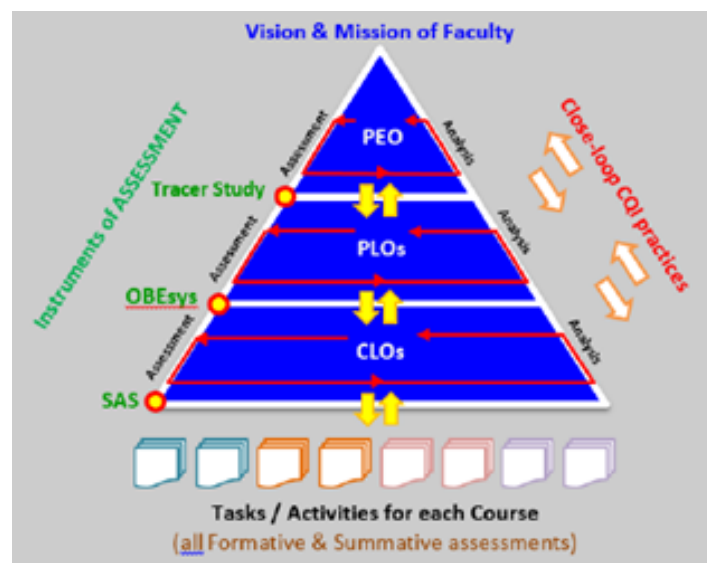


Figure 1. Hierarchical organisation and cross-relationship between the components for CQI at each level.

Continual Quality Improvement (CQI) is necessary and vital to ensure the sustained development and betterment of an academic programme with regular self-checks. It is necessarily implemented at all levels of a quality management system, such as found in the academia in providing value-for-money academic programmes of

assured quality. The improvement strategy and approaches must encompass the entire ecosystem of the institution, especially in the Programme's fundamental architecture, founding philosophy and aspirations. Therefore, the CQI processes cut across the board from the Programme to the Course levels as described below.

At the Programme level, CQI is implemented via various tools including Faculty Academic Committee meetings, OBE performance monitoring, Internal Quality Audit reports, University Strategic Action Plan, stakeholders' review meetings and external examiner reviews. At Course level, CQI is required for cases where students score less than 50% of the total marks. The CQI activities are subjected to the creativity and innovation of respective academic staff with considerations of the suitability. These activities could be in the forms of extra classes with additional exercises and/or teaching materials, individual tutoring sessions, as well as revisions and discussions on completed assignments and tests.

All in all the attainment of PLOs are shown to be supported by the assessment and attainment of CLOs from the downstream end, and supporting the evaluation of PEOs attainment on the upstream end (refer Figure 1). The CQI cycle at Programme and Course levels effectively extracts insightful data and findings as feeder information for review, revision and overall improvement of the Programme as a whole.

Evidence-Based Attainment Of Programme Outcomes

Meeting the PLOs via collective attainment of CLOs in the respective Courses are substantiated by a number of documented evidence. These evidences can be broadly divided into 2 categories: materials by academic staff and students (Figure 2). As shown in Figure 2, the materials prepared by the academic staff for a Course include the question papers and answer schemes prepared for tests and final examinations, with detailed cognitive domain analysis on differentiation of the difficulty levels as per Bloom's taxonomy. It also encompasses structured questions or problems for course assignments and projects (PBL exercises), questions and answers for oral examination of laboratory work, suitably themed Bachelor Degree Project (BDP) titles and scope, and other tasks assigned to students throughout the duration of study. From the students' end, evidence collected include project reports or assignments with accompanying visual aids in various formats (e.g. brochure, poster, video, model, etc.), as well as compiled in threes of the best, moderate and low achievers: answer scripts for tests and final examinations, laboratory reports, assignments, and other written work. Other evidence in this category can also be found in the reports and logbooks for Bachelor Degree Project, Industrial Training, field work, plant and site visits as well as industrial talks or seminars.

Taking into account that a holistic graduate should be equipped with both academic and non-academic skills or competencies, evidence of students' effort contributing to the attainment of PLOs also include records of the various activities organised by and/or participated in the Faculty and Departmental Student Clubs, university-wide student associations, sports clubs, uniform bodies and others. Students are encouraged to take part in national and international levels competitions too, such as language, cultural and sports events, both co-organised by the University or entirely managed by outside entities. These go on to show the academic prowess and extra-curricular aptitude of the students, leading to the attainment of PLOs which are essentially an epitome of the desired product of the Programme, i.e. an all-rounder graduates with a balanced flair to function as a member of profession and society in general.

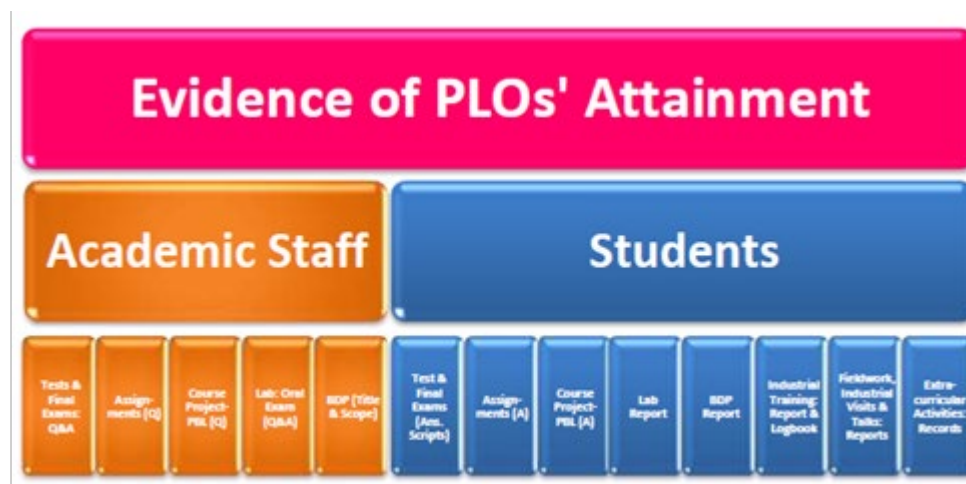


Figure 2. Evidence substantiating the attainment of programme outcomes.

Cqi For Quality Assurance And Control

The commitment of the University to quality assurance is demonstrated by the Quality Policy statement that strives to provide quality academic programmes that meet the stakeholders' satisfaction through excellent organizational management and continual improvement. Top management and staff at all levels are committed to practice and

maintain effective quality management satisfying MS ISO 9001:2008 certification standards.

The University Quality Objectives are implemented to ensure the achievement of the University's vision and mission. During Management Review Meeting, the Faculty Quality Objectives were also consistently reviewed. UTHM has been awarded the ISO 9001:2008 - Management of Academic Programmes. In 2004, 2008 and 2010, UTHM has passed the surveillance Audit excellently and the award was extended to 2016. There are now 68 procedures in total which are continually amended to accommodate new changes. Since practiced in 2001, the ISO 9001:2008 has become the motivation of quality academic programmes management.

For Continual Quality Improvement (CQI), annual ISO audit and academic audit are conducted for all Faculties' academic programmes. Three processes related to academic programme were proposed to be reviewed in the recent internal audit to ensure quality programme development and to address the requirements of OBE and stakeholders, namely academic programme development, academic programme review and implementation of lecture processes.

a. System for Examination Regulation

UTHM has established procedures for preparation of the final examination papers, in accordance with the ISO standard. The Academic Management Office (PPA) is responsible to monitor the workflow of the final examination regulation, beginning with the preparation of examination paper (RPP-12 Procedure for Final Examination Paper Preparation), assessment of the examination paper (RPP-13 Procedure for Final Examination Paper Specifications), preparation of the final examination (RPP-14 Procedure for Final Examination Service), and the submission of the final examination results (RPP-15 Procedure for Final Examination Collecting, Inserting, Checking of Marks). At the Faculty level, the Faculty Academic Office is responsible in monitoring academic staff's adherence to the work processes.

b. System of Assessment for Examinations, Projects and Industrial Training

i. System of Assessment for Examinations

At the Faculty level, the Examination Committee is responsible to manage the preparation, assessment and moderation of the examination papers. The questions for final examinations are Prepared by the academic staff according to level of Bloom's taxonomy that has been set according to the CLOs of the particular course. Table of Specification is used to ensure that the questions are correctly mapped according to the CLOs, during formative and summative assessments so that every CLOs and consecutively, PLOs could be assessed i.e. constructively aligned. In ensuring the quality of final examination questions, the drafts of the final examination paper undergo two levels of moderation processes. At first, the draft is vetted at the departmental level using the Vetting Form of Test and Final Examination, and should fulfil the following requirements:

- Compliance to ISO (RPP-15)
- Proper usage of terms
- Suitability of questions mapped to CLOs and learning taxonomies
- Suitability of examination duration with the course's number of credits
- Suitability of Level of Bloom's taxonomy

ii. System of Assessment for Final Year Projects

The procedures consist of several aspects including submission of Bachelor Degree Project title and proposal by students, appointment of supervisor, students briefing on Bachelor Degree Project, and approval of project titles by Head of Panels, supervision, and the Bachelor Degree Project assessment. Since Semester 1, Session 2016/2017, ePSM system, an online Bachelor Degree Project management system, was developed by Centre of Information Technology (PTM) for facilitating the implementation of Bachelor Degree Project. The submission of Bachelor Degree Project title and proposal by the students is conducted using the ePSM. In addition, the marks from supervisor and examiner panels are recorded in the system, before the coordinator of Bachelor Degree Project transfers the marks to SAS upon marks moderation.

ii. System of Assessment for Industrial Training

The assessment of students' performances for industrial training are divided into two stages, namely, the industry on-site visits by the Faculty supervisor and upon the completion of industrial training, with reference to RPP-11 Procedure of Industrial training (Supervision & Evaluation) and the University's Industrial Training Guideline.

c. System for Teaching and Learning

In order to ensure the quality of the teaching and learning process, each academic staff is provided with the Desk File, containing ISO procedures as a clear guideline and reference with their respective scope of work. Apart from appointing relevant stakeholders, the Faculty is continuously improving the quality of each programme by benchmarking exercises so the standard is appropriate or even better than programmes offered by other renowned

local and international universities. To date three benchmarking exercises were conducted with universities in Australia and also locally at UMP and UNIKL. Findings from the benchmarking exercises proved that the Programme is of appropriate standard and quality, locally and internationally. Good practices from other universities, including environmental engineering technology laboratory practices such as pilot scale system for water, wastewater treatment system as well as air pollution control devices were also introduced in the teaching and learning to enhance student's skills and competencies.

Conclusions

Quality assurance and quality control are essential to regular monitoring of an academic programme, as well as serving to promote continual improvement and upgrading of the supporting system. Inputs from various offices are consolidated to gauge, rectify and enhance the academic processes involved in the smooth running of the Programme. Such an integrated quality management system helps eliminate hiccups due to human errors, delays and unforeseen logistical glitches, while keeping real-time records of every element in the Programme even after the student has left the University.

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A Different Approach To Reasoning In Mathematics And Accounting Course: Accounting Department Sample*

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Abstract

Original reasoning rational remains by means of aim toward reason. Triggering the expressive control of enchanted then unknown (cutting-edge additional arguments original reasoning) remains unique of the newest then influential tendencies cutting-edge occupational university teaching. We stretch now happening an examination of the organizations aimed at original reasoning have enough money toward occupational university scholars. This education usages the perfect industrialized through Lithner (2008) which distinguishes amid derivative reasoning which remains connected toward repetition knowledge of procedures then ideas, then original reasoning which includes reasonable mathematically originated influences. The examination includes the inspection of minutes, projects then inspections rummage-sale cutting-edge rudimentary mathematics then accounting course cutting-edge Accounting Department of Kocaeli College Kocaeli occupational university by the opinion toward categorizing the kinds of reasoning predictable of the scholars. By way of healthy by way of explanation our usage of lithner's technique, we deliberate his appropriateness by way of a instrument aimed at categorizing reasoning chances cutting-edge communal discipline department's mathematics course. Development in educational works of participants apply of rational suggestions supports the study's style work on the data

Keywords: vocational school, mathematical reasoning, accounting department

Introduction

School applications of participants math showing a positive effected theoretical background of math demonstrating, detailing registering skill in math, for more powerful presentation of the various features of participants skills in math demonstrating. The supplementary way involved participants estimation of math evidences and rational learning of various proof methods (Bhaird, C., Nolan, B , O'shea, A, & , Pfeiffer, K. 2008; Alcock & Weber, 2005; Antonini & Mariotti, 2008; Harel & Sowder, 1998; Selden & Selden, 2003; Stylianides & Stylianides, 2009). The abovementioned writing restricted ections of reason exercise, moreover, didn't discover the use of numerical examples as an alternate of reasonable exercise not the power of this teaching on participants justification of math evidences and rational information of various evidence methods (Bhaird, C., Nolan, B , O'shea, A, & , Pfeiffer, K. 2008; Bergqvist, E. 2007.; Aydin At All, 2018; Şeneldir At All, 2017; Deer, 1969; Durand-Guerrier, 2003; Epp, 2003; Mueller, 1975; J. L. Platt, 1967). Lithner (2008) describes reasoning by way of 'the streak of supposed accepted toward crop declarations then spread deductions cutting-edge job (problematic)-solving'. This meaning consumes together tall then low-quality influences then remains not lone limited toward official evidences of propositions. The outline remains valuable cutting-edge learning the rational procedures wanted toward resolve glitches cutting-edge rudimentary mathematics then accounting course, anywhere frequently evidences remain not assumed nonetheless scholars remain predictable toward brand reasonable influences then deductions. Lithner distinguishes amid derivative reasoning which remains connected toward repetition knowledge then imitation of procedures then original reasoning which includes reasonable mathematically-founded influences. Cutting-edge this education, he remains practical this outline toward categorize the reasoning chances obtainable cutting-edge a variety of commercial mathematics obtainable cutting-edge Nigde Ömer Halisdemir communal discipline occupational university. We remain seeing together course aimed at professional then non-specialist scholars, by way of healthy by way of required then elective units (Bhaird, C., Nolan, B , O'shea, A, & , Pfeiffer, K. 2008; Battal At All., 2017; Bostan, And Durmuş, 2016; Bostan, And Durmuş, 2017; Durmuş, 2016).

Rendering the teaching investigators, change after tall university (before school) toward college remains extensively recognized by way of a problematic procedure then scholars typically discovery that the change cutting-edge mathematics then accounting talks (physic then interaction) remains particularly problematic then difficult (Pointon, A., and C. Sangwin. 2003; Kılıçaslan 2014; Boesen Then Lithner, 2010). Scholars' problems cutting-edge primary day originate after theoretical approach somewhat than real performance of mathematics educator (Bhaird, C., Nolan, B , O'shea, A, & , Pfeiffer, K. 2008; Aydin At All, 2017a; Aydin And Mutlu, 2013; Fucawa-Connelly, 2005). Scholars' problems remain particularly by the ideas such by way of multifaceted statistics, singular purpose, derivate, copied, then intensely examining of meaning of these ideas then their extended then nonconcrete evidences. These rudimentary ideas of college mathematics remain too extensively rummage-sale after the scholars counting the departments such by way of manufacturing, physic, ecology, approximately communal agendas. He remains a famous then putative mathematical quarrel that the education of mathematics remain influential stage through stage by the growth of nonconcrete rational services, then the unique of the chief drives of mathematics teaching remains toward impart mathematical reasoning (Bhaird, C., Nolan, B , O'shea, A, & , Pfeiffer, K. 2008; Ball, D. L., Thames, M. H., Phelps, M. 2008.; Koparan At All, 2018; Clark And Lovric, 2009).

Conceptual framework

Mathematical evidences remain crops of mathematical proving. Though, we usage the period "mathematical showing" cutting-edge this education needed rummage-sale by resistant manufactures (Bhaird, C., Nolan, B , O'shea, A, & , Pfeiffer, K. 2008; Pointon, A., and C. Sangwin. 2003; Harel & Sowder, 1998; Weber, 2001).in order to categorize the proof-related skills that we describe in the future units, evidence information. The other skills had been planned as vital for participants evidence and verifying (Bhaird, C., Nolan, B , O'shea, A, & , Pfeiffer, K. 2008; Görentaş And Yıldız, 1999; Bilgin At All, 2010; Yıldız And Görentaş; Bilgin And Görentaş, 2008; Alcock & Weber, 2005; Selden & Selden, 2003).

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Cutting-edge this education approximately kind of queries will be scholars' effort physical including homework problems. Lithner (2008) clarified changes amid derivative then original reasoning. Derivative reasoning consumes binary chief kinds: memorised then algorithmic. Cutting-edge instruction toward remain secret by way of memorised a reasoning process must consume complicated the next ladders (Lithner (2008): a) the plan excellent remains examined happening concentrating a whole response. B) the plan application wants toward to consume lone the registration.

The original reasoning organization container remain alienated hooked on binary subgroups (Dreyfus, 1991): native creative reasoning; then worldwide original reasoning. A problem set remains accepted "need native original reasoning" doubt he remains soluble by means of any procedure nonetheless the it wants toward be modified by the procedure nearby. A problem set remains accepted "need worldwide original reasoning" doubt he fixes not consume a answer that remains founded happening any procedure then needs original reasoning (Bhaird, C., Nolan, B, O'shea, A, & , Pfeiffer, K. 2008; Of At All, 2018; Kahraman At All, 2018; Of At All, 2017; Tola At All, 2017). This kind of reasoning remains understood greatest frequently on the vocational school equal once scholars remain requested toward remember a meaning, toward national an axiom then a proof of exact proposition. Lithner (2008) notes a reasoning application imaginative when that has the next main types:

- i. *Novelty. A new reasoning sequence is applied*
- ii. *Plausibility. Applying of opinions is necessary to support strategy implementation. It motivates students to think that the inferences are true or not*
- iii. *Mathematical basis. Background level of student's determinate the accomplishment of the strategies*

Method

Cutting-edge this education, we rummage-sale errands after mathematic course of communal discipline departments of the occupational university. The talks comprise four commercial mathematics units. These four units remain shaped after the mathematics and accounting course obtainable toward scholars. The information cutting-edge this education contains of the next kinds: talk minutes, schoolbooks, projects, inspection queries. We calm altogether the info by the collaboration of the unit speakers. The information examination of apiece unit remains now existence led through the writer of this object (Bhaird, C., Nolan, B, O'shea, A, & , Pfeiffer, K. 2008).

This research method confirms dependability of the verification of the lecture elements from the various modules. We first made the examination through categorizing movements after model, cutting-edge instruction toward gain approximately knowledge then toward deliberate then decide happening our organization approaches. These events remain cutting-edge streak by persons obtainable through Lithner (2008). Lithner primary concept an answer toward the job then formerly likened toward the lecture minutes then model instances. By means of Lithner's outline, we choose whether the job might remain resolved by means of algorithmic reasoning before whether original reasoning remains wanted. We originate that the greatest problematic choices worried the organization of errands hooked on the local creative reasoning or global creative reasoning groups, then consequently we set the outline as the method that: we first define that we would categorize a problem by way of local creative reasoning doubt the local creative reasoning remained founded happening an procedure, nonetheless scholars needed toward confirm the problem in subgroups (Bhaird, C., Nolan, B, O'shea, A, & , Pfeiffer, K. 2008).

Analyses and findings

We current approximately instances of errands secret by means of the Lithner reasoning outline. We distillate happening unique theme cutting-edge instruction toward remain intelligible then toward remain healthier talented toward liken groups. We reflect the theme of lucid reckonings, which remains significant cutting-edge numerous rudimentary mathematics course. Cutting-edge the sequence cutting-edge query, the talk minutes then the model deliberate answers of lucid reckonings by means of the quadratic formulation by way of healthy by way of factoring then stretch instances which exemplify together approaches.

Question 1: solve the following rational equations, give your answers with various format if it is possible.

- (a) $x^2 - 9x + 20 = 0$;
- (b) $x^2 - 2x - 2 = 0$;
- (c) $2x^2 - 50 = 0$;
- (d) $x^2 - 18x + 81 = 0$;
- (e) $x^2 + 2x + 2 = 0$;
- (f) $x^2 - 10x + 170 = 14x + 30$.

Analysis of the parts of the question:

In this question, students are expected to use the quadratic formula or factorization of the rational equations.

- A) $x^2 - 9x + 20 = (x - 4)(x - 5)$, than the solutions are $x = 4, 5$;
- B) by using of the quadratic formula of rational equations, than the final step of the solution is $x = 1 \pm \sqrt{3}$, with other expression, $x = 2.732$, and $x = -0.732$;
- C) $2x^2 - 50 = 2(x^2 - 25) = 2(x - 5)(x + 5)$, so the solutions are $x = -5, 5$;
- D) $x^2 - 18x + 81 = (x - 9)^2$, so there is just unique solution at $x = 9$.
- E) using the quadratic formula we have $x = -1 \pm \sqrt{-4}$, so there are no real solution;
- F) subtracting $14x + 30$ from both sides gives $x^2 - 24x + 140 = 0$ and since $x^2 - 24x + 140 = (x - 10)(x - 14)$, the solutions are $x = 10, 14$.

Question 2: write down the solutions to the following equation:

$$(x - 5)(x + 3)(1 - x) = 0.$$

Analysis of the question:

$$(x - 4)(x + 7)(8 - x) = 0, \text{ we conclude that } x = 4, -7, 8.$$

This question remains a original reasoning job, exactly he remains a native original reasoning job. The scholars container usage the issue technique procedure after the lecture minutes or the model though they essential toward confirm he toward the three issues (Bhaired, C., Nolan, B , O'shea, A, & , Pfeiffer, K. 2008).

Analysis of the question:

He remains strong that the approach cutting-edge this query remains an derivative reasoning job, exactly he remains an algorithmic reasoning request. The scholars fair essential toward usage the algorithms after the talk minutes before after the model future through the educator.

Question 3: one solution of the rational equation

$$x^2 - 10x + k = 0$$

Is known to be $x = 4$. Find the second solution.

Analysis of the question:

Since $x = 4$ is a solution, we can see that

$$4^2 - 10.4 + k = 0, \text{ then } k = 24.$$

Using this, we can solve $x^2 - 10x + 24 = 0$ using either the factor method to have which the other solution is $x = 3$.

This approach remains a original reasoning job, exactly he remains a worldwide original reasoning job. We assume that the lecture minutes then model fix not cover such an procedure or example that the scholars container shadow it toward solve this question. They essential toward make a novel mathematically reasonable plan toward discovery the worth of m (Bhaired, C., Nolan, B , O'shea, A, & , Pfeiffer, K. 2008).

Result

He remains energetic the growth of rudimentary capabilities such by way of original reasoning of scholar that brand influential then hard their appointment cutting-edge the teaching procedure. Cutting-edge this newspaper, he rummage-sale an examination of the organizations aimed at original reasoning have sufficient cash toward occupational university scholars. The examination of altogether queries aimed at the various course consumes not remained obtainable cutting-edge this education. Therefore, we don't stretch filled deduction of the sizes of queries cutting-edge apiece group (Bhaired, C., Nolan, B , O'shea, A, & , Pfeiffer, K. 2008).

He remains valuable charitable toward scholars the chance toward involve by the query separately then charitable the educator chance toward switch scholar original reasoning cutting-edge loan of the example. Organizations similar the query rummage-sale cutting-edge this education container assistance educator toward brand unquestionable they equilibrium their education, projects then inspections toward safeguard that scholars remain obtainable by a suitable diversity of reasoning education, then toward evade an over-emphasis happening routine-learning instances which remains toward reproduction then recurrence the information obtainable through educator (Bhaired, C., Nolan, B , O'shea, A, & , Pfeiffer, K. 2008). Lastly, optimistic response conventional after our occupational university scholars then resolving of nearly altogether the queries remain a nobbling aimed at us toward stab making novel doings then request through by means of original reasoning approach.

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A Follow-Up Study Of Investigation Impacting Factors Of The Academic Performance For Children From Transnational Marriage Families In Taiwan

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Abstract

This study was a longitudinal follow-up study of children's development of transnational marriage families in Pingtung, Taiwan. A total of 70 children (aged from 12 to 17 years old) out of 115 participated in the survey study, accounting for 61% of the survey population. All students completed the demographic information and Learning Motivation scale and the instructor filled out "The Learning Behavior Checklist for Students of Secondary School" to assess the characteristics of students' learning behavior. After the SEM statistical analysis, the findings of the study showed that: First of all, family environment (.33) influences children's learning motivation more than personal intelligence (.23). Secondly, in terms of reducing children's learning behavior problems, family environment (.33) is more significant than learning motivation (.25). Thirdly, Learning behavior problems (.82) affects children's learning performance more than personal intelligence (.13). Finally, children of the transnational marriage families had the better achievement performance when their problems of learning behavior are fewer (.64).

Keywords : *Academic achievement, learning behavior, learning motivation, transnational marriage families*

Introduction

Since the 1990s, Taiwan has rapidly transformed into a multi-ethnic country due to marital immigration. At the end of 2017, there were 530,512 foreign spouses who are spouses of non-Chinese spouses (MOI, 2017). The number of children of transnational marriage families enrolled in secondary school in 2017 amounts to 75,894, accounting for about 11.04% of the total number of national secondary schools enrolled in the country. The learning status of children from transnational marriage families in schools has become an issue requiring more attention in Taiwan society nowadays.

New immigrant women married into Taiwan, there were maladjustment problems due to language, culture, life, customs and environmental differences. Meanwhile, there were some characteristics for transnational marriage families, such as low social-economic status, marital instability derived from different cultures and causing distress parenting. Children of transnational marriage families had the learning difficulties and obstacles due to their lack of language skills, thereby affecting their school achievement performance and interpersonal interaction management. Furthermore, the characteristics of their families such as lack of family member timely assistance in schoolwork, and insufficient resources, might influence children's learning quality of transnational marriage families.

There were significant differences in academic achievement between students of transnational marriage families of Southeast Asia and students of Taiwanese (Chung, Wang, & Chen, 2006). However, these differences were caused by what kind of factors in the end. This study examines subtleties from the family environment, personal intelligence, learning motivation, learning behavior which factors affected the learning performance and academic performance of children of transnational marriage families. The purpose of this study was to explore the relationship among factors such as family environment (FE), personal intelligence (PI) and learning motivation (LM), learning behavior (LB), learning performance (LP), and academic performance (AP) of children of new transnational marriage families. Several assumptions were examined as follows.

1. There is a close relationship between the learning performance and the academic performance;
2. Children's learning behavior affects the learning performance and the academic performance;
3. Children's learning motivation indirectly affects their learning performance and academic performance through learning behavior;
4. Children's personal intelligence and family environment indirectly influence their learning performance and academic performance through learning motivation and learning behavior.

Methods

1. Participants

In this study, the researchers studied the language and mental development and learning status of 9 elementary schools and 4 to 10 year-old children of transnational marriage families in Neipu Township, Pingtung County in 2004. In the 2011 academic year, these children had already entered the secondary and vocational high schools. This study investigated the learning situation of 70 adolescents. A total of 28 boys and 42 girls completed the latest exam results in terms of class ranking. A total of 12 students ranked top 10 in the class, accounting for 17.1% of the total. There were 17 students ranked the second tier (from 11-20) in the class, accounting for 24.3% of the total. There were 32 students ranked the third tier (from 21-30), accounting for 45.7% of the total. There were eight students in the final ranking class, account for 11.4% of the total. Only one student did not fill out his class ranking.

The mother's nationality was 3 from the Mainland, 33 from Indonesian, 14 from Vietnam, 16 from Philippine, 3 from Thailand, and 1 from Cambodia. Regarding fathers' working condition, there were 15 students' father were unemployed, 43 students' father had a full time job, 7 students' father had part time jobs, 5 students did not answer this question. The average monthly household income was less than 670 US Dollars for 21 students, 671 to 1,000 US Dollars for 33 students, 1,001 to 1,331 US Dollars for 9 students, more than 1,334 US Dollars for 1 student. Six students did not fill out their monthly household.

2. Instrument

This study was a longitudinal study of the development of children of new transnational marriage families. Personal Intelligence and Family Environment Information were collected in 2004. Personal intelligence was examined by comprehensive psychological assessment. Home environment data was assessed using the home environment scale designed by Caldwell and Bradley (1984).

Children of transnational marriage families were invited to fill out their demographic data and learning motivation. The Learning Motivation Scale was designed by Liu et al. (2010). This scale was applicable to the sixth grade to the ninth grade students. The scale was divided into four dimensions in terms of value, expectation, emotion and execution. Student's instructors were invited to fill out the students learning behavior assessment. This scale was designed by Meng & Chen (2010) which was used to assess school learning behavior characteristics for the primary and secondary school students. The contents of this scale included student demographic information, academic performance, learning performance, and learning behavior scale.

Results

The results (see Figure 1) showed that the learning performance and academic performance of the students were closely related to each other; learning behavior also directly affected learning performance and academic performance. Students had the fewer learning behavior problems, their learning performance and academic performance were better. The effect of learning behavior on learning performance (-.82) was far greater than that of academic performance (-.64). Students' learning motivation indirectly affected learning performance and academic performance through learning behavior. Students had the stronger motivation for learning, they had the less the problem of learning behavior. Personal intelligence and family environment mainly affected learning performance and academic performance indirectly through learning motivation and learning behavior. Students' personal intelligences were higher; they had the stronger the motivation for learning. Additionally, students' family environments were better, their motivations for learning were better. The family environment (.33) was stronger than personal intelligence (.23) to arise student motivation for learning. In addition, the family environment could also directly affect learning performance and academic performance through learning behavior; the better the family environment, the fewer problems of learning behavior. The family environment (-.26) was less than learning motivation(-.25) to reduce students' learning behavior problems. Students' personal intelligence could also directly affect their learning performance. However, students' learning behavior (-.82) was far more important than personal intelligence (.13) in affecting their learning performance.

Table 1 The structural model for the influence factors of learning and academic performance, the most approximate parameter-like estimates and their standard errors

parameter	Unstandardized	standard error	Standardized	standard error
direct effect				
PI→LM	.20*	.11	.23	.12
FE→LM	.69**	.27	.33	.12
PI→LP	.05*	.02	.13	.06
FE→LB	-2.77*	1.43	-.26	.13
LM→LB	-1.25*	.68	-.25	.13
LB→LP	-.07***	.01	-.82	.04
LB→AP	-.06***	.01	-.64	.08
variance & covariance				
D ₁ (LM)	115.37	22.85	.82	.09
D ₂ (LB)	2943	582.83	.82	.09
D ₃ (LP)	7.84	1.55	.29	.07
D ₄ (AP)	17.51	3.47	.59	.11
D ₃ (LP) , D ₄ (AP)	6.52	1.88	.23	.06

* $p < .05$, ** $p < .01$, *** $p < .001$. D= disturbance.

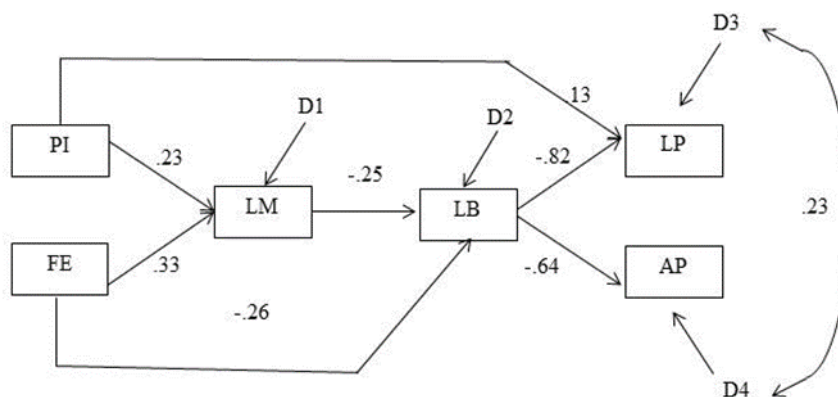


Figure 1 Influence of students' learning and academic performance

Discussions

In conclusion, for students of transnational marriage families who were relatively disadvantaged in Taiwan, their academic performance and learning achievement model had a close relationship with their learning performance and academic performance. Students' learning behavior directly affected their learning performance and academic performance. Students had fewer learning behavior problems, their learning performance and academic performances were better. The influence of learning behavior on learning performance was far greater than that of academic performance. Students' learning motivation, through learning behavior, indirectly affected their learning performance and academic performance; the stronger the motivation for learning, the less the problem of learning behavior. Students' personal intelligence and family environment mainly affected indirectly their learning performance and academic performance through learning motivation and learning behavior. Students had the higher the personal intelligence and the better of the family environment, their learning motivations were stronger. The family environment was stronger than personal intelligence to arise student motivation for learning. In addition, students' family environment could also directly influence their learning performance and academic performance through learning behavior; the better the family environment, the fewer problems with learning behavior; and the family environment was more important than the learning motivation to reduce the problem of learning behavior. Students' personal intelligence could also directly affect learning performance; however, learning behavior was far more important than that of personal intelligence in affecting their learning performance. European and American studies (Siahaan, Lee, & Kalist, 2014; Villiger, Wandeler, & Niggli, 2014) indicated there was a close relationship between the educational performance of immigrant children's children and their parents' involvement. The conditions of transnational marriage immigrants were different for studies of foreign immigrants. The women in Southeast Asia were transnational marriage immigrants to Taiwan which made their lives belonged cultural disadvantage. And their husbands with lower socioeconomic status, therefore, made them

to have a double weak effect. They were also busy with their livelihoods and had no time to care for their children's learning. Although immigrant mothers were extremely concerned about their children's learning, however their involvement for children's learning might indeed be more than sufficient.

Conclusion

The findings of this follow-up survey showed that there was a large variation in the academic performance, learning behavior, and learning motivations. This was consistent with the previous findings of the survey. The results also highlighted that the students from transnational marriage families did belonging to extremely disadvantage for their learning behaviors.

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A Practical Case Of ‘Ddadeutan (Warm) Education Community’ Based On Positive Behavior Support¹

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Abstract

The purpose of this study is to examine the application of positive behavior support as a way of mediating problem behaviors of students with developmental disabilities and to explore the feasibility of ‘Ddadeutan(warm) educational community’ through them. This study examined the effects of positive behavior support on problem behaviors of students with developmental disabilities and their impact on community formation. A team-based problem behavior intervention was conducted for 16-year-old boys who were determined to need problem behavior support through the individual education council. The team consisted of the principal, two senior teachers, one homeroom teacher, and one professor of special education. In order to intervention the target behavior(spitting, tear), the positive behavior support strategy(sound book, praise) was applied as AB design method. As a result, the problem behaviors decreased, and in the process of applying positive behavior support, it was confirmed that the synergy effect occurs through cooperation of the team members.

Introduction

Based on the understanding of students with different characteristics, special teachers are required to coach their studies to the abilities of each student and to manipulate their problem behavior. In the case of special teachers, the special nature of guiding disabled students who are unable to protect their own human rights is a serious problem with teachers ' poor discipline. On the other hand, studies are also showing that many special teachers are being hurt by the behavior of disabled students. Thus, if schools and teachers fail to properly prepare and respond to students ' problem behavior, the damage could go to both students and teachers.

In response to these social demands for effective and positive problem behavior interventions, the notion of positive behavior support (PBS) has been introduced in Korea since the early 2000s. Positive behavioral support is a systemic approach to establish the social culture and strong behavioral support required to achieve the academic and social success of all students. This can be effective in creating a ‘Ddadeutan(warm) educational community’ by promoting positive behavioral changes for faculty members and improving the system and procedures for improving student behavior. The primary prevention, which prevents the expression of problem behavior and teaches appropriate behavior, the secondary prevention which applies stronger interventions to students who do not respond to primary prevention, and this positive behavior support, which consists of tertiary prevention for high-risk students, is feasible only if the participation of all school members is assumed.

On the other hand, positive behavioral support refers to identifying the relationship between problem behavior and environmental variation and developing arbitration procedures based on the outcomes. Thus, through functional assessment, it is necessary to identify prior events and subsequent outcomes related to problem behavior and to develop interventions by manipulating environmental variants. The positive behavioral support experiments in school situations have been conducted by a collaborative problem solving team to re-aggregate the student's environment through multiple strategic interventions (Busan Metropolitan Office of Education, 2014; Hwang, Lee & Lee, 2014) that take into account personal circumstances.

The purpose of this study is to explore the feasibility of a ‘Ddadeutan(warm) educational community’ through examples of application of positive behavioral support to mediate problem behavior by students with developmental disabilities. Specific research issues are as follows.

1. How does positive behavior support affect problem behavior(spitting, tear) of students with developmental disabilities?

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2 How does the positive behavior support implementation process affect the formation of a Ddadeutan(warm) education community?

Research Method

Research Participant

The objective of the support for positive behavior was a student in special education school, who was selected through the individual education council for each student who decided that individual support was necessary as problem behavior continued without responding to positive behavioral support at the school level. He is a 16 year old boy with developmental disabilities. Problem behavior is usually seen in classrooms or corridors, where people cry, scream and hurt themselves when they are unhappy.

Positive Behavior Support Team for 'Ddadeutan(warm) educational community'

By correcting the student's behavior, we formed a positive behavioral support team to realize a warm educational community. The team was joined by a principal, two head teachers, one professor and one homeroom teacher. The principal was in charge of providing positive behavioral support, and the professor acted as a behavioral support consultant. And my homeroom teacher was in charge of the implementation of the problem behavior arbitration, and two of the department managers became support teams.

In particular, the homeroom teacher checked for changes in observations and behavior to identify a student's problem behavior, while the department's teachers helped assess relevant background information and behavior progress.

Intervention Environment

Positive behavioral support was done in classrooms, corridors where problem behavior was most often occurring, and was observed during class and during recess.

Target Behaviors

To identify the main functions of problem behavior, functional behavioral assessments were conducted on the using ABC descriptive records(direct assessment), QABS(indirect assessment) and MAS(indirect assessment).

Table 1: Functional behavioral assessments

target behavior	operational definition	function of behavior
spitting	The behavior of a student spitting on a teacher's face during lunch hour	primary : acquisition of interest secondary: acquisition of reinforcement materials
tearing	The behavior of tearing open wounds on the face and arms	primary : sensory stimulation secondary: avoidance

Positive behavior support Strategies

We conducted two main strategies, a proactive and a response strategy, with positive behavior support strategies. It is as follows.

Table 2: Positive behavior support strategies

target behavior	proactive strategy	response strategy
spitting	. providing reinforcement material (sound book) when finished eating without behavior . Arrange student away from teachers for lunch	. intended ignoring . When you finish your meal without spitting, you will receive social reinforcement(praise) and reinforcement (sound book)
tearing	. Dispersion of sensory stimuli while supporting teachers provide social reinforcement (praise and attention)	. Using the other DRO, the 10 second fixed interval reinforcement plan provides reinforcement (bread) . Gradually increase the fixed interval time

Data Manipulation

Effects of changes in student behavior were analyzed in the order of primary and arbitration by applying the AB design method and the alternating intervention design method.

RESULTS

The Effect of Positive Behavior Support on Problem Behavior of Students with developmental disability

- The pitting Behavior of the Students with Developmental Disability

We looked at changes in the behavior of the problem during lunch time during the day. The average and scope of the frequency and frequency of problem behavior of the subject student's primary and arbitration periods are shown

in Figures 1 and Table 3.

Figures 1: Graph of changes in the frequency of spitting behavior

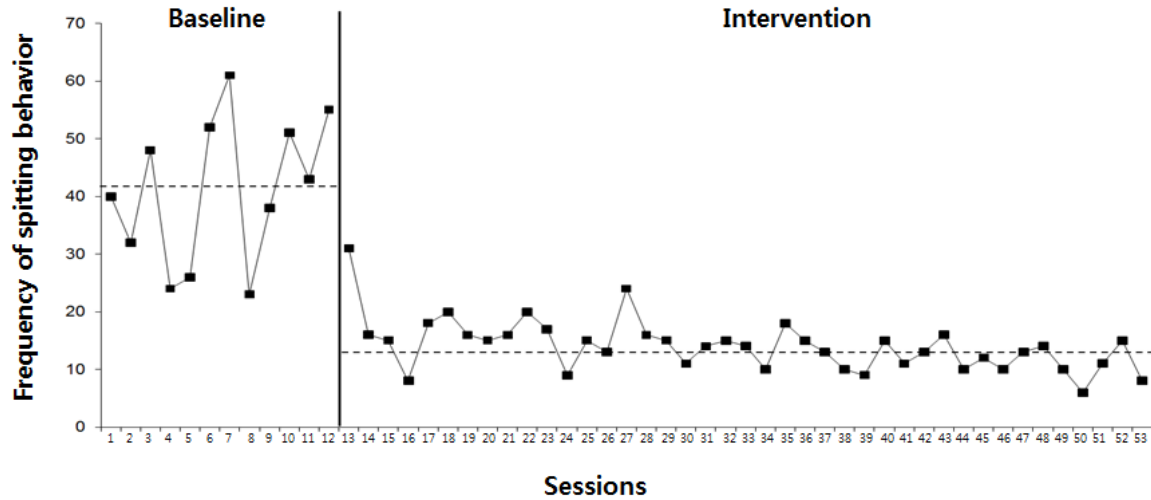


Table 3: Changes in the frequency of spitting behavior

situation	target behavior	-	baseline	intervention
lunch	spitting	mean	40.3	13.65
		range	23 - 55	6 - 24

Spitting behavior showed an average of 40.3 problem behaviors during the initial phase. A maximum of 55 problem behaviors occurred during the 20-day period at least 23 times. The intended ignoring strategy of the teacher in charge of the problem behavior, the reinforcement for the peer students who are good at meals, and the provision of the reinforcement after the average occurrence of the problem actions were reduced.

• The Tearing Behavior of the Students with Developmental Disability

We looked at changes in the behavior of the problem in art class and in vocation class. The frequency graph of problem behavior and the average occurrence rate per minute of students are shown in Figures 2 and Table 4.

<Figures 2> Graph of changes in the frequency of tearing behavior

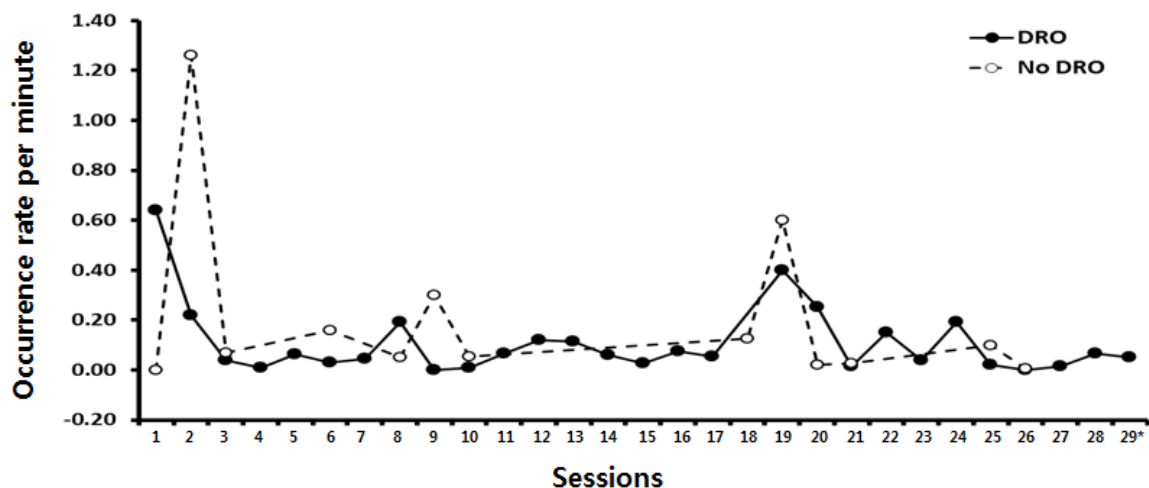


Table 4: Problem behavior rate(%)

situation	target behavior	-	DRO application	without DRO
art class, vocation class	tearing	mean	0.022	0.047
		range	0.01 – 0.64	0.01 – 1.26

When the target behavior was not acted, the target behavior was given 10 seconds of fixed interval and the interval

time was gradually increased. If intervention was not applied, it would reduce the target problem behavior 2.82 per hour on average and 0.047 % per minute per minute on average.

The Effect of Positive Behavior Support Implementation on the 'Warm' Education Community

Positive behavioral support has reduced the problem behavior of students with developmental disabilities. In addition, a cooperative team of the school president, homeroom teacher, department manager teacher, and external expert behavioral consultant were formed in the process of implementing positive behavioral support, resulting in synergy effects. In other words, by bringing in not only faculty members within the school but also university professors who are outside experts in problem behavior, it was possible to provide teachers with professional knowledge and advice on how to mediate problem behavior between the school and the school.

Suggestions

Positive Behavior Support of problem behavior for disabled students should be made on the basis of functional assessment. Problem behavior represented by disabled students is difficult to explain at the same time, and its function is also likely to have complex functions. It is important to conduct direct or indirect observations and gather sufficient information, such as background events. However, in this process, it is impossible for the teacher alone to observe the behavior of students with developmental disabilities and gather information. Therefore, cooperation among faculty members is essential and necessary to develop the necessary qualities.

Until now, the school's behavioral intervention has focused more on the 'problematic' behavior of students. Rather, it is necessary to change its mind so that it can guide desirable behavior rather than "problems" in order to improve the quality of life. In addition, instead of introducing arbitrary interventions, teachers should be encouraged to conduct evidence-based, empirical scientific interventions based on observational data on behavior.

In conclusion, The warm education community should provide opportunities for school members to participate actively and parents to participate. In this regard, it could be established as a system of community practice within a positive behavioral support school.

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A Qualitative Study On Physical Education And Sports Teaching Practice

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Abstract

The aim of this study is to examine the teaching practice according to the views of the managers and teachers responsible for the implementation of physical education and sport teaching practice in schools conducting the practice. A semi-structured interview technique, one of the qualitative research methods, was used in the study. The study group consists of 24 educators, including 8 school principals, 7 school practice coordinators and 9 practice teachers that are responsible for implementation in 8 secondary education institutions where teaching practice is carried out in Batman province center during the spring semester of 2017-2018 academic year. A semi-structured interview form developed by researchers was used as a data collection tool in the study. The results of the interviews are then coded under the appropriate themes after analyzing by the content analysis method. According to the results obtained, it is seen that the views of the administrators and educators responsible for implementation were grouped under four themes, including “The Position of Teaching Practice”, “The Gains from Teaching Practice”, “The Scope of Teaching Practice” and “Time for Teaching Practice” found in the curriculum. The vast majority of administrators and educators have stated that teaching practice is necessary, teaching practice contributes to the professional experience of teacher candidates, and if the lack of coordination is solved, it is a successful practice which is essential for candidate teachers to learn by practicing and experiencing in the field. However, they have pointed out that the period of teaching practice in the university curriculum is insufficient for teaching practice and implementation, and one semester of practice is only contributing to the student's orientation process.

Introduction

The learning-teaching process, which is the most dynamic and functional element of the education system, consists of two basic dimensions. One of them is the learning that concerns individuals who are directly involved in the process, and the other is the teaching that involves organizing stimuli in the learning environment that provides external support for the learning formation (Öztürk, 1999). In the process of learning and teaching, the role and the importance of the teachers are obviously great. Individuals should be trained in a way that they can keep pace with changes and developments in the society and the world and contribute to it. This is achieved by a qualified teaching personnel as well as a good education system (Çelikten, 2005). It is necessary that schools have a good education, that is, the quality of teaching in the school should be upgraded so that the students can succeed. This is only possible with qualified teachers (Seferoğlu, 2004); because teachers take various responsibilities in bringing new skills and values to themselves, to the students and to the whole society in the long run. In modern societies, teachers are seen not only as technical staff performing the education and training, but also as the people who will be the role model for the students and society. These social expectations for the teachers make it necessary to define all the qualities of a competent teacher and to implement the teacher training policies prepared in this framework (MEB, 2017).

In Turkey, teaching profession is regarded as a “specialized profession” in the National Education Basic Law No. 1739, and it is stated that preparation for the teaching profession is provided through general culture, special field education and pedagogical formation (Milli Eğitim Temel Kanunu, No. 1973). All the institutions that train teachers through the Decree Law No. 41 that entered into force on July 20th, 1982 were taken from the Ministry of National Education and incorporated into universities. The education period of all higher education institutions that have been training teachers since 1989-1990 academic year was increased to the bachelor's degree, at least. The programs of faculties that educate teachers since the transfer of teacher education to universities have been renewed many times based on national and international developments and these changes are continuing today (MEB, 2017).

Throughout the historical process, reorganization studies were carried out in relation to teacher education graduate programs in 1997, 2006 and 2009; however, the most comprehensive study was carried out within the scope of the National Education Development Project (MEGEP) between 1996 and 1997. In this context, some undergraduate programs in the field of educational sciences that are not corresponding to any employment were closed. After adopting the eight-year compulsory education in 1997-1998 academic year, the school grades were regulated as primary and secondary education, the course schedules of the departments and branches of education/educational sciences were restructured as a result of the collaborative studies of Ministry of National Education (MEB) and Council of Higher Education (YÖK). Furthermore, a number of official documents regarding education sciences and teacher training, such as 10th Development Plan (2014-2018), MEB Strategic Plan (2015-2019), Turkey Higher Education Qualifications Framework, the Teacher Training and Education Sciences Field Competence have been published over time (YÖK, 2018).

The courses in the “New Teacher Training Undergraduate Programs”, which has been recently organized by the Higher Education Council, are composed of three groups: teaching vocational knowledge (VK), field education (FE) and general culture (GC) courses; and the courses of teaching vocational knowledge (VK), field education (FE) and general culture (GC) were included in the programs by 30-35%, 15-20% and 45-50%, respectively. In the Table, in which the intensity of vocational knowledge, general culture and field education courses in the undergraduate programs are represented, VK courses, general culture courses and field education courses were included in the Physical Education Teaching Program by 33%, 18% and 49%, respectively. On the other hand, in the vocational knowledge (VK) courses in the undergraduate program of Physical Education Teacher, it is seen that it is compulsory to take Teaching Practice 1 course in Semester VII, while it is compulsory to take the Teaching Practice 2 course in Semester VIII.

Teaching Practice 1 and 2 courses are defined as making observations about methods and techniques specific to the field; doing micro-teaching practices, in which special teaching methods and techniques specific to the field are used, individually and with groups; site-specific activity and material development; preparation of teaching environments, classroom management, measurement, evaluation and reflection. It is stated that the Teaching Practice 1 and Teaching Practice 2 courses are to be carried out by instructors who had undergraduate education, post-graduate education in the related teaching program, or by instructors who are associate professor of Inter-University Board (IUB), have doctorate in the field of educational sciences and/or associate professor of IUB according to the relevant article and priority order of the Directive on Teaching Practices to be Made by the Practice Students in the Educational Institutions affiliated to the Ministry of National Education, and if the need continues, it will be carried out by other instructors (YÖK, 2018).

Through the Teaching Practice course, candidate teachers have an opportunity to apply the knowledge and skills they have acquired theoretically in a real environment before the service concerning the teaching profession (Kavcar et al, 1999). Thanks to school-based practices, it is ensured that the candidate teachers realize whether they are suitable for this profession, and also acquire professional experience and improve themselves socially (LaMaster, 2001). It is highly important for candidate teachers to practice the information they acquired theoretically in the pre-service period in a planned way in the guidance and supervision of the practice teacher in gaining experience and adopting their profession (Özkan et al., 2005). In this respect, school-based studies with qualified teacher education have an important role in terms of professional development of candidates (Hacıömeroğlu and Şahin, 2011).

When the literature is examined, it is seen that there are qualitative and quantitative studies on the teaching practice of candidate teachers in various categories (Yılmaz and Namlı, 2017; Yamaç and Bakır, 2017; Avcı and İbret, 2016; Yılmaz and Özçakmak, 2015; Baran et al., 2015; Altıntaş and Görgen, 2014; Taşdere, 2014; Aydın and Akgün, 2014; Mete, 2013; Akpınar et al., 2012; Yeşilyurt and Semerci, 2011; Çepni and Aydın, 2015; Baştürk, 2009; Dursun and Kuzu, 2008; Paker, 2008; Sarıçoban, 2008; Özkan et al., 2005). However, it is seen that the studies on the teaching practice of the physical education and sports candidate teachers (Dalkıran and Aslan, 2016; Özbal, 2009, Çiçek and İnce, 2005) are limited.

In this study, it was aimed to examine the views of the managers and teachers responsible for the implementation of teaching practice for physical education and sports in schools carrying out the practice. Within the scope of teaching practice, which is an important course for teacher education, it is important to keep a light on the work to be done in the field in order to better understand the views and suggestions of administrators and teachers who are practitioners of the course.

Method

In this study, qualitative research method is preferred as the method that best reflects the problem characteristics. Qualitative research is a research in which qualitative data collection methods, such as observation, interview and document analysis are used and a realistic and holistic process for revealing perceptions and events in a natural environment is followed (Yıldırım and Şimşek, 2008).

The study group consists of 24 educators, including 8 school principals, 7 school practice coordinators and 9 practice teachers that are responsible for implementation in 8 secondary education institutions where physical education and sports teacher candidates participated in the teaching practice that carried out during the spring semester of 2017-2018 academic year. The demographic characteristics of the educators are given in Table 1.

In the study, a semi-structured interview technique, which is an interview type, was implemented. Semi-structured interviews provide an opportunity for the participants to express and convey the events that they perceive and their views with their own words. At the stage of preparation for interview questions, firstly the field related to the hypothetical framework of the study was reviewed, and then the question of researching was formed by creating the conceptual framework by making use of the opinions of experts in qualitative field. The content analysis technique was used in the analysis of research data. The main goal in content analysis is to reach the concepts and associations that can explain the collected data. Through a content analysis method, the data is defined and the facts that may be hidden in the data are revealed. In the content analysis, the basic process is to bring together similar data within the framework of specific concepts and themes (Yıldırım and Şimşek, 2013: 259).

The data obtained from the interview form were examined one by one and transferred to the text via voice recorder. The data are analyzed by experts in the field of qualitative research and study, and the coding was carried out in Nvivo 10 program. In the study, as a result of the reliability calculation, r was found as $r=0.89$ in terms of the correspondence between the encoders. Therefore, the calculated values show that there is a good level of fit between raters.

Table 1. Demographic Characteristics of Educators Attending the Study

Participants	Gender	Age	Practice Task	Monthly Income	Professional Time	Managerial Time
P1	Male	41	Practice Teacher	3480 TL	14 Yrs	-
P2	Male	43	Practice School Coordinator	4800 TL	18 Yrs	6 Yrs
P3	Male	47	Practice Principal	5000 TL	21 Yrs	16 Yrs
P4	Male	40	Practice Principal	4500 TL	15 Yrs	4 Yrs
P5	Male	42	Practice Teacher	4000 TL	22 Yrs	-
P6	Male	28	Practice Teacher	4000 TL	3 Yrs	-
P7	Female	30	Practice Teacher	3125 TL	3 Yrs	-
P8	Female	40	Practice School Coordinator	4500 TL	15 Yrs	7 Yrs
P9	Male	51	Practice Principal	4500 TL	26 Yrs	4 Yrs
P10	Male	47	Practice Principal	5000 TL	25 Yrs	17 Yrs
P11	Male	29	Practice School Coordinator	4400 TL	4 Yrs	2 Yrs
P12	Male	40	Practice Principal	5000 TL	20 Yrs	10 Yrs
P13	Male	41	Practice Teacher	3500 TL	15 Yrs	-
P14	Male	39	Practice School Coordinator	3500 TL	14 Yrs	-
P15	Male	32	Practice Teacher	3000 TL	5 Yrs	-
P16	Male	39	Practice Principal	4000 TL	14 Yrs	7 Yrs
P17	Male	38	Practice School Coordinator	4400 TL	15 Yrs	7 Yrs
P18	Male	51	Practice School Coordinator	5500 TL	33 Yrs	24 Yrs
P19	Male	43	Practice Principal	5000 TL	17 Yrs	10 Yrs
P20	Male	40	Practice Teacher	3000 TL	13 Yrs	-
P21	Male	33	Practice Teacher	4500 TL	9 Yrs	3 Yrs
P22	Male	50	Practice Principal	5000 TL	25 Yrs	20 Yrs
P23	Male	39	Practice School Coordinator	6000 TL	19 Yrs	10 Yrs
P24	Male	38	Practice Teacher	4500 TL	12 Yrs	-

Results

The results of the study are given based on the themes formed by the questions posed to the participants and the codes belonging to these themes are given together with the percentages in the following Tables.

Table 2. The Position of the Teaching Practice in University Curriculum

Teaching Practice Curriculum	Necessary	Categories	Participants (N=24)	f	%
		Positive	P1, P2, P3, P4, P5, P6, P7, P8, P10, P12, P13, P14, P15, P16, P17, P18, P19, P20, P21, P22, P23	21	87.5
		Negative	-	-	-
		Partly	P9, P11, P24	3	12.5

According to Table 2, 87.5% of the educators stated that teaching practice in university curriculum is completely necessary, while 12.5% of them stated that it is partly necessary. Some of the views of the educators are given below:

1. *If the lack of coordination is solved, it is a successful practice (P11).*
2. *Positive, I find it beneficial for students to gain experience (P12).*
3. *It is very useful and essential for teacher candidates to learn by practicing and experiencing in the field (P19).*
4. *I think that the teaching practice in university curriculum is positive and it is motivating the students to prepare for their profession; however, the time is insufficient. One semester of practice is only contributing to the student's orientation process. Little time remains for teaching practice and implementation (P24).*

Table 3. The Gains from "Teaching Practice" in University Curriculum

Teaching Practice	Gains	Codes	Participants	f	%
		Experience Sharing	P1, P4, P7, P14, P16, P17, P18, P21	8	33.3
		Professional experience	P2, P3, P5, P6, P8, P9, P10, P11, P12, P13, P15, P19, P20, P22, P23, P24	16	66.7

According to Table 3, 33.3% of the educators emphasized that the teaching practice in the university curriculum contributed to the gains from experience sharing, while 66.7% from professional experience. Some of their views are given below:

1. *It means to practice in different institutions, to recognize different age groups, to observe and to spend time with them (P7).*
2. *Since each institution has different physical conditions, it helps the student having at least experience, in terms of the difficulties that s/he will encounter after being assigned. (P14).*
3. *It is beneficial for teachers to do an internship in different settings without knowing where and under which conditions they will be teaching (P19).*
4. *That each student is assigned to different institutions and schools means different socioeconomic status, different student levels and naturally different approaches. It naturally reflects on the professional development of the student in the form of a different method and technique (P24).*

Table 4. The Scope of "Teaching Practice" in the University Curriculum

Teaching Practice	Scope	Codes	Participants	f	%
		Theoretical teaching of the course	P3, P10, P22	3	12.5
		Implementation Experience	P1, P5, P6, P11, P17, P19, P24	7	29.1
		Behavior pattern Experience	P2, P7, P9, P13, P16,	5	20.9
		Administrative Experience	P4, P8, P15, P20, P21, P23	6	25.0
		Observation	P12, P14, P18	3	12.5

According to Table 4, with their opinions about the scope of teaching practice in the university curriculum, the educators stated that 12.5% of them conducted theoretical teaching of the course, 29.1% of them helped their students to gain implementation experience, 20.9% of them helped them to gain behavior pattern experience, 25.0% of them helped them to gain managerial experience, while 12.5% of them had their students carry out the observational activities.

Some of the views of the educators are given below:

1. *I have them do the implementation of the course by giving information about the preparation, the teaching of the course and teacher-student relations (P1).*
2. *I give the theoretical information related to the preparation and teaching of the course and the level of the relations with the students (P10).*

3. *I tell them what they need to do within the scope of teaching and student relationship in situations where they can encounter during their teaching life (P13).*
4. *During the first 4 weeks, the student observes the practice teacher. In the following weeks, students give the course by trying to understand the teaching profession (P14).*
5. *We give students information on administrative issues and give examples of relevant documents about implementations. We review annual and daily plans together (P23).*

Table 5. The Time for “Teaching Practice” in the University Curriculum

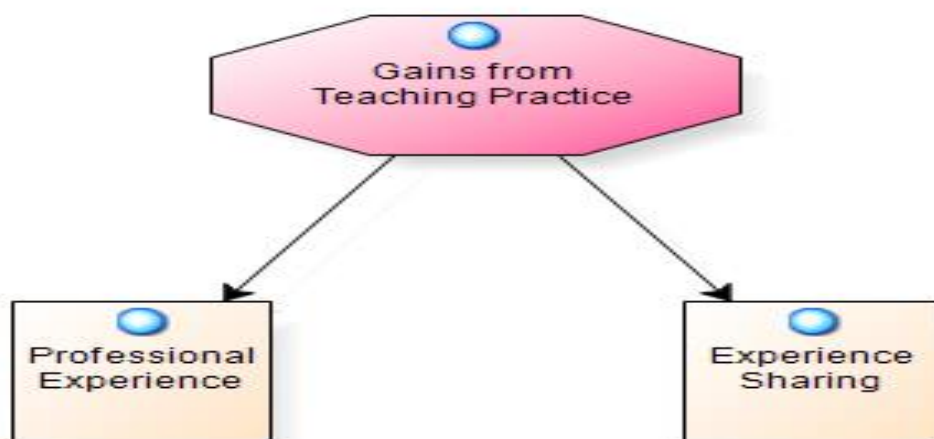
Teaching Practice	Time	Categories	Participants	f	%
		Sufficient	P5, P6,P8,P10,P17, P18, P21, P22, P23	9	37.5
		Insufficient	P1, P2, P3,P9, P11, P12, P13, P14, P15, P16,P19, P24	12	50.0
		Partly	P4, P7, P20,	3	12.5

According to Table 5, 37.5% of the educators stated that the period of teaching practice in the university curriculum was sufficient, 50.0% of them stated that it was insufficient, while 12.5% stated that it was partly sufficient. Some of the views of the educators are given below:

1. *We find it insufficient. It has to be done earlier than senior class (P2).*
2. *They are quite experienced about theoretical knowledge. I think there should be a longer time to get enough experience in practice. Teaching practice is a course given senior year. I think this should be increased to 2 or 3 years (P7).*
3. *The time for practice is sufficient (P17).*

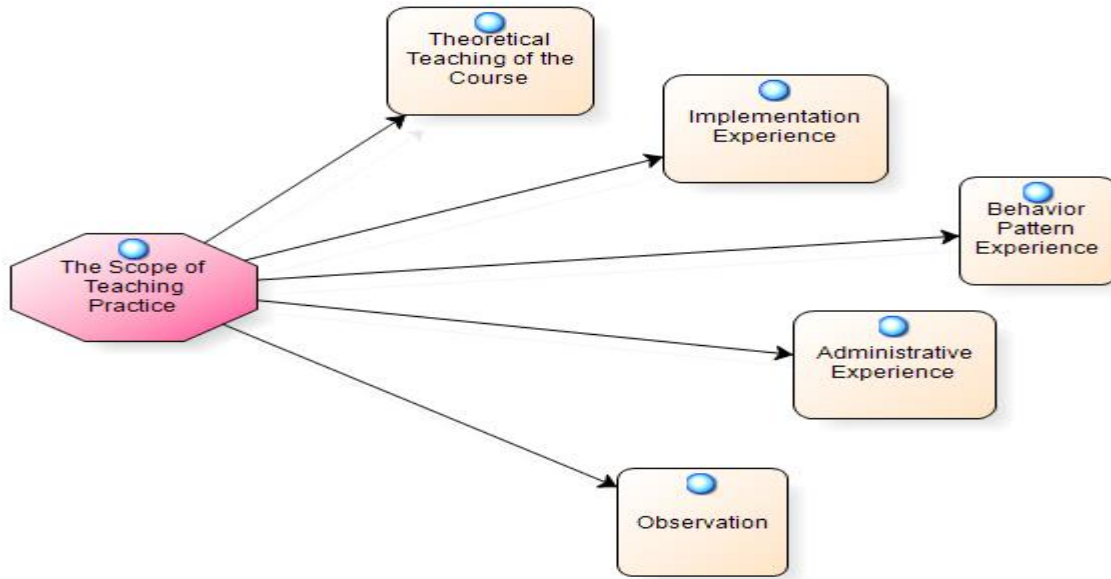
Conclusion And Recommendations

In this study, which is designed according to the qualitative research method, it was aimed to evaluate the opinions of the administrator and the educator personnel responsible for the implementation in the practice schools in Batman province center regarding the teaching practice course that physical education and sports teacher candidates participated in. The results obtained from the study are grouped under four themes, including “The Position of Teaching Practice”, “The Gains from Teaching Practice”, “The Scope of Teaching Practice” and “Time for Teaching Practice” found in the curriculum.



Model 1. The Gains from Teaching Practice

The vast majority of administrators and educators have stated that teaching practice is necessary, teaching practice contributes to the professional experience of teacher candidates, and if the lack of coordination is solved, it is a successful practice which is essential for teacher candidates to learn by practicing and experiencing in the field (Model 1). However, they have pointed out that the time for teaching practice in the university curriculum is insufficient for teaching practice and implementation, and one semester of practice is only contributing to the student's orientation process. Administrator and educator personnel have not considered the teaching practice time in the university curriculum as sufficient. In this context, they have stated that teaching practice course should be done before the senior class (P2), and recommended expanding the course to 2 or 3 years (P7).



Model 2. The Scope of Teaching Practice

Moreover, administrators and educators have stated about the scope of teaching practice included in the university curriculum that they have the students conduct theoretical teaching and observational activities, and gain practice, behavior pattern and the managerial experience (Model 2). Administrator and educator personnel stated that they informed the candidate teachers about the preparation, teaching, teacher-student relations and the implementation of the course and have them implement it (P1), that teacher candidates observe the practice teacher for the first 4 weeks, and they teach the course and try to comprehend the teaching profession in the following weeks (P14), and that they inform the candidates about the administrative issues and give examples of relevant documents and examine the annual and daily plans together (P23).

When the literature is examined, it is seen that similar results and suggestions are included in previous studies. In their study, Alaz and Konur (2009) pointed out that squeezing the teaching practice course into one day causes a lack of practice. On the other hand, in their study Dursun and Kuzu (2008) reported that ensuring the coordination between the faculty and the practice school is important for the implementation process. In their study, Şimşek *et al.* (2013) determined that candidate teachers should practice for a longer period of time in the same class, the number of candidate teachers assigned to each tutor should be reduced, an effective cooperation between the faculty and the school personnel should be ensured, and the duration of the teaching practice course should be extended in terms of both weekly teaching time and the number of semesters. In their study, Sılay and Gök (2004) stated that the lack of coordination between the practice schools and the faculty creates problems in candidate teachers' practice.

The "Teaching Practice" provides the opportunity for school teachers to participate in a comprehensive way throughout a semester. Through this course, candidate teachers have the opportunity to participate in all the hours of the physical education course for one day a week throughout a semester (Çiçek and İnce, 2005). When examining the results of this study and other studies in the field, it is seen that teaching practice course has an important place in candidate teachers' pre-professional experience. In this context, this study, which is designed according to the qualitative research method, can be compared with the results of the study conducted by repeating the same sample group with quantitative research method. The study may be carried out on a wider sample group to obtain different opinions and suggestions in order to improve teaching practice.

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A Research On Liking Evaluations Of Art Periods Of The Students Who Took Art History Lessons In Terms Of Furniture

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Abstract

Many artistic movements have been able to continue their influence for centuries during the period of their own period and have not decreased their appreciation rates and still continue to be produced and preferred. This study was carried out with aku gsf interior architecture department and aku afyon myo furniture and decoration students who took at least one of art history, furniture art history or furniture styles courses to determine which one of the art movements is more popular nowadays. The questionnaire prepared for this purpose consists of personal information and 18 art periods with their evaluations which are most appreciated in the direction of general opinion. A total of 163 students, 112 female, 51 male, and 32 associate degree, 131 undergraduate student were participated in the survey. As a result, Gothic, Renaissance, Scandinavian, Art Deco, Pop Art and Minimalism are more popular than the others, whereas 14. Louis, 15. Louis, 16. Louis, Rococo, Chippendale, Adam, Hepplewhite, Sheraton and Maximalism movements are less popular.

Keywords: *Furniture Styles, Liking Evaluation, Aesthetics, Education Level.*

Introduction

In parallel with the development of the societies the goods they have used e.g. objects, structures and similar changes and developments in the historical process have come day by day. Many factors play a role in these developments and changes. Societies were most often bored into existing furniture and entered different searches. In other factors, we can list developments in materials and technology, cultural interactions, and so on (Miller, 2011). Advances in furniture and decoration progress parallel to architecture. In addition, people living in different geographies, different cultures, furniture has led to the emergence of different designs. Over time, similarities have increased in design as cultures are under the influence of each other. Over time, similarities have increased in design as cultures are under the influence of each other. Although there are intercultural common pleasures in the globalizing world market, there are some cultural influences in consumer preferences. Some of the styles have been able to last for many years, others have not been long-lasting.

Laumann and House (1970) found that living spaces are related to the social identity of a person (such as status, social thought, etc.), and in this respect, they have identified the style of living space. In this regard, Rechavi (2009) found that the greatest difference among living spaces is in style preferences when studying the value of living space. As a result, in the case of common indoor arrangements it has been seen that each user uses elements in different styles according to his / her own enjoyment (eg, television use, painting on walls and tables, use of decorative items, etc.) Also, the item density and color usage also differed. In another study by Amaturro, Costagliola and Ragone (1987), they found that style preferences are not based on income but rather on a status indicator and social identity.

Rutkin (2005) examines in her study which variations of four interior design elements are preferred by hotel guests, and which elements are most important to overall preference of the lobby space. These design elements are 1) scale; 2) furniture type and arrangement; 3) finish materials; and 4) access to daylighting and views. Two opposing variations of each element were looked at during the data collection. x Three main groups stand to benefit from the findings of this research: 1) the hotel industry; 2) the millions of people that spend time in hotels each year; and 3) the design professions. Using a four-way factorial Analysis of Variance to analyze the responses of thirty participants to visual stimuli representing hotel lobby spaces, she was proven that all four design elements have significant impacts on user preference of hotel lobby spaces.

Çapanoğlu (2014) states in her study, the main emphasis was given on the consumers' liking, beauty, complexity, impressiveness and familiarity perceptions within the context of understanding the styles used in living spaces. In the first step, the images, regarding several styles of living spaces planned to be used in the surveys, were tried to be identified by gathering the views of 11 academicians working in the related area; and 24 significant images were classified as modern, mixed and classic. In the second step, 252 participants from public were conducted to a survey and were asked to evaluate the images according to the notions specified; I would-I would not like to live for liking; a perfect-very bad design for beauty; modest-complicated for complexity; attractive-ordinary for impressiveness; and familiar-not familiar for familiarity. As a result, she observed that there has been a significant common view, and the modern style was preferred compared to the other styles mixed and classic.

In Gökay and Demir's (2006) research, it was analysed if art courses given at different level of education influence related students' aesthetic preferences and aesthetic perceptions. They also searched if the aesthetic education given in art lectures effects students' aesthetic preferences level positively. They found out that, aesthetic preferences of students could be influenced by means of art education, but popular culture was determined the main effective factors on their aesthetic perceptions.

Akalin and his colleagues (2009) explored, five different sets of single-family house facades from private suburban cooperative housing developments in Ankara, Turkey, were analyzed; with each set comprising one example each of minimum, intermediate and maximum complexity. A questionnaire was given to 100 undergraduate students of the Architecture and Engineering Departments of Gazi University, Ankara (41 from architecture and 59 from engineering). These students were asked to rate a total of 15 photographs from five housing sites with the help of five-point semantic differential scales under three headings; namely: Preference: beautiful - ugly, warm - cold, pleasant - unpleasant; Complexity: unimposing - imposing, simple - complex; and Impressiveness: impressive - unimpressive. The results proved the existence of a U-shaped relationship between complexity and preference criteria. That is, facades representing an intermediate level of complexity were favored over less and more complex ones. The facades that seemed the most impressive were the most complex ones, but these, however, were not the most preferred.

Türkmen (2014) states, furniture trends in England during the historical process were reviewed and the current situation was tried to be put forward in light of the conversations, which have been held with the designers of the companies, leading and determining the direction of furniture trends in today's English market. Results were reviewed in the direction of these data and answers, provided by the designers, whose views and comments were included into this study. Today's approaches, which accordingly became more clear, were retaken into consideration. Furthermore, furniture designs of 22 furniture companies from the English furniture market were reviewed in order to support this study. Three different furniture ranges were developed for the English market in direction to the results of these reviews and in the line with the findings attained from the above mentioned conversations.

In general, it is thought that the effects of the furniture styles of the different periods, which are still used today, on the users' liking of the works are not adequately discussed. Therefore, the recognition of the effects of the furniture styles on the users' appreciation of the interior and the elements of the furniture will shed light on the new designs. Therefore, it is considered that in the design of interior and accessories the effect of furniture styles on users' liking evaluation ratings are known it will shed light on new designs. In this study, it is assumed that the gender differences and the education levels of the users' liking evaluations on the of the furniture styles will be different. From this point of view, the research hypothesis created to test of how furniture styles of different periods affects users' liking ratings is given below:

- H1: *There will be a marked difference between the liking evaluation of women and men for furniture styles of different periods.*
- H2: *Associate degree students will exhibit a more positive approach in their liking evaluation of furniture styles of different periods than undergraduate students.*

Method

Selection of Subjects

At the beginning of this research, 18 art periods were chosen to take place in the questionnaire which will be used in determining the liking preferences of the students in order to reach the determined aim. When these movements are selected, the place and importance of each movement are emphasized in the literature are taken into account. In addition, while the level of liking of the related students is determined; the reactions of the students to the periods they need to examine and the distribution of these reactions on different movements and the most liked and the most disliked currents have been tried to be determined.

Survey Design and Procedure

In the design of the questionnaire developed to test the research hypothesis, previously validated and reliable surveys were used in the surveys conducted by Berlyne (19), İmamoğlu (1975), Ertürk (1983), Özkan (2014), Özkan and Yıldırım (2017) ve Yıldırım et al., (2015) and composed of adjective pairs ordered positively (1= Most Like, 5= Most Dislike) five-digit semantic differential scale was used. The research questionnaire consists of two parts. In the first chapter; general information of the subjects and secondly, evaluations of the likes about the furniture styles of different periods.

Experimental Material

In Afyon Kocatepe University classrooms used as an experimental environment, the photographs of Gothic, Renaissance, Baroque, 14. Louis, 15. Louis, Rococo, 16. Louis, Chippendale, Adam, Hepplewhite, Sheraton, Scandinavian, Art Nouveau, Art Deco, Retro, Pop Art, Minimalism and Maximalism style furnitures are reflected on the screen with DataShow and individual ratings of these styles by students were determined by questionnaire. Photographs of the furniture belonging to different periods used in the experiment are given in Fig.1.



Figure 1. Furnitures of different periods used in the experiment

2.4. Statistical Analysis

In this study, the effects of evaluations of the subjects of 18 different furniture styles were examined. According to this, the subjects' evaluation of furniture styles was considered to be a dependent variable, the gender and education level of the subjects were considered as independent variables. The percentage values, arithmetic mean and standard deviation values of the data obtained from the study were calculated, and the difference between dependent and independent variables was statistically analyzed with t-test to see whether it was statistically significant at $P < 0.05$ level. In order to compare the mean values of the variables obtained in the analyzes, the data are expressed graphically.

Findings

163 students from Afyon Kocatepe University Faculty of Fine Arts Department of Interior Architecture and Environmental Design and Afyon Vocational School Furniture and Decoration Program students participated in this research and the information is given in Table 1. According to this, it is seen that 68.7% of the subjects are female and 31.3% of them are male, 80.4% of them are undergraduate and 19.6% of them are associate students.

Table 1. General Information of Subjects

General Information of Subjects		N	%
Gender	Female	112	68.7
	Male	51	31.3
Education Level	Associate Degree	32	19.6
	Under-graduate	131	80.4

Note: N: Number of subjects, %: Percentage value

The mean and standard deviation values and t-test results for the liking evaluations of the furniture styles of the subjects participating in the survey are given in Table 2.

Table 2. M and SD values and t-test results of the subjects' liking evaluations

Furniture Style	Gender				t- Test Results			Education Levels				t- Test Results		
	Female		Male					Associate Degree		Under-graduate				
	M	SD	M	SD	t	df	Sig.	M	SD	M	SD	t	df	Sig.
Gothic	2,48	1,35	2,43	1,34	0,22	161	0,824*	2,40	1,38	2,48	1,34	-0,280	161	0,780*
Renaissance	2,63	1,31	2,66	1,33	-0,147	161	0,884*	2,50	1,34	2,67	1,31	-0,689	161	0,492*
Baroque	2,87	1,44	2,92	1,45	-0,190	161	0,849*	2,71	1,46	2,93	1,44	-0,745	161	0,457*
14. Louis	3,17	1,37	3,15	1,40	0,093	161	0,926*	3	1,36	3,21	1,38	-0,784	161	0,434*
15. Louis	3,02	1,42	3,03	1,45	-0,051	161	0,959*	3,09	1,39	3,01	1,44	0,277	161	0,782*
Rococo	3,08	1,10	3,03	1,11	0,220	161	0,827*	3,09	1,14	3,06	1,10	0,149	161	0,881*
16. Louis	3,25	1,27	3,27	1,25	-0,073	161	0,942*	3,25	1,19	3,26	1,28	-0,069	161	0,945*
Chippendale	3,16	1,18	3,13	1,18	0,117	161	0,907*	3,25	1,21	3,12	1,17	0,516	161	0,607*
Adam	3,40	1,09	3,41	1,08	-0,054	161	0,957*	3,34	0,97	3,41	1,10	-0,356	161	0,722*
Hepplewhite	3,18	1,33	3,17	1,32	0,049	161	0,961*	2,93	1,34	3,24	1,31	-1,175	161	0,242*
Sheraton	3,11	1,26	3,17	1,27	-0,282	161	0,778*	3,25	1,21	3,10	1,27	0,573	161	0,568*
Scandinavian	2,50	1,37	2,49	1,40	0,080	161	0,936*	3,62	1,40	2,47	1,37	0,556	161	0,579*
Art Nouveau	2,89	1,35	2,88	1,35	0,046	161	0,963*	2,96	1,30	2,87	1,36	0,370	161	0,712*
Art Deco	2,59	1,37	2,58	1,38	0,043	161	0,966*	2,71	1,48	2,56	1,35	0,565	161	0,573*
Retro	2,75	1,54	2,76	1,55	-0,022	161	0,982*	2,84	1,54	2,74	1,55	0,338	161	0,736*
Pop Art	2,50	1,40	2,43	1,41	0,288	161	0,774*	2,50	1,41	2,47	1,41	0,096	161	0,924*
Minimalism	2,40	1,65	2,37	1,66	0,105	161	0,917*	2,46	1,68	2,37	1,64	0,290	161	0,772*
Maksimalism	3,55	1,49	3,62	1,49	-0,293	161	0,770*	2,59	1,49	3,57	1,49	0,072	161	0,943*

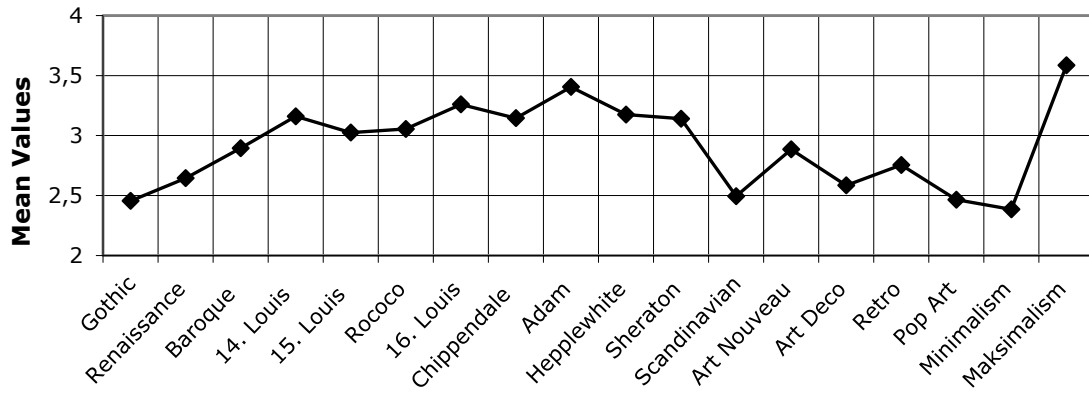
Notes: * $P < 0.05$ was not significant..

M: Average value, SD: Standard deviation, t: t- value, df: Degree of freedom.

a: Variable averages have been listed from 1 to 5. A high value shows negative responses.

Looking at the average values given in Table 2, it is seen that there is no apparent difference between the liking ratings of the furniture styles of different periods according to the sex (female, male) and education levels (associate degree, undergraduate) of the subjects. In the comparison of the binary t - test, no significant difference was found for all the styles between the independent variables at $p < 0.05$ level. According to this, the gender difference and difference in education level between the students with associate degree and undergraduate who had taken the art history lesson have not had a significant impact on the liking evaluation of furniture styles. Based on these results, the previously hypothesized H1 and H2 hypotheses are not supported.

On the other hand, considering the average evaluation of the furniture styles of different periods of the subjects given in Figure 2, it is seen that the Gothic, Renaissance, Scandinavian, Art Deco, Pop Art and Minimalism movements are more appreciated than the others, whereas 14. Louis, 15. Louis, 16. Louis, Rococo, Chippendale, Adam, Hepplewhite, Sheraton and Maximalism movements are less favored.



Note: Variable averages have been listed from 1 to 5. A high value shows negative responses.

Figure 2. Average evaluation of furniture styles

Conclusions And Recommendations

As a result, the most popular style was minimalism, followed by gothic, pop art, scandinavian, art deco, renaissance, retro, art nouvea, baroque, 15th louis, rococo, sheraton, chippendale, 14th louis, hepplewhite, 16th louis, maximalism. As see, the most disliked style is maximalism. It can be said that the two most popular styles over the last few hundred years are 15th Louis and 16th Louis. Although there can not be a study about it in the literature, they may have continued their effects for many years and this judgment can be reached if the productions still continue to be demanded. However, the 15th louis and the 16th louis styles are left behind in the preference of the students. This may be because young people prefer their objects with modern lines.

When the average values given in Table 2 are examined, it is seen that there is not a clear difference between the evaluations about the furniture styles of different periods according to the gender of the subjects (female, male). In the comparison of the binary t - test, no significant difference was found for all the styles between the independent variables at $p < 0.05$ level. Accordingly, gender differences have not had a significant impact on the liking evaluation of furniture styles. On the basis of these results, the previously hypothesized H1 hypothesis is not supported.

If we take a look at the evaluation by gender, 14th and 15th louis, scandinavian and renaissance styles are feminine, 16.louis, Adam, Gothic and Hepplewhite styles are obviously a little different from the preferences of male students so we can interpret they as masculine styles.

Again, looking at the average values given in table 2, it is seen that there is no apparent difference between the liking ratings of the furniture styles of different periods according to the education level (associate degree, undergraduate) of the subjects. In the comparison of the binary t - test, no significant difference was found for all the styles between the independent variables at $p < 0.05$ level. According to this, the difference in education level of associate and undergraduate students who took art history course did not have a significant effect on the liking evaluations of furniture styles. On the basis of these results, the previously hypothesized H2 hypothesis is not supported.

Again, looking at the average values given in table 2, it is seen that there is no apparent difference between the liking ratings of the furniture styles of different periods according to the associate degree (undergraduate) of the subjects.

It is noteworthy that there is not a significant difference between the preferences of the two different student groups, which is a big difference between the placement scores in the university (when they are in the most successful 2% of the undergraduate students, 90% of the undergraduate students are in the slice). As hypotheses, it was thought that great differences would come out.

It is thought that this work will shed light on furniture designers, decorators, interior architects and similar professional groups in the field of design trying to determine new trends.

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A Scale Of Attitudes Towards The Students Of Classrooms Of Special Education In Ordinary Schools

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Abstract

Students with intellectual disabilities are increasingly present in primary and secondary schools. In schools coexist different ways of schooling to allow these people to study with students without disabilities. The importance of the instrument was to explore the attitudes of teachers working with students with intellectual disabilities in classrooms. The purpose of this research was to develop an instrument to assess teachers' perceptions and needs related to the presence of students with intellectual disabilities in a regular classroom. A total of 849 teachers from 58 schools with a mean age of 45.54 years participated. Results showed that a three-factor structure (Favourable Attitude towards Inclusion, Negative Feelings towards Inclusion, and Competence Needs) was the best solution, with appropriate reliability and validity. The scale developed in this study enables an initial diagnosis of school functioning by assessing teachers' perceptions and needs.

Keywords: *Intellectual disabilities, scale analysis, exploratory structural equation modelling, educational inclusion, teachers' attitudes.*

Introduction

In schools students with intellectual disabilities are increasingly in ordinary schools, where teachers usually work with a homogeneous group of students. Normally, 6 pupils with intellectual difficulties are educated in regular schools with a classroom for special education (CSE). This way of schooling, which is implemented in certain countries such as Iceland, Norway, Cyprus, Italy, and Spain (Carbonell, 2009), is characterized by the non discrimination between them, and tries to meet the needs of students in the most integrated way. Although they receive separate educational interventions, they also attend classes for certain subjects, in which they are at par with regular pupils, that is, with their classmates. The increase in CSEs is being used as the priority option to reduce segregation of students in special education schools (Avramidis & Kalyva, 2007; Nicolaidou, Sophocleous, & Phtiaka, 2006).

This schooling system has facilitated the access of pupils with intellectual difficulties to regular schools, where they share playtime and out-of-school activities. In addition, it has given them access to certain subjects in ordinary classrooms, with other classmates who do not have difficulties and a faculty without specific training in intellectual difficulties (Angelides & Michailidou, 2007; Carbonell, 2009).

To promote inclusion, it is necessary to explore teachers' perceptions of and beliefs about pupils with intellectual difficulties. Teachers need to see diversity in a positive way and should take initiative to make inclusive activities (Weiner, 2003). It is necessary to know the beliefs of teachers about students with disabilities to assess this trait as one of its many features (Boyle, Topping & Jindal, 2013). Therefore, assessing these variables is vital, however we do not have a scale to evaluate regular classroom teachers who have students with intellectual disabilities. This is important in regular schools that have incorporated in their structure classrooms of special education (CSE). The teachers of these centers should work with students with intellectual disabilities along with other students.

Research on this topic has taken into account certain characteristics of teachers, such as gender, training, characteristics of the difficulties, professional experience, educational stage, and ratio or the contact with pupils with difficulties.

The results for gender have been slightly inconclusive; although some studies show that women have more positive attitudes towards inclusion (Boyle, Topping, & Jindal, 2013; Eichinger, Rizzo, & Sitotnik, 1991; Thomas, 1985), others show that male teachers have more inclusive attitudes (Batsiou, Bebetos, Panteli, & Antoniou, 2008). Others have found that the perceptions and attitudes of teachers are not related to gender (Avramidis & Norwich, 2002; Balboni & Pedrabissi, 2000; Heinman, 2001; Van Reusen, Shoho, & Barker, 2001).

Although a positive attitude towards inclusion exists, teachers are conscious of their insufficient training with regard to educating diverse students (Ferrandis, Grau, & Fortes, 2010). Consequently, if teachers are equipped with the expertise needed to work with diverse students, they will feel more competent, accept the inclusive approach more willingly, and will have a positive attitude towards working in a diverse classroom (Avramidis & Norwich, 2002; Avramidis & Kalyva, 2007; Horne & Timmons, 2009).

The educational stage has also been analysed as a variable that can determine the perception of the teachers towards inclusion. Monsen and Frederickson (2004) point out that studies comparing primary and secondary school teachers attitudes towards and beliefs about inclusion have found that, due to their initial training, primary school teachers generally show a more positive attitude towards inclusion and diversity than do secondary school teachers. Another factor that influences the perception of secondary school teachers is that at this level, there may be vast gaps in curriculum achievement between pupils. In this type of situation, the teacher is perceived as incompetent and specialists are delegated the responsibility of resolving these gaps (Moliner, Sales, Ferrández, Moliner, & Roig, 2012).

In reference to the ratio, studies have contradictory results depending on other factors like the size of the class or teachers' workload (Colmenero, 2009). The difficulties revealed by the teachers are related to pupils with more-severe difficulties and an excessive number of pupils in the classroom, which leaves them little bandwidth to attend to pupils with diverse needs (Jiménez, Díaz, & Carballo, 2005). In addition to the teacher-student ratio, a high percentage of pupils with intellectual difficulties in class generates more insecurity and stress in the teachers, which can be exacerbated if resources and support are insufficient (Talmor, Reiter, & Feigin, 2005). Nevertheless, Monsen and Frederickson (2004), after a review of the literature, stated that the teacher-student ratio of the class, despite influencing teachers' attitudes towards inclusion, is a subjective factor and is largely influenced by the characteristics of the teacher, whether the ratio is excessive, and the school's conditions and policies regarding inclusion.

Studies on previous contact with the pupils with educational needs have differing results. Teachers with experience with people with difficulties express more positive attitudes towards inclusion (Avramidis & Kalyva, 2007; Batsiou et al. 2008; Everington, Stevens & Winters, 1999). The previous contact the teachers may have had helps to generate a positive attitude towards pupils with intellectual difficulties, diversity, and the processes of inclusion (Avramidis & Kalyva, 2007; Avramidis & Norwich, 2002). The schools with more inclusive models, such as those in which these children receive schooling in the regular classroom or those regular schools with their own special education classrooms, facilitate considerable interaction between teachers and pupils with difficulties.

Nevertheless, the mere fact of worked with certain type of pupils with difficulties does not imply that the perception towards them is positive. Teachers' previous experiences influence their perception towards diversity, but teachers who have had negative experiences with pupils included in their classrooms, especially due to these pupils' behaviour, show attitudes less favourable than teachers who have had a more positive experience (Díaz, 2002).

Research has identified factors potentially associated with teachers' perceptions and attitudes, including gender, age, education level, and experience with pupils with difficulties. Although in-depth research has been conducted, it is necessary to develop a scale to better measure teachers' attitudes and perceptions.

Models and dimensions linked to teachers' attitudes

Cochran (1997) validated the Scale of Teacher's Attitudes Toward Inclusion (STATIC), a 20-item measure with four dimensions: advantages and disadvantages, professional issues, philosophical issues, and logistical problems related to the educational inclusion of the pupils with educational needs. Items are focused on equal opportunities for pupils with difficulties according to their needs. Professional issues refer to teachers' previous perceptions regarding education of pupils with difficulties. Philosophical issues consist of items related to the behaviour of the pupils with difficulties and teacher-training needs. Finally, the dimension of logistic problems pertains to the material resources required in the inclusion process, in the face of various need.

The Principals' Attitudes toward Inclusive Education (PATIE) scale developed by Bailey (2004) consists of 24 items across five factors. Questions focus on the inclusion or segregation of pupils with difficulties in regular

classrooms. The factor *teachers' workload* covers the main responsibilities of inclusive education. The *advantages and problems of the inclusion* factor assesses professional judgment regarding the fairness of inclusion. The *challenges of the inclusive education* factor focuses on the challenges that must be faced to move forward in the educational process. The *exclusion of the pupils* factor pertains to the rejection certain pupils encounter as a result of the type of difficulty they have, its severity, and their behaviour. Finally, the *need for teacher training* factor is related to the necessary and perceived preparation of professionals.

Kudláček (2007) developed the scale Attitudes Toward Inclusion of Children with Physical Difficulties in Physical Education – Revised (ATIPDPE-R). The instrument groups items in 3 factors pertaining to positive outcomes for students, negative outcomes for students, and negative outcomes for teachers. The first covers the advantages for the pupils without difficulties and promotion of tolerance. The second focuses on beliefs about deceleration and that inclusion of pupils with difficulties lowers the quality of education. The third factor pertains to teachers' perceptions regarding their professional competencies. Forlin, Earle, Loreman, and Sharma (2011), in a review of the scale Sentiments, Attitudes, and Concerns about Inclusive Education Revised (SACIE-R), identified the following factors: teachers' stance regarding inclusion, their feelings about relations with people with difficulties, students' acceptance of peers with different needs in regular classrooms, and concerns regarding the implementation of inclusive practices. This instrument was developed from a combination of three pre-existing scales, with 60 items in total, which were reduced to form a unique scale of 19 items. Those three scales were the Attitudes Towards Inclusive Education Scale (ATIES; Wilczenski, 1992), a revised version of the Interaction with Disabled Persons (IDP) scale (Forlin et al., 2001; Gething, 1991, 1994), and the Concerns about Inclusive Education Scale (CIES; Sharma & Desai, 2002). The authors conclude that the final SACIE-R consists of 15 items distributed across three factors. Factor 1 (feelings) evaluates negative emotions towards teaching pupils with disabilities, Factor 2 (attitudes) is related to positive perceptions of teaching in inclusion, and Factor 3 (worries) concerns perceptions of professional competence and need for teacher training regarding classrooms with diversity. The authors found that the instrument has adequate internal consistency; under this three-factor structure, Factors 1 and 3 contain items related to negative emotions or worries while Factor 2 contains items reflecting positive attitudes.

Purpose

We think that the development of a scale of attitudes is crucial for several reasons. The research on attitudes exposed scales are not exclusive to evaluate teachers working with students with intellectual disabilities. Cochran (1997) validated the scale of teacher attitudes towards inclusion in a general way. In this line, Bailey (2004) developed a scale to reveal attitudes towards disability but the instrument was addressed to the directors of schools. The study by Kudláček (2007) is a scale of attitudes towards the inclusion of children with physical disabilities in physical education. The characteristics of the difficulties influence the teachers' perception and their beliefs about the appropriate way of schooling.

Teachers perceive sensory or motor disabilities as minor compared to more-complex intellectual difficulties (Avramidis & Norwich, 2002). The reasons for this phenomenon stem from attitudes, teacher training, and even the need to understand the new model of educational inclusion (Praisner, 2003; López, Echeita, & Martin, 2009). This research explores the attitudes of teachers working with students with intellectual disabilities in standard classrooms.

Bearing in mind the inclusive model of schooling, in which pupils with intellectual difficulties are taught along with normal-ability classmates, by teachers with no specialized training in intellectual difficulties, it is essential to investigate the beliefs and teaching methods upon which are based the daily practice of these teachers (Roselló, 2010). Teachers' attitudes and professional beliefs determine the diversity of the faculty as for its function, establishing the way of conceiving its work in the school facing the education of the pupils (Sánchez & Pulido, 2007).

Therefore, the present study aimed to develop an instrument based on three fundamental variables: the inclusive educational system, the measurement of perceptions of the presence of pupils with intellectual difficulties in a regular classroom, and teachers' needs related to practice.

Method

Participants

This study was conducted with a sample of 849 teachers from 58 schools in Spain, with an average age of 45.54 years (SD = 8.55). Of these, 510 were employed at primary schools and 339 were employed at secondary schools. Regarding level of education, 312 had completed a degree and 452 had a certificate of advanced study. The schools

comprised a mix of urban and outlying rural public schools, with students predominantly from middle-class families. All schools have classrooms for special education (CSE).

Procedure

The school administrative authorities were contacted and given an explanation of the study purpose. They were requested for permission to distribute the questionnaires. Through collaboration with these authorities, the researchers were able to administer the instrument in 58 schools. The schools' teacher responsible for special education received, distributed, and returned the questionnaires to the educational authorities, in agreement with the guidelines provided by the investigators.

Measures

To develop the Scale of Attitudes Towards Students with Difficulties in Classrooms of Special Education in Ordinary Schools (SAD-CSOS), a pool of 33 items was created. Response options ranged from 1 (not at all satisfied) to 5 (very satisfied). Items were developed to examine the attitudes of primary and secondary school teachers towards inclusion of pupils with difficulties in schools with special education classrooms.

This instrument is not based on a unique model, but try to integrate elements and constructs of the following scales: the ATIPDPE-R (Kudláček, 2007), PATIE (Bailey, 2004), and SACIE-R (Forlin, Earle, Loreman and Sharma, 2011). The common features of these scales are the dimensions related to positive attitudes towards inclusion, negative feelings towards the pupils with difficulties, limitations of inclusion of pupils with regard to educational stage, teachers' concerns, previous teachers' perceptions, and need for training (Avramidis & Norwich, 2002; Avramidis & Kalyva, 2007; Bailey, 2004; Forlin, Earle, Loreman & Sharma, 2011; Horne & Timmons, 2009; Kudláček, 2007; Monsen & Frederickson, 2004). The scale also incorporated items on needs related to integration of pupils with learning difficulties for specific subjects in regular school classrooms.

Data analyses

To determine the scale's factor structure, we first determined the number of factors. To do this, we employed various criteria. The first was the factors' theoretical meaning. Second, we performed a parallel analysis because relying on the criterion of retaining factors only with eigenvalues above 1, where sampling error is not taken into account, causes initial eigenvalues to tend to be greater than 1, and factors might be accepted erroneously and not because of factor variance. Parallel analysis overcomes this limitation by comparing the eigenvalues with averaged eigenvalues estimated from several correlation matrices of random variables based on the actual number of variables and subjects (Hayton, Allen, & Scarpello, 2004). Third, we examined fit indexes; however, exploratory factor analysis (EFA) tends to produce results that are difficult to replicate with confirmatory factor analysis (CFA) (Schmitt, 2011), so we employed exploratory structural equation modelling (ESEM; Asparouhov & Muthén, 2009). The main advantage of this technique is that it combines EFA and CFA, and does not require the factor loading of the items in the non-corresponding factors to be zero, leading to a more accurate calculation of the fit indexes and correlations between latent variables (Asparouhov & Muthén, 2009; Marsh et al., 2009).

With regard to the rotation method used to perform the parallel analysis, we used geomin rotation, following the recommendations of Asparouhov and Muthén (2009) for situations in which little is known about the factor structure. More specifically, we used oblique geomin rotation because in social sciences, methods involving oblique rotations show relations between factors that are closer to reality (Brown, 2006; Schmitt, 2011). We used the maximum likelihood estimation method. We used oblique geomin rotation in ESEM too, but a different estimation method. Because we used a scale with Likert-type items, the observable variables are ordinal categorical variables (Flora & Curran, 2004). Therefore, to estimate the value of the parameters and fit indexes, it is more accurate to use an estimation method that does not require multivariate normality (Schmitt, 2011). Therefore, we used the weighted least squares means and variance adjusted (WLSMV) method.

Moreover, the fact that teachers are grouped by schools violates the assumption of independence. This can inflate the value of χ^2 and underestimate standard errors (Stapleton, 2006). To overcome this, the parameters were estimated maximizing a weighted logarithmic function and the standard errors, using a *sandwich* type estimator (Muthén & Muthén, 2015). To assess model fit, we used the χ^2 test, χ^2/df ratio, root mean square error of approximation index (RMSEA) and its 90% confidence interval (CI), Tucker-Lewis index (TLI), comparative fit index (CFI), and weighted root mean square residual (WRMR).

After determining the number of factors, to avoid cross-loadings and obtain a clean structure, we discarded items with loadings that were lower than .35 and that differed by than .15 between two factors. Next, we analysed reliability by using McDonald's (1999) omega (ω) estimated from the polychoric matrix correlations, because this index, unlike Cronbach's alpha, does not require the factor loading to be the same for all the items (Yang & Green,

2010) nor the data to be continuous (Elosua & Zumbo, 2008). Similar to Cronbach's alpha, values above .80 indicate reliability. Missing values were estimated using the full information maximum likelihood method (Enders, 2010). All analyses were performed with Mplus 7.3 (Muthén & Muthén, 2015).

Results

Factor Structure

The parallel analysis, where three eigenvalues were above the upper limit of the eigenvalues estimated using the random correlation matrixes (Figure 1), showed that the three-factor structure seemed to be the most suitable. However, an examination of fit indexes from the ESEM (Table 1) indicated that the five-factor solution seemed to be the best. Nevertheless, strict compliance with this criterion usually results in the acceptance of more factors than necessary (Hayashi, Bentler, & Yuan, 2007). A four-factor structure was also identified, but there was unclear distinction between factors. The three-factor structure presented a theoretically sound option. For all the above reasons, we choose this solution. Subsequently, we eliminated items with loadings lower than .35 or those with a difference between two factors that was lower than .15. The final version consisted of three factors and 24 items.

The first factor, *Favourable Attitude towards Inclusion*, consists of 10 items; the second factor, *Negative Feelings towards Inclusion*, comprises 6 items; and the third factor, *Competence Needs*, contains 8 items. This factor structure has adequate fit: $\chi^2(845, 207) = 864.291$ ($p = .00$), RMSEA = .061 [.057, .066] CFI = .92, TLI = .89. Factor loadings range from .391 to .916 (Table 1). Finally, the coefficient (r) of the correlation between *Favourable Attitude towards Inclusion* and *Negative Feelings towards Inclusion* was $-.346$ $[-.470, -.222]$, between *Negative Feelings towards Inclusion* and *Competence Needs* was $.161$ $[.027, .294]$, and between *Favourable Attitude towards Inclusion* and *Competence Needs* was $.347$ $[.168, .525]$.

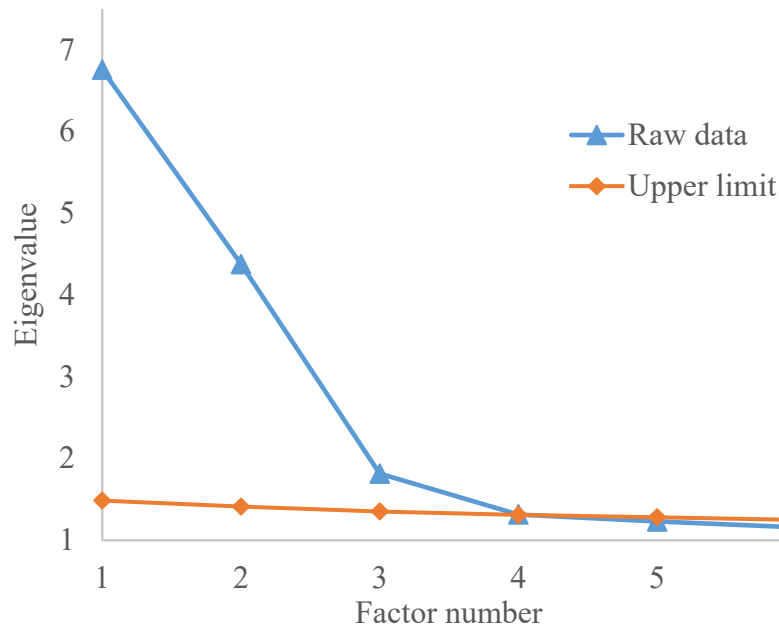


Figure 1. Parallel analysis plot

Table 1

Number of factors and fit indexes as a function of the number of factors in each extraction.

Factors	χ^2	df	RMSEA	90%	CFI	TLI
1	4258.846	464	.098	.096 - .101	.555	.524
2	1620.457	433	.057	.054 - .060	.861	.840
3	1154.767	403	.047	.044 - .050	.912	.891
4	813.752	374	.037	.034 - .041	.948	.932
5	673.203	346	.033	.030 - .037	.962	.945

Reliability

The results showed that the three dimensions had adequate reliability: *Favourable Attitude towards Inclusion* ($\omega = .839$), *Negative Feelings towards Inclusion* ($\omega = .721$), and *Competence Needs* ($\omega = .898$).

Table 2
Factor loadings of final items

Item	Factor 1	Factor 2	Factor 3
I122	.933	-.045	-.047
I121	.793	.020	-.038
I3	.665	.001	.038
I1	.599	-.017	-.132
I15	.569	-.413	.063
I18	.507	-.403	-.021
I7	.502	.001	-.110
I6	.500	.033	.004
I19	.414	-.280	.130
I14	.391	-.317	.102
I5	.009	.663	.208
I8	.061	.656	.080
I20	-.171	.600	.197
I22	-.136	.469	.010
I11	-.047	.460	.131
I9	-.114	.456	.114
I242	-.013	-.694	.916
I241	.003	-.601	.893
I243	.011	-.540	.757
I263	.439	-.006	.702
I262	.348	.016	.678
I261	.356	-.010	.624
I265	.414	.033	.615
I264	.295	.003	.611

Note. Factor 1 = *Favourable Positions towards the Inclusion*. Factor 2 = *Negative Feelings towards the Inclusion*. Factor 3 = *Competence Need*.

Discussion

The aim of this project was to develop an instrument based on three fundamental variables: the inclusive educational system, the measurement of perceptions related to the presence of pupils with intellectual difficulties in regular classroom, and teachers' needs related to teaching practice. For this, we designed a pool of items and analysed the scale's factor structure and reliability. The results showed that the SAD-CSOS with three factors (*Favourable Attitude towards Inclusion*, *Negative Feelings towards Inclusion*, and *Competence Needs*) had adequate validity and reliability, in line with previous research (Bailey, 2004; Forlin, Earle, Loreman & Sharma, 2011; Forlin, Jobling & Carroll 2001; Kudláček, 2007; Sharma & Desai, 2002).

Factor 1 measures teachers' perceptions regarding the importance of inclusion of pupils with intellectual difficulties in regular schools, in accordance with the works of Forlin, Earle, Loreman, and Sharma (2011) and Kudláček (2007). It is shaped by items relative to the development of attitudes favourable to the inclusion of such pupils in the school, teachers' perceptions about other agents in the process of inclusion, and the need to include these pupils in activities in regular classrooms. Factor 2 pertains to opposition towards the inclusive process, covering feelings that limit teachers such as apprehensions, feelings of sorrow or guilt, and the perceived negative effects suffered by the school as a result of including students with intellectual difficulties (Kudláček, 2007). Factor 3 covers formative and methodological aspects that teachers consider to be necessary to be able to give an inclusive response to this type of pupils together with their classmates, in accordance with the contributions of Cochran (1997), Bailey (2004) and Forlin, Earle, Loreman and Sharma, (2011). In particular, this factor measures the needs for the transformation of the special education classroom into a regular classroom and contains items about what must be done for the regular classroom to include pupils with difficulties. This factor indicates various competencies that teachers need in order to work with pupils with intellectual difficulties (Avramidis & Kalyva, 2007; Horne & Timmons, 2009).

The information gathered has been forwarded to schools and the results are being used by school principals and administrators to implement measures to change teachers' negative perceptions about inclusion. Also, such information is helping to increase positive attitudes towards pupils with intellectual difficulties in order to establish a process for change.

This study has several limitations that warrant attention. One is that the predictive validity of the questionnaire was not analysed. In future studies, it would be interesting to examine in depth the relationship between the responses to this questionnaire and actual educational inclusion of pupils with intellectual difficulties in regular schools and/or the actual inclusion culture of the school. In addition, teachers' beliefs are not independent from context; that is, teachers of the same school often have similar or shared thoughts. For this reason, it would be interesting to analyse by means of a multilevel analysis what percentage of the variance of responses of the teachers was due to the school and what percentage belonged to the subjects. We could not perform such an analysis because of the differing number of teachers per school; in some cases, there was only one person per school. Therefore, future studies could recruit a suitable sample for performing such a multilevel analysis.

The present study provides evidence that the SAD-CSOS is a reliable and easy-to-use measure that enables an initial diagnosis of school functioning by assessing the teachers' perceptions. This instrument, from the point of view of educational administration, can reinforce decision making related to teachers' needs regarding educational inclusion of pupils with intellectual difficulties, as the results from this scale can be used to implement formative actions.

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A Structural Equation Modelling Of Factors Affecting Innovation Performance In Private Basic Education Schools

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Abstract

The main purpose of this study was to develop and examine the consistency of factors that affecting innovation performance in private schools, Thailand. In addition, researchers also examine the direct, indirect, and total effects on innovation performance. A mixed mode design was employed using a combination of quantitative and qualitative methods to collect data. Five academic experts were involved in qualitative data collection while a total of 650 private schools were participated in the quantitative of collecting data in the first and second phase respectively. School is the unit of analysis and school principal is the target sample in this study. Quantitative samples were selected using multi-stage random sampling technique. The in-depth interviews at the first phase to five experts was design to develop factors of innovation performance that have high factor loading based on the findings from first phase. Findings of the second phase revealed that the innovation performance structural model of private schools is consistent to the empirical data as $X^2 = 91.741$, $df = 72$, $p\text{-value} = 0.583$, $X^2/df = 1.274$, $CFI = 0.998$, $TLI = 0.996$, $RMSEA = 0.023$, $SRSR = 0.018$. In addition, findings also showed that learning environment ($\beta = 0.388$), strategic management ($\beta = 0.371$), organizational culture ($\beta = 0.088$), and school leadership ($\beta = 0.428$) are found to have direct effects toward innovation performance. On top of that, school leadership ($\beta = 0.428$), organizational culture ($\beta = 0.288$), and learning environment ($\beta = 0.596$) have indirect effects toward innovation performance. It can be concluded that the effects of factors in descending order will be learning environment ($\beta = 0.596$) and, school leadership ($\beta = 0.384$), organization culture ($\beta = 0.376$), and strategic management ($\beta = 0.371$). Finally, finding showed that school leadership associated to organizational culture ($\beta = 0.813$) together leads to direct and indirectly effects on innovation performance of private schools in Thailand.

Keywords: *Innovation performance; learning environment; organizational culture; private schools; school leadership*

Introduction

The rapid changes are leading to increasing levels of economic competition and socio-political-cultural transformation thus transforming the ways people think, live, learn, and interact. For Thailand to remain competitive in an age of global movement and uncertainty, a knowledge-based society that can generate innovations through creativity and shared knowledge must be developed (Buasuwan, 2018). Private schools as educational organizations have to adapt for changing to survive, grow and create innovation in order to maintain continuous and sustainable development (Chamchoy, 2012).

Prasertcharoensuk and Tang (2017) emphasized that strategic school leaders are able to provide the vision and direction for organizational innovation performance. This is because school leaders need the skills and tools for both strategy formulation and implementation to promote innovations. In addition, Manea (2015) highlighted that management and innovation in education represent key factors in the completion of a qualitative educational act, which serves the socio-cultural, economic, and democratic values and principles. Through the involved processes, school leadership and management represent the fundamental factor and also mandatory for the functioning of organizational innovations.

Research Objectives

Based on the previous literatures above, researchers would like to examine structural relationship model of the school leadership, organizational culture, strategic management, and learning environment toward innovation performance of private schools in Thailand. The following are the specific objectives of this study:

- i. To examine the relationships between the key factors of innovation performance in a structural relationship model.
- ii. To examine the congruence of the structural model with empirical data.
- iii. To examine the direct, indirect, and total effects of factors toward innovation performance.

Method

A mixed mode method was employed by researchers to collect quantitative and qualitative data using multiple ways to explore the research problems thoroughly. This research design is a combination of different modes of collecting data for a single research. Researchers begin to collect quantitative data followed by a collection of qualitative data to achieve the sequential explanatory of the collected data. Researchers intend to use the quantitative data analysis from Structural Equation Modeling (SEM) to assist in explaining and interpreting the findings of a qualitative study (Creswell, 2014).

At the first phase, researchers utilized in-depth interviews to the five academic experts who were selected using purposive sampling technique. They were selected because they are professionals in the area of policy management in Thailand Ministry of Education, professors in higher education institutions, and actively involved in innovative program at national level. Findings from the first phase were designed to identify factors of innovation performance.

At the second phase, a survey quantitative design was employed 520 private secondary high schools from a population of 1,208 private schools in Thailand (data from Department of Private Education, Ministry of Education, Thailand). Sample size was determined based on Meyers, Gamst, and Guarino's (2006) rules of thumb because Meyers et al. proposed that suitable sample sizes depend upon the numbers of items available for factor analysis. Kaplan (2000) proposed that the proper ratio of samples is 10:1 or 10 samples per one observable variable. Since there were 52 observable variables in this study, the required sample size was 520 samples of schools since unit of analysis of this study was school. On this line of reasoning, multi-stage random sampling technique was utilized to select top up to 650 schools after considering about high non-response rate.

After the qualitative data was analyzed using content analysis, factors that affecting innovation performance were identified. This is followed by the second phase whereby quantitative data was analyzed using SEM in order to fit the model with empirical data. SEM is suitable to use because the theoretical constructs of this study are represented by the latent factor. The relationships between the theoretical constructs are represented by regression or path coefficients between the factors. The SEM implies a structure for the covariance between the observed variables. Confirmatory Factor Analysis (CFA) is used to validate the measurement model. Secondly, SEM directs around fitting the structural model by measuring the significance of the relationship between latent variables, which is accomplished through path analysis (Kaplan, 2000). CFA was used as a desirable validation stage preliminary to the main use of SEM to identify the causal relations among latent variables (Schumacker & Lomax, 2004).

Findings

The findings of this study are presented in accordance with the research objectives stated above.

Qualitative findings of factors of innovation performance a structural relationship model

Qualitative findings are derived from the five academic experts' responses. The five academic experts shared with researchers regarding the factors that affecting innovation performance in private schools.

Quantitative findings of factors that affecting innovation performance

Findings from the first phase above there were five latent variables in the structural relationship model namely innovation performance, school leadership, organizational culture, strategic management, and learning environment. Qualitative findings indicated that there are five latent variables and 18 observable variables as shown in Figure 1 below.

Subsequently, findings also showed that each latent variable has its factors as follow. Innovation performance (IP) consisted of incremental innovation (IP1), radical innovation (IP2), and process innovation (IP3). School leadership (SL) was comprised of transformational leadership (SL1), strategic leadership (SL2), innovative leadership (SL3), and technology leadership (SL4). Organizational culture (OC) included adaptability (OC1), learning (OC2), teamwork (OC3), risk taking (OC4), and creativity (OC5). Next is strategic management (SM) encompassed environment analysis (SM1), strategic planning (SM2), strategic implementation (SM3), and evaluation and control (SM4). Finally, learning environment (LE) covered physical environment (LE1) and psychological environment (LE2). CFA was used to validate at the preliminary stage to identify the causal

relationships among the latent variables. Findings related to factor loading values of all the latent variables for innovation performance structural relationship model ranged from 0.711 to 0.981 are statistically significant at 0.01. Factor loading is the importance of standard factors of each observable variable in the relationship model of innovation performance that had been taken into account. The co-variance with innovation performance was from 50.60 to 96.20 percent.

The factor with the highest factor loading was process innovation ($\beta = 0.981$, $R^2 = 0.962$). This second highest factor was innovative leadership ($\beta = 0.925$, $R^2 = 0.856$). This is followed by strategic implementation ($\beta = 0.914$, $R^2 = 0.835$), evaluation and control ($\beta = 0.905$, $R^2 = 0.819$), strategic leadership ($\beta = 0.904$, $R^2 = 0.817$), psychological environment ($\beta = 0.898$, $R^2 = 0.806$), transformational leadership ($\beta = 0.890$, $R^2 = 0.792$), technology leadership ($\beta = 0.887$, $R^2 = 0.787$), teamwork ($\beta = 0.881$, $R^2 = 0.776$), adaptability ($\beta = 0.878$, $R^2 = 0.771$), physical environment ($\beta = 0.867$, $R^2 = 0.752$), risk taking ($\beta = 0.864$, $R^2 = 0.746$), creativity ($\beta = 0.848$, $R^2 = 0.719$), learning ($\beta = 0.839$, $R^2 = 0.704$), environmental analysis ($\beta = 0.831$, $R^2 = 0.691$), and incremental innovation ($\beta = 0.830$, $R^2 = 0.689$) respectively. The factor that had the lowest factor loading was radical innovation ($\beta = 0.711$, $R^2 = 0.506$). As a result all the factors of the structural relationship model are found to be important construct for innovation performance.

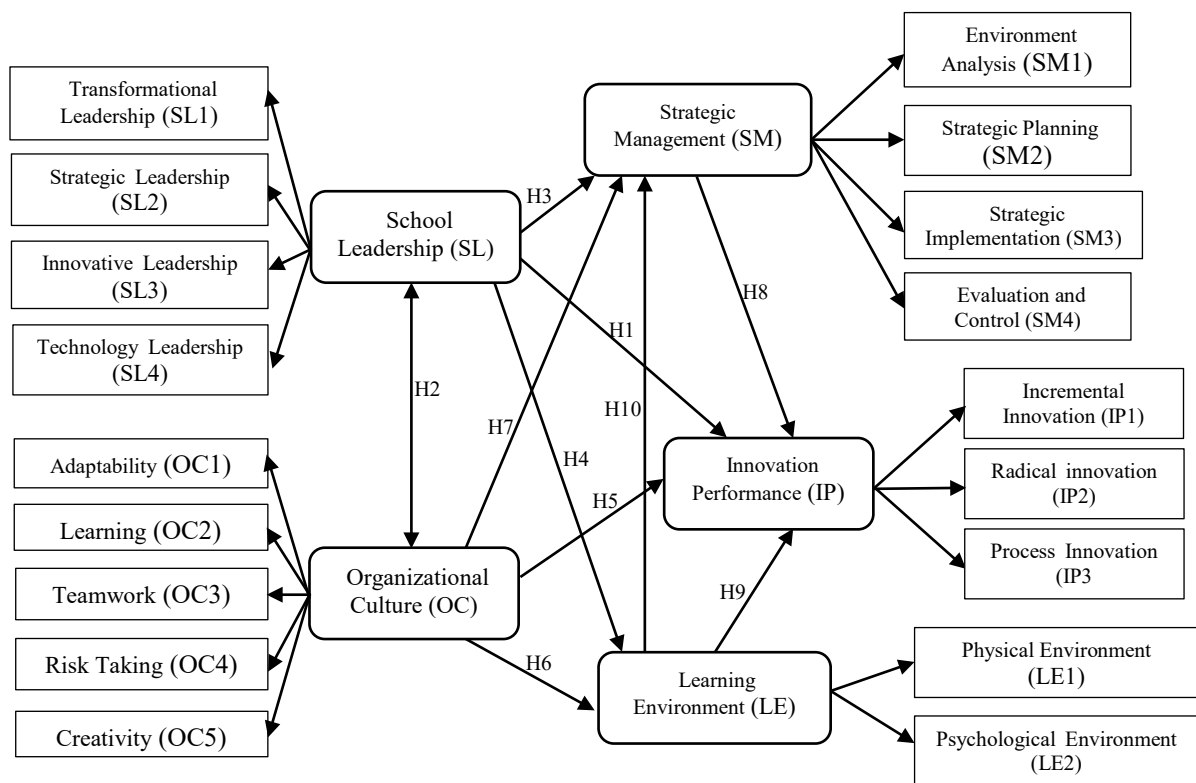


Figure 1. Factors of Hypothesis Structural Relationship Model

Table 1. Factor loading and validity of latent variables and their related observable variables in the structural relationship model

Latent variable	Observable variable	Factor loading (β)	R^2
Innovation performance (IP)	Incremental innovation (IP1)	0.830**	0.689
	Radical innovation (IP2)	0.711**	0.506
	Process innovation (IP3)	0.981**	0.962
School leadership (SL)	Transformational leadership (SL1)	0.890**	0.792
	Strategic leadership (SL2)	0.904**	0.817
	Innovative leadership (SL3)	0.925**	0.856
	Technology leadership (SL4)	0.887**	0.787
Organizational culture (OC)	Adaptability (OC1)	0.878**	0.771
	Learning (OC2)	0.839**	0.704
	Teamwork (OC3)	0.881**	0.776
	Risk taking (OC4)	0.864**	0.746

	Creativity (OC5)	0.848**	0.719
Strategic management (SM)	Environment analysis (SM1)	0.831**	0.691
	Strategic planning (SM2)	0.838**	0.702
	Strategic implementation (SM3)	0.914**	0.835
	Evaluation and control (SM4)	0.905**	0.819
Learning environment (LE)	Physical environment (LE1)	0.867**	0.752
	Psychological environment (LE2)	0.898**	0.806

Quantitative findings of congruence of the structural relationship model with empirical data

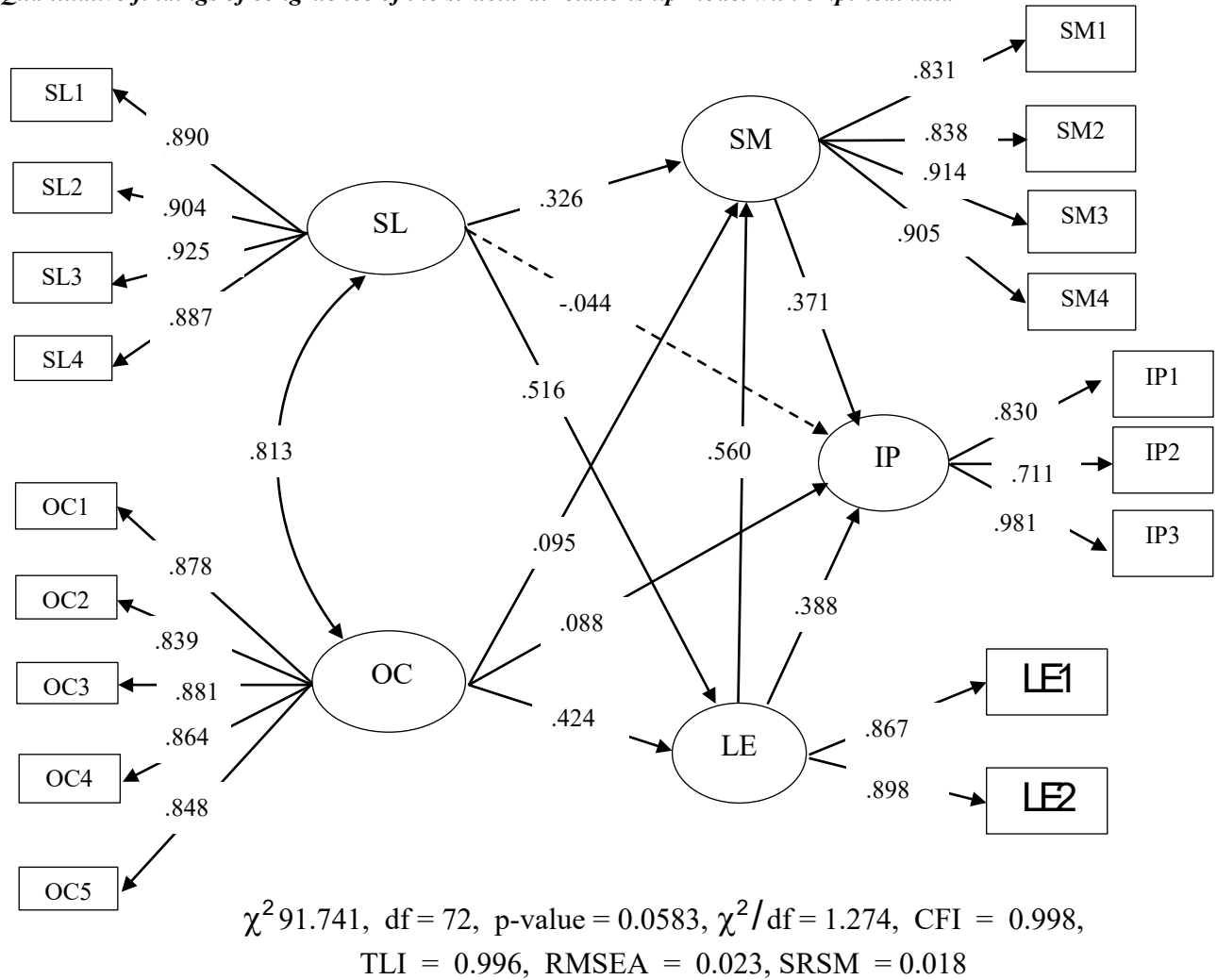


Figure 2. The Effects of the Structural Relationship Model

Findings from the correlations between the factors of innovation performance could be assessed in the standard component score (β) which indicated significantly high and positive correlations at 0.01. Besides, it was found that the structural relationship model has a goodness fit with evident data, with $\chi^2 = 91.741$, $df = 72$, $p = 0.0583$, $\chi^2/df = 1.274$, $CFI = 0.998$, $TLI = 0.996$, $RMSEA = 0.023$, and $SRMR = 0.018$. Finding shows that the structural relationship model of innovation performance of private schools in Thailand were consistent with empirical data. This implies that the consistency of factors that affecting innovation performance resulting in descending order would be school leadership, strategic management, learning environment, and organizational culture. In addition, observable variables of innovation performance was found to be at good level in descending order as such process innovation, incremental innovation, and radical innovation. Figure 2 shows the effects of the latent and observable variables in the structural relationship model of innovation performance.

Findings of the direct, indirect, and total effects of factors toward innovation performance

All the latent variables were found to have significant direct and indirect effects toward innovation performance. In addition, school leadership and organizational culture were found to have direct effects toward learning environment and strategic management while learning environment has direct effect towards strategic

management. Table 2 shows the direct, indirect, and total effects of factors toward innovation performance.

Table 2. Direct, indirect, and total effects of factors toward innovation performance

DV	IP			LE			SM		
IV	DE	IE	TE	DE	IE	TE	DE	IE	TE
SL	-.044	.428**	.384**	.516**	-	.516**	.326**	-	.326**
OC	.088**	.288**	.376**	.424**	-	.424**	.095**	.237**	.332**
SM	.371**	-	.371**	-	-	-	-	-	-
LE	.388**	.208	.596**	-	-	-	.560**	-	.560**

**p<.01

Notes: DV: Dependent variable; IV: Independent variable; DE: Direct effect; IE: Indirect effect; TE: Total effect

DISCUSSION AND CONCLUSION

Findings revealed that school leadership, organizational culture, strategic management, and learning environment are important factors that promoting innovation performance of private schools in Thailand. Therefore, learning in the 21st century has to move toward innovative, open, and flexible learning environments (Organization for Economic Cooperation and Development, 2013), concerned with educational innovations that will assist the nation to prepare the knowledgeable, creative, and innovative human capital for the future (Panich, 2012). These educational shifts in terms of innovations have to intertwine with curriculum development, leadership and management development through policy and practice (Abbis, 2015).

In conclusion, the success of private schools in promoting the creative and innovative society of Thailand 4.0 will require socio-cultural-institutional transformation. Researchers would like to suggest to the Ministry of Education to utilize the structural relationship model of innovation performance in the school administration training and staff development programs. Although there have already been some important successes among some private schools in Thailand (Muangthong, 2012), there are still many reforms that will be necessary in Thailand to develop the innovation, lifelong learning, and knowledge-based teachers' community required for it to remain competitive in an age of global movement.

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A Structured Approach For Identifying Appropriate Programs For A Planned Engineering College At Prince Sultan University

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Abstract

In fulfilling its vision of quality higher education and in line of Saudi strategy calling for higher education in engineering and technology, and motivated by increasing demands for young Saudi engineers, Prince Sultan University (PSU) planned to establish a college of Engineering. A technical committee was formed to identify which engineering programs the college should offer. This paper presents the structured approach used in conducting the task and the findings. First the method of identifying the promising programs is presented. This included a review the Saudi Higher Education strategic plans, the Kingdom's education environment, and a survey of engineering programs in Saudi Arabia, the Gulf countries, the Middle East, Asia, Europe and North America. This was followed by a survey of demands for engineers in the Saudi private and public sectors and the supply of engineering graduates. A quantitative approach of evaluating the most promising programs is also presented. This approach is based on identifying criteria of evaluating the candidate programs, evaluating the degree of importance of each criteria, measuring the degree by which each program meets the criteria and finally calculating a weighted score for each candidate program based on the criteria degree of importance and the degree by which the program meets the criteria. Finally the conclusions and recommendations are presented.

Introduction

Prince Sultan University (PSU), established in 1999, is the first private university in Saudi Arabia. The university is widely acknowledged as a leader in higher education in the Kingdom. It offers ten undergraduate degree programs within three colleges. After a decade since its establishment with a focus on enhancing existing programs, PSU embarked on a second decade of development and expansion by establishing new colleges and introducing unique programs. For accomplishing this purpose, PSU formed a committee to investigate the viability of establishing a College of Engineering and to identify most demanded and promising programs.

The vision strategies of Saudi Arabia are conducive to the establishment of a College of Engineering at PSU. The strategies of "Vision 2020" are organized along distinct themes with a focus on economic diversification and development of human resources (Ministry of Economy and Planning, 2010). The development of the human resources theme calls for raising the technical, managerial and innovative capabilities of the working population through various learning processes along the following lines:

1. Raise standards of technical and scientific education.
2. Enhance managerial competence and innovative capabilities through industrial learning.
3. Encourage the expansion of technology-based small and medium enterprises.
4. Develop a national innovation system to support the exchange of technological knowledge between R&D centers and private firms.
5. Upgrade production technology through alliances with international technology leaders, collaboration with domestic technology centers, specially science and technology schools of KSA universities.

Background

KSA General Education Environment

The educational environment in Saudi Arabia is thriving as shown by the following (Ministry of Higher Education, 2010):

- Thirty-eight percent of the Saudi population of over 26 million is under the age of fourteen.
- Of the 300,000 Saudis graduated from high school in 2009, about 250,000 enrolled in higher education.
- The number of students enrolled in higher education grew from 350,000 in 1999 to almost 669,000 in 2009, an increase of 91%.
- Females make over 60% of the student population in Saudi universities. Consequently, universities are catering more programs for females.
- The number of graduates approached 108,000 in 2009, over 61,000 of whom are females.
- The number of universities grew from 7 (exclusively public universities) in 1989 to 32 universities (24 public and 8 private universities) in 2009. Over the same period, the number of colleges at these universities grew from 83 to 487 (40 of which in private universities).

KSA Engineering Education Environment

The engineering education environment is found to be encouraging considering that more and more Saudis are seeking engineering education. So far engineering higher education has been limited mainly to males; however, females are taking the opportunity to enroll in the very limited programs offered to them, mainly Computer Engineering and recently some Architecture related programs, where enrollment in these programs is high (Al-Sultan, 2007; Nahed, 2005).

Following are some facts about the encouraging engineering education (Ministry of Higher Education, 2010; SAGIA, 2007; European Commission, 2003):

- The Ministry of Higher Education is encouraging state universities to revise their departments in lines with the employment market demands. This is an attempt to guide the resources towards medicine, science, engineering and IT fields.
- The number of engineering colleges tripled from 7 in 2002 to 21 in 2007.
- Secondary School Science Graduates who are eligible for admission in engineering colleges grew from 43.9% in 1999 to 51.4% in 2003.
- IFS statistics show that less than 1% of the Saudi population graduate in science and engineering. This percentage is way low when compared an average of 6% for developed countries.
- According to Saudi Arabian General Investment Authority figures of 2007, only 3% of Saudis enroll in Engineering, Manufacturing and Construction fields of study. This is way low considering the 15% enrollment in those fields in developed countries.
- According to UNISCO figures of 2004, only 4.4% of Saudis graduates are Engineers. This is way low considering the average universal average of 12.5%.
- Currently less than 23,000 (4%) of the 628,000 students are enrolled in public universities are in engineering colleges. Almost 22,000 of those enrolled in engineering colleges are males and only about 1,000 are females. The percentages of engineering students to the students' population in public universities are 9.4% and 0.3% for males and females respectively.
- 2004 statistics reveal that over 1,000 Saudis are enrolled in undergraduate engineering programs abroad.

Despite the increasing number of public and private universities and the increasing number of engineering programs in the Kingdom, there is a room for unique programs that are becoming popular worldwide, but are rarely offered in the Kingdom. Also certain engineering programs seem to be attractive to females.

Methods And Analysis

A quantitative approach of evaluating the most promising programs was utilized. This approach was based on identifying criteria of evaluating the candidate programs, evaluating the degree of importance of each criteria, measuring the degree by which each program meets the criteria and finally calculating a weighted score for each candidate program based on degree of importance and the degree by which the program meets the criteria.

1. Extensive Survey of Demands for Engineering Graduates

The majority of Saudi engineers work in the public sector. However, Saudi engineering make less than 10% of those

employed by the private sector which employs over 80% of the engineers working in the Kingdom. Overall, Saudi engineers occupy less than 20% of the over 100,000 engineers employed in the Kingdom.

A demand-supply study was based on the period from 2001 to 2003 revealed that demand exceeded supply by approximately 4,000 positions per year in science and engineering. The same study concluded that growth in the engineering graduates from 1999 to 2003 was limited to 1.3%. These statistics showed an increasing demand for Saudi engineers. Although, the number of Saudi engineers increased since this study, the number of engineering positions has also increased due to the enormous economic development in the Kingdom.

2. Identifying Suitable Specializations/Programs

The formed committee adopted a systematic scientific approach for identifying the most suitable programs to offer at the College of Engineering at PSU. The procedure and results of this approach is presented in the following subsections.

2.1. Surveying Existing Programs

The committee conducted an extensive survey of the existing undergraduate engineering programs. The survey reviewed traditional and contemporary programs that might be suitable to offer at PSU. The survey also provided review for the engineering programs being offered in Saudi Arabia and the Middle East for both male and female students.

The survey covered 57 different engineering programs in following four areas:

- 1) Architecture Related Programs
- 2) Technology Related Engineering Programs
- 3) Management Related Engineering Programs
- 4) General (Traditional) Engineering Programs

The survey covered 172 universities worldwide including:

- Saudi Arabia: (29 universities)
- Gulf Countries: (30 universities)
- Middle East: (49 universities)
- Far East: (9 universities):
- United Kingdom: (10 universities)
- Canada: (9 universities)
- United States: (36 universities)

Details of each are presented as follows:

- Saudi Arabia: (29 Universities)
 - Public Universities (15)
 - Private Universities and Colleges (14)
- The Gulf Countries (30 Universities)
 - UAE (13 Universities)
 - Oman (5 Universities)
 - Qatar (2 Universities)
 - Kuwait (4 Universities)
 - Bahrain (6 Universities)
- The Middle East: (49 Universities)
 - Jordan (17 Universities)
 - Lebanon (9 Universities)
 - Syria (10 Universities)
 - Egypt (13 Universities)
- The Far East (9 Universities): Malaysia, Singapore, Hong Kong, Australia
- Europe: UK (10 Universities)
- Canada: 9 Universities
- United States: 36 Universities

Tables 1 and 2 below summarize the frequencies of the surveyed programs by region.

Table 1: Frequency of the surveyed programs by region.

			US	UK	Canada	Asia	Middle East	Gulf	KSA - Male	KSA - Female	All
No	Program		36	10	9	9	30	49	29	29	172
Architecture	1	Architectural Engineering	8	3	0	1	9	12	5	0	8
	2	Architecture	8	3	4	6	6	24	7	3	8
	3	Urban Design & Planning	6	1	0	2	1	8	4	0	6
	4	Landscape Architecture	7	0	1	1	2	0	1	0	7
	5	Interior Design/Architecture	4	1	0	0	10	11	2	5	4
	6	Graphic/Digital Design	8	1	0	2	1	15	1	2	8
	7	Multimedia Design	5	2	0	3	2	9	0	0	5
	8	Product/Industrial Design	13	5	0	6	1	7	0	0	13
	9	Visual Communication	1	1	0	1	2	0	0	0	1
	10	Art and Design	25	2	3	4	0	15	0	0	25
	11	Project and Facilities Management	8	2	0	1	4	2	0	0	8
	12	Building & Construction Sciences	2	2	0	1	0	4	1	0	2
Technology	1	Electrical Engineering	31	5	9	7	9	30	18	2	31
	2	Electronics Engineering	27	2	1	5	1	13	0	0	27
	3	Computer Engineering	26	7	5	4	19	37	12	5	26
	4	Communication Engineering	2	1	1	0	2	28	2	0	2
	5	Mechatronics	7	0	0	1	4	10	0	0	7
	6	Biomedical Engineering	18	4	3	6	3	13	1	0	18
Management	1	Management Science & Engineering	15	3	2	2	0	0	0	0	15
	2	Engineering & Technology Management	3	0	0	0	2	0	0	0	3
	3	Industrial Engineering & Management	16	0	0	3	8	10	2	0	16
	4	Energy Engineering & Management	1	0	0	0	0	0	0	0	1
	5	Natural Resources Engineering Management	0	0	0	0	0	0	0	0	0
	6	Environmental Engineering Management	0	0	2	0	0	0	0	0	0
	7	Construction Engineering & Management	1	3	2	0	2	1	2	0	1
	8	Systems Engineering & Management	4	2	0	2	2	0	1	0	4

The survey of the Architecture related programs revealed the following:

A) Programs worldwide - Most common Architecture related Engineering programs

- Architecture
- Art and Design
- Architectural Engineering
- Product/Industrial Design
- Graphic/Multimedia Design

B) KSA - it has limited number of Architecture related programs, and as much less than the international and regional averages. The offered programs in KSA are:

- Architecture Engineering: five programs in public universities for males only.
- Architecture: ten programs (seven for males and three for females). Architecture female programs are offered in private universities.
- Urban Planning/Design: four programs in public universities for males only.

- Landscape Architecture: one program for males only.
- Interior Design/Architecture: seven programs (two for males and five for females).
- Graphic Design: three program in private universities (one for males and two for females)

Table 2: Percentage of the surveyed programs by region.

			US	UK	Canada	Asia	Middle East	Gulf	KSA - Male	KSA - Female	All
	No	Program	36	10	9	9	30	49	29	29	172
Architecture	1	Architectural Engineering	22%	30%	0%	11%	30%	24%	17%	0%	22%
	2	Architecture	22%	30%	44%	67%	20%	49%	24%	10%	35%
	3	Urban Design & Planning	17%	10%	0%	22%	3%	16%	14%	0%	13%
	4	Landscape Architecture	19%	0%	11%	11%	7%	0%	3%	0%	7%
	5	Interior Design/Architecture	11%	10%	0%	0%	33%	22%	7%	17%	19%
	6	Graphic/Digital Design	22%	10%	0%	22%	3%	31%	3%	7%	17%
	7	Multimedia Design	14%	20%	0%	33%	7%	18%	0%	0%	12%
	8	Product/Industrial Design	36%	50%	0%	67%	3%	14%	0%	0%	19%
	9	Visual Communication	3%	10%	0%	11%	7%	0%	0%	0%	3%
	10	Art and Design	69%	20%	33%	44%	0%	31%	0%	0%	28%
	11	Project and Facilities Management	22%	20%	0%	11%	13%	4%	0%	0%	10%
	12	Building & Construction Sciences	6%	20%	0%	11%	0%	8%	3%	0%	6%
Technology	1	Electrical Engineering	86%	50%	100%	78%	30%	61%	62%	7%	65%
	2	Electronics Engineering	75%	20%	11%	56%	3%	27%	0%	0%	28%
	3	Computer Engineering	72%	70%	56%	44%	63%	76%	41%	17%	67%
	4	Communication Engineering	6%	10%	11%	0%	7%	57%	7%	0%	21%
	5	Mechatronics	19%	0%	0%	11%	13%	20%	0%	0%	13%
	6	Biomedical Engineering	50%	40%	33%	67%	10%	27%	3%	0%	28%
Management	1	Management Science & Engineering	42%	30%	22%	22%	0%	0%	0%	0%	13%
	2	Engineering & Technology Management	8%	0%	0%	0%	7%	0%	0%	0%	3%
	3	Industrial Engineering & Management	44%	0%	0%	33%	27%	20%	7%	0%	23%
	4	Energy Engineering & Management	3%	0%	0%	0%	0%	0%	0%	0%	1%
	5	Natural Resources Engineering Management	0%	0%	0%	0%	0%	0%	0%	0%	0%
	6	Environmental Engineering Management	0%	0%	22%	0%	0%	0%	0%	0%	1%
	7	Construction Engineering & Management	3%	30%	22%	0%	7%	2%	7%	0%	6%
	8	Systems Engineering & Management	11%	20%	0%	22%	7%	0%	3%	0%	6%

The survey of the Technology related programs revealed the following:

- Most international and regional universities offer Electrical and Computer Engineering programs.
- Saudi universities offer adequate number of Electrical and Computer Engineering programs. However, Electronics and Communication Engineering are mostly offered as majors in Electrical Engineering Departments.
- Biomedical Engineering is becoming a common program worldwide, yet it is not offered in the Kingdom. This conclusion also applies to Electronics Engineering. However, these two programs are interrelated.
- There is a shortage of offered Mechatronics programs in the Kingdom. However, this program is highly dependent on Mechanical and Electronics Engineering.
- Statistics of surveyed Communication Engineering may be misleading because it is taught at many universities within Computer Engineering majors.
- Despite this, the number of offered Communication Engineering in the Kingdom is limited in consideration with the current and expected future growth in the communication industries.

The survey of the Management related engineering programs revealed the following:

- A) The highest concentration of management related engineering programs are offered in U.S. universities.
- B) Only 23 US universities offer undergraduate Engineering Management program. Most US universities offer such programs at the graduate level.
- C) Most common Management related Engineering Programs include:
 - Industrial Engineering and Management,
 - Management Science and Engineering, and
 - Construction Engineering and Management.
- D) In K.S.A., the most common Management related Engineering Programs include:
 - Industrial Engineering and Management, and
 - Construction Engineering and Management.

The committee suggested offering Engineering Management, Engineering and Technology Management, or Management Science and Engineering. Other programs like Energy Engineering and Management, Natural Resources Engineering and Management, and Water Resources Engineering and Management require more resources and are rarely offered elsewhere.

2.2. Identifying Candidate Programs

Based on the study survey and analysis of the relative frequency of the offered programs in the Saudi Arabia to those of the region and worldwide, the committee identified 15 programs that can be promising for fulfilling the needs of Prince Sultan University. A list of 57 programs was compiled to include all potential engineering programs. The elimination process was carried out by asking each committee member to select a total of 15 programs that he/she considers as viable or promising. To dilute bias towards programs in one's discipline, each committee member was instructed to select five programs in his/her discipline and 10 programs from other disciplines. Table 3 is a list for the 15 selected programs with slight modifications to eliminate repetition and to group programs that were usually offered as majors within other programs.

Table 3: The 15 selected programs

1	Computer Engineering Computer, Embedded Systems Engineering, Data Communication Engineering
2	Electronic Engineering
3	Telecommunications Engineering Communication & Networks
4	Biomedical Engineering
5	Electrical Engineering
6	Environmental Engineering Natural and Built: Urban Planning, Landscaping, City & Regional planning
7	Architectural Engineering Structural, Electro/Mechanical, Data & Communication Systems Construction Engineering & Management
8	Architecture Interior, Graphic, Digital, Product, & Multimedia design
9	Materials Science and Engineering
10	Mechanical Engineering
11	Industrial Engineering Design, Production, Maintenance, Safety & Management
12	Engineering & Technology Management
13	Water Resources & Irrigation Systems
14	Energy Systems Engineering
15	Aeronautic & Aviation Engineering

2.3. Defining Program Criteria

The committee conducted a brainstorming session to come up with a list of criteria by to evaluate the 15 potential programs. The list was then passed to each committee member who was asked to select 10 criteria that he/she considers as relevant. Also they were asked to list the selected criteria in the order of importance.

The following is a list of the top 12 criteria that the committee selected as the most important and most relevant:

- 1) Students' Demand / Attractiveness
- 2) Current & Future Market Demand / Sustainability
- 3) Uniqueness / Competition
- 4) Social / Cultural Acceptability
- 5) Compatibility with PSU Programs, Labs and Courses
- 6) Degree of Complexity
- 7) Resources / Facilities Requirements and Cost
- 8) Faculty Requirements and Availability
- 9) Compliance with National and Regional Strategic Plans
- 10) Application / Technology Oriented
- 11) Accreditation Requirements
- 12) Time Required to Establish the Program

2.4. Assessing Criteria of Importance

The next step was to determine the degree of importance for each of the defined criteria. This was accomplished using the Criteria Evaluation Matrix. Each committee member was asked to rank the degree of importance of each criteria from 0 for not important to 5 for extremely important.

Table 4 shows the results of the committee evaluation of the degree of importance for each criterion. Outcomes were grouped by respondent's gender to control for gender differences in perception. The last three columns show the average degree of importance for males, females, all respondents. The results clearly indicate that:

- (A) Current and future demand is extremely important.
- (B) Program uniqueness, attractiveness, social/cultural acceptability, compliance with national and regional strategies, and resources and cost requirements are very important.
- (C) Other criteria except for the time required to establish the program are important.
- (D) The time required to establish the program is moderately important.

Table 4: Results of evaluation of criteria degree of importance.

		Average		
		Male respondents	Female respondents	All respondents
	Criteria for Programs Selection			
1	Students' Demand / Attractiveness	4.00	4.25	4.10
2	Current & Future Market Demand / Sustainability	4.67	4.25	4.50
3	Uniqueness / Competition	4.17	4.50	4.30
4	Social / Cultural Acceptability	3.33	4.50	3.80
5	Compatibility with other PSU Programs, Labs & Courses	3.33	3.25	3.30
6	Degree of Complexity	2.17	3.25	2.60
7	Resources/Facilities Requirements and Cost	3.33	3.75	3.50
8	Faculty Requirements & Availability	2.67	4.00	3.20
9	Compliance with National & Regional Strategic Plans	3.83	3.25	3.60
10	Application / Technology Oriented	3.50	3.50	3.50

11	Accreditation Requirements	3.17	3.00	3.10
12	Time Required to Establish the Program	2.33	2.25	2.30

It is interesting to find difference between males and females perceptions of degree of importance. Females considered social/cultural acceptance, faculty requirements and availability, and degree of complexity are more important than males. Males, on the other hand, considered compliance with national and regional strategies and current and future market demands more important than females.

2.5. Evaluating Potential Programs

Committee members were asked to evaluate the candidate programs for each of the defined program criteria. The evaluation was carried out using the Programs Evaluation Matrix on a relative scale from 0 to 10:

- 0 if the program does not meet the criteria.
- 10 if the program perfectly meets the criteria.

Table 5 shows the average of all respondents' evaluations of the candidate programs for each criterion.

Table 5: Average score of respondents evaluation of candidate programs.

		Criteria											
		Students' Demand / Attractiveness	Current & Future Market Demand / Sustainability	Uniqueness / Competition	Social / Cultural Acceptability	Compatibility with other PSU programs	Degree of Complexity	Resources/Facilities Requirements and Cost	Faculty Requirements & Availability	Compliance with National Strategic Plans	Application / Technology Oriented	Accreditation Requirements	Time required to establish the new program
1	Computer Engineering	7.8	7.7	5.9	7.1	8.8	7.3	7.0	7.5	7.9	8.6	6.5	7.5
2	Electronic Engineering	7.0	7.3	7.0	5.5	5.9	5.6	5.1	6.6	7.3	8.2	6.2	5.5
3	Telecommunications Engineering	8.4	8.0	7.3	6.2	6.5	6.5	6.3	7.5	8.2	8.9	6.9	6.7
4	Biomedical Engineering	8.4	8.3	8.4	6.2	4.5	5.0	4.5	5.1	8.2	8.5	5.9	5.2
5	Electrical Engineering	6.1	6.8	4.2	2.8	4.6	6.1	5.8	7.4	6.7	8.0	6.7	6.3
6	Environmental Engineering	6.8	7.5	7.3	5.4	5.2	7.1	6.7	6.7	7.7	7.6	7.0	6.9
7	Architectural Engineering	8.3	8.0	6.3	5.5	6.6	7.3	7.1	7.6	7.8	8.0	7.7	7.5
8	Architecture	8.0	7.5	5.9	8.6	8.0	7.6	7.6	7.6	7.7	7.9	7.6	8.1
9	Materials Science and Engineering	6.3	6.7	7.0	5.1	4.3	6.0	5.2	6.2	7.3	7.6	7.2	6.1
10	Mechanical Engineering	5.6	6.5	3.8	2.0	3.0	5.8	5.6	7.7	6.6	6.9	6.9	6.4
11	Industrial Engineering	7.8	7.7	6.9	4.7	6.0	7.3	7.0	6.8	7.6	7.1	7.9	7.2
12	Engineering & Technology Management	7.4	7.4	8.2	6.7	6.9	7.5	7.5	7.0	7.4	7.2	8.1	7.7
13	Water Resources & Irrigation Systems	6.7	7.1	7.6	4.2	4.2	6.1	5.7	5.8	7.7	7.7	7.1	6.1
14	Energy Systems Engineering	7.8	8.0	8.0	4.1	4.7	6.1	5.8	6.5	8.0	8.1	6.8	6.3
15	Aeronautic & Aviation Engineering	7.5	7.3	8.4	2.6	3.1	3.2	3.5	4.0	6.5	7.2	4.2	3.6

The summation of the average scores for each program is meaningless because it assumes that different criteria are of the same importance. Therefore, the average of all respondents' evaluations of the candidate programs for each criterion was recalculated. A weighted score for each program was obtained by multiplying the average score for each criteria by the criteria importance factor (ranging from 0 for not important to 5 for extremely important). The resulting weighted scores and summation thereof of the candidate programs are shown in Table 6 below. The last row in the table shows the maximum possible weighted score for a hypothetical program that perfectly meets all defined criteria (i.e., scores 10 on every criteria).

Table 7: Results of the Programs Evaluation Matrix.

Programs		Criteria												Weighted Program Score
		Students' Demand / Attractiveness	Current & Future Market Demand / Sustainability	Uniqueness / Competition	Social / Cultural Acceptability (Women programs)	Compatibility with other PSU programs	Degree of Complexity	Resources/Facilities Requirements and Cost	Faculty Requirements & Availability	Compliance with National & Regional Strategic Plans	Application / Technology Oriented	Accreditation Requirements	Time required to establish the new program	
1	Computer Engineering	32.1	34.8	25.4	26.9	29.1	18.9	24.5	24.1	28.5	30.2	20.3	17.4	312.2
2	Electronic Engineering	28.7	32.7	30.1	21.1	19.5	14.7	17.8	21.2	26.2	28.6	19.2	12.8	272.5
3	Telecommunications Engineering	34.3	36.0	31.3	23.5	21.6	17.0	22.0	23.9	29.5	31.2	21.4	15.5	307.0
4	Biomedical Engineering	34.3	37.2	36.0	23.5	14.7	13.0	15.9	16.3	29.5	29.6	18.3	11.9	280.2
5	Electrical Engineering	25.1	30.5	18.2	10.6	15.0	15.9	20.2	23.8	24.0	28.0	20.7	14.6	246.5
6	Environmental Engineering	28.0	34.0	31.3	20.4	17.1	18.4	23.5	21.5	27.8	26.7	21.7	15.9	286.3
7	Architectural Engineering	33.9	36.0	27.0	21.1	21.9	18.9	24.8	24.4	28.1	28.0	24.0	17.1	305.3
8	Architecture	32.8	34.0	25.4	32.8	26.4	19.9	26.7	24.4	27.8	27.7	23.7	18.6	320.2
9	Materials Science and Engineering	25.7	30.3	30.1	19.3	14.1	15.6	18.1	19.8	26.2	26.7	22.3	14.0	262.2
10	Mechanical Engineering	23.0	29.3	16.3	7.6	9.9	15.1	19.6	24.6	23.8	24.2	21.4	14.7	229.4
11	Industrial Engineering	32.1	34.8	29.7	18.0	19.8	18.9	24.5	21.8	27.5	24.8	24.5	16.5	292.9
12	Engineering & Technology Management	30.2	33.1	35.2	25.6	22.8	19.4	26.4	22.4	26.5	25.1	25.1	17.8	309.6
13	Water Resources & Irrigation Systems	27.6	31.9	32.8	15.9	13.8	15.8	20.0	18.6	27.8	27.0	22.0	14.0	267.4
14	Energy Systems Engineering	32.1	36.0	34.4	15.5	15.6	15.8	20.4	20.7	28.8	28.3	21.1	14.4	283.1
15	Aeronautic & Aviation Engineering	30.9	32.7	36.0	10.0	10.2	8.3	12.1	12.8	23.6	25.1	13.0	8.4	223.0
	Maximum weighted score	41.0	45.0	43.0	38.0	33.0	26.0	35.0	32.0	36.0	35.0	31.0	23.0	418.0

Accordingly, the most feasible programs are the ones with maximum weighted program score as follows:

1. Architecture
2. Computer Engineering
3. Engineering Management
4. Communication Engineering
5. Architectural Engineering
6. Industrial Engineering

Conclusions

Proposed Colleges and Programs

According to the evaluation of the candidate programs and considering the nature and type of programs that are attractive and socially acceptable for Saudi males and females, the committee suggested establishing the following programs:

- A) Female programs:
 - Architecture
 - Interior Design/Architecture
 - Graphic & Multimedia Design
- B) Male programs:
 - Communication & Networking Engineering
 - Engineering Management

Computer and Industrial Engineering were eliminated because they are offered in almost all public and private universities in the Kingdom.

Recommendations:

When presented to the Board of Directors, it was decided to initially begin with:

- Two programs for men: Communication & Network Engineering and Engineering Management
- Three programs for women: Interior Design, Architecture, and Graphics & Multimedia Design.

These programs were anticipated to meet the Saudi Arabian strategic goals of “Vision 2020” and to fulfill the university aspiration for development.

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A Study On Life Story Structure Of Married Immigrant Women Through Comparison With Korean Folktale <Blessed Daughter Of Butcher>¹

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Abstract

The purpose of this study is to clarify the similarity of narrative structure between Korean folktale <Blessed Daughter of Butcher> and the life history of a married immigrant woman living in Korea. For the study, tried to analyze the life history of married immigrant women through in-depth interviews and identified the in-depth story of <Blessed Daughter of Butcher>. In Korean folktale <Blessed Daughter of Butcher>, Daughter of Butcher experienced the movement of the world of life in a poor and weak house, a rich and powerful house. The folktale thus reveals a process of conflict and overcoming for adaptation to a new world. This study explored the life-history meaning of married immigrant women who migrated to Korean society through the process of conflict and overcoming which appeared in Daughter of Butcher.

Introduction

The development of technology such as traffic has facilitated the exchange of people and information across borders, and transnational migration has been actively carried out (Castles, 2013). Korea has also become a multicultural society under the influence of global trends. International migration in Korean society has been dominated by various social situations in the 1900 's for the people to migrate abroad for safety, livelihood and economic profit. However, since the 1990s, as Korea's social & economic environment has improved, immigrants have moved to Korea. Traditional Korean society was composed of relatively simple race and ethnicity, but the percentage of members began to change, accordingly.

Foreigners who have been staying in Korea for a long time have steadily increased since 2007. According to the census of Korea conducted in 2016, the total population is 51,269,554, among which 1,413,758 are foreigners. In May 2018, the number of long-term foreigners increased to 1,620,703, which is about 200,000 more than in 2016. The number of foreigners staying in Korea for the long term is about 3%, and the ratio is expected to steadily increase in the future.

Korea have entered a multicultural society. However, Korean society has a prejudice against multicultural members and refuses a multicultural society. According to the 2015 National Multiculture Acceptability, 52.1% answered 'the number of foreigners in Korea should be at the current level'. Combined with the opinion that the number should be decreased, this is 82.2%. In other words, Korean society can accommodate immigrants who have migrated so far, but they do not want migrants to grow. The reality of Korean society is rapidly changing into a multicultural society, but it is evident that Koreans are staying in a closed and exclusive past. In recognition of the fact that Korean society has entered a multicultural society, it is necessary to change the perceptions and attitudes to accommodate diverse social members. A change in perception of multicultural members will be the driving force behind the change in attitude.

The purpose of this study is to understand the life of married immigrant women who are married to Korean and living in Korea. For the Korean society to turn out the exclusive attitude toward multicultural members and convert to a receptive attitude, efforts must be made to understand and understand their lives in Korea. Multicultural societies that occur in modern societies appear in many ways, but most of them are caused by migration to a powerful country with less socio-economic difficulties. Korea is also showing the same trend. The Korean society's prejudice against married immigrant women is based on an imbalance of power. In other words, it is at the core of prejudice to define marriage migrant women as socially underprivileged based on the logic of power that those with more economic wealth are relatively superior to those with less wealth. Changing this perception can also fundamentally change attitudes toward them.

The Study

To improve the perception of marriage immigrant women, this paper proposes Korean folktale <Blessed Daughter of Butcher> as an alternative narrative. The aim of this study is to compare the lives of immigrant women living in South Korea, which is the subject of the real world, with <Blessed Daughter of Butcher> in story-in-depth level to improve Korean society's perception of them. This is an attempt to dispel social prejudice by changing the

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"master plot" of married women.

Levi-Strauss(1958) sought to reveal the structure of human thought that conceals its appearance through the analysis of story structure of Sophocles' King Oedipus. This assumes that the story structure of literary works is closely related to the question of how human beings perceive the world. In other words, it can capture human cognitive structure through analysis of story structure.

Porter Abbott(2013) saw that story exist not only in literary works but also in the bases of social phenomena. Stories are constructed from the discourse that is implemented on the surface.

We also have a master plot that repeats in various forms for values, hopes, fears etc., and tends to associate consciously or unconsciously with multiple master plots when thinking about social phenomena or life. The master plot can give a powerful rhetorical effect as connected to our values or identity, and we trust that structured story. Porter Abbott assumes that context, cause and effect that exists behind the apparent phenomenon are formed in the form of a narrative. This is also consistent with the Literary Therapeutics' story theory, which considers the phenomenon that appears on the outside as text, and that there is an in-depth story behind it.

The story theory of Literary Therapeutic assumes that in-depth story exists not only on the basis of social phenomena but also on the basis of human life(Jeong, 2008). In addition, in-depth story plays a similar role to the schema that has a certain direction in our life, such as specific thinking and behavior. The cognitive system with story attribute is seen as an in-depth narrative(Shin, 2016). Literary Therapeutics pay attention to the story properties of the in-depth story and attempts to reveal the structure, form, and story-orientation of human psychological and mental prototypes through in-depth story inherent in the narrative context. This viewpoint is the core research methodology of this study. In this study, sees the life of a married immigrant woman and the Korea society's attitude toward them as a phenomenon, and sees that there is an in-depth story that forms a context of narrative. And analyze it through application of narrative theory.

The theory of in-depth story structure utilizes the concept of 'motifieme' proposed by Dundes, structure such as composition and aspect of the relationship follows the theory of literary Therapeutics(Dundes, 1963; Jeong, 2008). Motifieme is a concept proposed by Dundes in North American Indian folktale analysis to demonstrate the existence of a deep structure underlying the text. This paper analyzes the literary texts using narrative theory for deduct the in-depth structure and analyzes lives using the structure. In other words, examines the relationship between in-depth story of <Blessed Daughter of Butcher>, the literary text and the life of a married immigrant woman, and shed light on the literary value of <Blessed Daughter of Butcher> as an alternative story of multicultural society, the phenomenon. It also aims to find new meaning in the life of married immigrant women. It is intended to bring about a paradigm shift in the idea that the lives of married immigrant women who live in Korean society and those who live in relationships with them are the blessed being and will share the blessing with society as savior.

For this purpose, this article focuses on the common and typical life journey of 35 Chinese migrant women. Immigrants who married internationally in Korea were counted as 156,766 in May 2018. Among them, women account for 83.5% (May 2015. Monthly statistics). The vast majority of marriage migrations are women. The feminization of migration is a common tendency to appear worldwide (Castles, 2013). In addition, many of the married immigrant women living in Korea are Chinese (37%, 2015 National Survey of Multicultural Families).

This paper was designed as a part of the research to search for a comprehensive and effective alternative by exploring the living world of multicultural members in order to realize social integration in Korean society. For this purpose, Chinese migrant women, the majority of immigrants in Korea, as the starting point of research. A total of 65 interviewees were conducted according to the purpose and type of migration. Among them, 35 migrant are Chinese married women (Kim Youngsoo et al., 2018). In this paper, 35 married immigrant women interviewed about their lives have extracted the common and typical life journey of married immigrant women. To expand the discussion on marriage immigrant women in general, tried to secure the typicality and universality that could encompass various cases rather than paying attention to individual and specific cases.

Finding 1.

In-depth narrative structure of <Blessed Daughter of Butcher> focused on the daughter

The <Blessed Daughter of Butcher> is a collection of 34 editions of *The Comprehensive Collection of Korean Folklore*, based on a nationwide survey of the 1980s. It is a considerable number when compared to about collection of 15 editions, widely known folktales such as <Kongji and Patzzi>. But 30 years later, changed in social conditions and environmental conditions, <Blessed Daughter of Butcher> became an unfamiliar piece. Nevertheless, the story of the oral folktale <Blessed Daughter of Butcher>, which has been handed down by story tradition, has many implications for us today. This study focuses on the process of overcoming the difficulties centered on a woman who has no power and poor of <Blessed Daughter of Butcher> and what kind of being she is born again. This has a narrative homogeneity in the difficulties faced by married immigrant women in Korean society and the process of overcoming them. This could help break down the social underpricing of them.

Table 1. The Story of <Blessed Daughter of Butcher>

(1)	There was an old minister with a socially high class and economic power.
(2)	The minister accidentally heard the gods' conversation about his son. The gods said that if a son grows up, he will live poor enough to be unable to eat a bite. On the other hand, a daughter born in a poor butcher's house said she had a good fortune to be rich.
(3)	The minister makes his son marry butcher's daughter to help his son live well.
(4)	The son disregarded the woman and kicked her out when the minister died.
(5)	The woman, who was kicked out, wandered away and remarried a poor man. And she found the gold at her new husband's place of work and became rich.
(6)	The rich woman questioned the minister's son, but he became a beggar.
(7)	With her economic power, a woman took the minister's son and lived well together.

*The Academy of Korean Studies(1980-1992), *The Comprehensive Collection of Korean Folklore* 1-2.

Number (1) reveals the social status of the minister with power and wealth. The minister is a person who has secured a social power that no one can anticipate a downfall until he has met a divine and knows the future. In number (2), the minister finds that the social power he has secured is a finite resource, and that is difficult to last a generation. On the contrary, it's revealed through the prophecy of the daughters that the low and poor social rank at the present time, but the condition is not fixed forever. Minister was overheard by the gods, but he realized that the overthrow of social conditions will be taking place and prepared for the future as a man who had gained new wisdom.

In number (3), the son of minister and the daughter of butcher are married. This implies that the two persons has lived in different socio-cultural backgrounds are obliged to continue their relationship by marriage. Here, the will of the two is not known, and especially the woman is experiencing rapid changes in the world.

In number (4), The husband refuses his wife who has been transferred to his world. A man has a materialistic mindset that replaces surface conditions such as social status and economic power with the value of being. That is, a man cannot accept his wife as a member of the world in which he lived without considering his wife as being equal to himself.

number (5), It shows independence and success of the kicked-out wife. What is expressed as being rich through remarriage should be read as an epic symbol. There are two abilities in a woman's way of starting a new life with empty hands. First, the willingness to stand up even though the opponent rejected her. Second, the ability to achieve economic independence. In particular, the ability to achieve economic independence is not the same as a natural talent. In number (6), her will acquire values and meanings that are accepted in the new world. On the other hand, it shows that minister's short-sighted thinking and exclusive attitude were wrong. In this way, the imbalance of relations that appeared at the beginning is overturned. The state of life changes according to what kind of attitude you live. She looks for her ex-husband on the (7). She does not think superficially and materialistically, unlike the minister's Son. Rather, she tries to recover the broken relationship. This is her final task. The acceptance means that the relationship between the individuals have been restored and the harmony with the world has been achieved. She shows a way of reconciliation and coexistence with her will, ability and choice.

In this story, the minister plays the role of gaining enlightenment and designing future society. And that future society is led by butcher's daughter. The story structure that reinterprets butcher's daughter as subject can be summarized as follows.

Table 2. Reinterprets <Blessed Daughter of Butcher> Structure

(1)	Single Person	A person with deficiency
(2)	Union	By the helper, the beings of different deficiencies join
(3)	Relationship Crisis	Relationship breakdown due to husband's exclusive attitude
(4)	Response	The success of subjective efforts to be born as a person with a different power than before
(5)	Result	Acceptance of failed subjects

In the story which the relationship between men and women, (1) single person, (2) union, (3) relationship crisis (4) response (5) result can be said to be an in-depth story structure that appears universally (Kim, 2018). The characteristic of <Blessed Daughter of Butcher> is that the daughter of butcher, who is not recognized as a counterpart to the husband, is in a crisis due to her, but rather as an occasion to show her ability. When butcher's daughter becomes a true member of the upper world than the world to which she originally belonged, it is not when she led an outsider like a father-in-law, but when she was kicked out of her and came back up with her own abilities. The husband exercises the power inherited from father. And in relation to butcher's daughter, he takes the advantage of strength as a resident. However, butcher's daughter, with her own ability, climbs up to the same level as husband the resident. And unlike her husband, she becomes an independent and inclusive subject. It can be said that this is the story structure that appears in the life of married immigrant women living in Korean society.

Finding 2.

In-depth story structure Chinese marriage immigrant women in Korea social

Chinese marriage migrant women in Korea married in three ways: (1) An introduction from an acquaintance, (2) By marriage agency, (3) A love marriage. Although China is a powerful country, there is an assessment that the national status is not proportional to the individuals' quality of life due to the deepening gap between rich and poor. More than half of the interviewees perceived immigration to Korea through marriage as an opportunity to improve their quality of life. The life story of the 35 interviewees is summarized as follows.

Table 3. The summarized story of marriage migrant women		
(1)	Single Person	While doing social activities in China, use a marriage agency to marry a Korean.
(2)	Union	Get married to a Korean and move to Korea.
(3)	Relationship Crisis 1	Giving birth to and raising the child, experiencing discord with husband, because of personality and/or cultural difference.
(4)	Response 1	To achieve economic independence from husband, began economic activity when child entered adolescence.
(5)	Relationship Crisis 2	No recognition of social life experiences in China. Though doing physically challenging work, securing economic power leads to independent life.
(6)	Response 2	Get out of physical labor and use Chinese skills to seek better jobs.
(7)	Result	If the husband is economically incompetent, spend more money on education for child and living than their husbands. Organize a small group of women with the same status as themselves, volunteer activities for local community.

In an in-depth story structure that is universally found in the life of a married immigrant woman, the relationship crisis and response are repeated. The reason is that actual life is a continuation, while the <Blessed Daughter of Butcher> is a completed text. However, the attributes revealed in the relationship crisis and correspondence can be analyzed as the core values of the independence and inclusiveness shown by butcher's daughter in <Blessed Daughter of Butcher>. There are common in-depth story structure at the base of different phenomena such as actual life and literary text, and the similarities between the attributes of relations, crises, and responses are emerging.

Marriage migrant women are given three tasks in Korean society. First, get respect as a wife in marital relations. Second, independent as an economic subject. Third, recognized as an equal member in Korean society. These three tasks are consistent with the story journey of a married immigrant woman as a migrant, as a stranger, daughter of butcher who takes root in a newly emigrated world.

The first task is included in the reason to choose marriage with Korean. Married immigrant women saw Korea as a better environment for improving their personal lives. Of course, this is not an objective information obtained by comparing the actual economic strengths of China and Korea, and it is one of stereotypes about China, which has operated a long-term closed market economy. However, it is important for Chinese marriage immigrant women currently living in Korea that even if it is a stereotype, devaluation of China's economic power is a major criterion for judging their value. As a result, the world in which economically poor people belong is considered poor and humble compared to the world in which wealthy people belong. And these two worlds are difficult to be united together by being divided. The difficulties that married immigrant women face after marrying Korean are based

on this logic of power. After the 'Union', the first crisis is caused by this. Korean husbands perceive marital relations as a power relationship with their own dominance according to economic power. And other influences such as patriarchal perception combine to show a more exclusive attitude. Sometimes, it is manifested in an explicit request that "You are came from a poor country, so must hear my words". Or as a different perception of the cause of the conflict. While the wife recognizes that the cause of the conflict is the personality difference, the husband interprets it as the prejudice against the Chinese person. Thus, married immigrant women are given the task that as equal partners in marital relationship respected by her husband.

(4) shown the married migrant women's respond. They actively attempt economic activity and try to become independent economic entities. This is also the process of balancing relationship with husband, as a subject with equal strength and ability. Asymmetric power relations within the home can be overcome through activities outside the home. This can be paradoxical, but it does not rely on the husband by going out and becomes a subject that creates economic value with his own abilities. Here is a clue to the issue of being respected by her husband.

However, outside the home, they experience asymmetric power relationships due to the exclusion of Korean society, like their husband. So married immigrant women only can find jobs such as physically challenging or simple labor, which Koreans avoid. However, as in (6), they resolve the difficulty gradually with firm will. They do not give up or be frustrated, and constantly try and execute what they can do right away. Gradually increasing the economic power, change the job that can demonstrate their real ability and expanding the scope of social activities. It can be understood that they are looking for a way to live as a 'multicultural person' in Korean society. This is proved by statistics.

According to a survey conducted by the Ministry of Gender Equality and Family in 2015 on economic activities, 63.9% of the married immigrant were employed, 3.6% higher than the overall employment rate in Korea. The ratio of female employees is 59.5%, which is lower than that of male workers(83.4%). However, the increase rate of female immigrants is 6.5%, higher than that of men's(3.1%). It is clear that the economic activity of married migrant women is increasing. Although the reasons for this can be interpreted in a variety of ways, men's economic activity after migration to Korea is directly linked to their livelihood, while women's economic activity is the will to regenerate as an economic subject.

(7) show that married immigrant women not only overcome the crisis of their own, but also embrace their husbands and Korean society in an exclusive manner, dealing with them as foreigners. They become the subjects that create economic value in Korean society and gain a power to overcome the marital crisis and ignorance from Korean society. It is done by oneself rather than by someone's help. Moreover, they are going to help the difficulties of their husbands and Korean society. This also means that they have moved to a position where they can be helped from where they need help. They are willing to share what they have achieved with their own strengths. Through the exercise of such acceptability, they are regenerating as equal members of society, balancing power in the relationship between husband and Korean society.

This shows the similarity the problems faced by and method of reaction between the daughter of butcher and married migrant women. '(1) Single Person, (2) Union, (3) Relationship Crisis, (4) Response, (5) Result' as a big framework, the experience of life continues, and the crisis and response are repeated.

Among them, the three tasks faced by married immigrant women are similar to those of butcher's daughter. In (1), the situation of man and woman with different socioeconomic backgrounds appears, before union. Nonetheless, they (2) union, of power that results from the union of economic power causes the problem that she is not respected as a spouse to her husband. The imbalance of power caused by differences in economic power causes problems for her husband not being respected as a spouse. This is the root cause of the crisis in (3). Shown in (4) response, reborn as an economic subject and overcome the problem. After overcoming, as they embrace the opponent, shown in (5) result, solve the tasks. In this way, the crisis of the relationship in the life of a married immigrant woman can be seen to be contained in a complex manner in the crisis of the relationship of <Blessed Daughter of Butcher>. The way of responding also overlaps.

Conclusions

It is the conclusion of this study that the life journey of Chinese marriage immigrant women living in Korea and the journey of life of daughter in <Blessed Daughter of Butcher> are similar in story structure and meaning. However, while the daughter is redefined as a 'blessed being' in the end of the story, Korean society is still failing to change the perception toward married migrant women. Although the Korean society defines marriage migrant women with the same paradigm as the husband's perceptions and attitudes in <Blessed Daughter of Butcher>, there is a lack of reflection on the limits of such attitudes. <Blessed Butcher's Daughter> shows what kind of ending will come when husband hasn't change. The attitude of deprecating and rejecting an opponent as an economic value leads to a downfall. But, like the daughter, married immigrant women show their will and ability to overcome their own deficiencies. At the same time, they try to reconcile and embrace without hating their opponent. It is necessary to change the perception of Korean society about this 'blessed being'.

The study of narrative prototypes contained in the actual life can be meaningful in that it intends to deepen the understanding of reality existence and it is an attempt to fundamentally change certain perception.

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A Study On The Establishment Of Life-Worlds Through Economic Adaptation And Acculturation Of Marriage Immigrant Women From South Korea

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Abstract

This study explores the establishment of life-worlds through economic adaptation and acculturation experience of marriage immigrant women residing in South Korea. The study examines the marriage immigrant women's narratives related to their encounter with a husband, job experience, constraints disturbing economic adaptation and acculturation, and the effects of economic adaptation on the level of their acculturation in South Korea. For this, semi-structured interviews consisting of questions related to these issues were conducted on 15 Korean-Chinese women living in the metropolitan area. The findings represent that economic adaptation provides a culturally integrated environment where marriage immigrant women can smoothly begin the establishment of life-worlds in South Korea based on equal mutual relationships. In addition, economic adaptation and acculturation has social implications for marriage immigrant women to boost a sense of self-esteem. The study concludes with implications of the results for making better acculturation as well as economic adaptation experience for the establishment of life-worlds in Korea.

Keywords: *Life-worlds, Economic adaptation, Acculturation, Chinese immigrant women, Chinese marriage immigrant Women*

Introduction

The globalization trend of forming a glocal multicultural society is proceeding in the same way in Korean society, which is a social phenomenon that is happening due to transnational migration across countries. These transnational migrations are having a great impact on the regions and countries in which they are stationed, as well as the countries they have moved to and the world. Choi, Byung-Doo(2012) argues that various forms of transnational migration help the local economy by securing cheap labor. And transnational migration has a positive aspect because international marriage is mainly responsible for the reproduction of family members. There are, of course, various problems such as the improvement of treatment for foreign workers, educational alternatives for children of multicultural families, and the problem of unregistered foreigners.

The problem of migrants before the 1990s can be analyzed as a problem of social integration within the country be domiciled, apart from the sending country. But the problems of the migrants in the situation of transnational migration are socio-spatial. It has complexity because it creates change. Choi, Byoung-Doo(2012) defines transnational migration as a process of 'Glocalization' due to the development of traffic and communication technology and thus spatial and temporal compression, and thus it is understood as the formation of 'multicultural space' which has importance in spatial aspect. In a multicultural space formed through transnational migration, migrants commonly adapt to create a better life or create a new culture. Alba & Nee(2009) explains the intercultural adaptation in multicultural space as a process of breaking down the intercultural barriers by narrowing the gap and narrowing the gap. And the area of adaptation varies from culture, society and economy. Gordon(1964) talked about adaptation in cultural adaptation and structural adaptation. Structural adaptation refers to economic adaptation. Cultural adaptation and structural adaptation are correlated.

Transnational migration in Korean society is being caused by immigrants of various nationalities. According to the 2017 census data provided by the National Statistical Office, as of September 2017, out of the total 317,118 Korean nationals who are multicultural, there are 174,168 people who have Chinese nationality. Which is more than three times larger than the 66,231 Vietnamese nationals with a lot of nationality. In addition, according to the Statistics on Immigrants' Employment Status and Employment Survey in 2017, 43.6% of immigrants were immigrants, followed by marriage immigrants(10.2%), and the proportion of migrant workers and marriage immigrants was over the majority. According to the statistics of foreigners staying in Korea by the Ministry of Justice in 2016, Chinese immigrants accounted for the largest percentage of Chinese immigrants(56,930) and women(45,301).

As such, the formation of a multicultural society in Korean society is dominated by Chinese immigrants, among which marriage immigrant women are the largest. However, marriage immigrant women have been experiencing difficulties in the settlement of the living world due to social structural problems such as human rights violation marriage, discrimination and prejudice of Korean society, status of residence and welfare(Kim, Tae-won, 2012; Choi, Byung-Doo, 2012).

The purpose of this study is to analyze the process of economic adaptation and acculturation of Chinese marriage immigrant women. The purpose of this study is to clarify the meaning and importance of economic adaptation and acculturation in the formation of multicultural living world of Chinese marriage immigrant women who occupy the highest share among various marriage immigrant women.

Theoretical Background

2.1 Chinese marriage immigrant women

In recent years, with the increasing trend of international marriage, the interest of marriage immigrant women is increasing. International marriage shows the phenomenon of 'feminization of international marriage' in that most of marriage between Korean man and foreign women takes place. In 2005, the 'marriage expense support project for farmers and fishermen', which was implemented by some local governments, was the beginning of the increase of marriage immigrant women. In 2007, the Ministry of Gender Equality and Family Affairs International Marriage Support Project Report showed that about 2.9 billion international marriage support budgets were formed in 2007, and about 25% of the local governments conducted the project nationwide. As a result, marriage immigrant women increased explosively, however the Korean government has not prepared a social structural support policy for the increase of married migrant women. As a result, there have been cases of international marriage injuries close to human rights abuses(Lee, 2018).

In particular, Chinese marriage immigrant women who migrated to Korea since the Korea-China diplomatic tie-up in 1992 accounted for the largest number of marriage immigrant women. In spite of the large number of Chinese marriage migrants, Chinese marriage migrants experience confusion about their cultural values in their parents' and family relations as they try to learn and adapt to the cultures of their own and other cultures of Korea (Oh, Young-Hoon, 2014). In addition, conflicts arising from differences in lifestyles such as new culture and food, husband assault and abuse caused by the patriarchal and traditional Korean society, and discrimination and prejudice, which are underestimated as members of society, make it difficult for migrant women to adapt to Korean culture. In terms of culture, Chinese marriage immigrant women also recognize Korean culture positively, especially the filial duty, but negative perceptions of Koreans are causing conflicts. Furthermore, marriage immigrant women have few opportunities to learn about Korean culture, and there are few programs that can directly or indirectly experience their culture.

2.2 Economic adaptation and the acculturation

2.2.1 Economic adaptation

Gordon(1964) argues that immigrants are structurally adapted to mainstream society through social adaptation and economic adjustment. Most migrants seek to improve their quality of life and decide to move without special capital. Chinese marriage immigrant women often migrate to Korea for economic stability and a better life. However, immigrants tend to underestimate their economic status and acquire a lower economic status than their actual capabilities(Basilio, Bauer, & Kramer, 2017; Borjas, 2006; Chiswick, 1978; Chiswick, Lee, & Miller, 2006). Economic adaptation of marriage immigrant women is closely related to Korean social adjustment(Seol, Dong-Hoon, 2005). Seol, Dong-hoon(2005) said their employment status and household income level are indicators of economic adaptation. Therefore, economic adaptation of marriage immigrant women is an essential element in their stable formation of a living world in Korea.

2.2.2 The acculturation

Marriage immigrant women should adapt to Korean culture, society, and economy (Lee, 2018). Alba & Nee (2009) defines the acculturation is a process of change that narrows the gap between cultural boundaries through continuous contact of people with diverse cultural backgrounds. In other words, the acculturation of marriage immigrant women is a process of narrowing the gap between their own culture and Korean culture. Redfield, Linton, & Herskovits(1936) have suggested that the acculturation plays a major role in bringing about changes in the cultural practices, institutions, and structures of society. Through intercultural contacts, people experience the process of cultural adaptation, in which they experience emotional, behavioral, and cognitive change (Sam & Berry, 2010; Ward et al., 2001). Berry(2005) classified the acculturation types into types of integration, assimilation, separation, and state change.

Therefore, in order to reduce the acculturation stress of marriage immigrant women and make them well settled in Korean society for the transition to the just multicultural society in Korea, an alternative to the assimilationist social integration policy is needed.

Research Method

3.1 Collecting research participants and data

For this study, I conducted in - depth interviews with four research participants of marriage immigrant women. The characteristics of the study participants are as follows.

<Table 1> Characteristics of participants

Research participants	Age	Nationality	Academic background	Job	Residence period(year)
Research participants 1	39	Korean	University Graduate	Office worker	10
Research participants 2	47	Korean	University Graduate	Non-employed	14
Research participants 3	40	Korean	University Graduate	professionals	16
Research participants 4	40	Korean	University Graduate	professionals	10

The research participants are Chinese marriage immigrant women who have acquired Korean nationality, and their academic backgrounds are all university graduates. And their job is different. Most of them came to Korea in the late 20s and early 30s and had a unique cultural identity in China. They lived in Korea for over 10 years. They had various marriage experiences, experience of acculturation stress, experience of economic status change. Therefore, it is considered that the composition of these research participants will be easy to analyze how the experiences of acculturation and economic adaptation of Chinese marriage immigrants women influence the formation of the living world and the relationship between them.

In-depth interviews with participants were conducted between October 2017 and February 2018. And interviews took more than 60 minutes for each individual. The questions were about their marriage experience, acculturation experience, and economic adaptation experience. Before the interview, the purpose of the study and the rights of the participants were discussed with them. I also recorded the results after obtaining consent for the recording. I asked the participants to review the recordings for transcription and modification. All the parts that required revision were revised.

3.2 Method for research

This study was conducted by narrative inquiry method to explore the experiences of acculturation and economic adaptation of Chinese marriage immigrant women. Narrative inquiry is one of the most appropriate method to explore the life, experience, and implications of the individual.

This research is based on the six procedures of Creswell(2013) proposed narrative inquiry: ① Examining narrative inquiry as a research method, ② Selecting participant(s), ③ Considering data collection methods, ④ Collecting contextual information, ⑤ Analyzing data And ⑥ Involving participants(Creswell, 2013: 73-75).

Results

This study examined the process of marriage immigrant women's migration to Korea, marriage motivation and life, the experience of acculturation and economic adaptation after migration, and the process of change of the living world based on in - depth interviews with Chinese marriage immigrant women. The effects of acculturation and economic adaptation on the formation of marriage immigrant women 's living world and the relationship between acculturation and economic adaptation were analyzed.

4.1 International Marriage and Migration to Korea: Pursuing a Better Life

All of the participants selected international marriage at the age of their late 20s and moved to Korea. Compared to modern Korean society women, they decided to marry at a relatively young age and move to another country. The biggest reason for their marriage was economic reasons and pursuit of a better life. But all of them were based on the premise of love. Everyone said that the biggest cause was improvement in economic condition and quality of life, but they would not have been married if there was no love.

In the case of research participant 1, when they decided to marry, their parents actively encouraged them. But when her daughter was about to leave, her parents stopped her daughter's marriage to another country for reasons such as discrimination and prejudice against married immigrant women.

"Korea is still a new country. I can live a lot better than I live and make a lot of money. I did not have much work to do (in China) even though I graduated university. At that time, I wanted to meet a man like the protagonist of the Full House drama that was airing in Korea." (Research participant 3)

"I know Full House. I thought a Korean man had many such men. I do not think that now ... but I was sure that if I came to Korea, I would be able to live better. I wanted to make a lot of money and help my parents(Research participant 4)

The fictional story of the drama has been a positive migration factor for Korea to married immigrant women. But finding a professional job rather than being a heroine in the drama was the biggest factor in choosing to marry Korean men and move to Korea.

4.2 Changes in the world of life due to economic status: Rising self-esteem

All married immigrant women were women with pride as elites. However, in a situation where it is difficult to live as a professional in China, they chose to marry Korean men and move to Korea. However, they had many

difficulties from the beginning.

"I thought it would be all right if I came to Korea. But it was not. At first, I only had to live with the cost of living for my husband. Despite graduating from college, I could not get a job."(Research participant 1)

"As soon as I came to Korea, I was going to work. But I could not get a job because of lack of Korean ability."(Research participant 2)

The marriage migrant women resumed their jobs after they moved to Korea. However, the reality of Korea did not respond to them. They had to face discrimination and prejudice against China, beginning with language barriers. All of them were able to have a job three to five years after moving to Korea. Since then, marriage immigrant women have improved their Korean language skills and got a job. And self-esteem has improved since they got a job.

"I was really happy when I received my first paycheck. Although the salary was small, it seemed to be recognized."(Research participant 4)

"When I got a job, I thought I was treated as a human being. At last I could live dignifiedly."(Research participant 2)

Marriage immigrant women have started to feel proud as a member of society since they got a job. Again, they were able to get out of the house with courage again for their self-deprecated self. The job was to prove their ability to live a dignified social life. Since then, they have been able to live a family life in the same position as their husbands.

4.3 Change of Living World by Cultural Adaptation: Rise of Self-Efficacy

Marriage immigrant women have suffered cultural conflicts because of unfamiliar Korean culture and prejudice.

"What's so different. When I first came to Korea, I could not eat Korean food."(Research participant 1)

"I could hardly adapt to Korean food. It was really hard. I was especially hard to eat the sashimi."(Research participant 4)

In the early 2000s, Korea's perception of multiculturalism was extremely low. In addition, discrimination and prejudice against women who migrated from China at that time was serious. Koreans had a prejudice that Chinese immigrant women were ignorant and poor. Marriage immigrant women have suffered cultural conflicts because of this discrimination and prejudice. Even one research participant thought to divorce. Despite these discrimination and prejudice, they tried to adapt to Korean culture, and now, ten years later, they are dignified Koreans. Most of the married immigrant women in this study chose to assimilate into Korean culture by abandoning their cultural identity as Chinese. This is due to the perception of the stereotypical multiculturalism of Korean society that is still prevalent. Chinese marriage immigrant women are abandoning their Chinese cultural identity and living with a new Korean cultural identity.

4.4 The relationship between economic adaptation and acculturation: Separately and together

Marriage immigrant women were able to get an opportunity to communicate with Korean society through the act of employment. Marriage migrant women understand Korean language, culture, society, economy, and political structure through their work life, and experience cultural adaptation in particular.

"I have come to understand Korean people very well from my work. I learned a lot about Korean culture through talking with a lot of Koreans at work and eating rice."(Research participant 3)

In addition, marriage immigrant women were hard to find jobs due to strangeness and difficulties in Korean culture such as language barriers, family life culture, and workplace culture. And, even after seeking a job, they had difficulty in working because of differences with Korean culture.

"I was more unfamiliar with Korea because of my lack of Korean language skills."(Research participant 2)

"I fell out of the interview because I could not speak Korean. It was more difficult to adapt to Korean culture than to learn work at workplace."(Research participant 3)

In this way, economic adaptation and acculturation for marriage immigrant women were also different phases, and they had a deep correlation and system. For marriage immigrant women, social participation in economic activities has been a positive reinforcing factor for cultural adaptation. In other words, for marriage immigrant women, economic adaptation affects the acculturation, and conversely the acculturation affects economic adaptation.

Conclusions

The purpose of this study is to analyze the process and relationship between the economic adaptation and acculturation of marriage immigrant women. internationally married immigrant women. The results were classified into two parts. First, what are the community activities of married immigrant Korean women. Second, What is the meaning of global citizenship in their community activities.

As a result, based on the narrative of Chinese marriage immigrant women, first, they showed different acculturation patterns according to the degree of integration with Korea's mainstream socioeconomic structure. Second, the level of acculturation was influencing their stable formation of the living world. Third, the role of family(husband, etc.), community, and government in economic adaptation and acculturation of their socioeconomic structure was important. Fourth, Korean people 's low perception, discrimination and prejudice made it difficult for married immigrant women to adjust to their economic adaptation and acculturation.

Therefore, economic adaptation and acculturation of marriage immigrant women should be treated together for social integration policy. This is because economic adaptation and acculturation of marriage immigrant women are necessary and sufficient conditions.

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A Study On The Experiences Of Pre-Service Teachers Participating In A Cooperative-Learning-Based Class

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Abstract

The purpose of this study is to investigate the meaning of cooperative learning experience by exploring the class experience of students who participated in the class of „Culture and Education” in „I” University, Korea. Data were collected based on the participatory observation journal of the researchers and the weekly participation journal of 10 research participants. The collected data were coded and analyzed based on matrix analysis. As a result, pre-service teachers had worries and fears about unfamiliar learning method when they started cooperative learning. However, they were aware of the importance of cooperative learning, as they experienced educational effects of cooperative learning through the interactions with members. In particular, the experience of cooperative learning by pre-service teachers in social studies had a positive effect on the recognition of the value and necessity of cooperative learning, and also on the consideration of how to unfold the learner-centered activities in social studies class. This study suggests that the pre-service teacher training programs should be designed in such a way as to create the right values and attitudes as teachers.

Introduction

Teacher is a main agent who can guarantee the quality and effects of education. In this respect, the strengthening of teacher’s competence is emphasized, and it is suggested that changes are necessary throughout the whole process of training pre-service teachers who are responsible for future education (Son, 2004). Teacher education is based on constructivist theory (Shon, 2005). Teacher should be reborn as a knowledge re-creator who is capable of constantly producing new constructive knowledge based on past experiences (Han, 2000). A variety of learning experiences of the pre-service teachers become the basis for forming the educational value and the perception and attitude of the teacher. The values and attitudes formed in the process of training pre-service teachers lead to the education field, in which they will teach (Kim, H.P., Kim Y.Y., Kim, H.S., 2008). In fact, it has been reported in many studies that knowledge, thinking ability, and learning ability formed through pre-service teacher’s experience have positively affected perception, attitude, and teaching activities as teachers (Son, 2004; Song, 2004; Um, 2010; 2010; Yoo, 2000; Lee, J.H., 2002).

This study began with the recognition of the importance of future citizen training, the necessity of innovation in pre-service teacher education, and the importance of educational experience. This study set two research questions as follows: What are the pre-service teachers’ participating experiences in cooperative learning class? What are the teaching method implications found by the pre-service teachers? Thus, this study analyzed the experiences and teaching implications of the pre-service teachers who took a required course “Culture and Education” in the department of social studies education, College of Education, „I” University, Korea. And it finally made some suggestions.

Cooperative Learning

The purpose of the social studies education department is to make students acquire the knowledge and functions necessary for living as a member of society and to be equipped with the qualities and attitudes of democratic citizens. The 2015 revised social studies curriculum in Korea emphasizes communication and cooperative skills as the qualities of a new democratic citizen and focuses on fostering democratic citizens who can interact positively with others (Republic of Korea Ministry of Education, 2015). The qualities of democratic citizens that are emphasized in social studies can be raised through cooperative learning. Cooperative learning enables learners to acquire social functions such as listening, discussing, interacting, respecting and caring, based on the active participation of learners (Jeong M.S., Choi, H.H., & Jeon, Y.E., 2017). Therefore, cooperative learning can be an effective teaching and learning method that can promote learners’ cognition, function, and development of the affective domain. Cooperative learning has the following characteristics in Table 1 (Jeong, M.S., 2008).

Table 1: Characteristics of Cooperative Learning

	Area		Characteristics	Contents
1	Organization	Team formation	Heterogeneous group	Promoting interactions among members through heterogeneity and diversity
2	Members	Interaction	Positive interdependence	Positive interaction based on consideration and cooperation among members
		Relation	Face-to-face interaction	Emphasizing close physical and psychological interactions among members
		Responsibility	Individual accountability	Striving to achieve good results based on social responsibility among members as a learning community
		Opportunity	Equal opportunity of success	Giving opportunities in order to contribute to achieving common goals, regardless of the difference of individual abilities.
3	Class management	Goal	Specific learning goals	Learning activities led by learners with clear goal recognition
		Time	Enough learning time	Members are fully prepared before class, and work on cooperative activities during class
		Method	Team unity	Promoting a learning motivation by introducing team competition to emphasize team unity
		Assignment	Segmentation of assignment	All learners participate in cooperative learning by assigning tasks individually to each member
		Learning	Concurrent interaction	Simultaneous learning process for each team
4	Evaluation	Reflection	Reflection	Reflection time on activities after cooperative learning
		Reward	Group compensation	Positive interaction occurs to achieve group goals

Although all characteristics presented in Table 1 are not common to all models of cooperative learning, most of them are usually found in various cooperative learning types. Cooperative learning emphasizes positive interactions through the relationship formation of team members. Class goal is to emphasize everyone's responsibility for achieving the common goal, not individual goal. And it also has the effect of giving a sense of communal consciousness and attitude by giving responsibility for the result to the group. The more reflective those characteristics of cooperative learning are in the class, the more effective the cooperative learning is (Jeong, M.S., 2008).

Research Method

The purpose of this study is to explore the cooperative learning experiences of the pre-service teachers who participated in the "Culture and Education" class, which was a required course during the 2018 spring semester for freshmen in the department of social studies education, College of Education, „I“ University, Korea. Furthermore, this study is to explore the implication of teaching method found by pre-service teachers. As a major course for freshmen, this class is aimed at cultivating the basic knowledge and attitude on culture. A form of „open class“ was taken to achieve the purpose of the class. In the open class, professor is the facilitator, and students are the main agents. The instructional model adopted for open class is cooperative learning. Through cooperative learning, problem-solving ability, communication ability, creativity, and cooperation can be cultivated while performing the tasks with the team members.

In order to analyze the cooperative learning experiences of pre-service teachers, case study method adopted. 10 students of „Culture and Education“ class were selected as research participants. Basic data were collected from their reflection journal and researchers' participatory observation journals. Research participants (6 male, 4 female) were selected based on sincerity of their reflection journal. The participants were interviewed in-depth. The collected data were analyzed by applying the matrix method, one of qualitative data analysis methods. First, researchers read the reflection journals and marked meaningful passages. Second, the data was categorized for the second review. Third, final analysis was completed through the third review, followed by the extraction of the subcategories from the categories.

Research Result

1. Analysis of cooperative learning experiences of students

2. For the experience of cooperative learning class by pre-service teachers, this study used the characteristics of cooperative learning presented in Table 1. As a result of the analysis, five categories were extracted from the four areas of cooperative learning, and the analysis results were summarized in Table 2.

Table 2: Analysis of Cooperative Learning Experiences of Students

	Area	Category	Theme	Content
1	Organization	Preparation	Perception	Anxiety and fear about cooperative learning
2	Members	Relationship	Care and respect	Learning how to live together
			Interaction	Positive interactions through communication, respect and cooperation
3	Class management	Method	Preparation	Thorough preparation for the success of cooperative learning
			Interaction	Establishment of cooperation system through continuous exchange of opinions
			Mutual teaching	Intellectual and positive growth through mutual teaching
		Assignment	Division of role	Raising the awareness of responsibility through division of role
4	Evaluation	Reflection	Reflection	Value of cooperation, cooperative attitude
			Educational effect	Cultivating democratic citizenship

A. Cooperative Learning Organization: Anxiety and Fear in the Beginning

Research participants were worried and afraid when they heard about this class as team-based cooperative learning in the orientation of this class.

“I was very embarrassed at first. To freshmen who have just graduated from high schools, the words like open class, flip learning, cooperative learning was very unfamiliar. At the beginning of the semester, it was awkward for me to work with other members and I thought it would be better to do it alone.” [1]

Participants were familiar with lecture-based teaching and learning by rote. A new teaching style like cooperative learning was felt as worry and rejection rather than expectation. However, through the experience of participating in cooperative learning, they felt the value and educational effect of cooperative learning by themselves, and various changes were observed within their groups.

B. Formation of relationships with members

1) Care and respect

Cooperative learning is effectively operated, when it is based on positive interaction and formation of relationships among the members. Care and respect form the basis for positive relationships between members. Participants recognized that the attitude of care and respect was more important than the others through the weekly cooperative learning, and then their recognition led to practice.

“We took care of others” time schedule. We were able to help each other to share the amount of each other, even though it was not a part of oneself. I looked at how they helped each other’s shortcomings through text messenger at night. I feel that cooperative learning has been performed well based on care for others.” [4]

Participants recognized their own cooperative learning team as „us“. Awareness of becoming a community is expressed both in the form of fulfilling individual responsibility and at the same time in the altruistic tendency of caring for others.

2) Interaction

Cooperative learning emphasizes positive interdependence among members (Johnson & Johnson, 2002). Positive interdependence is realized based on smooth communication and respect for members.

“When making important decisions, we tried to listen to members” thought one by one and reflect them positively. We were able to create more solid teamwork through the process of respecting and gathering each other’s opinions.” [3]

As in the case above, mutual respect is expressed as a positive interaction, leading to a virtuous cycle of positive relationship formation, and it also serves as a factor promoting human relations.

C. Class Management

1) Method

(1) Class preparation

Cooperative learning is a learner-initiated learning, so it takes a lot of preparation time (Jeong, M.S., 2008). In the „Culture and Education“ class, flip-learning was conducted as an essential task, so that learners could form prior knowledge before the class. In fact, research participants mentioned that there has been a positive change in self-confidence and active discussion by thorough preparation for class.

“At first, when professor asked me to write about culture without flip-learning, I had nothing to write. But after the flip-learning, I was confident so that I become an active learning agent who can discuss on an assignment.” [2]

(2) Communication

Cooperative learning requires a permissive atmosphere in which members can freely exchange ideas and opinions. Cooperative learning management method in the reflection journals of the participants was discussion. Discussions were held consistently through face-to-face meeting and social network service.

“The way we did it was communication mainly through media. We have often met and gathered opinions and exchanged opinions. But Kakao Talk discussion was more frequent. For example, for the preliminary field research, I read the materials I found in Kakao Talk before we gathered. Through that way, I was able to conduct more efficiently and meticulously when I had offline meetings.” [8]

The communication in cooperative learning consisted of exchanging knowledge and opinions related to the subject of the class. The experience of such external communication has led to inner communication that shares the values and attitudes among the members. Inner communication worked as an inspiration to improve and develop the awareness and attitude toward cooperative learning.

(3) Mutual teaching

In cooperative learning, there is an ongoing collaboration to achieve the common goals of the team and the final goals of the class. A representative example of such cooperation is mutual teaching.

“My research site was the Daldong Museum, and I informed my team about the way of cultural change and how the traces of culture have been developed. I already knew about the historical background of the site by using the preliminary learning (flip learning), but I was able to newly find out additional contents that other members explain.” [3]

Challenges given to individuals for cooperative learning are strong responsibility. Therefore, each member is made an expert about the theme. Through mutual teaching, it is possible to maximize interaction and cooperation among colleagues, and to obtain the effect of intellectual development in which learners’ knowledge is expanded.

“I felt that culture could be expressed in such a way by listening to our team presentation as well as other teams’ presentations. And I tried not to do the point that was criticized in other group.” [2]

In addition, as each team presented about the team project at the end of the semester, this class provided opportunities for reflection on progress and result of cooperative learning. This was an opportunity to learn indirectly about the conditions and abilities necessary for better cooperative learning. Mutual teaching in cooperative learning has characteristics that include both cognitive and affective domains.

(4) Challenge: Division of Role

Cooperative learning assigns individual tasks for active participation of all students. As a result of analyzing the reflection journals of the class, the research participants considered fair division of role as important.

“What we did for active team project was the distribution of roles. For the interview project, team leader alone did not work all things. Someone made interview questionnaires. Someone contacted with interviewee, and other worked as interviewer. Thanks to all of them who were involved in one activity, everyone knew what it was and what role we should play.” [9]

One of the important features that distinguishes cooperative learning from traditional small group learning is individual responsibility (Kwon et al., 2004). Uncooperative attitudes are problematic because there is no standard for individual accountability in traditional small group learning. However, in cooperative learning, individual responsibilities and cooperation are required, because everyone is divided into tasks and responsibilities that match their abilities.

D. Evaluation

1) Reflection in the individual dimension

Participants initially felt worried and fearful about cooperative learning. However, the experience of cooperative learning has changed their existing perceptions and attitudes.

“We were accustomed to individual life style. But we showed attitude to care for each other through cooperative learning. And the care gathered and made harmony. Until now, I thought that studying on my own was highly efficient. However, I was able to experience the effect of studying together rather than studying alone by working with the team members.” [6]

Participants realized the value of cooperation through cooperative learning, and they learned the cooperative attitude. This cooperative attitude has led to the achievement of values and goals of community unity and harmony.

“I realized that when everyone did their best together for team project, good quality results could be produced. (Omitted in the middle) Through the team project, I learned how to live together rather than being an individual.” [5]

2) Educational Effect of Cooperative Learning

Cooperative learning positively affects learner’s knowledge expansion (Lee, B.R. & Jeong, M.S., 2011). In traditional lecture-based class, learning by rote and the expansion of knowledge through injected knowledge return to the learner alone. However, even if a same learning goal is provided to a whole class, tasks and goals are different according to team and individual in cooperative learning. The learning of members contributes to the knowledge extension of the whole team and the members.

“I was able to experience acquiring knowledge through self-directed learning while writing together a group report, and I was able to experience acquiring knowledge through collective intelligence by frequently discussing with the members. [7]

As the characteristics of cooperative learning based on positive interdependence are similar to the principles of democratic citizenship education, it is possible to cultivate the qualities of democratic citizens through cooperative learning (Jeong M.S., Choi, H.H., & Jeon, Y.E., 2017). In this study, cooperative learning has the educational effect of cultivating democratic citizenship.

“I realized the importance of democracy in group activities. If I cannot fulfill the value of democracy as a team leader, I will not be trusted by members. However, when democracy was properly implemented, I realized that we can feel the satisfaction that we are actively participate and we are playing an important role.” [9]

Recognition of the value of democracy will play a positive role in cultivating the right democratic citizenship attitude. Cooperative learning experiences have been shown to affect democratic values as well as democratic citizenship. First, active participation was encouraged through cooperative learning.

“In the meantime, there were many passive aspects of doing things that other people directed at school, but they changed into active attitudes in cooperative learning. To me as a facilitator, the process of leading the team and gathering opinions has been a great help to have confidence and active attitude.” [4]

Second, the attitude of respect for diversity has been raised. Participants recognized the importance and value of diversity of community members. Cooperative learning has expanded the scope and content of learning as well as the viewpoint of social diversity. The expansion of perspective on this diversity will be an important foundation for the formation of a multicultural attitude to think about and acknowledge diversity at the national and global level.

“I once again felt the value of respecting diversity as „I must respect the diverse local culture of our country“,

if I have something I have gained with my team members. This is because I felt that the culture of our country is melting into the local culture.” [4]

Third, the attitudes of living with other people such as respect for others, resolution of conflicts, acceptance and recognition, cooperation, and responsibility were raised through collaborative learning.

“I learned how to listen to other people’s opinions while doing cooperative learning, and I learned that many people have different thoughts when I try to cooperate with each other. I also learn how to understand and accept their perspectives. Finally, in order to have the virtue of cooperation, I was able to learn the important value of pursuing individual responsibility.” [10]

Therefore, cooperative learning plays a role of maintaining and developing community through various educational effects in addition to the change of individual level of research participants.

3. Teaching Implications found by Pre-service Teachers

Participants in this study are pre-service teachers who will teach their students as social studies teachers in secondary education after graduating from college. Experience has continuity associated with past, present, and future experiences. In other words, past experience is the basis for forming the present and the future (Clandinin & Connelly, 2000). The cooperative learning experience of the pre-service teachers is not a simple learning experience but a valuable asset that can be widely considered as a teaching plan for future teachers and the learner’s performance of instruction and learning effect. The results of this study were as follows. First, the participants recognized the importance and value of cooperative learning. Cooperative learning has become a new way of thinking about teaching and learning.

“The learning ability of each individual is of course different. It is very important, however, to overcome individual differences and help each other, so that everyone can step together to the finish line without someone first reaching the finish line or without competition. I learned that learning is not only academic but also working with others is learning.” [1]

How will these experiences be taught based on topics they have experienced in the class was spreading to serious consideration about the concrete method of teaching.

“In terms of development and preservation, I will apply the results of our field research on the Baedari village and the Daldong museum to social studies education. The department of social studies education says that students should educate the global citizens who can clarify their own arguments and grounds and fulfill the role of democratic citizens. So, I will apply the method of discussion in this class based on the results of this survey. (Omitted in the middle) Discussions will not only be on teaching and sharing ideas with students, but also on sustainable development. Through these learning activities, I think that I can expect the students’ critical mind on the development and preservation, the power to think about solutions for them, and the training of democratic citizens through discussions.” [3]

First of all, participants emphasized the importance of experience.

“Now, the social studies subjects taught at elementary and junior high schools are nominally inquiry subjects, but most of them are being taught as teaching by rote. If I become a teacher, the subject will be not a form of memorization, but a form with which students experience with their body and think creatively like this „Culture and Education” class. I would like to make students have social studies subjects that students really want to explore.” [8]

Participants recognized the value of cooperative learning and the importance of direct experience through cooperative learning. This has been the basis for generating new ideas about what and how to teach students. As a result, cooperative learning experience of the research participants had the effect and meaning in two aspects of learning as a learner as well as learning as a future teacher. In other words, the curriculum and contents of the pre-service teacher training program directly or indirectly affected the educational values and attitudes to be taught as teachers.

Conclusion

This study started from the recognition of the problems in training pre-service teacher, who are responsible for educating future citizens, and from the necessity of the innovation. In order to carry out the research, this study analyzed the cooperative learning experiences of the students who took the „Culture and Education” class as a required course of teaching major for the freshmen of the social studies education department, College of Education, „I” University.

The results of the study showed that participants had worries and fears about unfamiliar learning methods when they started cooperative learning. However, through the interactions with the members, they became

aware of the importance of cooperative learning for both learners and teachers while experiencing the educational effects of cooperative learning. In particular, the cooperative learning experiences of pre-service teachers in social studies are effective in recognizing the value and necessity of cooperative learning. And furthermore those experiences have been related to their own serious consideration on how to unfold learner-centered activities in the social studies class. The learning effect of pre-service teachers can influence the perception and attitude of future teaching activities and moreover the quality of education. The results of this study can provide the following implications: First, research participants reaffirmed their value as a democratic citizen through cooperative learning. Therefore, the curriculum of the teacher training institute for the pre-service teachers should be designed in order to raise the right educational perspective and attitude as the teacher. Second, the teacher training program should be structured so that teachers can directly experience various teaching techniques that can be applied to the teaching field. The method of classroom management, which is experienced directly during the teacher training period, can be developed into a new teaching form that is best suited to oneself through experience and reconstruction. Third, pre-service teacher's educational programs need to be linked with actual school sites. The field experience in the preparation of the pre-service teacher can minimize the trial and error that can occur when they will become teachers. This is a way to improve the quality of education. The educational program of the pre-service teacher training institution in Korea has been continuously criticized, as there is lack of connection with the field. Just as the quality of education does not exceed the quality of teachers, training good teachers should be the first step toward the development of education.

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A Study On The Motivation To Participate In Volunteer Activity Of Korean-Chinese In South Korea

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Abstract

The purpose of this study is to explore the experience of volunteer activities who are Korean-Chinese in Korea. To this end, the researchers conducted in-depth interviews with 8 Korean-Chinese who had participated in volunteer activities for more than one year in Korea and analyzed the interview data. The analysis shows that there are three phase change processes of motivation for the volunteer activities of Korean-Chinese. The analysis shows that the volunteer motivation for the Korean-Chinese volunteers has been through three different processes. Firstly, to communicate with people and obtaining extract information through volunteer activities. Secondly, by establishing healthy self-identity through volunteer activities. Thirdly, forming a sense of responsibility as a member of Korean society. Based on the results of this study, we discussed the nature of the experience of volunteer activities and suggested the possibility of making positive use of social integration.

Introduction

The number of Korean-Chinese ethnic groups in South Korea has reached 700,000. Up to now, migration of Chinese-Korean compatriots in South Korea has been in history for more than 20 years. There are a lot of controversies about how they are living in South Korea and the problems of adaptation and identity.

In the multicultural society of South Korea, Chinese-Korean compatriots have experienced many difficulties in adaptation due to their immigrant groups and cultural differences, their occupational average and social support systems, and their lack of economic foundation. After 20years of emigration, Korean-Chinese compatriots entering the settlement period have now gone beyond adaptation and embarked on various activities to improve their image. The study was to examine why they want to engage in volunteer activities and reviewing the process of its change. The research on the Korean-Chinese compatriots in Korea is divided into three groups: Marriage immigrant, foreign workers, and overseas students. the main research subjects were spread around 3 groups. Most studies in Korea were conducted to treat the Korean-Chinese as immigrants, mainly on issues related to their cultural adaptation and national identity in Korea. Especially in the past two years, there has been more and more attention to Korean-Chinese ethnic groups living in or settling down in Korea, while at the same time there has been an upward trend in related academic research.

Retrieving a series of literature reviews about that dual identity of Korean Chinese in Korea, it is not difficult to discover that most of the studies are centered on the culture and history of migration(강수옥, 2013; 오경희, 2014; 허명철, 2011 등). From the research content, some research results show that there is a distorted cognition of Korean Chinese group in Korean society, which deepens the contradiction between Korean and Korean Chinese group(한성미, 2010). Therefore, it is difficult to establish a relationship of mutual trust between Korean and

Korean Chinese group(윤운걸, 2001).

As the number of ethnic Korean Chinese in Korea continues to increase and their stay time has gradually shifted from short-term sojourn to long-term settlement. For these ethnic Korean groups, what have been only depicted their heterogeneity and negative parts, so much labels them as criminal groups in Korean society.

In this regard, academic research has also focused on the characteristics of crime, crime prevention and other aspects. In general, research related to Korean domestic research has not been conducted on the social service activities of immigrants. This is because Korean society pays attention to immigrant groups for a short time, and more multicultural policies only regard them as “beneficiaries”. Therefore, most of the research focuses only on related research projects that help ethnic Korean Chinese groups settle in Korea.

While participating in the group activities of Korean Chinese compatriots in Korea, the researcher took the group of Korean Chinese compatriots as the research center and carried out various social service activities. However, there have been no studies on volunteer activities in Korean communities. Therefore, the research questions of this study are as follows.

First, what are the motives of the Korean Chinese compatriots for volunteering?

Second, what is the changing process and reason of the Korean Chinese compatriots' motivation for volunteering?

The Motuvation Participate In Volunteer Activity

In the Korean social welfare association (1997), " Volunteer Activity " refers to the behavior of having a sense of social responsibility under the awareness of specific social requirements and not caring about money interests, but it is fundamentally an act of freedom from a fundamental sense of obligation, and spontaneous activity.

In modern society, the social significance of volunteer activities is very significant. With the modern society becoming the market economy integration of the capitalist system, the collective mutual help mode or aid system which is prevalent in the traditional society was almost wiped out by the power of the market economy. As a result, people who do not have enough the economic capacity to meet market demands do not have any help in maintaining their lives.

It is not only on this economic dimension that that problem of xenophobia and psychological isolation that is generated by individuals in the way of life of the community and the disappearance of the supportive institution.

To do that, we should actively engage in a spontaneous form of community-based activities, in order to make the modern society to spontaneous social welfare issues, so that the personal growth in their personal life to fulfill itself.

Nowadays, the importance of the necessity of voluntary service is widely recognized in the society. Compared with the past, the number of voluntary service providers is increasing, but the low voluntary service participation rate and the high half-way elimination rate, the professionalism and systematic insufficiency of voluntary service management have become the stumbling block of voluntary activities. The motivation of dedication can be divided into the method given by the system and the method of spontaneous sharing.

First, institutional incentives refer to the social environment. That is, referring to the obligation of the volunteer high school students, college students volunteer service, social services, courses and provide various methods of obtaining credit, etc., In the enterprise, referring to the experience of volunteers such as social services given recognition.

Second, the motive of spontaneity refers to the spontaneous activities carried out in the media, religious institutions, education institutions, and other institutions, etc., in order to enable Korean citizens to voluntarily

participate in voluntary services. In other words, it means to implement the activities of the volunteer culture(김범수 외, 2004:22,64).

Therefore, volunteering is not a one-sided charity or charity, but a reciprocal activity. Volunteers do not unilaterally provide their time and resources to the object but give and receive the corresponding value and meaning. Volunteering is a chance to gain experience by participating in the activity, which is a great opportunity to improve your self-worth.

Research methodology

1. analytical phenomenology

Different from positivism, the interpretivism believes that human beings exist with different motivations, values and ideologies, which cannot be reduced to a whole constitution unit quantitatively but should be regarded as a dynamic subject of behavior and mutual influence in human and society. From the standpoint of interpretivism, knowing objects can't be mastered if they are independent of researchers, so it is important to understand the phenomenon experienced by the subjects in their internal perspective as a whole.

Giorgi(1997) explained that "if we want to complete qualitative research from the perspective of the phenomenological theory described by Husserl, we must follow the following steps". Firstly, the way of description is adopted; secondly, the attitude and thinking mode extracted from the phenomenology should be sorted out; finally, the constituent elements that can reflect the invariable meaning should be found out.

Therefore, this study first grasped the meaning of the whole statement from the contents described by the research participants. Next, focus on the volunteer experience of the researchers, from which we select and encode meaningful sentences or phrases. Third, the extracted meaning groups were compared and analyzed. In this process, the repetitive content was excluded, and the common and meaningful statements were included in the composition of the meaning groups. Fourthly, the meaning constituted is classified by binding together the relevant topics.

2. Research participants

The researchers conducted in-depth interviews with Korean-Chinese compatriots active in social service activities to learn about the experience of volunteering in South Korea. Moreover, to gain a better understanding of their experience in their volunteer activity, Korean-Chinese volunteer groups have been added personally and participated in the volunteer activity for one year. Participants were interviewed by one of the directors of the volunteer group who joined the research and by other groups and Korean-Chinese compatriots who were actively participating in volunteer activities at the Multicultural Family Support Center using the snowball sampling method.

The interviews were conducted in a coffee shop or office near the study participants' residence and workplace where they could feel comfortable. According to the interview research process, an interviewee needs to be interviewed at least 1 or 2 times, and each interview will take 1-2 hours. Before the interview, after the consent of the respondents to the recording of the dialogue of the interview, and on the same day, the researchers need to the content of the interviews take dictation for filing. On the same day, the researchers need to the content of the interviews take dictation for filing, and the recorded content was used as the original data of the study.

Most of the research participants in this study have participated in volunteer activities for over one year. Most of them live in or work in the vicinity of ag-gathering areas of Korean Chinese communities, most of which participate in volunteer activities in the form of group service activities. Therefore, the volunteer activities that they participate in mainly fall into three types.

The first type of volunteer activity is to provide information on all aspects of the Korean people and Chinese people who live in the country. The second type of volunteer work is to help neighbors who are struggling and living in poverty in South Korea. The third type of volunteer activity is to take charge of cultural exchange activities between the two countries and provide free translation services. Because of these volunteers who have been living in South Korea for a long time, most of them have a stable economic base and a life support, so that living conditions are a condition for them to successfully undertake volunteerism activities.

Research Result

The researchers used hermeneutic phenomenological methods to analyze the volunteer experiences of study participants. Through analysis, we can see the motivation of Korean Chinese ethnic groups who living in Korea to take part in volunteer activities. In general, they have experienced the following three major changes.

1. Obtain information and make friends through volunteer activities

1) 'Join a group by acquaintances'

As the number of Korean Chinese living in Korea continues to increase, the social network has become more developed. Therefore, most of them are introduced by acquaintances to participate in volunteer activities. Due to long-term living in and foreign manpower policy in Korea domestic which has more flexible, left them with the fastest speed to adapt to life in Korea.

By the time they achieved the stability of the economy, the family, and so on, they had a life of leisure. The leisure of life allows them to have more free time to plan for things that are more meaningful than adaptation. The volunteer activity is a kind of in line with their needs and satisfies the desire of one of its activities.

My friend introduced it to me. Always persuade me to volunteer together. Friends also mentioned before to participate in volunteer activities of people are very friendly, people life is not in the alien land will often feel very lonely. In a sense, at first, to survive, everyone is working, but as long as there's a certain level of demand, it seems that this kind of desire is going to change on a spiritual level. This desire to occupy even a small part of my life, I prefer to create my own space than the life around me. (Participant E)

In addition, they met and got to know a lot of like-minded people through volunteer activities, which helped them establish a good relationship with each other, and thus helped them accumulate and expand a good social network in foreign countries.

If you have to give value, I think a lot of people think they're going to help. We participate in such volunteer activities, the most important thing is, we are working together to achieve something, at this moment, the sense of accomplishment, let me feel that I can get more things. As far as I am concerned, this kind of harvest is not so much that I give to others or pay a certain price for the so-called harvest, but that I spent a difficult time with those who need help, so that I think what I do is more meaningful. (Participant C)

2) 'Getting information through group activities'

The volunteer activities of Korean Chinese compatriots are seen as an effort to actively adapt to Korean society.

Through volunteer activities, they have accumulated a variety of experiences, gained a better understanding of Korean society, and shared all relevant information about how to adapt to Korean society better and faster with Chinese who have just arrived in Korea.

Anyone can participate in volunteer activities, but then came the flow of information will have to change quickly. For example, when a person to stay at home, it is difficult to grasp the current social situation, it is difficult to get the latest news. But if your compatriots come to volunteer, whether it's a Korean social policy issue or a Korean policy issue for their compatriots in Korea, talk to people who have experience in volunteering, and you'll learn more about it. That is, the voice of experience makes information travel faster. (Participant A)

2. Form healthy identity through volunteer activities

1) 'Boost self-esteem by restoring identity'

In Korea, Korean Chinese compatriots strive to improve their negative image through volunteer activities. In order to get rid of the cultural imprint of the mainstream society's recognition of communication, they gain spiritual comfort through active coping style and strive to integrate with Korean society with positive ideas.

The volunteer activities we have also helped Korean people cook, bowl, make dishes and more. So even if their Koreans are misunderstood to us in terms of cognition, as a Korean, I would be willing to do it to help Koreans with voluntary services, because I want Koreans to know that we who Korean Chinese can also do voluntary work and can give a force to this society. But even if this is done, I think that the Koreans' views on the Korean Chinese should not change. (Participant E)

The Korean Chinese compatriots in Korea have taken care of their fellow countrymen who are living in difficulties in Korea through volunteer activities, and they feel the sense of social responsibility is gradually improving. They have recovered their wounded sense of identity through the active role of the subject to the society and gradually become healthy regional social residents.

We must be upright and grow up strong, we need to change our minds. Don't always be regarded as a "fragile person, someone who can only rely on others to survive." We have to stand up on our own. We are now living in Korea as a model national. Change this idea, yes, that's it. (Participant A)

2) 'Actively adapting volunteer activities'

Through the voluntary activities of the Korean Chinese compatriots in Korea, they formed a positive relationship with the mainstream society. After being recognized by the local society, they began to dream of becoming members of the regional society, not immigrants. Through volunteering, they have gained the confidence to use their bilingualism to play a greater role in Korean society and Chinese society. In particular, this sense of self-confidence is the pride they feel when they serve in the cultural exchanges between Korea and China.

I don't want to be always said to be 'a vulnerable person who can only live by others'. We want Koreans to change their views on us. let us stand up ourselves and live as a model national in Korea from now on. If this is the case, in fact, we have an advantage over Koreans in some respects. Now that the

relationship between Korea and China is good, now that we have reached the point of globalization, as long as we work harder, we will become upright. (Participant E)

3. Responsibility as a member of Korean society

The Korean Chinese compatriots who have settled down in long-term and stable ways have their own sense of responsibility as members of Korean society and have made contributions to the development of regional society through social practice. They think their activities are meaningful, they feel fulfilled and are looking for the meaning of volunteering.

Many Korean groups and Chinese compatriot groups carry out volunteer activities together. There are also coal volunteer activities in the next month. "The harmonious coexistence with the local community has occupied a large part. In the Korean compatriot society, don't just focus on the Korean government or Korean society, but on South Korea. The society asked for it. Divided into two groups, went to the city of Gary Peak to serve, and the other group registered and educated at the Korean Red Cross Society, and regularly went there to clean and cook at the Dementia Center of the Elderly Center of the Guangjin District. (Participant D)

Korean Chinese compatriots in Korea have helped disadvantaged Chinese or Chinese compatriots in the early years of immigration, helped people in South Korea in difficulties and gained positive self-relations through volunteer activities. Korean Chinese compatriots are not only serving others, but also active activities for themselves, which positively responded to by the community through their own activities. They are proud of volunteer activities, and in order to improve the image of Chinese compatriots living in South Korea, they use blogs, BBS and other means to publicize their volunteer activities.

Conclusion And Suggestions

The study was designed to portray the positive social practices of the largest number of Chinese compatriots among south Korean multicultural immigrants. Furthermore, attention has been paid to the active adaptation of voluntary services to it. Therefore, they are understanding their personal actions and giving explanations of their motives as well as changes through volunteer activities. The motivation of the study participants to participate in volunteer activities is to adapt to the new society, improve their image and gain new experience. Moreover, volunteering activities expand social networks through active social activities, learn information from them, and finally improve the ability to adapt to the society.

The volunteers in this study, although motivated by selfish individual needs, showed an "altruistic motivation" for others and society as the activity increased social attention. Moreover, as immigrants, they contribute to Korean society through volunteer service activities and experience the process of restoring ontology in the country of immigration, and they have a sense of responsibility. It can be seen that they hope to be recognized as members of society who are not typing foreigners in immigration countries. Through volunteer activities, they have already experienced the recovery of the injured identity, and have met the bond with colleagues through volunteer activities, and have been recognized as the satisfaction of the beneficial.

Korean Chinese compatriots in Korea, which they give their service activities meaning, let them grow and adapt to themselves, and self-realization. In this study, in order to achieve social solidarity of immigrants and residents of the region in multicultural times, it is necessary to actively activate immigrant voluntary activities and actively introduce volunteer service education in immigrant education.

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A Study On The Revitalization Plan Of Education For Sustainable Development Including Global Citizenship Education

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Abstract

This study focuses on the similarity between Global Citizenship Education(GCDE) and Education for Sustainable Development(ESD) and aims to propose a concrete plan for revitalizing ESD linked with GCED. In order to accomplish the purpose of research, two research problems were set up: teacher's awareness of education for sustainable development linked with Global Citizenship Education and plan to revitalize ESD linked with GCED. A questionnaire survey was conducted for field teachers in order to investigate the actual situation of education for sustainable development in school. After that, researchers interviewed and analyzed opinions about the stimulation of ESD linked with GCED through in-depth interview with experts. As a result of the study, the teachers and educational experts, the subjects of the education execution, agreed on the necessity and importance of the ESD linked with GCED. However, it has been found that there is a limit that cannot be activated in the educational field because it does not have relevant knowledge or educational expertise. To revitalize ESD linked with GCED, the foundation for the promotion of ESD linked with GCED should be established through the development of curriculum and textbooks at the national and local level, teacher training and so on.

Introduction

The French philosopher Voltaire awakened responsibility for the present life, saying "The future is born from the present". The future is predictable through the continuity of past-present-future, and it is now the foundation for the foundation of the future. The present world continues to face human, material, and environmental issues such as the environment, refugees, the gap between rich and poor, hunger and war, human rights, and climate change. These problematic situations are anxiety factors for the unpredictable future. However, when we grasp the present problem properly and prepare for the future thoroughly, the shape of the future humanity is changeable.

Since 2000, the UN has promoted the Millennium Development Goals (MDGs) to improve the quality of human life. In 2015, 17 sustainable development goals (SDGs) were adopted as follow-up measures for the MDGs, which should be achieved by 2030(Kim et al., 2016a; Kim et al., 2016b; Jin, 2017). The three main themes of sustainable development are the social development, economic growth, and environmental preservation, and the intention of the whole world working together to achieve sustainable development of the earth and mankind. Accordingly, the SDGs contain essential information for the preservation of the global dimension such as environmental protection, poverty reduction, equality, community prosperity, and improvement of quality of life in order to promote the sustainable development of the earth and mankind(Kim et al., 2016a; Kim et al., 2016b; Jin, 2017). The fourth goal of the SDGs, "Ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all," contains educational content. <Target 4.7> states that "By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development"(UNESCO Korea Committee, 2016). In relation to these goals, UNESCO World Education Forum in 2015 declared a new vision of education through the 'Incheon Declaration', which presented seven specific goals by 2030 (Kim et al., 2016b).

Education is to cultivate the attitude of respect for cultural diversity essential for social solidarity and justice, and the ability to communicate among cultures. The 'Incheon Declaration' emphasizes the role of education that embraces and promotes democracy, human rights, world citizenship, tolerance, citizen participation, and sustainable development(UNESCO Korea Committee, 2016). This vision represents the central axis of global education policy by 2030 and means that the inclusion of Global Citizenship Education and education for sustainable development as a detailed goal of global education(Kim et al., 2016b). Already in 2012, UN

emphasized the importance of education through the Global Education First Initiative(GEFI). One of GEFI's three priorities, Global Citizenship, will have a decisive impact on achieving the overall goals of the SDGs(Kim et al., 2016b). In other words, education is a powerful means of solving the unfinished tasks of modern society and maintaining a sustainable society. Through education, it aims to achieve common global goals such as human rights, global citizenship, peace, gender equality and sustainable development(Kim et al., 2016b). Therefore, the area, subject, content, and method of education should be implemented in a way that suits SDGs. As members of the global community, citizens face the challenge of global problem solving. Education should be able to cover and develop all aspects such as knowledge, skills, values, and attitudes. The role of such education is realized through ESD and GCED, including peace education, human rights education, intercultural education, and international understanding education(UNESCO Korea Committee, 2016).

As we have seen so far, Global Citizenship Education and education for sustainable development are the major trends in world education. As a member of the human community, Global Citizenship Education aims to cultivate an attitude for the realization of a peaceful and just society(UNESCO, 2012). In other words, it has its signification as a basis for solving the problems facing the world in the localization era and for achieving sustainable development (Kim et al., 2016a). The values¹ pursued by global citizenship education are similar to the values of cultural diversity, environment, economy, justice and responsibility pursued in the education for sustainable development, and are consistent with the goal of transforming society by cultivating global citizenship capacity. The common goal of this change in cognition and attitude as a global citizen shows the possibility that education for sustainable development can be linked with global citizenship education. Focusing on the similarity of global citizenship education and education for sustainable development, this study tried to propose a concrete plan for activating education for sustainable development linked to Global Citizenship Education in educational field. To accomplish this purpose, the research set following subjects and conduct the study; i) What is the teacher's awareness of education for sustainable development linked to global citizenship education? ii) What is the plan to revitalize education for sustainable development linked to global citizenship education?

The Relationship Between Gced And Esd

Education for sustainable development was discussed in the Brundtland Report, Our Common Future, published by the United Nations in 1987, and international discussions were raised. The Brundtland Report² defines sustainable development as "development that meets the needs of the present generation without compromising the ability to meet the needs of future generations." In 1992, the Brazilian Environmental Development Summit in Rio de Janeiro and the World Summit on Sustainable Development in Johannesburg, South Africa in 2002 led to discussions on sustainable development. Through two meetings, sustainable development has become an integrated sustainable development, meaning harmonious development of the entire social system that encompasses the environment, society, and the economy. In detail, the scope of sustainable development is set as the three axes of environment, economy and society, and the goal is set as the environmental soundness, social equity, and economic growth of humanity(Kang et al., 2015: 9-11).

The Brundtland report used sustainability development to mean that we should take advantage of the resources and environment that are available to us to ensure that future generations will be at least as good as our generation. Therefore, the core of sustainable development is intergenerational and intergenerational solidarity. In the 2009 UNESCO DESD report³, Vladimirova(2015) also focused on intergenerational and intergenerational sustainability development. In another report, education for sustainable development was defined as "education for the future and education for all"(UNESCO, 2012: 12) stated that the goal is to increase the ability to think and act in a forward looking manner with predictions, expectations and plans for the future. The 2014 UNESCO report stipulates that education for sustainable development involves drawing a positive and sustainable future and has consistently emphasized the importance of future-oriented perspectives in education (Kim et al., 2016b). Through such international education trends, education for sustainable development is based on the transformation of the value of the human community as "future generations of the future that we will never encounter while living" and "people of remote places who do not know face" (Vladimirova, 2015: 225) Have the ultimate goal of having moral responsibility. Educational content includes multi-disciplinary and multi- layered issues such as climate change, poverty, biodiversity, water, disaster, food, cultural diversity, energy, health and social vulnerability. In other words, education for sustainable development is education that raises the

¹ UNESCO Roadmap for Implementing the Global Action Programme on Education for Sustainable Development
<http://unesdoc.unesco.org/images/0023/002305/230514e.pdf>

² https://en.wikipedia.org/wiki/Brundtland_Commission

³ UN Decade of Education for Sustainable Development

knowledge, functions, values and attitudes related to sustainable development necessary for living as a member of the global community.

Global citizenship education is defined as a paradigm about how "education can develop the knowledge, skills, values and attitudes of learners needed to make a more just, peaceful, tolerant, safe and sustainable world" (UNESCO, 2013: 16). In other words, Global citizenship education is an educational paradigm that takes a multifaceted approach to creating a 'just, peaceful and sustainable world'. The characteristics of Global Citizenship Education can be summarized in three aspects: knowledge, function, value and attitude (UNESCO, 2013: 17). First, the knowledge aspect emphasizes the transformation of global perspectives, understanding of universal values, cognitive skills to think critically, systematically and creatively, as well as a broad view of the world, a deep understanding, and a viewpoint of solving world problems. Second, in terms of functions, it includes communication skills necessary to resolve empathy and conflict, as well as communication and communication with other people with diverse cultures. This suggests the need for community awareness and technology that transcend society and generation, and it is essential for the formation of a global community living together. Finally, in terms of values and attitudes, understanding of individual and group identity, cooperation, responsibility and practice for solving world problems are included. In other words, it emphasizes accountability and practice of individual and social aspects, and induces change to a global citizen acting on the basis of knowledge and functional aspects. It can be seen from the above characteristics that Global Citizenship Education takes a holistic approach that includes knowledge, function, and attitude.

In the study of global citizenship, the elements of Global citizenship education, which are commonly mentioned, include global community view, respect for human rights, respect for diversity, peace and tolerance (Chi & Sun, 2007; Chae, 2015). Through the above discussions, global citizenship education will continue to share the core values of respect for human rights, respect for future generations, respect for ecological diversity, respect for cultural diversity and education for future generations and social development. It is similar to the possible development. These common characteristics show the potential of education for sustainable development to be linked to global citizenship education (Chae, 2015).

Education for sustainable development is an education to solve various problems faced by the world and to create a sustainable future. It is a lifelong education for all humanity to improve the stability of human life and quality of life. In addition, education for sustainable development and global citizenship education should be promoted as a global community. In this sense, global citizenship education is an education that fosters the ability and attitude to solve the common problems facing humanity from a global point of view (Kim et al., 2016b; Byun, 2010). There is something in common that they are based on mutual cooperation based on recognition and practice (Chae, 2015).

The common characteristics or similarity of the above-mentioned global citizenship education and education for sustainable development show the possibility of linking the two education. With the trend of globalization, the interdependence among the members of the modern society is increasing. Education should play its role, suggesting the necessity of educating citizens who can sustain a sustainable society. Therefore, a research on effective education methods should be carried out through linkage between Global Citizenship Education and education for sustainable development (Kim et al., 2016a).

Research Method

In this study, 'integrated research method' was applied to explore education for sustainable development plan linked with global citizenship education. The integration method is practiced from a pragmatic point of view using the strengths of quantitative research and qualitative research. The integrated research can emphasize various conflicting and inquiring problems at the same time, and aims to broaden the scope and extent of the research results through methodological triangulation. In order to conduct the research and collect data, we used the survey method of teachers and the qualitative research methods of in-depth interviews with experts.

Table 1: Research Procedure of Integrated Research Method

Sequence	Research Method	Research Stage	Content
1	Quantitative Research	Survey	Primary & Secondary school teachers(152 participants)
2	Qualitative Research	In-depth Expert Interview	Dean of school and school inspector(9 participants)

The integrated research design utilized 'sequential mixed method'. The sequential integration method is either a quantitative approach followed by a separate qualitative approach or a reverse order (Kim et al., 2016a). In this study, a qualitative research method, in-depth interview, was conducted based on the results obtained by conducting the questionnaire survey. Details of the research process are as follows.

1. Survey: Questionnaire and Interview on teachers

The purpose of this study is to investigate the actual situation and awareness of education for sustainable development at the school site in advance of the study on the implementation plan of the education for sustainable development linked to the global citizen education From February 16th and March 10th of 2016. We conducted a questionnaire by referring to UNESCO(2015) [Global Citizenship Education]. The questionnaire consisted of the perception of the relevance of GCED topics, objectives, content elements and ESD, and comments on the linkage of education for sustainable development, including global citizenship education.

2. In-depth Experts Interview

Expert in-depth interviews were used to explore ways to stimulate education for sustainable development linked to global citizenship education. In-depth interviews have oral-cultural features that use methods to induce the knowledge and ideas of experts in each field to be expressed. It is also suitable for exploratory research because it is easy to collect professional opinions about the area (Kim et al., 2016a; Kim et al., 2016b).

For the in-depth interview, nine experts were selected as research participants in the fields of environment, society, culture, economy, and civic education. Interviews were conducted between April 15th and April 20th of 2016, for about 60 to 90 minutes individually, and the link between global citizen education and education for sustainable development and the spread of education for sustainable development linked to global citizen education And the mid- to long-term policy direction of education for sustainable development in connection with global citizenship education (Kim et al., 2016a). The characteristics of the study participants are shown in Table 2.

Table 2: Status of Research Participants

Research Participant	Gender	Position	Major
1	Male	School inspector of 00 Education Office	Environmental Education, Doctor of Geography
2	Male	School inspector of 00 Education Office	Civil Education, General Sociology
3	Female	School inspector of 00 Education Office	Secondary, English Education, GCED
4	Male	Dean of 00 High School	General Sociology, Sociology
5	Male	Professor	General Sociology, GCED
6	Female	Professor	Science Education, ESD
7	Male	Professor	General Sociology
8	Female	Head of Education Training Institute	GCED
9	Male	the secretary-general of 00 NGO	Environmental Education, ESD

Data collected through in-depth interviews were recorded using a tape recorder, and all recorded contents were transferred. The interviewed data were prepared by using NVivo 10, a qualitative data analysis program, and nodes were created and keywords were created for each research participant. After that, researchers derive the categories to be found through the coding process, set the topic, and interpret the meaning (Kim et al., 2016a).

Research Result

1. Teacher recognition of ESD linked to GCDE

The results of this study are analyzed as two aspects: the implementation status of education for sustainable development at the school site and the awareness of teachers about education for sustainable development linked to global citizen education. The results of the survey are as follows (Kim et al., 2016a; Oh et al., 2016). First, teachers in the education field agreed on the necessity of education for sustainable development, but they did not have a high level of understanding about education for sustainable development.

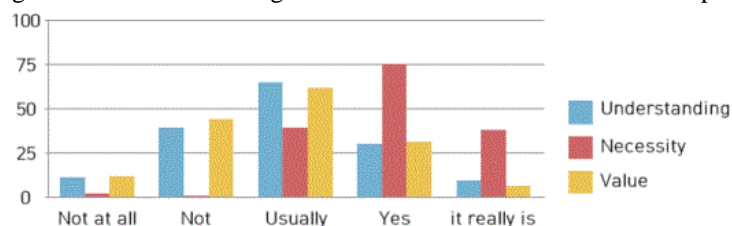


Figure 1. The awareness of teachers about ESD linked to GCED

The low understanding of teachers' education for sustainable development has led to the reality that they cannot utilize various teaching and learning materials supported by the Ministry of Education, the Office of Education,

and various private organizations. The reality of school sites represents the limit of our educational field that does not meet the global trend emphasizing the ideology of education for sustainable development . This can be extended to a social dimension where future generations do not form a perceptions and attitudes about proper sustainable development. Therefore, in order to overcome these limitations, the training of education for sustainable development should be actively carried out for the teachers who implement the education. It is also necessary to develop and provide high quality sustainable development teaching and learning materials from the Ministry of Education and the Office of Education.

Second, the teachers recognized that education for sustainable development and education for global citizens are similar in terms of their goals and subjects, but their educational background is similar. In addition, we showed that there is a deep relation between education subjects, objectives, and contents, so we can see the necessity and activation of education for sustainable development linked with global citizen education at the education field.

Table 3: The relevance between GCED and ESD Education topics

Area	Recognition	emotion	behavior
1	Interdependence between communities	Respect for diversity	morally responsible behavior
2	Structure between regional, national and global systems	Various communities and their connections	Help each other
3	Dynamics of tacit assumptions and power	The level of identity	Actions that can be done individually and collectively

This suggests that national preparation and efforts should be accompanied by education for sustainable development in connection with global citizenship education, which is, a macroscopic dimension of education for sustainable development that can be integrated with global citizen education.

Third, as a result of the survey on the relevance of cognitive, justice, and behavioral education factors of global citizenship education and education for sustainable development , globalization, democracy, climate change, global poverty, economic inequality, citizenship, democratic procedures, gender equality, governance, and disease in the order of education for sustainable development. Educational elements related to the emotional domain of global civil education include cultural diversity, discrimination, racism, care, intercultural communication, solidarity, negotiation and arbitration, coordination of differences, prevention of conflict and violence, education. Finally, the educational factors related to the behavioral domain of global citizen education were related to moral responsibility, social justice, consumption habit, fair trade, humanitarian behavior, innovation, and entrepreneurship.

The results of the questionnaire survey showed that the teachers recognized the necessity and importance of education for global citizenship, education for sustainable development, and education for sustainable development linked to global citizenship education. Nevertheless, they lacked the knowledge and educational expertise of sustainable development or global citizen education. Teachers need help in terms of content and method of what to do and how to do in the educational field. Therefore, efforts must be made at the national and local level to lay the foundations for the revitalization of education for sustainable development linked to global citizenship education.

2. A Revitalization plan to for ESD linked to GCDE

A survey of field teachers on global citizen education and education for sustainable development shows that there is a big gap between teachers' perceptions and educational field practices. In order to revitalize education for sustainable development linked to global citizen education, it is necessary to examine the concrete support plan that can activate the practice in the field. The participants of the study were selected from the following six areas(Kim et al, 2016a).

1) Curriculum: Methods of ESD linked with GCED

In order to link the global citizen education with the education for sustainable development efficiently, it is necessary to include the education area in the curriculum and practice it through the class. In particular, the national curriculum plays an important role in the implementation of education (Park, 2012).Research Participants suggest that the curriculum management model for the linkage of global civil education and education for sustainable development is 'Education for Sustainable Development embracing Global Citizen Education'('ESD embracing GCED', ESD> GCED)(Kim et al., 2016a; Kim et al., 2016b). 'ESD embracing GCED' model can be interpreted in terms of raising the capacity as a global citizen to live a sustainable future in the direction of ESD with GCED. In other words, it is a position that includes the ability to be a member to live such a society under the goal of building a sustainable earth and the world. Although the existing education for sustainable development has been based on environmental education, now it is expanded to the economic, social and cultural education areas and is being conducted as a curriculum. In the

light of this situation, ESD is likely to be run in a cross-curricular way with GCED that has been carried out in social studies education. In this sense, it can be seen that the scope of ESD is a macro category that encompasses GCED.

2) Development of Textbook

Experts emphasized the necessity and specificity of developing textbooks that can actually operate the classes and the urgency of developing and disseminating textbooks to complement textbooks in order to revitalize education for sustainable development linked to global citizenship education. In particular, when GCED and ESD are linked, teacher training should be preceded. Therefore, it is suggested that textbooks should be developed and distributed before teacher's training.

3) Development of Module and Program

Teachers are the subjects that carry out education in the field. Without proper awareness and practice of the teacher, proper education cannot be done. In this regard, some experts point out that it is most effective for teachers to develop a class model based on the main learning communities and research groups and to share excellent programs in order to stimulate ESD linked with GCED. In fact, teachers' questionnaires also showed that the quality of the scholarships distributed by the Office of Education is low and their utilization is low. Providing educational support programs and materials that teachers can use practically can lead to the revitalization of ESD linked with GCED.

4) Training of education personnel

As stated in the survey results, teachers have agreed on the necessity of education for sustainable development, but understanding of ESD is not high. This knowledge and teaching limitations lead to a decline in the quality of instruction. Based on this point, experts emphasized that teacher training should be preceded in order to revitalize ESD linked to GCED. Strengthening teacher capacity through training is the best way to enhance the quality of education and maximize the learning effect.

5) Role of each institution

In order to promote ESD linked to GCED, it was common opinion among experts that the Ministry of Education should include in the funding and curriculum after providing a basic framework. Most experts emphasized that the Office of Education should be responsible for teacher training and hoped that sharing the resources, programs and experiences of the NGOs with the schools could stimulate ESD linked to GCED. If the role of the Ministry of Education, the education office, and the community are clearly distinguished and linked well, as in the opinion of experts, ESD linked to GCED can be systematically and efficiently implemented.

6) Diffusion and Promotion

At present, there is no common consensus or opinion on ESD linked to GCED. Field teachers are also aware of the importance, but remain at the level of practicing GCED or ESD in an effort to be individualized without any foundation. Experts will also be able to identify such reality, establish a model school for ESD linked to GCED, and run a consulting team to improve the professionalism of education for sustainable development. In order to reduce the burden on the school and maximize the publicity of education, it was suggested that it would be better to utilize the publicity support from the Ministry of Education such as media promotion using SNS. And most importantly, it should be emphasized that designing educational devices is necessary to encourage students' voluntary participation.

Conclusion

We, who live in the present, have a great responsibility for the peaceful life of future earth community and mankind. This awareness emphasizes global importance in relation to sustainable development goals that are continuously proposed to improve the quality of human life including the MDGs and SDGs.

Education is an important means of achieving sustainable development goals as it aims to nurture future talents. In this respect, ESD and GCED around the world is becoming a big trend in world education and it is the basis of cultivating global citizens who live in future society.

GCED and ESD are similar in terms of goals and contents to pursue and show the possibility of linking the two education. The linkage of the two education programs can avoid duplication between GCED and ESD, and make it possible to expand and deepen the contents of education, thereby becoming more systematic and efficient means of educating future citizens. Based on this point, this study proposed a concrete plan to activate the practice of ESD linked to GCED in the educational field.

Researchers surveyed the teachers at the school site for research and surveyed the actual state of ESD, awareness of GCED and ESD. After that, we interviewed and analyzed opinions about the stimulation of ESD linked with GCED through in-depth interview with experts.

As a result, the field teachers recognized the necessity and importance of GCED, ESD, and ESD linked with GCED, but they failed to acquire proper knowledge and educational expertise related to it. Teachers need help in terms of content and method of what to do and how to do in their field. Therefore, its foundation should be laid for the activation of ESD linked to GCED through the development of curriculum, textbooks and teacher training at the national and local level. So with that the teachers have got the impression that they should endeavor to cultivate the citizens by the continuous professional growth.

In order to stimulate ESD linked to GCED, experts' opinion could be summarized into six areas: curriculum, development of textbooks and textbooks, development of modules and programs, personnel training, role of each institution, and diffusion and promotion.

In the curriculum, the 'Education for Sustainable Development with Global Citizen Education' model was presented from the perspective that the scope and scope of education for sustainable development encompasses global citizen education. In addition, the emphasis was on the development of relevant textbooks and textbooks, the development of modules and programs, and the training of teachers in order to enhance the professionalism of teachers and activate classes. There was also one opinion that the role of the Ministry of Education, the Office of Education, school, and community should be clarified so that ESD linked with GCED should be systematically implemented in all areas of life.

The results of this study show that the teachers and the education experts who are the subjects of the education execution agree on the necessity and importance of the ESD linked with GCED. Education can be said to be true education when it leads to practice rather than knowledge. ESD linked with GCED should not only be emphasized but also accompanied by the continuous efforts of related organizations and members so that they can play an important role in educating future citizens in education field.

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Academic And Economical Problems Of Foreign Undergraduate Students Studying In Turkey

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Aim: In recent years, the number of foreign students who come to Turkey in order to receive a decent higher education and are seen as international cultural ambassadors has been increasing. International students have become a significant component of world education market. Therefore, it is important to increase the share gained from mobility of students at international level. Providing an adequate education for foreign students depends on solving the problems that are encountered by foreign students and increasing the quality of higher education. This study aims to examine the academic and economical problems of foreign students who are studying at a state university in Western Black Sea, Turkey.

Study Group: The study group consists of 71 foreign students who are currently studying in different faculties at a state university in Turkey. In this state university, there are 284 foreign students in 2017-2018 academic year and these 71 students are selected randomly as a sample from this group. The students that constitute the sample come to Turkey from the African continent (14), European Balkans (5), Eastern Asia Bangladesh (8), Central Asia Caucasus (25) and Middle East (19). 30% of foreign students are female and 70% are male. 65% are in the 21-23 age group. All of them are single. 66% of them graduated from classical regular high school, 17% of them from private high school/college, 9% of them from vocational high school and 4% of them from Turkish high school. From largest proportion to the smallest respectively 35% of them are currently studying at Faculty of Administrative Sciences and Economics, 17% of them at Faculty of Arts and Sciences, 17% of them at Turkish Teaching Application and Research Center, 14% of them at Faculty of Engineering and Architecture, 7% of them at Faculty of Medicine, 4% of them at Faculty of Education and 1% of them at Faculty of Theology.

Method: In this research, screening model is used. In order to collect data, the questionnaire that was also used by Ercan (2012) in his master's thesis which includes 16 demographic and personal characteristics multiple choice questions to determine students' current states, problem screening list that consists of 74 problem items regarding 1) Problems related learning Turkish language, 2) Problems related the courses they have taken and their departments, 3) Problems related relationships and interactions with instructors, 4) Problems related opportunities in the university, 5) Problems related financial situations to understand students' academic education and an open ended question that aims to detect students' expectations is applied face to face. When the data is analysed, descriptive statistics frequency and percentage are used.

Findings: 51% of the students that constitute the study group have been in Turkey for 3 years and over, 20% of them for 2 years, 18% of them for less than 1 year and 11% of them for 1 year. 52% of them were informed via internet, 39% of them via their alumni friends, 25% of them via radio and television to come to Turkey. The reasons why they choose that state university are according to 82% of them to get a decent education, 44% of them cultural proximity, 42% of them to go to a developed country. 24% of the students' fathers are civil servants/officers, 17% of them are artisans/small business owners and 14% of them are unemployed or working in temporary jobs. 77% of the students' mothers are housewives. Majority of the students come from poor families. All of them are receiving scholarship. 66% of the students' monthly expenditures are 651 TL or more.

The most significant problem field for the foreign students is determined, between 73% and 51% of them, as learning Turkish language. The biggest problem within 9 problems that they encounter is for 73% of them not to be able to use Turkish properly and adequately. They encounter 26 problems which change between 68% and 41% regarding the courses that they have taken and their departments. The first three of these problems in terms of largest proportions are with 68% not being able to take notes properly related to courses, with 65% crowded classrooms and failing to present oral reports and with 63% being obliged to work hard but still failing. Foreign students encounter 9 different problems which are changing between 48% and 25% in the field of communication and interaction with instructors. The first three of them are with 48% not being able to communicate with instructors, with 46% instructors being prejudiced to them and with 44% instructors not being caring and not behaving warmly towards them. There are 16 problems that are changing between 51% and 30% which are related to insufficiency of opportunities in the university. The first three of them are such that 51% of them find orientation services insufficient, 49% of them find sport opportunities insufficient and 46% of them find psychological guidance and counselling services insufficient. There are 14 problems which are changing between 54% and 25%

regarding their financial situations. 54% of them find daily life more expensive in Turkey comparing with their homelands. %54 of them face working restrictions for foreign people, 51% of them find scholarship/credit amount inadequate, 49% of them are not able to afford education expenses and 49% of them cannot receive economical support from their family.

Results and Recommendations: Foreign students encounter 74 significant problems changing between 73% and 25% from problem list regarding 1) Learning Turkish language, 2) The courses that they have taken and their departments, 3) Relationships and interactions with instructors, 4) Opportunities in the university and 5) Financial situations. In order to solve these problems, policies and strategies of the university should be determined regarding the problem fields. Orientation for foreign students should be prepared meticulously, activities should be diversified and maintained carefully, psychological guidance and counselling services should become sufficient, Turkish Teaching Application and Research Center's education technology should become adequate in terms of equipment, resource and hardware, number of qualified instructors that are employed in the university should be increased, the problem of crowded classrooms should be handled, university should increase the quality of human resources especially instructors, social activity places should become sufficient and lastly it can be recommended that the university should meet international standards and become universal.

Adaptation Of The Actantial Schema Story Analysis Model To Middle School Turkish Language Courses

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Abstract

The development of humans, who come into the world equipped with intellectual and affective aspects, is realized in a systemic way which encompasses both thought and art education. Within this context, written, oral or visual texts are important tools. All texts do have a meaning and a message. In order to access this message an analysis on the text is required. There exist different theories and methods that are used in the analysis of different types of texts. The semiotic analysis theory, which is one of them, provides tools for text analysis with respect to the narrative and discourse dimension. The aim of this study is to determine whether a reading lecture activity based on the theory of semiotic analysis (actantial schema story analysis model), has an effect on students' reading and understanding skills. The study is designed as an experimental one based on pre-test-post-tests conducted with a dependent group. With respect to the employed methodology of the experiment, each student was asked to develop two texts for story analysis, the first one prior to the experiment based on the traditional approach, and the second one following the experiment based on the semiotic method. Then the differences between the achievement grades of each text for all students were analyzed. The study population consists of 18 7th grade students in a school of the Ministry of Education. As a result of the study it is concluded that the text analysis methodology that depends on the semiotic theory of is effective on the reading and analysis skills of students.

Key words: *Semiotic analysis theory, actantial schema story analysis model, reading and analysis skills*

Introduction

In the context of questioning existence, the effort to make sense of life underlies all human actions. Although this is a spontaneous and improvisational action, it can turn into a conscious behavior that will facilitate a human being's adaptation to life, if it is done with an awareness. The goal of education, as a matter of fact, is to educate individuals who are productive and at the same time well-adjusted and happy who will sustain life easily, in the most general sense. At this point, the ability to understand and express oneself correctly has a great importance. Advanced educational systems are committed to improving individuals' sensitivities through approaches and methods that support cognitive and affective development. When meaningful learning does not take place in our educational system, people are directed towards rote-learning based education. Educational approaches adopted in recent years in Turkey highlight understanding through intuition, learning by doing and experience, and constructing knowledge — at least theoretically (Epçazan, 2013). The fact that each student has different learning characteristics makes it mandatory to diversify the methods and techniques to be used and necessitates to take into account individual differences among students. When activities are prepared with this in mind, the learning level of each student can be improved. Multi-faceted and multidimensional activities will be able to encourage students to think creatively and critically as well as to participate in lessons. Thus, the functionality and quality of instruction will be enhanced.

The goal of Turkish language education is to bring students to the targeted level in terms of the development of basic language skills (reading, listening, speaking, and writing). The ability of individuals to reach the desired level in terms of the comprehension and expression skills and to express themselves well is linked to the extent of development of these skills. The four basic skill areas correspond precisely to the communication skills, and therefore, will affect students' social as well as academic achievement if they are improved. So, their whole lives will be influenced positively.

Aiming to improve communication skills, Turkish language education is for helping students gain skills rather than offering them knowledge (Şahbaz, 2013). Not only social success but also academic achievement is improved — which improve overall success in life — if the ways to process information, to put it into practice, and to transfer it into life are highlighted in these courses. In this case, in line with **contemporary methods and techniques**, it becomes important to have new and different activities prepared for environments with multiple stimuli and interactions.

In this process, teachers can make courses more efficient through **literary products and activities** that can attract students' attention (Göçer, 2010, Kuzu 2016). The versatility of the methods and techniques that teachers use in the instructional process, the resources they choose and the activities they prepare in line with the goal of the course improve the efficiency of the courses. As the comprehension and expression skills are improved by means

of new and different practices developed based on results of scientific research and with different perspectives, it will also be possible to increase interest in the course.

As an integrated teaching field, language teaching prioritizes activities focused on multiple skill areas in order to enable students to understand the role that language plays in all aspects and dimensions of communication. Within the scope of language teaching, written, oral, and visual texts are essential tools. For one, texts carry certain meanings and messages, which to discover requires textual analysis. Among the different theories and methods applied in analyzing different types of texts, semiotic analysis theory offers several tools for analysis in the dimension of narrative discourse (Kıran & Kıran, 2011). It can also be said that course activities arranged according to this method will ensure to reach the depths of the literary works and also to offer students a new methodological perspective.

Numerous examples were encountered in terms of semiotic text analysis during the literature review that was carried out during the preparation stage of the study. However, no studies could be found on organizing course activities based on this method and researching the effectiveness of the activities. Therefore, it is thought that this study will contribute to the literature.

In this study, the semiotic analysis method that offers a number of tools to uncover the meaning of texts was chosen as the subject of this study. Our positive observations in a study that we had done previously based on analyses of cartoons and text creation using the semiotic approach had suggested us that this method could also be tested in terms of reading comprehension.

The Study

Conceptual Frame

Reading

A number of researchers think that the process of cognitive awareness is effective on the process of understanding. Readers with cognitive and metacognitive skills identify their objectives and strategies prior to reading and activate their preliminary knowledge. Readers who do not have enough of these skills start reading directly. This is because they cannot determine a strategy at certain stages (Kanmaz, 2012). Readers who start reading directly are unable to know what they are reading and for what reason they are reading it, and they get lost in the text.

Joyce's "ideal reader" reads the entire text first in general terms, and then finds the references outside the text. Being an ideal reader requires the person to master all aspect of the text. Iser's "implicit reader" is the reader who is aware of these hidden expressions — that is, the meanings — that are not expressed in the text. Implicit readers can reach the deeper structure of the text in terms of meaning. Fish's "informed reader" collects information about the references before reading a piece of text, takes advantage of the experiences of different readers before reading a piece of text, and gains a versatile perspective. Riffaterre's "archi (plural) reader" considers that the text takes shape by originating from an essence, and evaluates the text with its references to reach that existing essence. What makes this reader different is his or her comparing the text with other texts while trying to reach the first state of the text. The comparison of a piece of text with other texts in the process of sense-making of the text has raised the concept of "intertextuality." Each text created has a referential relationship with texts preceding it, and the meaning of the text can be accessed by interacting with the preceding texts (as cited in: Özbay and Bahar, 2012). This reader handles the sense-making of the text more extensively than the others. Establishing a relationship with other texts in reaching the meaning of the text creates a foundation for the meaning of the text and strengthens it. Semioticians predicate semiotics upon the relationship between the signifier and the signified when determining a sign (Güner, 2012). Since semiotics is essentially based on signs, the relationship between the signifier and the signified is very important in determining signs. Therefore, it is necessary to set out the definitions of the signifier and the signified first. Güneş (2013) defined the signified as "the meaning or thought that a speaker has in mind and wants to convey when using a specific word or phrase." Rifat (2013:97) defined the signifier as "the part of the sign that can be sensed or perceived directly; it is a lingual image in terms of the verbal part of a natural language."

Semiotics mainly deals with meaning and tries to reach a deeper meaning rather than a superficial meaning. And, signs are keywords that are used to reach such a meaning. Rifat (2013:97) defined the sign as "the name given to the unit arising from the merger of the signifier (content) and signified (narrative) planes and from the mutual assumption of each other in language theories." The deep meaning is reached through the sense-making of the signs, and text analyses are carried out in this way.

Derived from the Ancient Greek *sēmeion*, meaning most broadly "sign" or "mark," semiotics is the science of the structure and functioning of any kind of arrangement of signs and symbols used for communication (Cevizci, 2002; Culler, 2002; Erdoğan & Alemdar, 1990). It is a tool for analyzing and interpreting all signs and symbols used in communication, including those in languages, words, images, traffic signs, sounds, flowers, music, banners, advertising, architecture, fashion, literature, painting, and cartoons, to name some common examples (Parsa & Parsa, 2004; Rifat, 1996). In short, semiotics encompasses all meaningful structures that shape social and individual discourses.

The sign is a twofold entity that consists of a signifier and a signified. Whereas the signifier embodies the physical dimensions—the shape, sound, and even objecthood—of a sign, the signified is the concept that this sign represents (Barthes, 1993; Parsa & Parsa, 2004). In a sense, the signified is the mental image of a concept, whereas the signifier is the word or phrase used to express that concept (Barthes, 1993). Saussure (1976) has conceived semiotics as a general science broader than linguistics that involves analyzing and teaching the characteristics of signs, their roles in society, and the rules that they obey. According to Kiran (1998), semiotics does not approach meaning as an abstract concept, with vague boundaries, but is interested in aspects of meaning determined, restricted, and altogether formed by natural language in different ways. The product of these formations—signs—consist of words, phrases, punctuation, and entire texts. For a practical example, Kiran (1998) has described how France's education system has incorporated semiotics and used it in teaching French: "A group of text analysis teachers and book writers who have been following the lectures and works of A. J. Greimas since 1966, are able to incorporate the semiotics into the French education system as a teaching and analysis method, almost without using the metalanguage of the theory, by minimizing the formulas and putting great emphasis on visualization." By using all of the above as a springboard, this study aimed to gauge the effectiveness of incorporating semiotics into language-teaching contexts.

When text analyses are carried out in Turkish language courses, the actions of heroes and reasons for their actions do not take too much emphasis. Therefore, reaching the deep meaning and establish a foundation for the meaning remain incomplete. Greimas's Actantial Model has revealed the actions of heroes along with their reasons and discussed the status and direction of communication between them.

"The individual players of the discourse level are identified by their actions in the narrative syntax step of the productive process and are signified with the term actants" (Kuzu, 2004:39). In the theory of Greimas, actants — that is, the ones performing the action — are more important than the objects. And, this Actantial Model, created by Greimas, reveals the relations between actants.

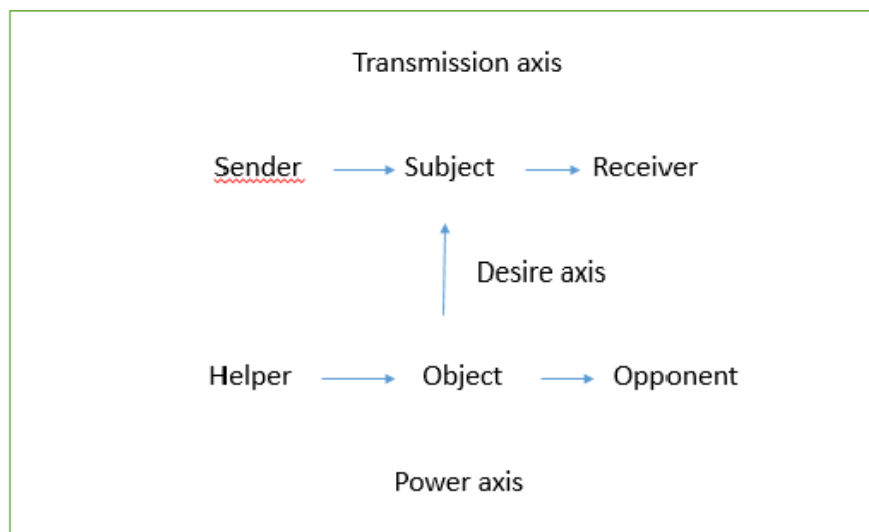


Figure 1: Greimas's Actantial Model (Kiran, 2011, p. 27)

After simplifying the actions of people into six actants, Greimas also matches them in terms of their functions (Kiran and Kiran, 2003:216):

1. The axis of desire: subject and object opposition.
2. The axis of transmission: sender and receiver opposition.
3. The axis of power: helper and opponent opposition.

The schema can be used for all characters of a story. In this case, when we change the subject, all other elements will change.

The axis of transmission between the sender and the receiver is accomplished through the object. The sender activates the subject. An action takes place after that activation, and the receiver benefits from this action.

There is an axis of desire that ensures the relationship between the subject and the object. The relationship that the subject establishes with the object, which the subject wants to reach and desires, is located on this axis. The subject is after the object that it wants to reach.

There is an axis of power between the helper and the opponent. This axis of power is also ensured via the subject. This is how they set up the helper and opponent balances of power that focus on the subject. While the helper strengthens the subject, the opponent tries to destroy this power (Kiran and Kiran, 2011).

Aim of The Study

The aim of this research study is to identify whether doing text analyses based on the semiotic method for use during the reading activities of Turkish language courses is effective on the ability of students to understand a piece of text. Formulated according to the aim of the study, the primary research question asks whether a reading activity based on Greimas' actantial schema story analysis model is more effective than an activity with the same content based on more a traditional method.

The sub-research questions are thus:

- 1) Are there any significant differences between the scores taken by the students from the pre-test (the evaluation questions of the story called "A Poplar and People") and the scores taken by the students from the post-test (the evaluation questions of the story called "The Last Birds")?
- 2) Are there any significant differences between the scores taken by the students from the pre-test (the evaluation questions of the story called "A Poplar and People") and the scores taken by the students from the post-test (the evaluation questions of the story called "The Last Birds") according to gender?
- 3) Is there a significant relationship between the students' academic achievement scores and the difference between the scores taken by the students from the pre-test (the evaluation questions of the story called A Poplar and People) and the scores taken by the students from the post-test (the evaluation questions of the story called The Last Birds)?

Method

The study followed a single group pre- and post-test design (Cohen, Manion, & Morrison, 2005) to investigate whether any meaningful difference emerges in measurements of a randomly selected experiment group, before and after the application of the independent variable. If post-test scores are greater than pre-test scores, then the application of the independent variable will have been proven successful (Büyüköztürk, 2015; Karasar, 2011).

A symbolic view of the model is given in Table 1. G represents the research group, O1 the pre-measurement obtained from the group, X the experimental operation, and O2 the final measurement obtained from the group (Büyüköztürk, 2015).

Table 1:

Symbolic View of the Model

Group	Pre-test	Operation	Post-test
G	O ₁	X	O ₂

To perform the study in a practical, cost-effective way, participants were recruited from a secondary school under the purview of the Turkish Ministry of Education located in Ankara. Since the school maintains only one 7th-grade class, sampling was impossible, and as a result, the entire population (N = 18, 8 females and 10 boys) was recruited. The difference between each student's achievement scores — measuring the level of understanding of the story which was analyzed using the traditional method before the experiment and using the semiotic method after the experiment — was examined. Measurements were taken by three subject matter experts over the pre-test and post-test scores of the same group.

In order to come up with the first finding of the study about the overall success in understanding the text, a paired samples t-test was carried out. It was examined whether there was a significant difference between the scores the students obtained from the pre-test and those from the post-test. A two-way repeated measures ANOVA was carried out to determine the relationship with gender, which was the second finding, and it was explored whether there was a significant difference between the scores the students received from the pre-test and those from the post-test according to gender. For the third finding on the relationship with the academic achievement scores, a Pearson product-moment correlation coefficient analysis was carried out.

The stories used during the implementation process of the study were chosen from among the stories in the textbook of the Ministry of National Education (MNE) that were close to each other in terms of subject. In this process, first, the evaluation questions (10 understanding-comprehension questions) of the story titled "A Poplar and People," prepared by the researcher by taking expert opinions were administered as a pre-test. Then, the story analysis begun. The analysis was carried out through a story map, which is commonly used in the traditional method.

In the second step of the implementation, a set of course content related to the semiotic analysis method and Greimas's Actantial Model was implemented. While this instruction was carried out, the students' learning levels were taken into account, and Greimas's Actantial Model was simplified in a way that the students could understand. Next, the evaluation questions of the story titled "The Last Birds" (10 understanding-comprehension questions) were administered.

In order to come up with the first finding of the study about the overall success, a paired samples t-test was carried out, and it was checked whether there was a significant difference between the scores the students obtained from

the pre-test and those from the post-test. A two-way repeated measures ANOVA was carried out to determine the relationship with gender, which was the second finding, and it was explored whether there was a significant difference between the scores the students received from the pre-test and those from the post-test according to gender. For the third finding on the relationship with the academic achievement scores, a Pearson product-moment correlation coefficient analysis was carried out.

Findings

When the stories were examined in line with Greimas's Schema, a table like the following has emerged.

The analysis of the story titled "A Poplar and People" according to Greimas's Actantial Model:

Subject: The poplar tree; Sender: The sense of existence; Object: The desire to live; Receiver: The poplar tree and the old man; Helper: The old person, the villagers, the flowers, the birds (hoopoe); Opponent: The fabricator, the resident engineers, the architects.

Subject: The old person; Sender: The love of the earth; Object: Under the poplar tree at the seaside; Receiver: The old person; Helper: None; Opponent: Death.

Subject: The fabricator; Sender: Pecuniary advantages; Object: The forest area at the seaside; Receiver: The fabricator; Helper: The resident engineers, the architects; Opponent: None

Subject: The hoopoe; Sender: The sense of vengeance; Object: The prevention of the opening of the factory; Receiver: The hoopoe and the other creatures; Helper: The other birds; Opponent: None.

Subject: The author; Sender: The environmental sensitivity; Object: The desire to protect the nature; Receiver: The author and the nature; Helper: The villagers, the birds; Opponent: The fabricator, the resident engineers, the architects.

The analysis of the story titled "The Last Birds" according to Greimas's Actantial Model:

Subject: The birds; Sender: The migration period; Object: Reaching the living space; Receiver: Constantine, the children, the adults; Helper: The fall season; Opponent: Master Constantine, the children, the adults, the captured screeching birds, the birdlimes.

Subject: The adults; Sender: The autumn; Object: The birds; Receiver: The adults; Constantine, the children; Helper: The children, the birdlimes, the sticks, the captured screeching birds, Master Constantine; Opponent: None

The second part of the story:

Subject: The poor children; Sender: Engineer Mr. Ahmet; Object: Pecuniary advantages; Receiver: The poor children; Engineer Mr. Ahmet, the Netherlander; Helper: Engineer Mr. Ahmet, the Municipal Directive, the Netherlander; Opponent: The police officers

Subject: Engineer Mr. Ahmet; Sender: The Netherlander; Object: Pecuniary advantages; Receiver: Engineer Mr. Ahmet, the Netherlander; Helper: The Netherlander, the children, the Municipal Directive; Opponent: The police officers.

Subject: The Netherlander leather merchant; Sender: The landscape gardening; Object: The grass; Receiver: The Netherlander leather merchant; Helper: Engineer Mr. Ahmet, the children; Opponent: None.

Subject: The author; Sender: The environmental sensitivity; Object: The desire to protect the nature; Receiver: The author and the nature; Helper: None; Opponent: Master Constantine, the adults, the children, the Netherlander, Engineer Mr. Ahmet, the poor children, the Municipal Directive.

Statistical findings on research questions are as follows:

Table 1. Related Samples t test results for the Comparison of Post-test and Pre-test

Variable	N	\bar{X}	S	SD	t	p
Pre-test	17	76.71	21.49	16	5.16	0.001
Post-test	17	88.51	14.91			

In order to determine whether there was a significant difference between the scores the students obtained from the pre-test (the evaluation questions of the story titled "A Poplar and People") and those from the post-test (the evaluation questions of the story titled "The Last Birds"), a paired samples t-test was carried out. According to the results of the paired samples t-test, it was seen that there was a significant difference between the pre-test scores and the post-test scores ($t=5.16$, $p<.05$).

Table 2. Comparison of Pre- and Post-Test Anova Analysis Results by Gender

Variable	N	\bar{X}	S	Sd	F (Wilk'Lamda)	p
Girl	7	6.14	9.62	14	2.59	0.110
Boy	10	15.77	11.79			

A two-way repeated measures ANOVA was carried out to determine whether there was a significant difference between the scores the students received from the pre-test and those from the post-test according to gender, which was the second research question of the study. According to the results of the ANOVA, it was seen that there was no significant difference between the pre-test scores and the post-test scores according to gender ($F(14,.05)=2.59$, $p>.05$).

Table 3. Analysis of Pearson Moment Correlation Coefficient

Variable	R	P
Difference Score-Year end success score	-0.517	0.017

The Pearson product-moment correlation coefficient was calculated to determine whether there was a significant correlation between the students' pre-test and post-test scores and their academic achievement scores. According to the results of the test, the difference between the students' pre-test and post-test scores and the academic achievement scores were found to have a significant, moderate and negative correlation ($r=-0.517$, $p<.05$).

Conclusions

The aim of the Turkish language education program is to develop the basic language skills of students. It is important to use different methods and techniques to develop these basic language skills.

The story analysis using the traditional method and the story analysis using the semiotic method were compared through evaluation questions that were prepared separately in this study, which was based on the semiotic analysis method administered to 7th-grade middle school students.

It was seen that there was a significant difference between the students' post-test scores and their pre-test scores. The fact that the mean post-test score was greater indicated the effectiveness of the semiotic method. This result can be explained by a positive reflection of the ability of the students to think versatily and have different perspectives on their interpretation skills through the semiotic analysis method.

The semiotic method can be said to be more effective in terms of increasing the scores received from the test by the students whose academic achievement was low. In terms of the fact that the students with low academic achievement scored better in the post-test, it can be said that different methods of analysis had a positive impact on the students' learning.

No significant difference could be found according to gender, so there is no comment on that.

When the implementation test results were evaluated, it was found that the students used the power of interpretation in the post-test implementation. Based on this, it was seen that the method that was implemented was more effective in terms of reading comprehension and interpretation.

With the help of the semiotic analysis method, the students were able to think versatily. Thus, it was seen that the students responded better to deeper structural questions about the understanding of the text, in other words they were able to reach the deeper meaning structure of the text. The study was observed to be useful in this respect.

In this study, a linguistic method was addressed in terms of reading comprehension — that is, text analysis — that constitutes an important part of Turkish language education. Through two selected stories, the semiotic narrative analysis method and Greimas's Actantial Model were carried over to the Turkish language course reading activities. Turkish language courses target the development of language and communication skills. When teaching reading, writing, speaking, listening education and grammar teaching, methods and techniques should be chosen to improve versatility, and cognitive and affective skills. It is also important that materials to be chosen and activities to be prepared are compatible with these methods and techniques. Students should be supervised to be able to consider texts in a questioning and critical manner. In accordance with these general principles, the following may be recommended specifically based on this study:

In Turkish courses, different methods should be used in reading activities, which take into account data from linguistics and scientific studies, and the activities to be prepared should be prepared in this direction.

In order to be able to teach how to read meaningfully and profoundly, the semiotic analysis method should be offered in reading activities.

The Actantial Model should be taught to students as a story analysis method, which can be followed by writing education conducted over the self-analyses and sense-making activities carried out by students.

Based on the experience gained from the implementation process, when using this method, the analysis of a piece of text should be started with verbal expressions by directly including students, and the theoretical part should be given the latest.

When analyzing a story using the semiotic method, students should be given opportunities to reach the essence of the story by using the discovery method based on the student-centered, learning-by-doing and learning-by-experience approaches. To that end, speaking training should also be utilized.

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Admission Procedure At University Of Economics – Probability Aspects

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Abstract

Entrance exams at Prague University of Economics are analysed in present paper. The admission procedure at the university consists of English and mathematical tests. Two different tests in mathematics are used at Prague University of Economics in present time. We shall compare these tests (the distributions of the number of points in test in mathematics) from probability point of view. Entrance tests in mathematics at the university are multiple choice question tests (the test 1 has fifteen questions, the test 2 has twelve questions, each question in test 1 and each question in the test 2 has five answers). The questions in test 1 and test 2 in mathematics are independent. Therefore probability model of binomial distribution was used for comparison of the distributions of the number of points in test in mathematics. The results of the paper can be used to improve the admission process at Prague University of Economics.

Keywords: Entrance examination, math tests, probability distribution.

Introduction

The math tests used in entrance examination at Prague University of Economics are multiple choice question tests. These tests are prepared by the Department of Mathematics of the Faculty of Informatics and Statistics. Statistical analysis of the math tests we can find in Klůfa (2016). The multiple choice question tests are suitable for entrance examinations at the university. These tests are objective, results can be evaluated easily for large number of students. On the other hand, a student can obtain certain number of points in the test purely by guessing the right answers. This problem is addressed e.g. in Zhao (2005), Premadasa (1993), Zhao (2006) - this article studies the probability of obtaining a certain score by pure guesswork and introduces a conversion scheme which converts raw test scores into standard percentage marks (the probabilistic analysis shows that the optimum number of choices of answers is four). In Kaspříková and Klůfa (2012) it was shown that risk of success of students with lower performance levels in entrance examination at Prague University of Economics is negligible. The admission process is analysed e.g. in following education research. Relation between results of the entrance exam test and university study results at Charles University (Faculty of Mathematics and Physics) is studied in Zvára and Anděl (2001). The same problem at Czech University of Life Sciences is studied in Poláčková and Svatošová (2013). The comparison of the ways of acceptance students at Prague University of Economics from statistical point of view is in Klůfa (2015b). Analysis of the entrance exams at Czech University of Life Sciences we can find in Kučera, Svatošová and Pelikán (2015) – relation between results of the entrance exam test and university study results. Analysis of the entrance tests at Comenius University in Bratislava we can find in Kohanová (2012). Similar problems are solved in Kubanová and Linda (2012), Hrubý (2016), Bartoška, Brožová, Šubrt and Rydval (2013). Dependence of the results of entrance examinations on test variants is analysed in Klůfa (2015a). In this paper we shall study the entrance examination in mathematics from probability point of view.

The Study

Two different tests in mathematics at Prague University of Economics are applied in admission process in present time:

Test 1. The test has 10 questions for 5 points and 5 questions for 10 points (100 points total). Questions are independent. Each question has 5 answers (one answer is correct), wrong answer is not penalized.

Test 2. The test has 8 questions for 6 points and 4 questions for 13 points (100 points total). Questions are independent. Each question has 5 answers (one answer is correct), wrong answer is not penalized.

The Test 1 is applied in admission process at the Faculty of Informatics and Statistics, at the Faculty of Business Administration and at the Faculty of Finance and Accounting. The Test 2 is applied in admission process at the Faculty of International Relations. We shall compare these tests (the distributions of the number of points in test in mathematics) from probability point of view.

The tests in mathematics correspond to the following general model: Let us consider n independent random trials having two possible outcomes, say “success” (right answer) and “failure” (wrong answer) with probabilities p and $(1-p)$ respectively. The probability of correctly answered question p (under assumption that each of m answers in particular question has the same probability and just one answer is correct) is $p=1/m$.

Let us denote X as number of successes (right answers) that occur in n independent random trials. X is discrete random variable distributed according to the binomial law with parameters n and p . Probability that number of successes is k ($k=0, 1, 2, \dots, n$) is (see e.g. Rao (1973))

(1)

$$P(X = k) = \binom{n}{k} p^k (1 - p)^{n-k}$$

The expected value and the standard deviation of random variable X distributed according the binomial law with parameters n and p is

$$E(X) = np, \quad \sigma(X) = \sqrt{D(X)} = \sqrt{np(1-p)} \quad (2)$$

where $D(X)$ is dispersion of random variable X . The mode of random variable X is the most probable value \hat{x} of random variable X . The distribution function F of random variable X is a real function of one real variable defined for x in interval $(-\infty, \infty)$ by formula

$$F(x) = P(X \leq x)$$

i.e. $F(x)$ is a probability that number of correct answers is less or equal to x . In our case, the distribution function F of random variable X distributed according to the binomial law with parameters n and p is

$$F(x) = 0, x < 0, \quad F(x) = \sum_{k=0}^{[x]} \binom{n}{k} p^k (1-p)^{n-k}, x \geq 0 \quad (3)$$

where $[x]$ is integer part of x .

Findings

Distribution of the number of points in the test 1 in mathematics

Now we shall study the distribution of the number of points in the test 1 (the test has 10 questions for 5 points and 5 questions for 10 points) in mathematics. Discrete random variable

Y_1 = number of points in the test 1 in mathematics

can take values

$$0, 5, 10, 15, 20, 25, \dots, 95, 100$$

For determination of distribution random variable Y_1 we must find the probability $P(Y_1 = k)$ for $k=0, 5, 10, 15, 20, 25, \dots, 95, 100$. For example we shall find probability that number of points in test 1 in mathematics is 25. Let us denote

X_1 = number of right answers in the first 10 issues

X_2 = number of right answers in following 5 issues

It holds

$$P(Y_1=25) = P[(X_1=1 \cap X_2=2) \cup (X_1=3 \cap X_2=1) \cup (X_1=5 \cap X_2=0)] = \\ = P[(X_1=1 \cap X_2=2)] + P[(X_1=3 \cap X_2=1)] + P[(X_1=5 \cap X_2=0)]$$

Random variables X_1, X_2 are independent, therefore we have

$$P(Y_1=25) = P(X_1=1) P(X_2=2) + P(X_1=3) P(X_2=1) + P(X_1=5) P(X_2=0)$$

Random variable X_1 has binomial distribution with parameters $n=10$ and $p=0,2$. Random variable X_2 has binomial distribution with parameters $n=5$ and $p=0,2$. According to (1) we obtain

$$P(Y_1 = 25) = \binom{10}{1} 0,2^1 0,8^9 \binom{5}{2} 0,2^2 0,8^3 + \binom{10}{3} 0,2^3 0,8^7 \binom{5}{1} 0,2^1 0,8^4 + \binom{10}{5} 0,2^5 0,8^5 \binom{5}{0} 0,8^5 \\ = 0,146098$$

Analogously, we can calculate the probability $P(Y_1=k)$ for other $k=0, 5, 10, 15, \dots, 95, 100$ (see Table 1 and Figure 1). For this calculation we used software Mathematica (Statistics 'DiscreteDistributions') – see Wolfram (1991).

Table 1: Distribution of number of points in the test 1 in mathematics

Points in test	Probability	Points in test	Probability
0	0.035184	55	0.002890
5	0.087961	60	0.000957
10	0.142937	65	0.000275
15	0.175922	70	0.000067
20	0.174547	75	0.000014
25	0.146098	80	0.000002
30	0.105227	85	3×10^{-7}
35	0.066057	90	2×10^{-8}
40	0.036467	95	1×10^{-9}

45	0.017761	100	3×10^{-11}
50	0.007634	Sum	1

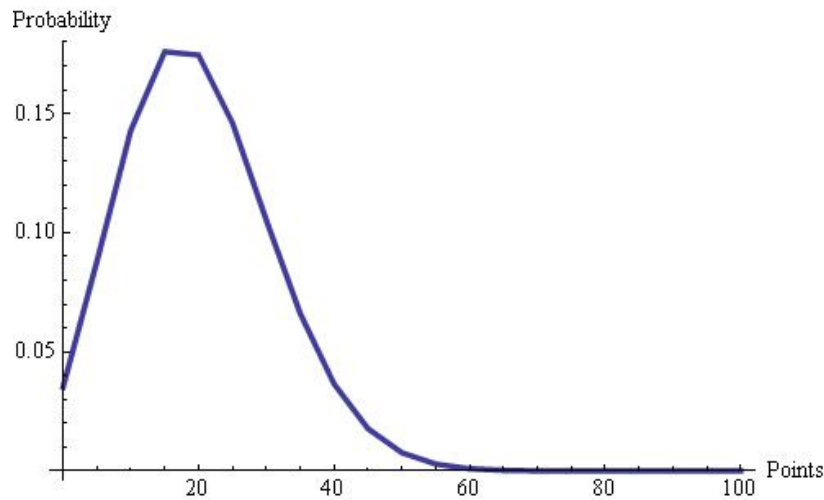


Figure 1: Distribution of number of points in the test 1 in mathematics (polygon)

Now we shall find the distribution function F_I of random variable Y_I (number of points in the test 1 in mathematics). For example we shall find the probability that number of points in test 1 in mathematics is less or equal 30, i.e. the function value $F_I(30)$. We have

$$F_I(30) = P(Y_I \leq 30) = P[(Y_I=0) \cup (Y_I=5) \cup (Y_I=10) \cup (Y_I=15) \cup (Y_I=20) \cup (Y_I=25) \cup (Y_I=30)]$$

Random events $(Y_I=0)$, $(Y_I=5)$, $(Y_I=10)$, $(Y_I=15)$, $(Y_I=20)$, $(Y_I=25)$, $(Y_I=30)$ are disjoint (i.e. these random events cannot occur simultaneously), therefore

$$P(Y_I \leq 30) = P(Y_I=0) + P(Y_I=5) + P(Y_I=10) + P(Y_I=15) + P(Y_I=20) + P(Y_I=25) + P(Y_I=30)$$

Finally from Table1 we obtain

$$F_I(30) = P(Y_I \leq 30) = 0.867876,$$

i.e. under assumption of random choice of answers approximately 86.8% of students get the test score less or equal 30. Similarly we can find other values of distribution function F_I – see Table 2.

Table 2: Distribution function of number of points in test 1 in mathematics

Interval of values y	$F_I(y)$	Interval of values y	$F_I(y)$
$(-\infty, 0)$	0	$[50, 55)$	0.995795
$[0, 5)$	0.035184	$[55, 60)$	0.998685
$[5, 10)$	0.123145	$[60, 65)$	0.999642
$[10, 15)$	0.266082	$[65, 70)$	0.999917
$[15, 20)$	0.442004	$[70, 75)$	0.999984
$[20, 25)$	0.616551	$[75, 80)$	0.999998
$[25, 30)$	0.762649	$[80, 85)$	1.000000
$[30, 35)$	0.867876	$[85, 90)$	1.000000
$[35, 40)$	0.933933	$[90, 95)$	1.000000
$[40, 45)$	0.970400	$[95, 100)$	1.000000
$[45, 50)$	0.988161	$[100, \infty)$	1

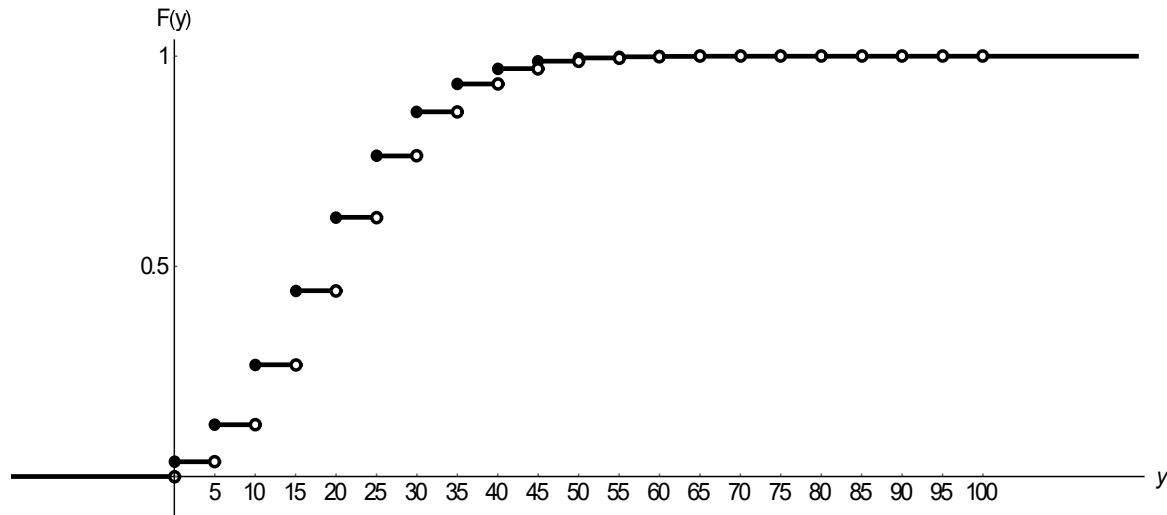


Figure 2: Distribution function of number of points in the test 1 in mathematics

Finally we shall find a basic descriptive statistics of the distribution of the number of points in the test 1 in mathematics. According to (2) we obtain the expected number of points in test 1 in mathematics $E(Y_1)$. Since $Y_1 = 5X_1 + 10X_2$ we have

$$E(Y_1) = E(5X_1 + 10X_2) = 5E(X_1) + 10E(X_2)$$

According to (2) we obtain ($E(X_1) = 10 \cdot 0.2 = 2$, $E(X_2) = 5 \cdot 0.2 = 1$)

$$E(Y_1) = 5 \cdot 2 + 10 \cdot 1 = 20.$$

Expected number of points in test 1 in mathematics is 20. The mode is the most probable number of points in test 1 in mathematics. From Table 1 is

$$\hat{y}_1 = 15.$$

Random variables X_1, X_2 are independent, therefore dispersion of number of points in test 1 in mathematics $D(Y_1)$ is (see e.g. Rao (1973))

$$D(Y_1) = D(5X_1 + 10X_2) = 5^2 D(X_1) + 10^2 D(X_2)$$

Since (see formula (2)),

$$D(X_1) = 10 \cdot 0.2 \cdot 0.8 = 1.6, \quad D(X_2) = 5 \cdot 0.2 \cdot 0.8 = 0.8,$$

dispersion of number of points in test 1 in mathematics is

$$D(Y_1) = 25 \cdot 1.6 + 100 \cdot 0.8 = 120$$

and the standard deviation of number of points in test 1 in mathematics is

$$\sigma_1 = 10.954.$$

Distribution of the number of points in the test 2 in mathematics

Now we shall study the distribution of the number of points in the test 2 (the test has 8 questions for 6 points and 4 questions for 13 points) in mathematics. Discrete random variable

Y_2 = number of points in the test 2 in mathematics

can take values (see Table 2)

0, 6, 12, 13, 18, 19, 24, 25, 26, 30, 31, 32, 36, 37, 38, 39, 42, 43, 44, 45, ..., 88, 94, 100

For determination of distribution random variable Y_2 we must find the probability $P(Y_2 = k)$ for $k=0, 6, 12, 13, 18, 19, \dots, 94, 100$. For example we shall find probability that number of points in test 2 in mathematics is 25. Let us denote

T_1 = number of right answers in the first 8 issues

T_2 = number of right answers in following 4 issues

Random variables T_1, T_2 are independent, therefore

$$P(Y_2=25) = P[(T_1=2) \cap (T_2=1)] = P(T_1=2) P(T_2=1)$$

Random variable T_1 has binomial distribution with parameters $n=8$ and $p=0.2$. Random variable T_2 has binomial distribution with parameters $n=4$ and $p=0.2$. According to (1) we obtain

$$P(Y_2 = 25) = \binom{8}{2} 0.2^2 0.8^6 \binom{4}{1} 0.2^1 0.8^3 = 0.120259.$$

Analogously, we can calculate the probability $P(Y_2 = k)$ for other $k=0, 6, 12, 13, 18, \dots, 94, 100$ (see Table 2 and Figure 2). For this calculation we used software Mathematica (Statistics 'DiscreteDistributions') – see Wolfram (1991).

Table 3: Distribution of number of points in the test 2 in mathematics

Points in test	Probability	Points in test	Probability
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0	0.068719	51	0.007516
6	0.137439	52	0.000268
12	0.120259	55	0.000034
13	0.068719	56	0.001409
18	0.060130	57	0.003758
19	0.137439	58	0.000537
24	0.018790	61	0.000001
25	0.120259	62	0.000176
26	0.025770	63	0.001174
30	0.003758	64	0.000470
31	0.060130	68	0.000013
32	0.051540	69	0.000235
36	0.000470	70	0.000235
37	0.018790	74	4×10^{-7}
38	0.045097	75	0.000029
39	0.004295	76	0.000073
42	0.000034	81	0.000002
43	0.003758	82	0.000015
44	0.022549	87	7×10^{-8}
45	0.008590	88	0.000002
48	0.000001	94	1×10^{-7}
49	0.000470	100	4×10^{-9}
50	0.007046	Sum	1

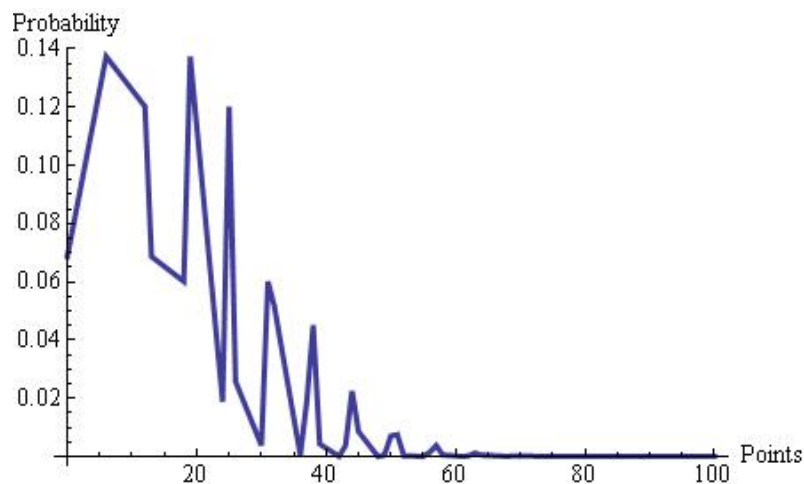


Figure 3: Distribution of number of points in the test 2 in mathematics (polygon)

Now we shall find the distribution function F_2 of random variable Y_2 (number of points in the test 2 in mathematics). For example we shall find the probability that number of points in test 2 in mathematics is less or equal 30, i.e. the function value $F_2(30)$. We have

$$F_2(30) = P(Y_2 \leq 30) =$$

$$= P[(Y_2=0) \cup (Y_2=6) \cup (Y_2=12) \cup (Y_2=13) \cup (Y_2=18) \cup (Y_2=19) \cup (Y_2=24) \cup (Y_2=25) \cup (Y_2=26) \cup (Y_2=30)]$$

Random events $(Y_2=0)$, $(Y_2=6)$, $(Y_2=12)$, $(Y_2=13)$, $(Y_2=18)$, $(Y_2=19)$, $(Y_2=24)$, $(Y_2=25)$, $(Y_2=26)$, $(Y_2=30)$ are disjoint (i.e. these random events cannot occur simultaneously), therefore $F_2(30)$ is

$P(Y_2=0)+ P(Y_2=6)+ P(Y_2=12)+ P(Y_2=13)+ P(Y_2=18)+ P(Y_2=19)+ P(Y_2=24)+ P(Y_2=25)+ P(Y_2=26)+ P(Y_2=30)$
Finally from Table 3 we obtain

$$F_2(30)= P(Y_2 \leq 30) = 0.761282,$$

i.e. under assumption of random choice of answers approximately 76.1% of students get the test score less or equal 30. Similarly we can find other values of distribution function F_2 – see Table 4.

Table 4: Distribution function of number of points in the test 2 in mathematics

Interval of values y	$F_2(y)$	Interval of values y	$F_2(y)$
$(-\infty, 0)$	0	$[50, 51)$	0.984052
$[0, 6)$	0.068719	$[51, 52)$	0.991568
$[6, 12)$	0.206158	$[52, 55)$	0.991836
$[12, 13)$	0.326417	$[55, 56)$	0.991870
$[13, 18)$	0.395136	$[56, 57)$	0.993279
$[18, 19)$	0.455266	$[57, 58)$	0.997037
$[19, 24)$	0.592705	$[58, 61)$	0.997574
$[24, 25)$	0.611495	$[61, 62)$	0.997575
$[25, 26)$	0.731754	$[62, 63)$	0.997751
$[26, 30)$	0.757524	$[63, 64)$	0.998925
$[30, 31)$	0.761282	$[64, 68)$	0.999395
$[31, 32)$	0.821412	$[68, 69)$	0.999408
$[32, 36)$	0.872952	$[69, 70)$	0.999643
$[36, 37)$	0.873422	$[70, 74)$	0.999878
$[37, 38)$	0.892212	$[74, 75)$	0.999878
$[38, 39)$	0.937309	$[75, 76)$	0.999907
$[39, 42)$	0.941604	$[76, 81)$	0.999980
$[42, 43)$	0.941638	$[81, 82)$	0.999982
$[43, 44)$	0.945369	$[82, 87)$	0.999997
$[44, 45)$	0.967945	$[87, 88)$	0.999997
$[45, 48)$	0.976535	$[88, 94)$	0.999999
$[48, 49)$	0.976536	$[94, 100)$	1.000000
$[49, 50)$	0.977006	$[100, \infty)$	1

Finally we shall find a basic descriptive statistics of the distribution of the number of points in the test 2 in mathematics. According to (2) we obtain the expected number of points in test 2 in mathematics $E(Y_2)$. Since $Y_2 = 6 T_1 + 13 T_2$ we have

$$E(Y_2) = E(6 T_1 + 13 T_2) = 6 E(T_1) + 13 E(T_2)$$

According to (2) we obtain $(E(T_1) = 8 \cdot 0.2 = 1.6, E(T_2) = 4 \cdot 0.2 = 0.8)$

$$E(Y_2) = 6 \cdot 1.6 + 13 \cdot 0.8 = 20.$$

Random variables T_1 and T_2 are independent, therefore dispersion of number of points in test 2 in mathematics $D(Y_2)$ is (see e.g. Feller (1970))

$$D(Y_2) = D(6 T_1 + 13 T_2) = 6^2 D(T_1) + 13^2 D(T_2)$$

Since (see formula (2)),

$$D(T_1) = 8 \cdot 0.2 \cdot 0.8 = 1.28, \quad D(T_2) = 4 \cdot 0.2 \cdot 0.8 = 0.64,$$

dispersion of number of points in test 2 in mathematics is

$$D(Y_2) = 36 \cdot 1.28 + 169 \cdot 0.64 = 154.24$$

and the standard deviation of number of points in test 2 in mathematics is

$$\sigma_2 = 12.419.$$

Comparison of the Test 1 and the Test 2 in mathematics is in Table 5. For example, test score more than 30 points in Test 1 has 16.3% of students, since (see Tab. 2)

$$P(Y_1 > 30) = 1 - F_1(30) = 1 - 0.867876 = 0.132124$$

Table 5: Comparison of the tests in mathematics (random choice of answers)

Entrance examination in mathematics	Test 1	Test 2
Expected number of points in test	20	20
Standard deviation	10.954	12.419
Test score more than 10 points	73.4% of students	79.4% of students
Test score more than 20 points	38.3% of students	40.7% of students
Test score more than 30 points	13.2% of students	23.9% of students
Test score more than 40 points	2.96% of students	5.84% of students
Test score more than 50 points	0.42% of students	1.59% of students

Conclusion

The number of examples in the test in mathematics was reduced from 15 to 12 to shorten the test run time. The Distribution 1 (the distribution of number of points in the Test 1 in mathematics) and the Distribution 2 (the distribution of number of points in the Test 2 in mathematics) have the same expected value (see Table 5). Standard deviation of the Distribution 2 is greater than standard deviation of the Distribution 1. Due to greater variability of the Distribution 2 e.g. the probability that number of points in Test 2 in mathematics exceeds 40 is approximately two times greater (see Table 5) than the probability that number of points in Test 1 in mathematics exceeds 40 (both probabilities are near to 0).

From the results of this paper it seems that the Test 1 in mathematics is better than the Test 2 in mathematics from probability point of view. However the differences between these tests are not significant. A shorter math test can also be used for admission process at Prague University of Economics.

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Adoption On Lifelong Learning And Database Development Process For Conserving Eco-Architecture Modern Buildings

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Abstract

Nowadays, there are valuable modern buildings in Thailand which are gradually reduced by economic and social change, especially in the period of fifteen years ago. These buildings are not only an indicator of architecture growth but they are also being as lifelong learning resources for people. Thus database on the buildings should be developed to be learning resources for architecture conservation as well as lifelong learning encouragement for people. The investigation of adoption on lifelong learning and database development process for conserving eco-architecture modern buildings would be necessary due to database is a collection of information that is organized so that it can be easily accessed, managed and updated. The ease of information access could support the process of lifelong learning which fulfill learners' needs. Thus the adoption on lifelong learning concept and the database development process were studied under the model of database development (Watt, 2018) which consists of six steps; (1) establishing requirements (2) analysis (3) design (4) implementation (5) testing and (6) maintenance as well as the information of the buildings from DoCoMoMo Thailand. The document content analysis was used to integrate between characteristics of lifelong learning and the database development steps that included the buildings information to be the model or prototype of database development process which encourages lifelong learners as well as conserve the eco-architecture modern buildings in Thailand.

Introduction

Modern architecture began in the early 20th century, about 1920-1960. It was based on a simple concept of design with Functionalism in creativity, led by the French architect, Le Corbusier, Ludwig Mies van der Rohe and Walter Gropius, 2 Germans. Their concept was that it should express the beauty of the building itself without decoration and beauty as a universal model. This concept has been recognized around the world since World War

II. Nowadays, many countries around the world aim to preserve the buildings of modern architecture that assimilates the culture of the 20th century, such as modern architecture in the European countries, the United States, and Mexico to develop a sustainable learning resource the International Non-Profit Conservation Organization, established in 1988, is known as DoCoMoMo International (Documentation and Conservation of Buildings, Sites, and Neighborhoods of the Modern Movement). In addition, to preserving architectural buildings, it also preserves building documents, architectural models, architectural sites, and community neighborhoods with community, society and national values. This organization works with more than 70 countries around the world. Thailand is one of the member countries, joining in 2014 under the name of DoCoMoMo Thailand.

(source: www.docomomo.com, www.docomomothailand.org)

The Study

Most Modern architecture buildings in Thailand which were built in 1935-1985 respond to public use and represent the advancement of the architecture, structural engineering and technology of materials, such as concrete, steel, and glass, various roofing materials and so on. Even though architects and engineers who created this work have passed away, but the building works which are the foundation of the modern architecture in the present day, remain in good condition. There are many people interested in it, including students, public people, architects and engineers, construction workers both Thai and foreign, as the statistic was shown in the web page of the Association of Siamese Architects. Travel rates to visit Thai architecture fairs, the world heritage, and other tourist attractions which generate income for all countries, generate revenue for Thailand, in 2015 2.23 trillion baht. There are 29.88 million tourists in Thailand and abroad, growing by 20.44 %. (source: Thansettakij, August 11, 2016) There should be research to explore the development of more than 100 architecture sites to be the focus of tourism in the region of Thailand in the concept of Adaptive and reuse or the development of the building to suit the current use, such as the renovation of warehouse buildings to be a souvenir market, just like

modern buildings in Yokohama, Japan. It will be a sustainable landmark, which leads to the building reservation using its revenue to maintain the buildings and also continue to be a valuable heritage of national importance.

Objectives of the research: Development of a 100-building modern architecture information database, to promote a life-long learning source in Thailand:


1. To survey the valuable buildings based on the criteria of modern architecture and to make a name list of 100 modern buildings by studying their remarkable features and the importance of their history, society, economy, education and others which are valuable to the buildings in Thailand;

2. To create 100-building modern architecture information database in Thailand, in the form of digital information and photos to promote a life-long learning source in Thailand;
3. To create the information to promote the benefit of outcomes in the world of borderless media. This research will be in line with the modern international building preservation concept, with the International DoCoMoMo organization enhancing the stability and publicity of the international values of Thai architecture to be more well-known. The 100 buildings are located in the major provinces of the four regions, such as Bangkok and its vicinity, Chiangmai, Nakhon Ratchasim, Lopburi, Chonburi, and Songkhla, etc.

FINDINGS

Example: The database submission guidelines are based on the DoCoMoMo international form. The Student Union Building named "SALA PHRAK IEW", constructed in 1966 is considered to be the symbolic building of Chulalongkorn University. It has served as clubhouse for students, in aiming to promote unity and harmony between students and faculty member since then. The building, achieving the international style, demonstrates the technological advancement of reinforced concrete with wide flexible space. Columns span 25 meters with 9 meters extended, 17.50 meters height. The remarkable entrance with glass windows and sunshade induce ventilation and delighting. The building was renovated in the year 1981 and 2014 with the guidelines for adaptive reuse. (Ratanamart, S. 2018.)

Table 1: The database submission guidelines are based on the DoCoMoMo international form.

		<p>History of building</p> <p>Constructed in B.E.2508(A.D.1965) and completed in B.E. 2509(A.D.1966), the building has been opened for utilization on 26th March, B.E.2510(A.D.1967) which coincide with the first 50th anniversary celebration of the establishment of Chulalongkorn University. The building serve as venue for various student clubs, or student Union.</p> <p>Summary of important changes after completion</p> <p>In the year B.E.2524, the problem with foundation consolidation has brought about a major restoration, where the basement floor that was initially used for car parking has become the area for bookstore. Student cooperative and postal office. Later a new 4-storey building has been constructed to overlap the same foundation, which then served as the faculty clubs and senate, and the roof has been changed to concrete tile. Antique Orange color.</p>
Name	Building character	<p>Building character</p> <p>For the building characteristics, the front exhibits a 3-storey building. The second storey features a large hall, and the third storey a mezzanine. The central area is open, and allows a view of the lower floor. The utility space is 5,776.99 sq.m. The structure features reinforced concrete, with longest column span of 25 meters, and the building floor extends on the left and right side, measuring at 9.00 meters from the column center to the long end on each side. The height from the second storey floor to the ridge measures up to 17.50 meters.</p>
Original Name	Sala Phra Kiew	
GPS Coordinate	13° 44' 07.8" N 100° 31' 53.3" E	
Current typology	Multi-purpose building: EDC(Education)	
Original typology	Multi-purpose building: EDC(Education)	
State of Protection	Office of Physical Resources Management, Chulalongkorn University	
Year of competition of construction	B.E.2509	
Architectural Designer:	M.C. Vodhyakara Varavan	
Assistant Designer:	Associate Professor Lert Urasyanandana	
Engineer:	Professor Dr. Rachot Kanjanavanit	

(Ratanamart, S. 2018.)

Introduction: Chulalongkorn University is the first university in Thailand, and has been founded by "The Royal Pages School", where King Chulalongkorn or Phra Chunla Chom Klao Chao Yu Hua (King Rama V) has graciously approved the establishment of the university in the year 1899, and the "Phra Kiew" has been installed as the school symbol as placed in the Grand Palace. Phra Kiew, the Thai equivalent of the coronet, is a headgear traditionally worn by young princes and princesses. King Chulalongkorn adopted it as his personal emblem, as it coincided with the literal translation of his name. From then on, Thailand or "Siam" has experienced the development to sustain advancement and prosperity as observed in the Western countries of the modern era. And from realizing that education is an important factor for development, in 1916 King Ram VI has graciously established the Royal Pages School as the university by the name of "Chulalongkorn University" to serve as the royal memorial for king Chulalongkorn, his father. Chulalongkorn University is situated in Patumwan district, downtown of Bangkok, with The area of approximately 445.73 acres comprising of educational area of 51.55%, academic area for rental of 16% and commercial area of 32.45%. Chulalongkorn University has been developed to achieve continual advancement, with sustained quality for teaching and learning, research and environmental management for the university. This includes 19 Faculties: the Department of Science and Technology, Health Science, Sociology and Humanities, and includes the international and English programs. According to this, the university has been recognized as the oldest and most renowned university in Thailand.

Modern Movement: Thai architecture has been influenced by architectural trends of the Western world since

1868. During the reign of King Rama VI (1910-1925), there has been extensive construction of public buildings and various technicians and craftsmen from abroad with expertise in different fields have been hired to provide service for government sectors. Therefore, modern Thai architecture has been shaped in the way that integrates Thai architecture with utilization of public buildings and construction technology. Modern buildings were designed harmoniously with the integration of Thai roof forms comprising of reinforced concrete structure. Shading panels were first implemented and designed to suit Thailand's tropical climate. These features extensively served their purpose for Modern Thai architecture until present-day.

The identity: Sala Phra Kiew: The term "Sala" in English denotes the Thai style building for multi-purpose application, and is open and spacious. Therefore Sala Phra Kiew in the concept of modern Thai architecture features an integration of modern Western architecture that utilize the technological advancement of reinforced concrete, the application of wide span structures, in conjunction with the wide and open shape of Sala, comprising of high gable roof and all-around glass sidings that can be opened to allow ventilation, and also overhangs to guard against sunlight. Sala Phra Kiew also has a basement which is slightly lower than road level, and is utilized as the university bookshop. The building shape resembles the coronet which is the symbol of the university, as seen from the building plan, roofing and three-dimensional shape. Sala Phra Kiew building has been constructed during the modern movement period of Thailand (1935-1973) and designed by M.C. Vodhyakara Varavan and Professor Lert Urasyanandana, architects, and Dr. Rachot Kanjanavanit, structural engineer. The building was completed in 1966. It is located at the center of the university, to serve as multi-purpose building, as recreational area for hosting student and faculty activities from all departments. The building has been utilized continually in various occasions such as the celebration ceremony for Buddha crystal statue in 1966, where citizens and members of Chulalongkorn University jointly attend this worshipping ceremony. The building with 5,116.99 square meters, the first floor has been elevated to 2.00 meters above the road level; this features a wide and spacious hall allowing for natural lighting through the glass sidings that extend from the floor to the ceiling. The hall has hosted activities for all student clubs, and some area also used to hold faculty meetings. The interior of the hall measures 43.00 meters in width, which comprises of five column spans of 25.00 meters x 10.00 meters. This features a stairway up to the Mezzanine floor that serves as the meeting place for all faculty members of the university, and also allow for viewing the activities held on the first floor. The ceiling is made of wood, and clearly displays the concrete rafter roof structure. The high pitch gable roof with the small gable dormers are lined on both sides of the ridge as the traditional Thai roof style, covered with concrete tiles. The wide open area is a flexible space that can be adjusted in dimension to suit the utilization purpose of each student club from various faculties that has varying curriculum. The curved concrete stairway near the entrance, leads to the Mezzanine floor which creates the sense of movement of space from the lower floor to the upper floor. In the year 1972. The Mezzanine floor had been utilized to welcome Queen Elizabeth II and Duke of Edinburgh from the United Kingdom, as honorable guests of HM King Rama IX on the royal visit to Thailand. The Mezzanine floor had been used as space for serving royal welcoming meal following the royal ceremony.

Adaptive&Reuse: After the building has been in continual service for 15 years, in 1981 with an increase of the number of students and the changed functions, the building was called for renovation to suit the utilization and also strengthen the structure. In 2014-2015, another renovation was made to increase utility space, by adding the new 4 storeys building behind, therefore obtaining the total building area of 11,941.99 sq.m. Both renovations are carried out in accordance with the guidelines for adaptive reuse, with the objectives to sustainably conserve the identity of such valuable building, and to endure to love and unity of all university members until today. (Ratanamart, S. 2018.)

CONCLUSIONS

This research will be in line with the modern international building preservation concept, with the International DoCoMoMo organization enhancing the stability and publicity of the international values of Thai architecture to be well-known. The 100 buildings are located in the major provinces of the four regions, such as Bangkok and its vicinity, Chiangmai, Nakhon Ratchasim, Lopburi, Chonburi, and Songkhla, etc. (Source:www.docomomo.com, www.docomomothailand.org)

1. Thailand has 100 modern buildings information for life-long learning
2. More modern architecture learning resources of the country will be known around the world by disseminating 100 buildings, information, which is sustainable for tourism in Thailand, in the media without borders. It also helps to enhance the tourism of the country, which will increase the revenue of tourism according to the nation strategy.
3. Being a conservation learning resource of modern architecture in the history of Thai architecture, which can be transferred to future generations
4. Enhance the conservation of modern Thai buildings in line with the international architecture conservation organization "DoCoMoMo International"

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Algorithmic Skills Vs. Time Spent On Computers And Mobile Devices

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Abstract

We tested first year BSc students of Informatics at the beginning of their tertiary studies, after finishing their studies in high schools and passing the school leaving exams of Informatics. Three pseudo-codes, a flow-chart with visual objects, and a logical problem were presented. The pseudo-codes and the logical problem were borrowed from the Hungarian programming contest prepared for students of 5-8 grades. The flow-chart was created by our team based on one of the pseudo-codes.

We were interested in how the participants were able to read and summarize what the presented algorithms do. All except the logical problems were answered with natural language sentences, while each logical problem was answered with a whole number based on the output of the presented algorithm in the range of [0, 3]. Considering the nature of the answers, the logical problem was different from the others. Beyond the students' results, we were also interested in how the final scores are influenced by the time students spend on computers and mobile devices functioning as computers.

In general, we found that the time students spend on computers affects their results. The heavy and the moderate users scored similarly in the test, while the occasional users scored significantly lower. In the case of mobile devices, the heavy users scored the lowest, while the moderate and occasional users performed better, with similar results. These findings prove that mobile devices do not have positive effects on decoding; furthermore, heavy mobile usage has a negative effect on these activities. Considering computers, the pattern is somewhat different. We have found that in general, there is no difference between the results of the heavy and the moderate computer users. On the contrary, the results of the occasional users were significantly lower than the results of the other two groups.

Introduction

Our major concern in the present study is to understand how computer and mobile-device use influences students' performance in understanding programming problems. We were seeking proof as to whether the students we tested – who by their year of birth are classified as digital natives – possess the abilities assigned to them, namely that they are different from their predecessors, i.e. their minds are so profoundly changed by these devices that they do not need formal education, and the mere use of digital devices will bring the skills which are required for effective and efficient computer problem-solving (Prensky, 2001). Beyond that we aimed to measure whether “They [digital natives] prefer their graphics before their text rather than the opposite.” (Prensky, 2001), and how the graphical representation of a programming problem would influence students' results.

However, we must face the fact that the attrition rate is extremely high in tertiary informatics courses and study programs (OECD, 2016; HIS, 2012; Gombos & Csernoch, 2015), while there is great demand for professionals in the digital era. With the present paper our aim is to use quantitative tools to reveal several components of the above-mentioned paradox and the evaluation system in progress.

Hypotheses

Based on our experiences we formulated the following three hypotheses. These hypotheses consider firstly, the students' results in their school leaving exams, on the basis of which they are accepted into tertiary studies, secondly, the time spent on digital devices, and thirdly, how graphical representation would help the students' understanding of programming problems and their decoding skills.

- [H1] ‘Computer cooking’ does not develop algorithmic skills.
[H2] Heavy use of digital tools does not develop algorithmic skills.
[H3] Graphical representation helps digital natives’ understanding of algorithms.

The structure of our paper is the following. The three major sections are entitled The Study, Findings, and Conclusions. The sample and majors of the students participating in the project are outlined in the Sample section of The Study. This is followed by a short summary of the school leaving exam in Hungary, focusing on informatics and mathematics, the two subjects closely related to tertiary studies in informatics/computer sciences, and the students’ results in these two subjects. The third section of The Study provides details of the tasks and their requirements, and finally the methods which we applied are described. In the Findings section we present the results of the students’ in the test in connection with their results in the school leaving exams. The last section reveals our findings on the students’ time spent on digital devices and their results in the tasks originally prepared for students of grades 5-8.

The Study

The Sample

Three groups of Hungarian students at the Faculty of Informatics of the University of Debrecen were tested in the academic year 2016-2017 as part of the TAaAS project (Biró & Csernoch, 2015a, 2015b; Csernoch et al., 2015; Csernoch & Biró, 2017). The project was launched in 2011 to test first-year students of informatics at the beginning of their studies. The aims of the project are to reveal the students’ computational thinking skills in general, focusing on the level of their algorithmic and knowledge transfer skills in and between different subjects of informatics, and their problem-solving abilities using different digital tools and environments.

In the present paper the students of the three majors of the faculty were tested (**Table 1**):

- Computer Science (CS) (N=120),
- Computer Science Engineering (CSE) (N=103), and
- Business Informatics (BI) (N=97).

Knowledge Brought Into Tertiary Studies In Informatics

In Hungary, students are accepted to tertiary studies based on their high school and school leaving exam results, or based on purely on their school leaving exam results, with further opportunities to collect additional – mostly non-subject-related – points (SLE, 2018; SLE in Informatics, 2018). In this rather complicated system mathematics is compulsory; however, informatics, the subject relevant in our case, is not. The system offers school leaving exams at two levels: intermediate and advanced. In informatics at both levels the exam is built around office applications, but the proportions and the requirements of the subjects are different. The intermediate level tasks are purely ‘computer cooking’ application problems, while at advanced level the application tasks require some creativity, and this level also includes a programming task.

Even though informatics is not compulsory, most of our students take these exams, and their numbers and average results are shown in **Table 1**. In general, we can conclude that, based on their school leaving exam results, students start their tertiary studies in informatics with high expectations.

When comparing the results for informatics and mathematics we found significant differences between the two subjects ($p=0.000$). Furthermore, the correlation coefficients reveal that in the CS and BI groups there is a weak correlation between the two subjects ($r=0.33$ and $r=0.19$, respectively), while there is no correlation in the CSE group ($r=0.07$).

In the comparison of the three groups, no significant difference was found between them considering their results in the school leaving exams at intermediate level in informatics ($p=0.150$), while in mathematics there is a borderline difference ($p=0.049$) with a 95% confidence interval. The number of students who took the advanced level exams is much more varied, and in some cases, due to the low number of students, we cannot perform a reliable statistical analysis. However, based on the results of the TAaAS project (Csernoch et al., 2015), the tendency is that the Computer Sciences students’ scores are the highest.

Table 1: The number of CS, CSE, and BI students taking the school leaving exams and their results in informatics and mathematics at intermediate and advanced levels.

	N	Informatics				Mathematics			
		Intermediate		Advanced		Intermediate		Advanced	
		N	Mean	N	Mean	N	Mean	N	Mean
CS	120	88	81.81	40	70.35	110	74.38	6	68.66
CSE	103	76	79.72	25	66.68	86	69.26	15	59.13
BI	97	92	78.81	6	67.83	92	72.50	4	64.50

Tasks

We have to emphasize that the tasks presented in **Figure 1** and **Figure 2** are borrowed from a Hungarian programming contest for students of 5–8th grades (NT, 2009), while Task 3 is the a graphical representation of Task 2a (**Figure 3**). The detailed results of Tasks 1 and 2 were published in 2015 (Csernoch et al., 2015), where the focus was on the recognition of the level of the students' algorithmic skills based on the SOLO categories of understanding (Lister et al., 2006). The present paper focuses on the digital tools involved in the problem-solving strategies of the digital natives and the effectiveness of the graphical representation of conditional counting, a well-known problem in teaching programming.

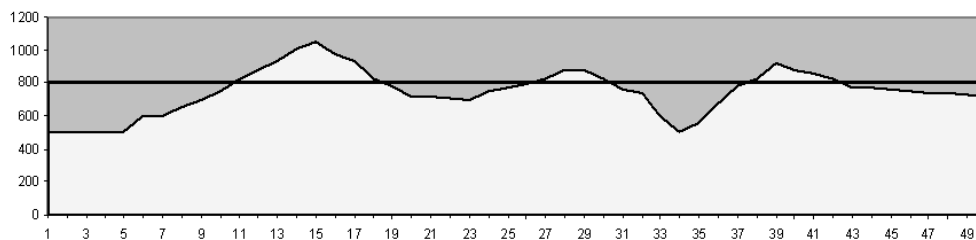
We further must call attention to the structure of the Hungarian Base Curriculum (NAT, 2012) and frame curricula (Frame Curricula, 2013, 2018), which state that teaching informatics in elementary and high schools is compulsory from grades 6 to 10, one class a week. In these courses, programming and computer problem-solving are declared to be a high priority.

X	Y	Point
A	A	
A	B	
A	0	
B	A	
B	B	
B	0	
0	A	
0	B	
0	0	

V:=X="A" or Y="A"
W:=X="B" or Y="B"
If V and W then Point:=0
else If V then Point:=1
else If W then Point:=2
else Point:=3

Figure 1: Task 1 with the pseudo-code and input data (X and Y) columns, and the Point column to be filled in with the answers, borrowed from the Hungarian programming contest (NT, 2009).

At this point we must call attention to a minor modification to the original task presented in the programming contest (NT, 2009) and used in the TAAS project prior to this year (Csernoch et al., 2015). The original order of the answers was 3, 2, 1, and 0. We found and published in 2015 (Csernoch et al., 2015) that those students who selected the 0 answer based on the 0 input values formed a unique cluster. We were interested to see whether these students answered 0 simply because the input values were 0. To test this hypothesis, we changed the order of the output values, as is presented in **Figure 1**: 0, 1, 2, and 3. We found that what influences the students' answers is not the order of the output values, but their limited knowledge, details of which were included in the paper mentioned above. With this reverse order of the output values we were able to detect the same clusters of students with the same specifications.



N=50, measured values: 500, 500, 500, 500, 500, 600, 600, 650, 700, 750, 820, 880, 930, 1010, 1050, 980, 930, 830, 780, 720, 720, 710, 700, 750, 770, 790, 820, 880, 880, 820, 760, 740, 600, 500, 560, 670, 780, 820, 920, 880, 860, 820, 770, 770, 760, 750, 740, 740, 730, 720.

DB:=0
Task 2a Loop from i=1 to N
If X(i)>800 then DB:=DB+1
End loop
DB:=0
Task 2b Loop from i=2 to N-1
If X(i)<X(i-1) and X(i)<X(i+1) then DB:=DB+1

```

End loop
M:=0
Loop from i=2 to N
Task 2c   If  $X(i)-X(i-1)>M$  then  $M:=X(i)-X(i-1)$ 
End loop

```

Figure 2: Task 2 with the sample picture, the samples values, and three pseudo-codes borrowed from the Hungarian programming contest (NT, 2009).

Figure 3 is the graphical representation of Task 2a. Our research group created this representation to see whether these objects help digital native students understand the algorithm, or not.

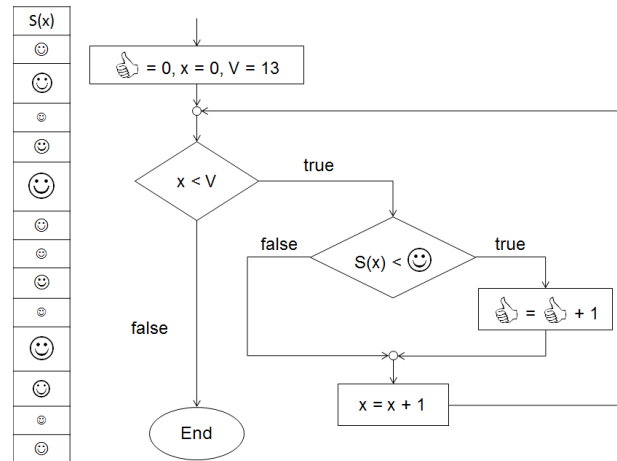


Figure 3: Task 3, a graphical representation of Task 2a: conditional counting.

Methods

The high number of unsolved problems required a comparison of the results with various approaches. We carried out a comparison of students' results in the school leaving exams and the test, checking correlations and significance between the results in these two measuring systems. The number of students whose results are uncountable, either as a result of ignoring the task (I) or scoring 0 (0) are presented in **Table 2**.

Table 2: The number of students who ignored the tasks (I) or scored 0.

	Task 1		Task 2a		Task 2b		Task 2c		Task 3	
	I	0	I	0	I	0	I	0	I	0
CS	20	4	18	7	40	5	41	24	39	16
CSE	27	2	26	3	42	1	48	5	53	10
BI	27	1	61	18	71	11	70	3	69	8

Beyond these comparisons we ranked the students' results according to the time they spent on computers and mobile-devices (functioning as computers). In this sense three categories of computer-time and mobile-time were defined: spending more than 5 hours, more than 2 hours, and less a day on these devices. The categories were named in accordance with the device and the interval: c5, c2, c1 for computer times, and m5, m2, and m1 for mobile times.

The group who achieved the highest score was ranked 1 and the one with the lowest score ranked 3. These ranks were summed for each group and mapped for visual representation. If the computer or the mobile group achieved the highest scores in all the tasks its ranking score is 5. In any other cases this ranking score is higher than 5, and the lowest results in all the tasks would add up to 15 in the five tasks. The results are presented in **Figure 4** and **Figure 5**.

Findings

School Leaving Exams Vs. Decoding Tasks

The results of the three groups in the five tasks are presented in **Table 3**. The comparison of **Table 1** and **Table 3** reveals that the students achieved significantly lower results in the elementary school tasks than in both the intermediate and advanced school leaving exams in informatics (SLE, 2018; SLE in Informatics, 2018).

Table 3: The students' results in the five tasks of the test.

	N	Mean	Task 1	Task 2a	Task 2b	Task 2c	Task 3
CS	120	45.52	59.54	67.50	43.89	23.33	33.33
CSE	103	40.13	49.84	56.63	43.69	26.21	24.27
BI	97	23.30	49.14	27.15	18.21	11.34	10.65

The data presented in **Table 1** and **Table 3** clearly reveals that the students' results in the school leaving exams are significantly higher than in the elementary decoding tasks ($p=0.000$). This finding indicates that the school leaving exams do not require algorithmic and programming skills and knowledge on the part of the students. As was mentioned in the Study section, school leaving exams mostly contain 'computer cooking' tasks, which, based on our testing, do not develop the students' computational thinking skills (Wing, 2006).

In the comparison of the three groups, in spite of the fact that no significant difference was found in their intermediate school leaving exam results, a significant difference was found between the BIM and the other two groups ($p=0.000$). This finding further proves that the school leaving exams cannot distinguish among students based on their computational thinking skills. One of the consequences of the failure of the school leaving exams to measure the students' computational thinking skills is that students are accepted to tertiary courses in informatics/computer sciences based on these scores and they build a false image of their knowledge and expectations, as was revealed and published in 2017 (Csernoch & Biró, 2017).

Table 4: The correlation coefficients between the tasks of the test and the intermediate school leaving exam.

	Total	Task 1	Task 2a	Task 2b	Task 2c	Task 3
CS	0.29	0.11	0.34	0.16	0.30	0.15
CSE	0.28	0.04	0.29	0.26	0.22	0.16
BI	0.29	0.27	0.27	0.21	0.15	0.23

In the following, despite the differences in the results of the school leaving exam and the TAaAS test, we were interested to see whether there is any correlation between the students' performance in the two tests. In all the three groups the two tests are the closest to each other in Task 2a (**Table 4**), but still with a moderate correlation. Beyond this, each of the groups has their special characteristics. In the BI group, who scored lowest in all the TAaAS tasks (**Table 3**), we found some correlation between the TAaAS test and the intermediate exam in the logical and the graphical tasks, while the pseudo-codes presented in the traditional text form have no connection to the 'computer cooking' tasks (**Table 4**). Contrary to this, in the CS and CSE groups the weakest correlations were revealed in the logical and the graphical tasks.

Table 5: The correlation coefficients between the tasks of the test and the advanced school leaving exam.

	Total	Task 1	Task 2a	Task 2b	Task 2c	Task 3
CS	0.61	0.14	0.08	0.58	0.60	0.53
CSE	0.29	0.15	-0.05	0.24	0.31	0.30
BI	0.76	0.30	0.71	0.85	0.81	0.18

In the comparison of the TAaAS tasks and the advanced school leaving exams, the pattern reveals further connections. In this case, the weakest correlation was found in the CSE group, while the correlation coefficients are similar in the CS and BI groups. This result of the CSE students reveals that there is no correlation between their algorithmic skills and the selection of the level of school leaving exams. These students primarily solve the application tasks, which can be assumed by their low results in the advanced school leaving exams (**Table 1**). However, we must be careful with the results of the BI students, due to their low number in the advanced level exams (**Table 1**). It seems that only a few students select this type of exam, but those who do seem to have a similar level in computational thinking as the CS students.

Similar to the intermediate exams, in the CS and CSE groups there is a weak, while in the BI group a moderate correlation between the two tests in the logical task (**Table 4** and **Table 5**, Task 1). In Task 2a, the easiest sub-task in Task 2, an extremely weak correlation was found in the CS and CSE groups, while there was a strong correlation in the BI group. In Tasks 2b and 2c strong correlations were found in both the CS and BI groups. Based on this finding, we can conclude that the programming task has a strong effect on the students' algorithmic skills. The graphical representation (Task 3) in the CS group requires advanced level skills, while in the other two groups such a connection cannot be detected.

The Use Of Digital Devices

The comparison of the students' results in the decoding task and their time spent on digital devices – computers and mobile devices – are presented in **Figure 4** and **Figure 5**, respectively. These findings are based on the ranking

method detailed in the Study/Methods section.

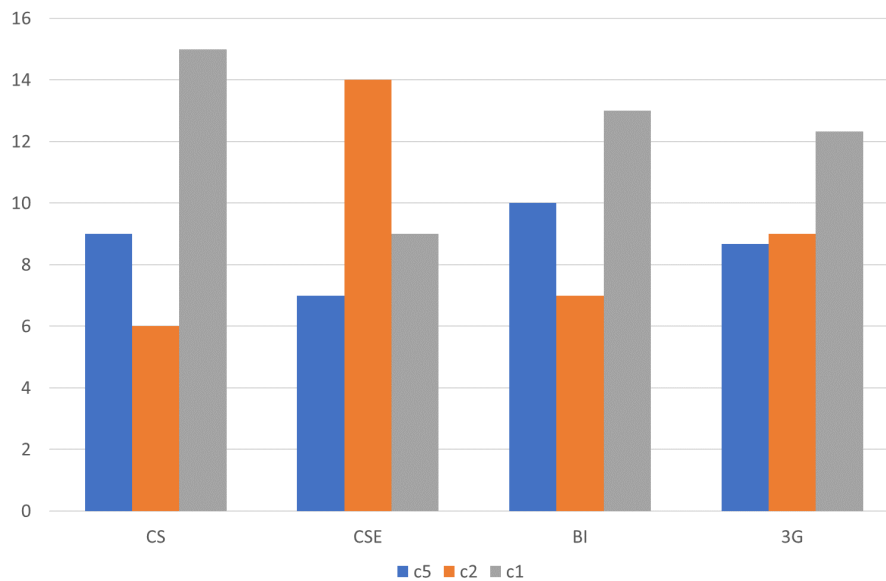


Figure 4: The time spent on computers and the students' results in the decoding tasks.

Considering the use of computers, in the case of the CS and BI students, the moderate users scored the highest in the test. In almost all the tasks they achieved the highest results. In these two groups the heavy computer users had the second highest scores, while the occasional users' results were the lowest. The CSE students' results are different from the other two groups. The moderate users' results were the lowest, followed by the occasional users, and finally by the heavy users. These differences between the three groups are in accordance with their results in the advanced level school leaving exams.

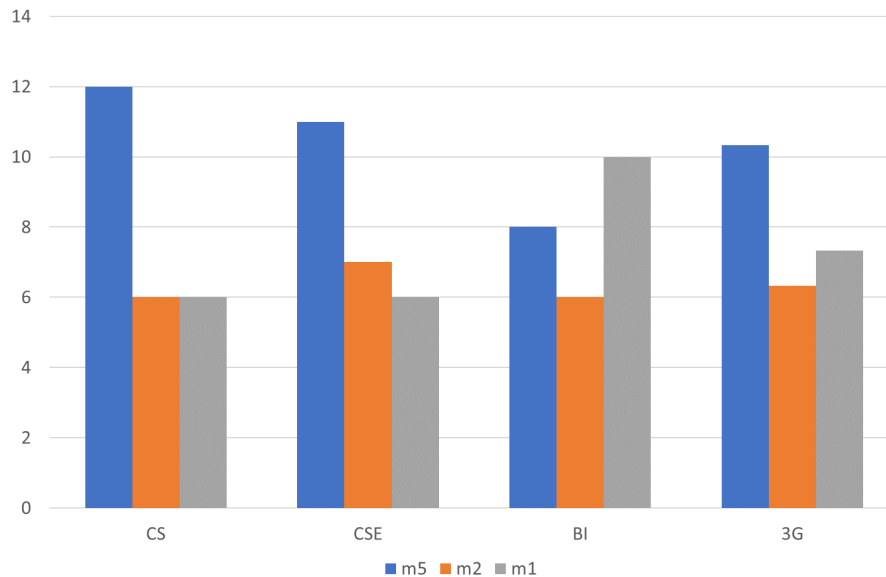


Figure 5: The time spent on mobile devices and the students' results in the decoding tasks.

In the case of mobile use the pattern is different. In the CS and CSE groups the heavy mobile users' scores are the lowest, while the moderate and occasional users achieved higher results. In the BI group the pattern does not follow that of the other two groups; however, we must keep in mind that their results were significantly lower than the other two groups and the number of students ignoring the tasks is extremely high (**Table 2**), so we must be careful in drawing conclusions in this case.

Conclusions

Our testing method revealed that the school leaving exams at intermediate level do not provide reliable information about the students' level of computational thinking, and especially about their algorithmic skills. Beyond this,

these exams do not help students to form a reliable self-evaluation of their knowledge in informatics, which leads to a false attitude to informatics/computer sciences, and to a high attrition rate in tertiary studies.

On the other hand, it was found that the advanced level exam can have a positive effect on the above-mentioned skills, although taking this higher-level exam is no guarantee of the higher level of the skills required in tertiary studies in informatics. We also must draw attention to the level of the tasks presented in the TAaAS test, since they are borrowed from the Hungarian programming contest for grades 5-8. In general, we can conclude that students start their tertiary studies in informatics at an extremely low level of algorithmic skills.

The graphical representation of conditional summing revealed that students must take at least the advanced level exams to understand this form of algorithm. The assumption that they are born with such skills is rejected. These skills are not the privilege of digital natives. These skills must be developed through study. We have come to similar conclusions when testing students' spreadsheet problem-solving skills and their maths problem-solving skills in problems presented in pseudo-codes (Bíró & Csernoch, 2018). These findings are in complete accordance with the statements of Kirschner and his colleagues (Kirschner et al., 2006; Kirschner & De Bruyckere, 2017).

Considering the use of digital devices, we have found that the time students spend on computers affects their results. Heavy and moderate users scored similarly in the test, while occasional users scored significantly lower. On the contrary, the occasional users' results were significantly lower than the results of the other two groups. In the case of mobile devices, heavy users scored the lowest, while moderate and occasional users performed better, with similar results. These findings prove that mobile devices do not have positive effects on decoding; furthermore, heavy mobile usage has a negative effect on these activities.

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All Different But Not All Opposite: Contributions To Lexical Relationships Teaching In Primary School

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Abstract

The lexicon allows the expression of particular cosmovisions, which is why there are a wide range of lexical relationships, involving different linguistic particularities (Coseriu, 1991; Teixeira, 2005). We find, however, in teaching context, that these variations are often replaced by dichotomous and decontextualized proposals of lexical organization, presented, for instance, in textbooks and other supporting materials (Baptista et al., 2017).

Thus, our paper is structured in two parts. First, we will try to account for the diversity of lexical relations (Choupina, Costa & Baptista, 2013), considering phonological, morphological, syntactic, semantic, pragmatic-discursive, cognitive and historical criteria (Lehmann & Martin-Berthet, 2008). Secondly, we present an experimental study that aims at verifying if primary school pupils intuitively organize their mental lexicon in a dichotomous way. This study has as its starting point three illustrated stories with words that may establish relations of opposition among themselves. This study was carried out in four second grade Portuguese classes, when formal teaching of lexical relationships begins. Although this content approach starts with antonyms and synonyms (according to Portuguese primary school curriculum), we can see that the students presented different responses, possibly reflecting a cognitive organization of the mental lexicon that escapes the dichotomy of certain oppositions taught in a decontextualized way. We find lexical items grouped according to the same morphological basis, the same seme, the same class of words or specific experiential criteria.

We then believe that, if children intuitive knowledge on words is not confined to oppositional structures and rigid perspectives, it is important to promote lexical relationships heterogeneity awareness through contextualized and scientifically sustained didactic paths, considering lexicon uses as a full exercise of pro-active citizenship.

Introduction

Words may establish a wide range of relationships, concerning their form and/or their meaning (Cruse, 2001). One's mental lexicon, which is a part of our cognitive system that possesses an inventory of all the words we know, stores words in different ways and group them differently, depending on linguistic and non-linguistic criteria (Lehmann & Martin-Berthet, 2008). Each one of us holds a particular cosmovision (Whorf, 1956) and the way we organize our mental lexicon reflects this specificity. That is the reason why we should care about the way lexical

relationships are taught at school, because we need to manage different world views in the classroom, even when we feel they may not be compatible. As a matter of fact, our mental lexical organization influences the way we build knowledge and communicate.

This is the starting point to the research we decided to carry out: if lexicon allows for the expression of particular cosmovisions, that means that mental lexicon may be organised in different ways. Within *Língua e Cidadania: das relações lexicais ao conhecimento do mundo* [Language and citizenship: from lexical relationships to world knowledge] project, which is financed by Calouste Gulbenkian Foundation, we aim at verifying how children tend to structure their mental lexicon and how this should be taken into account in teaching contexts.

The research aims within the project mainly concern the following points:

1. To analyse the linguistic and pedagogical dimensions of lexical relationships – semantic relations (opposition, hierarchy, inclusion and similarity) and morphological and etymological relations (word family) – by considering the interaction between lexicon, culture and citizenship.
2. To realize how mental lexicon interferes with world(s) cognitive processing and with people interactions.
3. To reduce dichotomous thinking and stamped social representations.
4. To promote the awareness of how early manipulation of meronyms and hyponyms has cognitive benefits.

In this article, we turn our attention to relations of opposition, because they are the first to be taught at primary school, according to the Portuguese curriculum, in a way that leaves no place to consider one's particular world views, by reducing this kind of relationships to a dichotomous correspondence between words (Baptista, Choupina, Costa, Querido & Oliveira, 2017).

Firstly, we aim at analyzing relations of opposition following semantic, formal, pragmatic, discursive and cognitive criteria, bearing in mind that *opposition* plays a nuclear role in languages organization and functioning. Then, we will present the first results of an experimental study we undertook in order to verify if primary school pupils intuitively organize their mental lexicon in a dichotomous way, because this seems to be crucial when we are planning language teaching in early years.

1. Lexical Relations – General Assumptions

Language is arbitrary, which means that there isn't a direct link between linguistic structures and the world entities and situations. However, as Coseriu points out, "it is often confused, in the studies of lexicology, the *significatum* (linguistic content) with the *designatum* (extralinguistic reality)" (Coseriu, 1991: 19), leading to some misunderstandings in several fields (cf. confusion between gender and sex, number and quantity, tense and time). As far as sense relations are concerned, this happens when one tries to define (and teach) antonymy and other relations of opposition, as discussed, for example, in our previous work mentioned above (Baptista *et al.*, 2017). In several textbooks and other supporting teaching materials, antonymy is merely presented as a relation of opposition between two words. This has two main consequences: gradability, as an important property of antonyms, is disregarded; and pairs like *thick/thin*, *father/son*, *inside/outside* and *come/go* are treated alike. In the next section, we will take a closer look at these topics as part of a linguistic characterization of antonymy. For now, we try and explain why this confusion prevails, by bringing up two crucial notions: oppositeness and dichotomization.

Oppositeness is as an essential notion within Structural Linguistics (Saussure, 1916/2006), because any linguistic unit (phonemes, morphemes, words...) has a value in a way that it opposes itself to several other linguistic units, sharing with them something in common but being different from them at the same time. It is thus a central lexical notion (Lyons, 1977; Gutierrez Ordoñez, 1996), because it allows us to distinguish linguistic signs, but also to figure out what they share and how they may be stored in a same paradigm.

From a structural perspective, it is important to remember that the value of meanings results from the oppositions in which they participate (Gutierrez Ordoñez, 1996). Thus, *fresh* may oppose to *hot* (weather) or to *dry* (bread), and, in turn, *dry* may oppose to *wet* (weather), to *greasy* (hair) or to *stewed* (wine). Oppositeness is relevant when we consider antonyms, but also in other lexical relations. *Nose* and *eyes* (meronyms) are parts of a *human face* (holonym), even though they have different forms and roles. *Apple tree* and *pear tree* (hyponyms) are both *fruit trees* (hiperonym) but giving origin to different fruits. We can therefore assume that opposition is so relevant in everyday language uses that it is present in speakers' mind all the time (Lyons, 1977), which makes it easier to recovery it quite often, as we may see in teaching contexts.

Oppositeness leads us to distinguish between one element and several others that differ from the first one in some aspects. Most of the times, we tend to contrast a unit to another one, in such a way that "binary opposition is one of the most important principles governing the structure of languages (Lyons, 1977, p. 271). This is one of the many principles within generative theory, which helps us to understand why this tendency spreads all over the teaching field, even when it is not supposed to, as we may see in gradable contexts.

We may by now emphasize two main problems concerning lexical relations teaching, one being to confine it to a dichotomous antonymy and the other being this reductionist attitude to lexical relations in general, by disregarding its complexity.

Lexical relations occur in the paradigmatic level, by considering words that can replace other ones in a given

syntactic position, and in the syntagmatic level, involving the way words are combined in more complex structures. They occur at the level of the signifier (homonymy, homophony, homography and paronymy) and at the level of signified (which will be discussed below).

There are relations not only between linguistic signs, but also between larger units (expressions, locutions and syntagmas). Therefore, lexicological studies mobilize information from all the linguistic fields of research, concerning phonology, morphology, syntax, semantics and pragmatics (Choupina et al., 2013), so that they can account for words' everyday uses and relations.

As far as sense relations are concerned, we may find different typologies that are a consequence of the diversity we illustrated in the previous paragraph. According to Cruse (2001), sense relations must have an intrinsic interest, meaning that they occur "with significant frequency throughout the vocabulary, and must be capable of supporting significant generalizations" (Cruse, 2001, p. 247).

We may find two different groups of words relations (Cruse, 2001). In the first one (identity and inclusion), there are a class-inclusion relation (hyponymy), a part-whole relation (meronymy) and a similarity relation (synonymy, following three subtypes). In the second one (opposition and exclusion), are placed co-meronyms, co-hyponyms and opposites. Cruse's typology makes it clear that lexical relations strongly rely on perspective: *cat* and *dog* are both members of a given class (*animals*) and therefore exclude one another (a *cat* is not a *dog* and vice-versa); *fingers* and *nails* are part of a human *hand* and therefore are exclusive (a *finger* is not a *nail* and vice-versa). These words are part of a lexical field, gathering words distributed along a *continuum* of lexical content (Coseriu, 1991). Organizing these types a little bit differently, Lehmann and Martin-Berthet (2008) speaks about hierarchy and inclusion; similarity and opposition.

Gutierrez Ordoñez (1996) brings homonymy and polysemy to words relations, while Cruse (2001) puts them under the scope of ambiguity. The Spanish author also analyses synonymy in its different types. For another type of sense relations, Gutierrez Ordoñez (1996) identifies those resulting from differences in content (hiperonymy, hyponymy and co-hyponymy; semantic oppositions and antonymic oppositions), suggesting that antonymy, as we will see later on, is a specific type of opposition.

It is not our goal to go through all these types of lexical relations, but just to give an idea of the complexity underneath every attempting of classification. We are now turning our attention to relations of opposition.

2. Relations Of Opposition

As we have already noticed, oppositeness is both a nuclear and complex notion within lexical semantics. It may apply not only to antonymy, but to every other type of lexical relations, such as synonymy, meronymy and hyponymy. When we want to contrast two or more words (or one or several semantic traits), opposition is closely related to antonymy.

Lyons (1977) distinguish opposition from antonymy, seen as two ways of contrasting. Authors as Coseriu (1991), Gutierrez-Ordoñez (1996) or Cruse (2001) use opposition as a more general term and antonymy as one of its subtypes, but it is also possible to assume antonymy in a large sense as an equivalent term to opposition (Vilela, 1994, Gagné, 2015), even if it keeps its narrow sense which we will be presenting later on (that of gradable opposition). This broader meaning of antonymy suits words like male/female, dead/alive, husband/wife, that "are also considered as antonym pairs, for these words are also opposite in meaning. Therefore, the other two categories, complementarity and converseness, are included in the field of antonymy only in a very broad sense". (Gao & Zheng, 2014, p. 235)

Thus, it is important to build a characterization of opposition, by summing up its several types, following some morphological, syntactic and semantic criteria. Usually, these relations oppose two or more items belonging to the same word class (with some exceptions).

2.1. Opposite types

Bearing in mind that in some contexts (not only at school) different kinds of opposites are treated alike, we built a proposal that is inspired by some seminal works (Lyons, 1977; Coseriu, 1991), but follows also summaries by Ostrá (1987), Vilela (1994), Gutierrez-Ordoñez (1996), Cruse (2001) and Gagné (2015), among others. A general procedure is to divide opposites in binary and non-binary, an option that is supported by the traditional logic.

Binary contrasts are contradictory, because the affirmation of one term implies the negation of the other one and vice-versa: if someone is dead, it means that it is not alive and if someone is alive, it means that it is not dead. On the other hand, non-binary contrasts are contrary, since the affirmation of one item implies the negation of the other one, but not vice-versa: if someone is tall, he is not small; but if he is not small, that does not mean he is tall. This logical distinction is connected to a linguistic criterium (Gutierrez-Ordoñez, 1996), because binary opposites are ungradable, while non-binary ones are gradable, with a *twisted* perspective pragmatically sustained (see 2.2. for details).

Within the binary section, we may find five main types: complementary, privative, equipollent, converse (or symmetric) and directional. The first three groups involve complementarity in a particular way, while the other two are more related to a certain perspective of the situation.

Complementary opposites (*dead/alive; open/close*) are ungradable and the affirmation of one of the items always implies the negation of the other, as far as the term is applicable within a certain universe of discourse. Complementarity does exist with certain terms (*public/private*) in particular contexts, but not in others (*public, semi-public, semiprivate*). *Private* opposites are complementary in a certain way but differ from them because they imply the presence (and the absence) of a specific feature, as in *usual/unusual* or *animate/non-animate*. Most of the times, we are talking about adjectives morphologically related and thus the opposition is morphologically marked (through a-, un-, in-, non-), although some exceptions may be found (*above/below* – adverbs not related). This is a true sign of grammaticalization operating in order to create a linguistic contrast (Lyons, 1977). *Equipollent* opposites, when binary, always imply the presence of a particular trace, acting differently in both items of the pair, such as in *male/female*.

The two last groups deal with a certain perspective. *Converse* opposites concern the same relation under two different perspectives, as in *father/son, husband/wife, sell/buy*. We may find 2-, 3- or even 4-place relations: X is Y's father = Y is X's son (2-place predication); X sold something to Y = Y bought something from X (3-place predication). *Directional* opposites concern movement (*enter/leave*) and again perspective (in this case, the point of perspective) is crucial, because we are talking about the same action seen from different points: when migrants are considered, for instance, we say that they *enter* our country (immigrants), while someone in the country they abandon may say they are leaving this country (emigrants).

As the tendency to dichotomize prevails in languages, binary types are more diversified than non-binary ones. Non-binary opposites mainly involve true antonyms, but also two other (somewhat controversial) categories: ordering and ranking; and cycles. Members of these two groups are often equipollent, because each one of them has the same statute. In *ordering and ranking*, we find examples such as colours (*blue, red, green*), a case where language makes discrete something that in reality falls into a *continuum*; and ordinals like *first, second...* *Cycles* concern days of the week or seasons.

We finally take a look at (true) *antonyms*. Although they are contraries, not all the contraries are usually seen as antonyms (*tree/dog*). This group is formed by adjectives that can be modified (*taller, less interesting, biggest*) and are most of the times morphologically unrelated (*tall/short, big/small*), which means that there is several terms allowed in the same sequence (*huge, tall, short, tiny...*), a linguistic feature that should be taught in the classroom from the very beginning, in order not to make some confusions with complementary opposites.

Cruse (2001) considers three subtypes of antonyms regarding their commitment with what is being asserted: polar antonyms are both impartial (*heavy/light*); overlapping antonyms include one member that is marked (*clean/dirty*); and equipollent antonyms are both committed, such as *happy/sad*. Degree questions may help us to clarify these distinctions (see more details in Cruse, 2001, p. 253-254).

As Cruse's classification already suggests, antonyms are often seen as binary opposites in everyday uses, because polarity is lexically marked. In other terms, "gradable opposites manifest the property of polarity more strikingly than do other opposites" (Lyons, 1977, p. 279). Although private opposites are truly binary and mark it morphologically, antonyms seem to follow a process of lexicalization that strengthens the opposition between the two morphologically unrelated terms. The *good/bad* pair suggests a more intense polarization than *usual/unusual* or *good/not good*, which helps us understand why dichotomization appears so often in teaching practices concerning antonymy. According to Lyons, this is probably due to a conversational implicature: if it is not good, then it is bad.

We can assume that "the definition of antonymy must be lexical as well as semantic. Antonyms need to have "oppositeness of meaning", but they also need to have a strong, well-established lexical relationship with one another" (Gao & Zheng, 2014, p. 235). They are only one of the opposite relations types, as summarized in table 1:

Table 1 – Types of linguistic opposition

Binary	Non-binary
complementary	true antonyms
private	ordering and ranking
equipollent	cycles
converse	
directional	

2.2. A few (more) words on opposites

The proposal to classify opposites we have just presented is not closed, but it may shed some light on a complex subject. Until now, we have called some morphological, syntactic and semantic criteria, but it is useful to also mobilize pragmatics and cognition to understand opposite relations a little bit more. Antonymy may be analyzed in a pragmatic perspective, seen from speakers' point of view, because we are dealing with a relation that "doesn't rely on logical and complex mechanisms, but rather on cognitive and therefore *basic* ones" (Teixeira, 2005, p. 23). We will clarify this idea with three examples.

In Latin, the idea of *old/not old* follows equipollent oppositions inside each pair of the following sequence: *senex, vetulus, vetus* vs *iuvēnis, novellus, novus*, being related to people, animals or non-animates. This distinction is not present the same way in modern English, but there is still a difference between *young* and *new*.

Several authors emphasize a close relationship between antonymy and synonymy, since antonymy also implies “a dimension of resemblance” (Ostrá, 1987, p. 11), which means that there is a link between antonymy and synonymy. For instance, in French, *redouter, craindre, avoir peur* are synonyms whose specific value depends on semantic and pragmatic differences, oppositions.

So, we cannot see antonymy “as a maximal degree of meaning difference, but rather as one of the manifestations of dichotomization tendency” (Ostrá, 1987, p. 11), in which it differs from other cases of semantic incompatibility due to this semantic similarity. Antonyms are therefore “terms whose semantic traces are identical with a single exception of one which is not only incompatible but opposite” (Gagné, 2015, p. 3).

A third example underlying the importance of pragmatics and cognition in this field is given by the way conversational implicatures may change antonyms typical features (Lyons, 1977). Ungradable opposites may become gradable, as when we say about someone or something that it is *really alive*. Gradable opposites may become ungradable (as seen before in *tall/short*) when we want to emphasize the polarity. And grading ungradable opposites is a linguistic way to refuse to see them as contradictory, as we know by the debate about how many categories are there besides *male* and *female*. These procedures are not exclusive for antonyms, being available for some subtypes of adjectives: relational adjectives, such as *British*, may be graded when we say that this is *a very British attitude*, by turning a relational adjective into a qualificative one.

After having considered the complexity behind sense relations, specifically behind opposite relations, we will now turn to the experimental study we undertook in four second grade Portuguese classes.

3. Experimental Study

Our starting point to this study was the fact that in the first two grades of schooling in Portugal only synonymy and antonymy are taught (Buescu, Morais, Rocha & Magalhães, 2015), which leads to hinder the diversity of lexical relations. Besides, the teaching of antonymy often conveys a dichotomous perspective, thus limiting grammatical structures study, as verified, for example, in manuals and other pedagogical materials (Baptista et al., 2017). We know, as we have already noticed, that dichotomization is a general tendency in language, but not all the cases of opposite relations fit in the field of polarity, which is something relevant when we are preparing pupils to be future citizens aware of world’s complexity. This dichotomous vision may narrow the perspective that students build on the world.

So, our research questions were:

- 1 – Do children tend to structure their mental lexicon in a dichotomous way?
- 2 – Do children tend to organize their mental lexicon only with opposite items?

Although we knew that oppositeness and dichotomization are central notions in language, we wanted to find out how they really determined the way children in early stages of formal teaching build lexical relations in their mind, because it is an important issue when it comes to prepare scholar curricula and language classes. In this article, we will be presenting first results of this research.

3.1. Methodology

This study was carried out in four second grade Portuguese classes, when formal teaching of lexical relations begins. It started with the presentation of three illustrated stories with words that can establish relations of opposition among themselves, although these oppositions are not exclusive and that sometimes the syntactic and/or pragmatic context transforms oppositional relations into similarity relations within the narrative (see 2.2. for further details on how this change of perspective may occur).

In fact, these relationships allow groupings of words with criteria other than opposition, such as word class (nouns, verbs, adjectives and adverbs), worldviews, sociocultural references or different perspectives. In the first group, words were related to *age*; in the second one to *beauty*; in the third one to *movement* and *spatial localisation*. We could implicitly mobilize different types of opposites to see how children manage them.

The stories were read aloud by the teacher and visualized on a data show. Pupils had to organize the words (of each story) according to different graphic strategies (two bags in a first exercise, ten hangers with two ends each in the second, and a staircase with several steps, in the third). The bags and the hangars were used in each of the three stories, while the staircase was only used in the first and the second ones, because it was the only stories where we had gradable words.

3.2. First results

When analysing data, we decided to focus on two main issues: what kind of strategies children followed to place the words in each image and how did children group words in each exercise. The strategies may give us some information about the importance of dichotomization in children’s mind. The grouping procedures may reveal if oppositeness is really the relation that influences the most their linguistic thought.

As far as strategies are concerned, we realize that children followed different graphic strategies (Figure 1). Some placed the words within the hangars' limits (1) while others used the hangars' ends (2) to write down the items. Not all the children found it necessary to choose only two words per hangar, as we may see in (3).

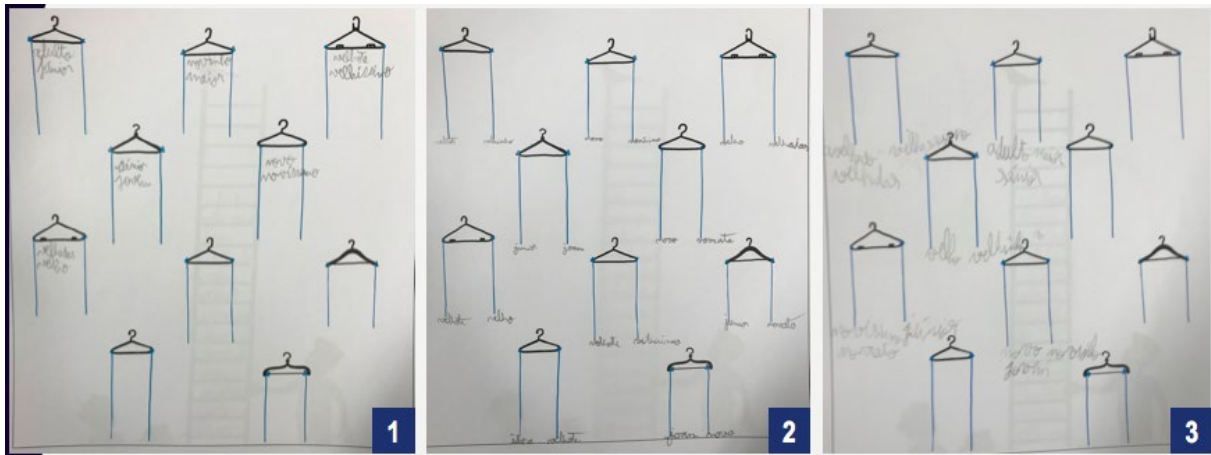


Figure 1 – Graphic strategies children followed to organize the words

These examples suggest that children follow different strategies to organize the words because they organize their mental lexicon differently. Only in (2) we may observe a tendency to dichotomization, but we need a deeper analysis of all the children's productions in order to draw a clearer tendency, if there is one.

Another argument in favor of this diversity is found when children filled in the bags (Figure 2). Some of them just wrote down some words on one of the bags (2), while others filled both of them (1). Sometimes, they felt it would be important to justify their options (3), by telling us why some words fit in one bag and other words in another one.

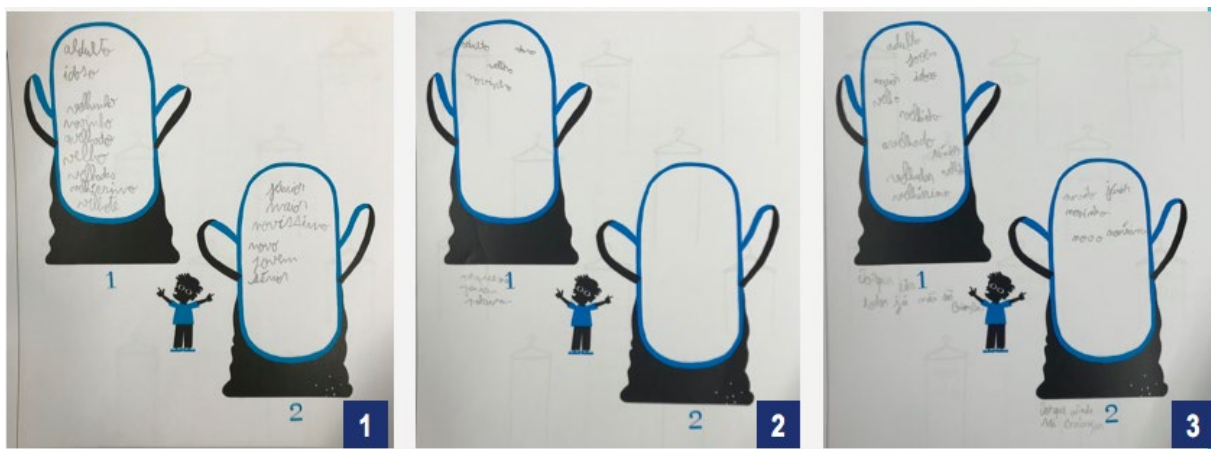


Figure 2 – Strategies children followed to fill in the bags

When it comes to evaluate how children grouped the words, we realized that there were different criteria behind each option, which is coherent with what we know about lexical relations and the role of morphology, syntax, semantics, pragmatics and cognition in characterizing them.

We find lexical items grouped according to different linguistic criteria. Some children grouped words which present the same morphological basis and the same *advanced age* (*velho* [old], *velhote* [old man], *velhissimo* [very old]). Other pupils put together words sharing the same suffix, as in *novissimo* [very young] and *velhissimo*. Children of the second grade also showed they are probably aware of word classes, as they grouped together verbs like *entrar*, *sair*, *ir* [enter, leave, go] and adverbs like *aqui*, *cá* [here]. Some of them were also capable of grading lexical items (Figure 3), even if they had to deal with antonyms which are not easy to grade, because they sometimes involve a slight difference in meaning.

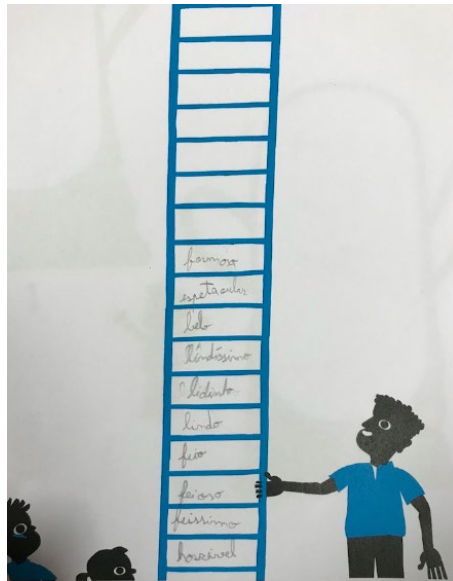


Figure 3 – Grading adjectives within the semantic field of *beauty*

This operation of grading adjectives presented a difficulty, as they were not intended to follow one single possibility of organization. Thus, we found some distributions motivated by semantic-pragmatic and experiential criteria with diverse connotative senses. For instance, the items *maior* [major] and *adulto* [adult] appear either in a group containing words associated with lower age or in a group linked to more advanced ages. When written on the staircase (exercise 3 in each group of words), these items consistently occupy sometimes the intermediate places of transition between the *new* and the *old*.

4. Discussion And Some Conclusions

Although lexical relationship pedagogical approach starts with antonyms and synonyms (according to Portuguese primary school curriculum), two-grade pupils presented varied responses, regarding different strategies of representing the information or different linguistic criteria to put words together. These differences possibly reflect a cognitive organization of the mental lexicon that escapes the dichotomy of certain oppositions taught in a decontextualized way.

We may now try to answer our research questions. Not only we found evidences that children don't always follow the way of polarity (question 1), as they use differently the hangars and the bags to write down the words, but also did we realize that opposition isn't always the best option for them to group the words (question 2), since they have followed different linguistic criteria when performing this task. We really need to deepen this research in order to find other tendencies in children's performances, but, for now, we may assume that children's intuitive knowledge on words is not confined to oppositional structures and rigid perspectives.

Therefore, it doesn't seem to make sense for teaching to lead them that way. Instead, it is important to promote lexical relationships heterogeneity awareness through contextualized and scientifically sustained didactic paths, considering lexicon uses as a full exercise of pro-active citizenship. As Ullmann stated, "words are surrounded by a net of relations that connect them to other words" (Ullmann, 1964: 476).

Lexical relations are complex and change throughout the times. As we can tell by some children's answers, "the chief driving force in processes of regular semantic change is pragmatic: the context-dependency of abstract structural meaning allows for change in the situation of use, most particularly the speaker's role in strategizing this dynamic use" (Traugott & Dasher, 2005: 24).

So, the lexical relationships complexity is not compatible with a lexical-semantic perspective confined to study synonyms and antonyms by themselves and out of their use context, as we see in many pedagogical practices. These notions should be put together with hierarchy and inclusion relations, as well as with those of semantic field or lexical field and should be framed by a more dynamic notion of lexical relations.

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An Assessment On The Scientific Studies Conducted In North Cyprus About Child Abuse

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Abstract

Child abuse and negligence have increasingly become important in terms of social aspect. The prevalence rate in the developed or developing countries is now a big concern. The insufficient level of knowledge among the professionals related with children, difficulties in uncovering the situation and denying increase the significance of issue. In terms of TRNC, while the number of studies is not many, the problem is as much worrisome as in other countries. The aim of this study, which was conducted to provide an insight on the matter, is to analyse the existing academic studies about this topic. The study covers eight studies, which were published between the years of 1996-2017, in accordance with certain criteria. At the end of the study, there are a number of recommendations that would take into consideration in further steps about child abuse.

Keywords: *Child abuse, Neglect, Document Analysis, North Cyprus*

Introduction

Child abuse and negligence are the complete acts and neglects hindering or restricting all kinds of development and health of child by the mother, father of child or care taker (Budak, 2000; Oral et.al, 2001; Yaşar and Akduman, 2007). According to Howe, the abuse and negligence of children cover all kinds of physical, emotional, sexual and negligence bearing behaviours, which harm children in various ways or making them sick (Howe, 2005).

In consideration of the types of child abuse, some sources categorise child abuse under three main topics (physical, sexual and emotional), some under four (physical, sexual, emotional and negligence) (Tıraşçı and Gören, 2007), and some under five (physical, sexual, emotional, negligence and exploitation). In terms of their definitions, physical abuse is briefly “non-accidental injury of child”. The non-accidental injuries mainly occur when parents want to punish the child or parents lose their control. It is typically observed as “beating” (Kara et.al, 2004). Parents tend to show violence bearing behaviours for making their naughty or disobedient children obey. In many societies parents culturally approach to such behaviours in order to discipline their children or completely show tolerance. Such tolerance legitimises violence respectively (Güneş, 2012).

Sexual abuse is comprised of any sexual activity performed regardless the consent of child. Without considering the age of child and his/her perception of situation, sexual abuse covers all sexual activities between an adult and child performed with threat or force (Hippins and Swan, 2010). Sexual abuse is a universal situation that might occur in all ages, socio-economic level, ethic structure and culture and at every region. Although it is difficult to estimate the number of individuals exposed to sexual abuse, studies indicate that one in every four girls and one in every ten boys suffer from sexual abuse (Lanning, Ballard and Robinson, 1999).

Emotional abuse occurs when the caretaker cause psychological damage in child through repetitive scolding and violence. The occurrence of emotional abuse is based on two main reasons; negligence in terms of interest, love and care, and being exposed to negative behaviours of caretakers (Polat, 2007a).

Although the results of studies conducted in Turkey indicate that the rate of emotional abuse is lower than other types of abuse, a majority of general population is exposed to emotional abuse in the way of negligence. Negligence means that the individuals who are responsible from child do not meet the needs of child. Such vital needs are nutrition, health, shelter and supervision. The most important distinction between abuse and negligence is that abuse is active and negligence is passive (Kara et.al, 2004).

According to the data on negligence and abuse in other countries; every 10.6 children in 100 children suffer from child abuse and negligence with regard to USA 2007 data (ACYF, 2009). This rate is lower in England as 2.7 children in 1000 children (Department of Education and Skills, 2006). The situation is more prevalent in Turkey. Particularly 34.6% of girls and 32.5% of boys at the pre-school level are abused (Bilir, Arı, Dönmez and Güneysu, 1986).

The aim of this study is to analyse the existing studies on this matter conducted in North Cyprus.

2. Method

This section covers the model, research area, data collection and data analysis.

2.1. Research Model

The research model of this study is determined as document analysis under qualitative research method. Document analysis is used to analyse written materials such as written sources, article, books, journal etc. and visual materials such as images, movies etc. (Sönmez, 2014). This method was utilised to systematically review and analyse the existing academic studies in the North Cyprus about child abuse.

2.2 Research Area

This study was conducted to analyse the existing studies on child abuse conducted in the North Cyprus between the years of 1996-2017. Therefore, some criteria were identified to reach the studies that would be taken under the scope of this research. Such studies were the refereed journal articles, theses and reports between the years of 1996-2017. Upon the screening of studies, there were 9 studies that fulfil the related criteria.

2.3 Data Collection

In the literature review phase of articles, Ebsco-Host, Jstor, ULAKBİM National Databases and Google electronic databases were scanned via the database of Cyprus International University. The key words of Child Abuse and Negligence in the Turkish Republic of Northern Cyprus, Child Rights, Physical Abuse, Emotional Abuse and Negligence were used in the literature review. The preliminary screening were completed upon reviewing the abstracts of studies, and the studies other than the ones fitting the determined criteria were excluded from the scope of this research. A total number of 9 studies about child abuse were found in North Cyprus consequently. The first study conducted in North Cyprus was from 1996. As it was not possible to reach the relevant study, the information on this study were generated from the articles of other authors that were published afterwards (Çakıcı et.al, 2003).

2.4 Data Analysis

The researches found with regard to the research area were enumerated and then the researchers determined categories on child abuse. These are; (a) research model and research method that include information on methodology, (b) characteristics that include the socio-demographical information of participants, and (c) child abuse and its sub-dimensions as the aim of research. The data related with categories were shown in the tables prepared for each category. The detailed interpretation of information about categories was performed under the discussion section and such interpretation was supported with the other researches in the literature.

Additionally, the researchers also performed independent literature review. All data generated as a result of such literature were merged and the researches that would be included under the scope of this study were decided accordingly. Common categories were established after the researchers reviewed each one of them in detail. The data were analysed through the agreed categories and the tables about the detailed interpreted data and criteria were prepared. The generated results were calculated with the formula of No. of Agreement/ No. of Agreement + No. of Disagreement x 100 to reach the reliability rate, which was calculated as 88.9%.

3. Findings

The findings generated from the studies reviewed within the framework of literature review, were chronologically listed and systematically presented in the tables.

3.1 Methodology

The methodology was analysed in terms of the authors, aim of research, research model, research subject and sub-dimensions, and was presented in Table 1.

Table 1. *Information on Research Method and Authors*

No	Authors	Research Model	Research Method
1	Çakıcı and Çakıcı, 1996	Quantitative	Descriptive Research
2	Çakıcı, Çakıcı, Tatlısu, Bekiroğulları and Aksoy, 2003	Quantitative	Descriptive Research
3	SOS Çocukköyü Derneği and KADEM, 2009	Quantitative	Descriptive Research
4	Ekdal, 2011	Quantitative	Descriptive Research
5	Göynüklü, 2012	Qualitative	Document Analysis
6	Akacan, 2012	Qualitative	Descriptive Analysis
7	Beyazıt, 2015	Quantitative	Descriptive Research
8	Berkmen and Okray, 2015	Quantitative	Descriptive Research
9	Tatlıcalı and Berkmen, 2017	Quantitative	Descriptive Research

In consideration with the models of reviewed researches under Table 1, 7 out of 9 researches were conducted with quantitative method, 1 qualitative research and 1 document analysis. The covered 7 quantitative researches were performed with research descriptive method (Çakıcı and Çakıcı, 1996; Çakıcı et.al, 2003; SOS Çocukköyü and KADEM, 2009; Ekdal, 2011; Beyazıt, 2015; Berkmen and Okray, 2015; Tatlıcalı and Berkmen, 2017). The study of Akacan (2012) was conducted with descriptive analysis technique of qualitative method and Göynüklü (2012) performed a study through the analysis of applicable legal regulations for child rights and child abuse.

3.2 Characteristics of Participants

The characteristics of participants are given in Table 2 upon the review of ages and genders of research participants, population, sampling size and regions where the research was conducted.

Table 2. *Characteristics of Participants*

No	Authors	Gender of Participant	Group	Age	Population	Sample/study group	Region
1	Çakıcı and Çakıcı, 1996	-	Child	-	All 2 nd grade high school students in T.R.N.C	-	T.R.N.C
2	Çakıcı, Çakıcı, Tatlısu, Bekiroğulları and Aksoy, 2003	1157 girls, 908 boys	Child	15-16 years	All 2513 2 nd grade high school students in T.R.N.C	2215	T.R.N.C
3	SOS Çocukköyü Derneği and KADEM, 2009	-	Adult	18 years and above	T.R.N.C	686	T.R.N.C.
4	Ekdal, 2011	157 girls, 189 boys	Child	8 years	1020 4 th grade primary school students	380	Nicosia
6	Akacan, 2012	-	Adult	18 years and above	-	10	Morphou
7	Beyazıt, 2015	22 girls	Child	12 years and below	Sexual abuse cases in January 2013 and May 2014	22	T.R.N.C
8	Berkmen and Okray, 2015	141 girl, 159 boy	Child	8-12 years	Primary and secondary schools of Nicosia central	300	Nicosia
9	Tatlıcalı and Berkmen, 2017	175 girl, 37 boy	Adult	18 years and older	Students of pre-school teaching department of university	360	Nicosia

Pursuant to Table 2, the participant group in 5 of the researches is comprised of children (Çakıcı and Çakıcı, 1996; Çakıcı et.al, 2003; Ekdal, 2011; Beyazıt, 2015; Berkmen and Okray, 2015), while adults in 3 (SOS Çocukköyü and KADEM, 2009; Akacan, 2012; Tatlıcalı and Berkmen, 2017). According to the Declaration of the Rights of the Child, every individual, who is below the age of 18, is considered as a child (UNICEF, 2004). The study of Göynüklü (2012) was not shown in Table 2, as it is a study of document analysis performed on the legal regulations about child rights in North Cyprus. The age distribution in the existing studies conducted in North Cyprus is as 8-12, 15-17 and 18 years and above, and there is not any study with regard to the younger age groups. In terms of the regional distribution of studies, 4 of them cover whole island (Çakıcı and Çakıcı, 1996; Çakıcı et.al, 2003; SOS Çocukköyü and KADEM, 2009; Beyazıt, 2015), 3 covers Nicosia (Ekdal, 2011; Berkmen and Okray, 2015, Tatlıcalı and Berkmen, 2017), 1 study was conducted in Morphou (Akacan, 2012).

3.3 Subject Matters

The subject matters as the type/types of abuse were covered under the relevant researches are given in Table 3.

No	Authors	Subject	Sub-dimensions
1	Çakıcı and Çakıcı, 1996	Child abuse	-
2	Çakıcı, Çakıcı, Tatlısu, Bekiroğulları and Aksoy, 2003	Child abuse	Physical and emotional abuse, and negligence
3	SOS Çocukköyü Derneği and KADEM, 2009	Child rights	All sub-dimensions
4	Ekdal, 2011	Child abuse	Physical abuse
5	Göynüklü, 2012	Child rights	-
6	Akacan, 2012	Child abuse	All sub-dimensions
7	Beyazıt, 2015	Child abuse	Sexual abuse
8	Berkmen and Okray, 2015	Child abuse	Physical and emotional abuse, and negligence
9	Tatlıcalı and Berkmen, 2017	Child abuse	Emotional abuse and emotional negligence

In consideration with the data under Table 3, 7 of the studies are about child abuse (Çakıcı and Çakıcı, 1996; Çakıcı et.al, 2003; Ekdal, 2011; Akacan, 2012; Beyazıt, 2015; Berkmen and Okray, 2015) and 2 of them about child rights (SOS Çocukköyü and KADEM, 2009; Göynüklü, 2012). In terms of sub-dimensions covered under the studies about child abuse, 1 study was only about physical abuse (Ekdal, 2011) and 1 only about sexual abuse (Beyazıt, 2015). Two of the studies discuss the remaining 3 sub-dimensions of child abuse except sexual abuse (Çakıcı et.al, 2003; Berkmen and Okray, 2015). Tatlıcalı and Berkmen (2017) conducted a study on emotional abuse and emotional negligence. All other studies are about child abuse (Çakıcı and Çakıcı, 1996; Çakıcı et.al, 2003; SOS Çocukköyü and KADEM, 2009; Akacan, 2012; Göynüklü, 2012).

4. Discussion

While the number of studies conducted in North Cyprus on child abuse is not many, but the first study about this topic was performed in 1996 covering all high schools under the General Secondary Education and Vocational Education Departments of the Ministry of National Education in order to analyse the influence of physical abuse on substance use. It is a study that was performed from the epidemiological aspect in terms of child abuse on a number of 2215-second grade high school students. Pursuant to the research results, the child abuse in TRNC was at crucial levels. The research indicated that there is a strong relation between physical abuse, psychological abuse and negligence, and substance use. Additionally, the research showed that the rate of abuse increases with the higher age, and male students are abused more than the female students and suffered from violence more. According to the research, the rate of failing and getting low marks are significantly higher among physically abused students. With reference to results, one in every two students indicated that they were slapped at least once from his/her parents, and 5.5% frequently punished with slap (Çakıcı et.al, 2003).

The second study performed by Çakıcı et.al (2003) noted that the child abuse and negligence is a crucial problem in North Cyprus. According to the data of this study from 2003, the rate of abused young people increases with the age of age. Similarly, the rate of obedience for psychological and physical abuse also significantly increases with age. While there is no significant difference between the possibilities to suffer from emotional, physical abuse and negligence in students and gender, the male students suffer from violence more than female students. The aggressive and naughty behaviours of boys are tolerated due to their gender, yet the same behaviours of girls are not accepted and might end up with abuse (Erol, 2007). The study indicated that there is no significant difference between the place of birth and abuse rate among students (Çakıcı et.al, 2003).

Pursuant to same study, the education levels of mothers does not show any difference in terms of child abuse while the education levels of father has an impact on the child abuse rates. The fathers of severely abused children have low level of education. There is a significant difference between the divorced parents, students who lost their mother or father or students living with both parents. Students living with both parents are subject to "violent physical abuse" at the minimum level. The study showed that the academic success rates of students suffered from abuse and negligence and their number of absence is lower, and a similar outcome was also generated through a study conducted by same people (Çakıcı et.al, 2003). In consideration with literature, the physically abused child shows symptoms such as over-controlled behaviours or aggressive reactions, unwillingness for physical contact and scared of people, retardation of speech and development, difficulties in no-skill works and at school, cognitive ability disorder and academic failure (Zoroğlu et.al, 2001; Taner and Gökler, 2004).

In 2009, SOS Children's Village and KADEM conducted a screening policy with a population of all dwellings with children throughout T.R.N.C. The sample of study was selected with stratified random sampling method and

a group of 686 people was established. The results of study indicated the worrying level of child abuse in North Cyprus. Pursuant to this study, approximately 17% of children in North Cyprus cannot find regular opportunity to eat, 17.2% assaulted verbally on the streets and 8.2% suffered from physical abuse (SOS Çocukköyü Derneği, 2009). The research conducted by the Association of International Children's Centre and The Future of Our Future Foundation (2012) on the domestic abuse on children reflected that in general 73.4% of children experience domestic violence at least once in their lives and 67.9% in terms of emotional violence at least for once.

A study was conducted on 380 students from the 4th grade of 6 primary schools located in Nicosia for the second semester of 2009-2010 academic year. According to this study, male students are abused more than female students and low socio-economic level was also considered as a component in increasing physical abuse. Additionally, the findings showed that there is a significant relation between the number of children in a family and being abused by father (Ekdal, 2011). A study in Turkey indicated that 87.4% of mothers physically abuse and 93% emotionally abuse their children, and there is a relation with high number of children in the family (Pelendecioğlu and Bulut, 2009)

A descriptive study of Beyazıt (2015, p. 451) covered 20 sexual abuse cases in 2013-2014 under the scope of study. According to this study, 96.7% of cases are 12 years old and above and the perpetrators are all male. Sexual abuse varies with genders; females are affected by abuse with 3-10 times more and 80-95% of perpetrators are between the ages of 20-40, known by the victim, married with children (Yakut and Korkmaz, 2013)

The study of Berkmen and Okray (2015) is a study conducted to adapt Child Abuse Scale developed by Malik and Shah (2007) into Turkish language. The validity and reliability of scale were tested as a result of adaptation study performed on 300 children between the age group 8-12 from a primary and secondary school in Nicosia. The scale with 34 items measures the sub-dimensions as physical abuse, emotional abuse and negligence. The comparison of scale scores and some socio-demographical features reflected a significant difference between the age of children and their perception of abuse. Therefore, the abuse perception level increases with age. Another study mentioned that the child abuse decreases, as child gets older (Yalçın, Koçak and Duman, 2014). It points out that child might differentiate the behaviour as he/she gets older.

The study by Tatlıcalı and Berkmen (2017) reviewed the knowledge and awareness levels of pre-school teacher candidates about the emotional negligence and abuse. The study revealed that the emotional negligence/abuse awareness levels of male teacher candidates are lower than females, and their emotional negligence/abuse ignorance tendencies vary based on their education levels. Consequently, the tendency of avoiding abuse/negligence among the teacher candidates becomes higher as their education levels become higher. The isolation and tendency to threaten again vary with the education level and education levels of mothers. Pursuant to the study of Sözdüyar (1989) on the primary school teachers, emotional abuse comes as first in terms of behaviours acknowledged as child abuse by the teachers. As a parallel outcome, the studies indicate that the characteristics of children differ with higher socio-economic level; the environmental factors change accordingly and the situation of negligence diminishes. However, in addition to all this, emotional negligence/abuse has gained importance (Polat, 2007b).

Another study conducted in 2012 analysed the existing situation and laws about the Child Rights in North Cyprus. This study concluded that there are significant shortcomings regarding the laws on child rights and emphasized that despite of approval important convention on the child rights, the required legal arrangements have not been adopted yet. Some of the laws still have articles that cause severe child right violations through very old and out-dated provisions (Göynüklü, 2012). Considering the required actions, the most vital action would be the legal reforms. Additionally, actions to be taken can be listed as transposing the rights under the Convention on the Rights of the Children to the national laws, showing efforts to change the cultural and social values in the way of diminishing the violence against children and working to eliminate the economic inequalities (Acehan et.al, 2013).

5. Conclusion And Recommendations

The data generated through the studies on abuse conducted in North Cyprus until now were shared accordingly. The shortcomings were become clear in the light of such data. Particularly, the studies indicated that there is not determination towards the children between the years of 0-6 under the early education program as well as there is no study regarding the abuse of special need children. Studies regarding such fields should be conducted and the situation determination should be ensured in place. Moreover, the parents as the basic core building block for shaping the future of child, pre-school teachers including the early age program, who are directly in communication with child, classroom teachers, branch teachers, special education teachers and whole structure together with the administrators should be informed through in-service trainings; the children should be informed through informative meetings in accordance with their age levels, a support should be provided with visual components regarding how they will create self-protection dimension; the out-dated laws should be revised; the school-parent cooperation should be re-arranged about the subject matter within the institutional structure; the preventive training programs should be developed; the in-school guidance units should be established; the Ministry of National Education and Ministry of Health should conduct activities in cooperation with the related departments of

universities; and the events such as seminars, conferences etc. for raising awareness of community should be organised and the civil society organisation working in relation with the topic should take part more actively.

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An Evalation Of Korean Cultural Diversity Policies Related To The Unesco Convvention On The Protection And Promotion Of The Diversity Of Cultural Expression

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Abstract

The Convention on the Protection and Promotion of the Diversity of Cultural Expression was adopted in 2005, was ratified by Korea in 2010. After the Convention, Korea enacted the Act on Protection of Cultural Diversity (referred to as the "Cultural Diversity Act") on May 28th, 2014, in order to implement the Convention. The latter forms the legal basis for cultural diversity policy in Korea. This paper is to examine the changes in policy in relation to the Convention on Cultural Diversity and the Korean Act on Cultural Diversity and evaluate.

Introduction

With an influx of migrants from late 1980s, Korea has become a multicultural society. In relation to the development of policy toward social integration, Korea faces two issues. First, how immigrants will adapt to a new culture in Korea, and second, how Koreans will accept immigrants from various cultures. The Government has promulgated multicultural laws and policies for preventing problems and conflicts in a multicultural society and for social integration (Sang Woo Chong, 2016: 376). Korea adopted the Convention on the Protection and Promotion of the Diversity of Cultural Expression in 2005 and enacted the Act on the Protection and Promotion of Cultural Diversity (Act No. 12691) in 2014. The latter forms the legal basis for cultural diversity policy in Korea.

However, Korean society is not familiar with the concept of cultural diversity since it has historically seen itself as a country made up of a single (Korean) ethnicity. Despite societal norms that place a premium on respecting the elderly and the introduction of equal adult suffrage in 1948, prejudice against minorities such as women, children, the elderly, and foreigners is deeply rooted in society. Regional discrimination is also a serious problem. Now, with Korean unification an issue of growing importance, it is time to re-recognize the concept of cultural diversity. The purpose of this study is to examine the changes in policy in relation to the Convention on Cultural Diversity and the Korean Act on Cultural Diversity and evaluate.

Discussion Of Cultural Diversity

Culture includes everyone's life (Williams, 1869). Culture also reduces structural discrimination and socio-economic distinctions based on ethnicity, class, gender, religion, [and] disability (Arnesen, et al., 2008: 6-7). The "Our Creative Diversity" Report presents a new approach to the development of cultural and cultural policies, focusing on the creative possibilities of culture, other than protecting the culture (Obulgen, 2008: 114). Culture has also become the basis for social integration and sustainability. The intense discussion on cultural diversity began with responses to globalization and free trade. New alternatives have been sought after the position of different cultures in the United States, Western Europe and developing countries has changed and identified (Graber, 2006: 554).

The UNESCO General Assembly adopted, with the approval of 148 countries, The Convention on the Protection and Promotion of the Diversity of Cultural Expression after The Universal Declaration on Cultural Diversity (UNESCO, 2009: 50). The Convention affirms that "cultural diversity is a defining characteristic of humanity, Conscious that cultural diversity forms a common heritage of humanity, being aware that cultural diversity creates a rich and varied world, which increases the range of choices and nurtures human capacities and values". Cultural diversity is necessary for communities, peoples and nations.

Enactment Of Law In Korea For The Implementation Of The Convention

There were cultural diversity policies in Korea before the Convention. However, they were not referred to as "cultural diversity" policies. Policies were developed and enforced relating to traditional culture protection and globalization in 1970s. Policies of rights protection and prejudice prevention for the minority groups (disabled, women, and the elderly) also become mainstream. In the 1980s, policies for the protection of Korean public culture industry from free trade also appeared, and policies for migrants have emerged since the 1990s. Since the early 2000s, the number of immigrants has surged, from a small percentage in 1988, to 4.21% of the total population (or some 2.18 million foreign

residents) in January 2018(Ministry of Justice). Immigration policies related to this increase in so-called “foreign residents” have been formulated as “multicultural policies”.

However, confusion has arisen as to the meaning of ‘multicultural policy’ and ‘cultural diversity policy’ as cultural diversity becomes more of an issue in Korea. After the Convention, Korea enacted the Act on Protection of Cultural Diversity (referred to as the "Cultural Diversity Act") on May 28th, 2014, in order to implement the Convention. The Act contains 14 provisions, including the definitions of the Convention, provisions defining the duty of country and people, basic plans, committees, annual reporting, education, and professional training. As of 2018, 12 out of 17 municipalities have enacted an Ordinance on Cultural Diversity. As a result, cultural diversity policies have been implemented widely.

Cultural Diversity Policy In Korea

Cultural diversity policies from other countries are presented in The UNESCO Periodic Report. However, because the policy is implemented according to the situation of the country, policy is different in each country (Kim, 2017a: 48). To show that the Convention is being implemented in Korea, the cultural diversity policy classification should be adapted to the Korean situation. The classification of cultural diversity policy in Korea is below.

First, it is traditional culture policy. Traditional culture, which is also mentioned in the Convention, is the beginning of cultural diversity in Korea. Despite the difficulties experienced by Korea going through periods of colonization and war, a new government was introduced and the traditional culture policy was the first cultural policy. The Convention refers to the importance of traditional culture. Traditional cultural policies can be classified as protection, promotion, education, dissemination and succession, and museums.

Second, it is modern cultural diversity and arts. Efforts to improve the arts and creative requirement for cultural diversity are continuously expanding. Policy in this area recognizes not only the value of art in culture, but also in the promotion of diversity of cultural expression including artistic creation, enjoyment, participation, experience, and cyclical activities of consumption. It also emphasizes the importance of cultural diversity to 'quality of life', and also to fundamental 'human rights' (Ryoo, 2016: 41). Cultural identity should be preserved along with cultural characteristics in conjunction with cultural rights, protection of language and customs of minor ethnicities. Policies are categorized as artist and network formation.

Third, it is Cultural industry policy. The foundation of the Korean cultural industry has begun with the Basic Act on the Promotion of the Cultural Industry on February 8th, 1999. The Korean cultural industry has been developed and the cultural industry law has been revised and implemented. In the early days, the cultural industry was a major strategic industry in the country, and it has been changed in a rapidly changing environment, such as with the advancement of digital technology. Now, the cultural industry in Korea is changing according to the times.

Fourth, it is Immigrant policy. Based on the numbers of migrant workers (583,316 in June 2018, Korean Government Statistics) and marriage immigrants (155,255 in June 2018, Korean Government Statistics) since the 1980s, Korea has become a multicultural society. The Law on Employment of Foreign Workers (2003) and The Multicultural Family Support Act (2008) were enacted for immigrants to integrate into Korean society. However, in the early stage of migrant policy, policies for foreign workers were implemented based on economic interests. The migrant policy has gradually become more assimilative, and migrants have experienced discrimination and exclusion. Immigrant policy can be classified as foreigners/immigrants, defectors from North Korea, and compatriots.

Fifth, it is cultural welfare policy. Cultural welfare policy has narrowed the cultural gap and has provided many benefits to minorities. Until now, cultural welfare policy has been implemented for all citizens so that they could enjoy culture. Cultural welfare policy now focuses on minorities such as the underprivileged and low-income families in Korea. Cultural diversity, which emphasizes individual differences rather than ethnic or racial differences, is an important part of cultural welfare policy. Cultural welfare policies are focused on women, the elderly, poverty, children/adolescents, and people with disabilities.

Sixth, it is the importance of multicultural education or cultural diversity education. Cultural diversity education is aimed at understanding and respecting various cultures. Cultural diversity education changes perception and when their perception changes, people change. Respecting differences should begin with the indigenous people in the country. Therefore, cultural diversity education can be called civic education. Cultural diversity should be able to emerge in education through teacher education and curriculum including school education.

Lastly, it is international cooperation policy for UNESCO Cultural Diversity. Policy will create and support events, education and broadcasting programs to promote Korean culture. Korea will strengthen its global competitiveness by exchanging culture such as arts, music and history with various cities around the world and dispatch youth and youth leaders. Through international cooperation policies, it is possible to acknowledge and respect differences.

Evaluation Of Cultural Diversity Policy Of Korea

Korea's cultural diversity policy is based on Cultural Diversity expressed in the Convention. Cultural diversity policy is concentrated in the Ministry of Culture, Sports and Tourism. Cultural diversity policies such as the enactment of cultural diversity regulations are being implemented in central ministries and municipalities. The cultural diversity policy of Korea has the following characteristics.

First, after the arrival of multicultural society due to the increase of migrants, it became interested in the policy of cultural diversity rather than protection of traditional culture. Second, the concept of multicultural policy and cultural diversity policy have been confused as the immigrant policy has been defined as a multicultural policy. It means that cultural diversity policy is limited to the field of culture in immigration policy. Third, the meaning of education for cultural diversity is diminishing because multicultural education is narrowly understood as policies for marriage immigrants. Fourth, because immigration policy is implemented by various ministries, the functions of managing immigrant policies or multicultural policies are weak, and the concept of cultural diversity policy has become narrow. Fifth, due to lack of understanding about the concept of cultural diversity at the local government level, duplicate policy has appeared.

The interest of introduction and the production and enjoyment of minority cultures such as Asian cultures is continues to increase. However, due to the tendency to overlap with immigration policies, preserving Korean traditional culture or introducing Korean culture to immigrants may be mistaken for assimilation in a single national culture or multicultural society model. On the contrary, there is a certain concern about the increase of immigrants and refugees. This phenomenon stems from the lack of consensus formation that cultural diversity contributes to the development and sustainability of Korean and world culture.

Cocclusion

In Korea, there were policies of protection of traditional culture and Korean cultural contents before the Convention. However, it was not based on sustainable development or the Convention. Even after Korea adopted the Convention, cultural diversity policy is confused with multicultural policy and it is concentrated in the immigrant. The diversity of cultural expressions, including traditional cultural expressions, is an important factor that allows individuals and peoples to express and to share with others their ideas and value. So the policy should be implemented based on the Convention and includes cultural diversity. The limitation of cultural diversity policy in Korea is that cultural diversity policies are narrowly understood because of confusion between the concepts of cultural diversity policy and multicultural policy. The improvement is that the policy should clarify the concept of cultural diversity and have control tower to reduce confusion between cultural diversity policy and multicultural policy.

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An Implication of Self-awareness on Somatic Sense in the Healing Experience - A Case as Self-Experience in the Movement-based Expressive Art Therapy

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Abstract

Which methods will there be in seeking this with believing it to be life resource while we are leading a life? Somebody is pursuing this with believing that money and power belong to vitality. On the other hand, someone is living life according to this with believing that the adventure and the unknown world belong to energy. This study was begun from this question. A researcher has experienced a variety of healing and therapeutic techniques including integrative therapy in the meantime. These techniques are actually having great influence upon changing myself. Of course, the experience on this change is what has been developed after passing through the researcher's personally-embodied process, thereby being clarified to be a very subjective thought and judgment. Nevertheless, considering that all the experiences are begun from a human individual, the healing and therapeutic training courses that the researcher embodied in reality are considered to be capable of offering very crucial implication and clue even to therapists, who are taking this way, as well as to the researcher as an individual. First of all, what is thought to be a major variable in the process that the researcher proceeds with searching for the resource of life is to find out an implication of self-awareness on somatic sense and to develop this. Consequently, the purpose of this study is to classify the process of self-awareness on the body into three things such as ① healing touch in body-archive ② therapeutic dynamism in body and language ③ realization and developmental process in language and somatic sense according to the movement-based expressive art therapy that the researcher really experienced. Hence, the researcher in this study aims to suggest these three variables through the actual healing process and therapeutic experience that the U.S. Tamalpa Institute conducted from January 12th to 20th in 2018.

Keywords: *Movement based Expressive Arttherapy, Phenomenal Body, Bodyarchive, Body Oriented Therapy, Bodymemories, Integrative, Movement Work, Integrative Therapy*

Introduction

The questions are very important as saying what does make me move in the healing and therapeutic process? and as what do I move by? It is so because these questions lead to finely feeling somatic sense in ourselves depending on body part in the healing process and to being capable of being aroused with being accompanied together the experiences and memories in life of being felt along with this. At this point, it is important for us as a human to behave with listening well to the external sound in gradually getting aging. But it will be considered to be significant more than anything to listen seriously to the internal voice in myself. If so, which methods will there be in seeing this with believing it to be life resource while we lead a life? Somebody is pursuing this with believing that money and power belong to vitality. On the other hand, someone is living life according to this with believing that the adventure and the unknown world belong to energy.

This study was begun from this question. As the researcher has experienced diverse healing and therapeutic techniques including integrative therapy in the meantime, these techniques are factually having a great impact on changing myself. Of course, the experience on this change is what has been developed after going through the researcher's personally-embodied process, thereby being disclosed to be a very subjective idea and judgment. Still, considering that all the experiences are begun from a human individual, the healing and therapeutic training courses that the researcher embodied in reality are considered to be capable of offering very critical implication and clue even to therapists, who are taking this way, as well as to the researcher as an individual. For a start, what is thought to be a major variable in the process that the researcher proceeds with looking for the resource of life is to discover an implication of self-consciousness on somatic sense and to develop this. Thus, this study aims to divide the process of self-awareness on the body into three things such as ① healing touch in body-archive ② therapeutic dynamism in body and language ③ realization and developmental process in language and somatic sense according to the movement-based expressive art therapy that the researcher experienced in reality. Hence, the researcher in this study aims to propose these three variables through the actual healing process and therapeutic experience that the U.S. Tamalpa Institute carried out from January 12th to 20th in 2018.

The Study

Literature text and body as a door and a passageway to memory archive.

The literature text, which comes to be listened through a therapist's voice in the process of adopting healing and therapy, is very important in this sense. That is because we can enter our own body through the text. In that sense, the body can be considered to be 'body-archive(Leibarchiv)' that contains our humans' life experiences and memories. Joachim Bauer named this as "memory of the body(Das Gedächtnis des Körpers)" and then thought that there is memory in the base of its agony when we suffer from a pain with an unknown cause. In other words, he considered that the pain of having lasted for a long time exercises power through meeting a strong opportunity at some points while remaining as 'epitaph' in the body. For instance, one scene in 『Breathing[Der Atem](1978)』, which is a short novel by Thomas Bernhard who is an Austrian playwright, not only stirred up the writer's memory of infancy in the body, but also could sympathize with body odor and warmth that can be felt in 'Grandfather's Room.' Especially, the paragraph of being felt comfort and safety while the narrator looks at grandfather's room and trifles could bring comfort and safety to the writer, too. In this way, the literature text is even a door to getting into the narrator's memory as to readers of reciting this, but is a passageway of entering the memory of the body in readers themselves of perusing it.

Aus dem Vorhaus, wo ich, aus Platzmangel und aus hier nicht näher zu erörternden, mir auch nicht vollkommen klaren familiären Gründen, mein Bett gehabt hatte, durfte ich, wahrscheinlich, weil allein der Anblick meines Zustandes eine solche Maßnahme als unbedingt und ganz einfach als selbstverständlich erfordert hatte, in das sogenannte Großvaterzimmer. Jetzt war es mir möglich, jede Einzelheit in dem Großvaterzimmer einer genaueren Betrachtung, ausgestreckt im Bett des Großvaters, jeden einzelnen ihm so lebensnotwendigen, mir auf die nützlichste Weise so vertrauten Gegenstand einer langen, ja ununterbrochenen Prüfung zu unterziehen(Bernhard, Der Atem 1978, p. 8).

Of course, the writing-material text that the therapist recites cannot give impression and sympathy to all people who participate in therapy. Yet, it is apparent that the viewpoints such as theme, image, situation, scene, family and relation in the text can bring the moment of a reason to all of us at any rate. It may naturally lead to thinking how important breathing is in the period of having a lot of fine dust in the atmosphere like these days. By the way, in case of the writer, the scene that the narrator feels the grandfather's body odor and lingering imagery with lying down on the bed of the grandfather who was admitted to hospital aroused very stable and comfortable feeling at the stage of introducing healing. Particularly despite the situation that even the narrator is confined to bed by fever, the relief and comfort that the speaker feels in the grandfather's room brought a connecting factor, which leads to recalling the writer's childhood.

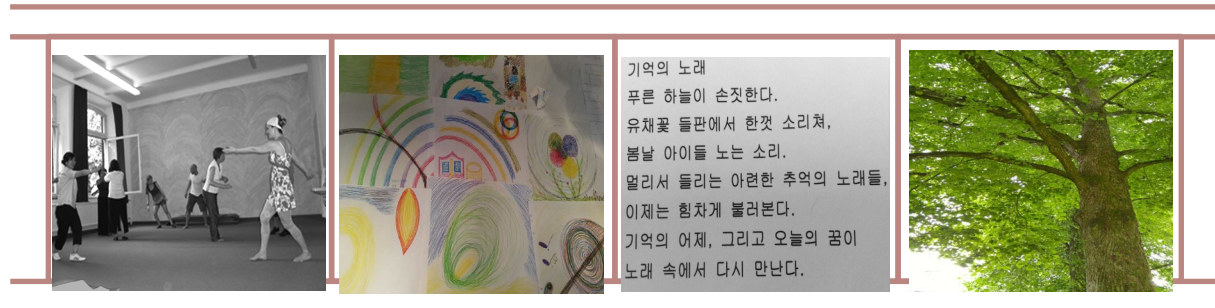
There are therapeutic function and application point of the literature text just at this point. That is to say, an author's own autobiographical elements are also melted in literature. But it is no exaggeration to say that all of our humans' common memories are contained at the same time. The memories, which were caused in this way, are very crucial healing variables of making the memory archive in the body work dynamically(Chae, 2015, p. 134). As the writer came to have time of experiencing my own body through Bernhard's narrator, and to have an opportunity of expressing senses by pain or region in the whole body, it can be considered to possibly have a special feeling about the shoulder area even among somatic senses. Accordingly, the writer could attempt to express movement focusing on the senses around the shoulders even out of my own body areas, to draw a body image of being captured through movement, and to describe this process through writing. This series of the process can be mentioned to be very critical factors to self-experience in the body-oriented therapy or the movement-based expressive art therapy. That is because of regarding this process itself as allowing the narrative in life to be possibly sublimated into aesthetic experience(Halprin 2018).

Findings

In this way, we, human beings, are leading a life with overlooking it in everyday life, but come to meet the moment of memory, which failed to be discerned for a long time, through five senses at some point. Especially, the body movement, which was met at the workshop of the movement-based expressive art therapy for the U.S. Tamalpa Institute, was being described and revived with numerous images and movements. This body movement could be re-experienced with verbal expression that ultimately meets with the moment of life after passing through the picture and image work. This process will be naturally considered to be what includes 'aesthetic function(ästhetische Funktion)' of containing the narrative in my own life. That is because this 'aesthetic function' itself can be regarded as evoking verbal message(Stierle 1996, p. 217).

In addition, the writer could embody an implication of breathing through the writing material in the healing and therapeutic process into three stages. ①-1. The healing touch in body-archive could be experienced. Owing to this, the body movement came to be free and smooth. ②-2. The therapeutic dynamism in body and language could be expressed by brief implementation. This made the writer available for experiencing new healing. ③-3. The realization and the developmental process in language and somatic sense could be known to be linked to the writer's

growth in body and mind. These results are possible because the writer experienced freedom in body through taking part in the movement-based expressive art process with open mind. Thus, this healing experience can be eventually considered to give the writer a meaning of body consciousness caused by “therapy method based on what is phenomenal and in-depth analytical[ein Verfahren phänomenologisch und tiefenhermeneutisch begründeter Behandlung](Petzold, Orth, 2017, p. 519.).”



[The process of movement-based expressive art therapy 1]

Conclusions

As the writer already clarified in the process of healing and therapeutic experience of the text, the human body is containing the narrative in life enough to have lived in the meantime. Regardless of what the narrative in such life is good memory or bad memory, our humans are expressed this narrative through a bowl called body. Of course, such body expression is described and again recorded finally with language, which is a human being's primary communication medium, namely, with spoken word and written language, after going through the shapes of movement dubbed motion and of image. This whole process corresponds to the self-experience contents of being carried out in the course of 'movement-based expressive art therapy.' Therefore, this study will be arranged the process that the writer participated in workshop of the movement-based expressive art therapy at the U.S. Tamalpa Institute last winter according to the writer's self-therapeutic feelings. In that sense, this study discloses that the writer's personal case record is not a universal case available for being applied to all participants. Nevertheless, considering that all the experiences are begun from a human individual, the healing and therapeutic training courses that the researcher embodied in reality will be able to offer very critical implication and clue even to therapists, who are taking this way, as well as to the researcher as an individual. Above all, what is thought to be a major variable in the process that the researcher proceeds with seeking the resource of life is to find out an implication of self-consciousness on somatic sense and to develop this. Hence, this study can be arranged the process of self-awareness in the body as the conclusion in about 3 things according to the movement-based expressive art therapy that the researcher actually experienced. First, the healing touch in body-archive may become a door and a passageway to our own life. Second, it is very crucial to change the healing narrative of body into the image and verbal resource. Third, the image and verbal narrative can ultimately bring vitality of leading to aesthetically feeling the life in 'now-here.' Hence, the writer could personally experience what the Tamalpa workshop course last winter leads to life of being sublimated and embodied into the aesthetic process dubbed body, image and verbal expression, resulting in being naturally opened the door to healing and therapy.

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An Investigation Of Students' Motivation To Pursue Higher Education At A Czech University

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Abstract

Personally engaged study strategies focused on deep-level learning, internal fascination with the subject with a sense of its relevance, accomplishment in mastering it, and a sense of calling to it (DeLong & Winter, 2002) characterize intrinsically motivated students (Biggs, 1979; Janssen, 1996; Orsini et al., 2015). Intrinsic motivation can be long lasting and self-determined stemming from internal autonomy. On the other hand, making effort to foster students' intrinsic motivation can be slow with the need for a variety of approaches, special and lengthy preparations. However, previous findings show that increasing student success through instruction in self-determination (i.e., autonomy) better motivate students to learn at all educational levels, including those with disabilities (Ryan & Deci, 2000a). The aim of this paper was to investigate the type of motivation leading students to pursue higher education, and to describe the adaptation of the modified version of the Academic Motivation Scale (AMS), developed by Vallerand et al. (1989). This seven-point Likert-scaled instrument was designed to assess self-determination continuum and the types of motivation with their regulatory styles. The sample consisted of 467 university students in regular classroom settings enrolled at a Czech university. In EFA a 4-factor model was generated explaining 61% of the total variance. In this version, the questionnaire consisted of 16 items with Cronbach's α ranging from .82 to .60. The data proved a student's (F1) identified regulation, (F2) external regulation, (F3) amotivation, and (F4) intrinsic motivation to be strong predictors of students' motivation to pursue higher education. It was found out that amotivation showed a stronger negative correlation with identified regulation than with intrinsic motivation, which is between these two subscales on the self-determined continuum. Moreover, identified regulation showed a stronger positive correlation with intrinsic motivation than with external regulation, falling into the same external motivation and being placed towards non-self-determined behavior. These findings suggests that identified regulation represents a milestone on the self-determination continuum separating inner motives from external. Identified regulation itself was perceived by the Czech student as a part of intrinsic motivation rather than extrinsic motivation. Furthermore, the relationship between gender, age, GPA, year and field of study was further identified.

Keywords: *Academic Motivation Scale (AMS), Self-Determination Theory (SDT), motivation, higher education, university students, factor analysis*

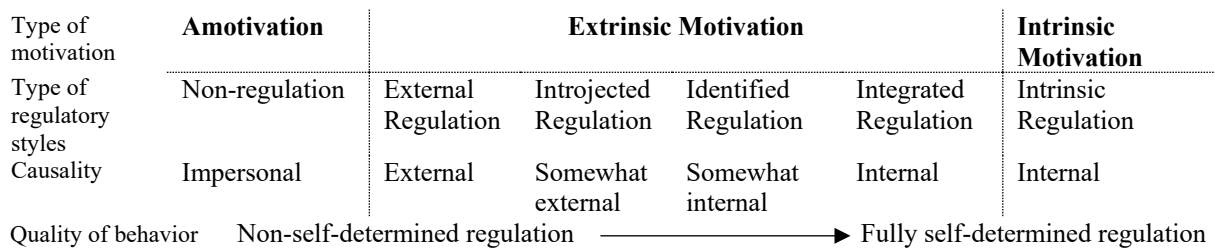
Introduction

Significance of an innate need to feel a sense of self-determination or personal causation was repeatedly tested (Deci & Flaste, 1996). Results of the stimulation indicated that those subjects who had, for example, competed on puzzle solving, displayed less subsequent intrinsic motivation than those who had simply been asked to do their best and solve these puzzles just for the fun of it. The experience of competition and pressuring students to behave in a particular way that leaves them feeling controlled kills a person's spirit and diminishes their feelings of self-determination. Questioning the quality and roles of self-determined and controlled behaviors in multidimensional perspective is a part of the Self-Determination Theory (SDT; Ryan & Deci, 2002). SDT was formulated in terms of four mini-theories sharing the organismic-dialectical metatheory and the concept of basic needs theory. Its primary focus is on the discussion between the growth-oriented human organism and social contexts that might support or undermine sense of self.

As shown in Figure 1, according to SDT a taxonomy of types of regulation from non-self-determined to a fully self-determined form of behavior representing autonomy exist as a continuum, arranged from left to right and motivation for the behavior changes in relation to whether it emanates from the self. At the left end, amotivation, is the state of lacking the intention to pursue an activity (Ryan & Deci, 2002). Amotivated individuals act passively with no sense of intending to do what they are doing. Extrinsic motivation, which is characterized by four types of regulation, lies between amotivation and intrinsic motivation and can be ordered along the self-determination continuum (Ryan & Deci, 2000b).

The lowest and the least autonomous form of extrinsic motivation is external regulation. Students holding this type of motivation are motivated to obtain rewards or avoid punishments. An external demand or a social environment can cause such behavior with externally perceived locus of causality. In introjected regulation an external regulation is at the phase of the beginning of internalization, however, is not truly accepted as one's own, i.e. as being part of the integrated self. Introjection-based behaviors are most likely chosen to attain ego enhancements

and feelings of worth. First, a more similar form of self-determined extrinsic regulation is identified regulation. Regulation through identification involves the evaluation of behavior as being personally valuable and important; although the aim of behavior is to achieve something. In this type of regulation, identification represents an important aspect of the process of transforming external regulation into the form of true self-regulation accompanied by a high level of perceived autonomy. Finally, there is integrated regulation, which is the most autonomous form of extrinsically motivated behavior. In this type of regulation, the previous identifications have been brought into congruence with the personal values, goals, and needs being part of the self. However, the behaviors are still considered extrinsic because the main goal of such a behavior is to attain personally important outcomes but not for their enjoyment or inherent interest. Following the continuum, the most self-determined form of regulation is intrinsic motivation. The state of behavior is for the pleasure and inherent satisfaction derived from it. Importantly, it is possible for individuals to take in a regulation at any point along the self-determination continuum. It means that one's behavior may change over time as a function of greater cognitive and ego development, and may get closer to the essence of self (Ryan & Deci, 2002).



Source: Modified from Deci and Ryan (2002).

Figure 1. Self-Determination continuum of motivation showing investigated types of motivation

In regard of the mentioned SDT, the Academic Motivation Scale (AMS) is one of the most used instruments (Vallerand et al., 1989). The scale was developed in the French-Canadian higher education environment and validated in various language settings, such as English (Vallerand et al., 1992; Cokley, 2000), French (Guay et al., 2003), Spanish (Orsini et al., 2015; Stover et al., 2012), Italian (Alivernini & Lucidi, 2008), Turkish (Karagüven, 2012), Greek (Barkoukis et al., 2008), and Malay (Caleon et al., 2015). The original version consists of 28-items that are divided into seven subscales, reflecting one subscale of amotivation, three subscales of extrinsic motivation (external, introjected and identified regulation), and three distinct subscales of intrinsic motivation (intrinsic motivation to know, to accomplish, and to experience stimulation). The psychometric characteristics of the AMS were widely tested indicating good internal consistency of α ranging between .83 to .86 (Vallerand et al., 1992).

With the respect of construct validity of the scales, a confirmatory factor analysis of the seven-factor structure provided good fit with the data fulfilled by the establishment of the correlation analysis. Specifically, Vallerand et al. (1993) expected that higher positive correlations will be found between the ordered subscales that fell next to each other on the self-determination continuum, with the highest negative correlation expected between those subscales lying on opposite ends. Thus, the subscales next to each other would have the strongest relationships which could weaken as distance becomes greater. However, these hypotheses were not fully supported empirically (Fairchild et al., 2005). For example, amotivation subscale had a stronger negative correlation with identified regulation than with intrinsic motivation to experience stimulation. Therefore, more research regarding the dimensionality of the scale is needed.

Since no coherent multidimensional instrument based on measuring student's different quality types of motivation exists in the Czech educational environment, the AMS selected and modified subscales' construct validity was assessed. The aim of the presented research was to investigate the type of motivation leading students to pursue higher education, and to describe the process of construct validity and internal consistency verification. First, an exploratory factor analysis (EFA) was used to explore the latent factor structure and to confirm construct validity of the scales. The number of important factors in EFA was based on a visual inspection of the Catell's scree plot that is examined for a natural break between the large eigenvalues and the remaining small eigenvalues, and a combination of the Kaiser-Guttman criterion. The principal component analyses (PCA) with the Varimax rotation was used with items loading over .30. The purpose of this setting is to make the orientation in the resulting structure more transparent. However, decisive was the meaningful interpretation of remaining factors. The scales' internal reliability by Cronbach's alpha was tested. Second, correlations among the motivation subscales assessing the self-determined continuum and correlations with GPA to test the predictive validity of the scales were examined. The final aim was to determine the overall average motivation and influence of the selected variables, i.e., age, gender, level and field of study.

Method

Participants

The research pool consisted of 467 university students from a medium-sized public university located in the southeast Czech Republic. All participating students were asked to participate on a voluntary basis and data was collected using a paper-pencil questionnaire in a regular classroom setting. The mean age of the sample was 22.25 ($SD = 1.7$) and ranged from 19 to 29 years. 29 (6.2%) males with an average age of 22.4 years (age ranged from 19 to 26 years, $SD = 1.94$) and 438 (93.8%) females with an average age of 22.2 years (age ranged from 20 to 29 years, $SD = 1.72$) participated on the study. Equally, one-third of respondents were full-time first year students (149, 31.9%) and second year students (150, 32.1%) in helping professions. 177 (37.9%) of students had chosen Social Education and 126 (27%) of students had chosen Preschool Teachers' Training for their future profession. A similar percentage of students (23.3%, 109) attended Healthcare classes and 55 students (11.8%) studied Philology. The distribution of gender, age, year and field of study is shown in Table 1.

Table 1: Demographic characteristics of the sample

Frequency	Gender		Age		Year of study					Specialization			
	male	female	19-21 years	22-29 years	1 st year Bc	2 nd year Bc	3 rd year Bc	1 st year Mgr	2 nd year Mgr	Social Education	Healthcare	Philology	Preschool Teachers' Training
n	29	438	184	278	149	150	86	39	43	177	109	55	126
%	6.2	93.8	39.4	59.5	31.9	32.1	18.4	8.4	9.2	37.9	23.3	11.8	27.0

Notes. Bc = Bachelor's degree. Mgr = Master's degree.

Measure

The selected modified scales of the Academic Motivation Scale (AMS; Vallerand et al., 1989) supported by self-determination theory were used to measure academic motivation. Selected items falling within the AMS subscales were translated into the Czech language with respect of the linguistic significance of the culture. For this reason, literal translation was not desirable. Additional items were developed by the author forming 4 subscales, each consisting of 4 items. Together, 16 items measured: (1) intrinsic motivation (IM) that is considered to be a global construct with four subdivisions: IM to know, IM to experience, IM to interest, and IM towards accomplishment (an example item is "Because I think that this activity is interesting"), (2) identified regulation (IDR), an example item is "Because I am doing it for my own good," external regulation (ER), an example item is "Because I am supposed to do it," and amotivation (AM), an example item is "There may be good reason to do this activity, but personally I don't see any." All items included the question "Why do you study university?," which was to be answered by selecting a response from a 7-point Likert scale ranging from 1 (*does not correspond at all*) to 7 (*corresponds exactly*). An average of the total scores on each subscale was taken as the mean score and was used for the further analysis.

Results

Data preparation and data analysis

Data cleaning was realized indicating occurrence of invalid responses, missing values or errors created during the data transcription. A non-significant Little's Missing Completely at Random test clarified the use of the EM algorithm to replace missing values with predicted values (Field, 2005). Since no coherent multidimensional instrument based on measuring student's different quality types of motivation exists in the Czech educational environment the scale's construct validity was assessed by exploratory factor analysis. The internal consistency was checked using Cronbach's alpha coefficient and item-total correlations. The preliminary assumptions of the employment of the parametric statistics using Kolmogorov-Smirnov and Shapiro-Wilk tests of normality were carried out suggesting violation of normality. Therefore, associations between variables (factors) were tested using Spearman (r_{rho}) correlations. To assess gender and age category differences the Mann-Whitney U test with the effect size (r) were conducted. To assess year of study and field of study differences, K-W ANOVA with eta squared (η^2) effect size statistics were computed. Moreover, means and standard deviations were calculated for each of the four-motivation subscale with the differences tested using Friedman test. Data were analyzed using SPSS v. 22.0.0 software.

Exploratory factor analysis

First, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was checked. KMO exceeded the recommended value of .60 (KMO = .85). Second, the Bartlett's Test of Sphericity reached statistical significance ($\chi^2(120) = 2679.91, p < .001$), supporting the factorability of the presented data.

The PCA with orthogonal Varimax rotation was conducted. The number of eigenvalues greater than 1 with the support of an inspection of the scree plot revealed four-factor solution as expected by theory. The new factor solution explained 61% of the variance (ranging from 32% to 7%). Moreover, new extraction with the fixed number of factors was checked yielding identical interpretable four-factor structures with items falling into the appropriate factor. The only exception was item 5 ("Because I want to learn something new") from the intrinsic motivation – to know, falling into the different factor showing that the motivation to learn something new during university studies was for students somewhat internal, valuing with a personal significance, but it was not entirely internal. Therefore, the item 5 might better correspond to external regulation in the form of identified regulation. The factor loadings of the extracted factors and their descriptive characteristics are displayed in Table 2.

Table 2: Rotated Component Matrix for PCA with Varimax Rotation on 4-factor Solution

No. Item*	F1	F2	F3	F4	M (SD)	α -i
14. Because I believe that this activity is important for me.	.75				4.66 (2.04)	.76
5. Because I want to learn something new.	.74				4.69 (1.89)	.78
7. Because I think that this activity is good for me.	.73				3.98 (2.01)	.76
3. Because I am doing it for my own good.	.72				5.15 (1.78)	.77
11. By personal decision.	.65				3.72 (2.11)	.80
6. Because it is something I have to do.		.78			3.36 (2.10)	.49
2. Because I am supposed to do it		.78			4.45 (1.83)	.57
10. Because I feel I have to do it.		.66			3.95 (1.95)	.64
15. Because I don't have any choice.		.44			2.35 (1.89)	.67
16. I do this activity, but I am not sure it is a good thing to pursue it.			.75		2.39 (1.74)	.74
4. I do this activity but I am not sure if it is worth it.			.70		3.91 (2.02)	.64
12. I don't know; I don't see what this activity brings me.			.65		3.37 (2.00)	.64
8. There may be good reason to do this activity, but personally I don't see any.			.54		2.55 (1.95)	.64
13. Because I feel good when doing this activity.				.83	5.10 (1.57)	.52
1. Because I think that this activity is interesting.				.43	4.99 (1.63)	.33
9. Because I can overcome myself.				.34	4.37 (1.82)	.54
Factor identification	IDR	ER	AM	IM		
Cronbach's alpha	.82	.67	.74	.60		
Number of items	5	4	4	3		
M	4.45	3.51	3.05	4.81		
SD	1.44	1.32	1.39	1.18		
Eigenvalue	5.1	2	1.5	1.2		
Explained variance in %	32	13	9	7		

Note: * = The items were provided to respondents in the Czech language. Presented English version is used for illustration purposes; M = Mean; SD = Standard deviation; α -i = Cronbach's alpha if the item is deleted.

The best explained variability of the 4-factor solution was in variable 13 ("Because I feel good when doing this activity") from the intrinsic motivation and variable 6 ("Because it is something I have to do") falling into the external regulation. Further inspection of the item-total correlations showed the correlation coefficients did not increase after deleting the items from the subscales. It means that measured items have the same meaning of the averaged measure and therefore are consistent with the particular factor.

Overall, the reliability of the 4-factor model fit covering 16 items reached good internal consistency. More specifically, **identified regulation** reached $\alpha = .82$ (5 items) in which behavior is valued and important with similar forms of self-determined regulation. However, the conduct still represents a behavior driven by extrinsic motivation (see Figure 1). The α coefficient for the **external regulation** covered by 4 items seems acceptable ($\alpha = .67$) and represents the lower form on the self-determined continuum driven by extrinsic motivation. Moreover, the behavior is motivated by reward or to avoid punishment. The **amotivation** scale consisted of 4 items reached $\alpha = .74$ representing the absence of intent interest to pursue an activity. The last scale, **intrinsic motivation** (3 items), represents the most self-determined form of behavior driven by the satisfaction. The α coefficient reached an acceptable value of .60. Taken together, EFA suggests that the general model representing a student's motivation to study at a university and enroll in the formal education system with four factors covered by 16 items is a reasonable representation of the data.

Correlation analysis

The internal relationship among the motivation scales supports the four-subscale factor structure based on the continuum pattern of the Self-Determination theory (Table 3). The higher form of the extrinsic motivation (i.e., identified regulation) subscale showed the strongest significant positive correlation ($r_{rho} = .530, p < .01, r^2 = 28\%$) with intrinsic motivation represented by intrinsic regulation. Identified regulation also significantly negatively correlated with amotivation ($r_{rho} = -.523, p < .01, r^2 = 27\%$) and with external regulation ($r_{rho} = -.143, p < .01, r^2 = 2\%$) belonging to lower self-determined behavior. Furthermore, amotivation positively correlated with external regulation ($r_{rho} = .394, p < .01, r^2 = 16\%$) and negatively correlated with intrinsic motivation ($r_{rho} = -.343, p < .01, r^2 = 12\%$). Lastly, the relationship between external regulation and intrinsic motivation was significantly negative ($r_{rho} = -.139, p < .01, r^2 = 2\%$). However, this explains only small proportion of the shared variance.

Table 3: Intercorrelations between the motivation scales and GPA

Subscale	IDR	ER	AM	IM
Identified regulation (IDR)	1.000			
External regulation (ER)	-.143**	1.000		
Amotivation (AM)	-.523**	.394**	1.000	
Intrinsic motivation (IM)	.530**	-.139**	-.343**	1.000
Grade point average (GPA)	-.399**	.173**	.278**	-.242**

Note: ** = $p < .01$.

Nevertheless, two deviations from the expected outcomes were found and should be highlighted. First, amotivation showed a stronger negative correlation with identified regulation ($r_{rho} = -.523$) than with intrinsic motivation ($r_{rho} = -.343$), which is between these two subscales on the self-determined continuum (see Figure 2). Second, identified regulation showed stronger positive correlation with intrinsic motivation ($r_{rho} = .530$) than with external regulation, falling into the same external motivation ($r_{rho} = -.143$) and being placed towards nonself-determined behavior. These findings suggests that identified regulation represents a milestone on the self-determination continuum separating inner motives from external. Identified regulation itself was perceived by the Czech students as a part of intrinsic motivation rather than extrinsic motivation.

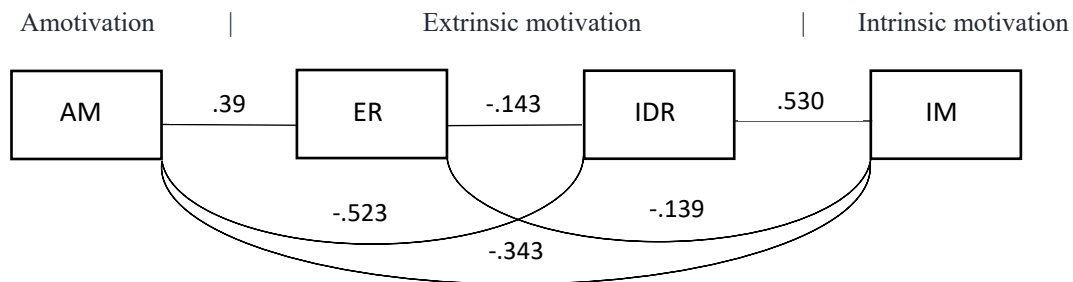


Figure 2. Intercorrelations on the Self-Determination continuum

GPA of the students perceived during their studies significantly correlated with motivation scales as expected. The negative relationship was found between identified regulation ($r_{rho} = -.399, p < .01, r^2 = 16\%$) and intrinsic motivation ($r_{rho} = -.242, p < .01, r^2 = 6\%$). In other words, successful students with lower GPA reach higher levels of intrinsic forms of motivation. On the other hand, positive relationship was found between external motivation ($r_{rho} = .173, p < .01, r^2 = 3\%$) and amotivation ($r_{rho} = .278, p < .01, r^2 = 8\%$). This means the worse the GPA the higher the degree of the external motivation.

Selected variables differences

According to the results of the mean scores on the seven-point scale used in the survey, students reported that their primary reason to study the university was driven by intrinsic motivation ($M = 4.81, SD = 1.18$) representing self-determined regulation. That means that students study university for their own purposes and for the pleasure derived from it. On the other hand the students who scored the lowest on the amotivation scale ($M = 3.05, SD = 1.39$) showing desire show that students study at a university by their own motion and are not widely experiencing non-regulation in the form of amotivation. Furthermore, the differences in the mean values of the scales are statistically significant, $\chi^2(3, n = 467) = 307.96, p < .001$.

Female students scored significantly higher in identified regulation ($U = 4027.5, z = -1.74, p < .001, r = .15, \text{Mean difference} = .85$) and intrinsic motivation subscale ($U = 4564.5, z = -2.55, p < .01, r = .12, \text{Mean difference} = .67$) than males students. On the other hand, males reported higher score in amotivation subscale ($U = 4046, z = -3.28, p < .001, r = .15, \text{Mean difference} = .92$) indicating higher perceived level of influencing external reasons to study

university. Moreover, for amotivation, older students (19-21 years) reported significantly higher scores than younger mates ($U = 22638, z = -2.10, p < .05, r = .10, \text{Mean difference} = .29$). However, these findings represented a small-sized effect, meaning that these score differences are very small.

In contrast, all motivation subscales showed significant mean differences per year of study and field of study, with the exception of intrinsic motivation (Table 4). Intrinsic motivation was the highest reason to study university in all years of study, followed by identified motivation, external regulation and amotivation. First-year students had highest scores for identified regulation, which rolled up and down during the next years of study. For external regulation, second-year students reported the highest scores. Students in their final year of study reached the highest scores on amotivation and fourth-year students had highest scores for intrinsic motivation. Intrinsic motivation and identified regulation was also the highest for students in preschool teachers' specialization. For external regulation and amotivation, students in philology reported the highest scores suggesting that their tendency to study at university is more of an external origin.

Table 4: Means differences for groups of students deviated by year of study and field of study

Subscales	Year of study						Field of study						Effect Size η^2
	1 st year Bc	2 nd year Bc	3 rd year Bc	1 st year Mgr	2 nd year Mgr	F-test	Social Education	Healthcare	Philology	Preschool Teachers'	F-test	p-value	
IDR	4.78	4.02	4.46	4.67	4.60	21.3	4.80	4.21	2.94	4.83	66.1	< .001	.178
ER	3.40	3.76	3.62	3.02	3.23	17.6	3.30	3.90	4.17	3.17	41.5	< .001	.078
AM	2.64	3.26	3.26	2.99	3.36	21.3	3.02	3.25	3.97	2.51	50.9	< .001	.099
IM	4.82	4.74	4.90	4.99	4.65	3.5	4.85	4.77	4.38	4.96	6.29	.098	.020

Note: Means on 7-point Likert scale ranging from 1 (does not correspond at all) to 7 (corresponds exactly) are displayed.

Discussion

The hypothesis that observed variables can be explained by four latent factors was investigated using EFA. Results of the analyses pointed out that the model fit with the expected level. Prior to performing PCA, the KMO value and the Bartlett's Test of Sphericity were checked supporting the factorability. The final four-factor solution covering identified regulation (5 items), external regulation (4 items), amotivation (4 items), and intrinsic motivation (3 items) accounted for 61% of the variance. Moreover, item 5 ("Because I want to learn something new") from the intrinsic motivation – to know, fell to another factor. Furthermore, reliability of the revised scales ranged from .60. to .82. More specifically, identified regulation reached $\alpha = .82$, external regulation reached $\alpha = .67$, amotivation reached α of .74, and intrinsic motivation reached $\alpha = .60$. Taken together, EFA suggests that the general model representing a student's motivation to study at a university and enroll in the formal education system with four factors covered by 16 items is a reasonable representation of the data.

The mixed evidence in support of AMS seven-factors of motivation is provided in the literature. The differences in the factor structure appear from minor (Alivernini & Lucidi, 2008; Karagüven, 2012; Orsini et al., 2015; Stover et al., 2012) to more significant (Fairchild et al., 2005) questioning the AMS underlying structure. For example, Smith, Davy and Rosenberg (2012) examined an alternative configuration of the AMS on a convenience sample of 2354 American business students. Exploratory factor analysis on the split sample (i.e., 1177 cases) reached a good model fit for a four-factor construct consisting of amotivation, external regulation, identified regulation, and intrinsic motivation. Confirmatory factor analysis and internal consistency of the item loadings on the reconfigured scale was checked on the holdout sample. Results repeatedly indicated good model fit for the four-factor construct. On the other hand, Caleon et al. (2015) supported invariant across gender and ability groups original seven-factor structure on 1482 Singapore secondary students using confirmatory factor analysis and correlation analysis with teacher autonomy support and academic engagement. However, it should be noted that the presented research assessed a modified version of the AMS and therefore does not represent a literal validation as represent aforementioned studies.

Discriminant validity of the subscales was further checked by calculating correlation coefficients. It was found out that amotivation showed a stronger negative correlation with identified regulation than with intrinsic motivation, which is between these two subscales on the self-determined continuum. Moreover, identified regulation showed a stronger positive correlation with intrinsic motivation than with external regulation, falling into the same external motivation and being placed towards non-self-determined behavior. These findings suggests that identified

regulation represents a milestone on the self-determination continuum separating inner motives from external. Identified regulation itself was perceived by the Czech student as a part of intrinsic motivation rather than extrinsic motivation. Similarly, Orsini et al. (2015) came across deviations from the predicted model in a dental sample of 989 Chilean undergraduate dental students. First, the stronger positive correlation between intrinsic motivation towards accomplishment and introjected regulation, which is farther apart when following the self-determination continuum. Second, amotivation showed also a stronger negative relationship with identified regulation than with intrinsic motivation. Likewise, Cokley (2000) noted that the correlations among the ordered subscales deviated from the pattern in the way of the strongest negative correlation found between amotivation and identified regulation. Cokley concluded based on his research that intrinsic and extrinsic motivation might not be as clear as SDT suggests.

According to the following results, Czech students reported being primarily motivated to study at university by intrinsic motivation, followed by the identified regulation, external regulation, and finally by amotivation. Such findings point to the autonomous profile of the students achieving self-regulated nature of their decision-making. Furthermore, the relationship between the type of motivation, age, gender, level and field of study was identified. With regards to gender differences, females had more autonomous self-determined profile than males, which is consistent with previous research (Baker, 2004; Smith et al., 2012; Vallerand et al., 1992). More specifically, female students scored higher in identified regulation and intrinsic motivation subscale. Intrinsic motivation, although reaching the highest level in all investigated groups, remained unchanged with the changing age of the students, year, and the field of study. Interesting was the development of amotivation according to the year of study. The first-year students had one of the lowest scores of amotivation together with fourth-year students. After finishing the first year of university a slightly increasing trend was recognized until the third-year of study with a decrease in the fourth year of study and slight final increase in the last year of study. The arising question contains findings of the reasons for reducing students' self-determined intrinsic motivation during the study. Did the lessons become monotonous or less practical and reduce students' interest? Further research could address this question. Nevertheless, these findings represent a small-sized effect, meaning that these score differences are very small. Additionally, the GPA of the students perceived during their studies significantly correlated with motivation scales as expected. However, students' performance is not always influenced only by motivation (Baker, 2004).

Despite the relevant findings, there are several limitations to the current study that should be acknowledged. First, the study represented the privilege of female students due to their majority in the helping professions. Second, the current findings apply only to Czech university students with similar demographic characteristics carried out in this study. Therefore, findings generalization to the entire population of university students would be irrelevant. Moreover, modified AMS subscales do not measure all dimensions of the self-determination continuum. However, the aim of this study was not a literal translation of AMS but to evaluate and validate the most appropriate regulatory styles covering amotivation, extrinsic and intrinsic motivation. A more subtle division of motivation styles was not necessary. Also, employment of the EFA can bring different results on the factor structure based on the researcher decision. Since the latent nature of the presented data was not known, this procedure is seen as adequate. Further, intrinsic motivation was considered to be a latent variable including intrinsic motivation to know, to experience, to interest, and intrinsic motivation towards accomplishment. Therefore, the mean score of the manifested variables was employed in the presented analysis. Lastly, future comparison of the results would be problematic due to the AMS scales modification that was done to better meet the aims of this study.

Conclusions

The aim of the presented research was to investigate the type of motivation leading students to pursue higher education, and to describe the process of construct validity and internal consistency verification. Discussed results contribute to the recent discussions on factorial structure of the self-determination continuum pattern as measured by the modified version of the Academic Motivation Scale (AMS), developed by Vallerand et al. (1989). Presented investigation suggests refinements of the subscales based on the further empirical research. More specifically, the position of the most self-determined type of extrinsic motivation on the self-determination continuum, i.e. identified regulation, seems to be inadequate within this sample of Czech university students. Therefore, following research involving large-sized sample could bring significant results explaining what significantly differs the factor structure.

Moreover, based on the investigated construct validity, discriminant validity, and internal consistency, tested factor structure of the modified AMS scales reflects the self-determination continuum. More specifically, the data proved a student's (F1) identified regulation, (F2) external regulation, (F3) amotivation, and (F4) intrinsic motivation to be strong predictors of students' motivation to pursue higher education with only one minor exception of item 5 ("Because I want to learn something new") from the intrinsic motivation – to know, falling into the identified

regulation. Furthermore, the hypothesis that Czech students are primary motivated by intrinsic motivation to attend the university was fully confirmed with the age, gender, GPA, level and field of study differences identified.

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***An Investigation Of The Managerial And Cultural Values Adopted By The Managers In Universities**

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Abstract

The purpose of this study was to determine the managerial and cultural values adopted by managers working in universities and whether these values differ according to gender, age, professional experience, managerial experience, and their faculties. This study was conducted as a survey. The participants of this study were composed of 100 deans, vice deans, and heads of departments in Afyon Kocatepe University. Study data were collected using the Managerial and Cultural Values Adopted by the Managers Scale developed by Turan, Durceylan and Şişman (2005). This study showed that university managers adopted feminine values more commonly, were closer to a collectivist value dimension, the power distance was higher, and ambiguity avoidance was lower.

Keywords: *Manager, University, Values.*

Introduction

Value is described as an abstract measurement that promotes knowledge, the usefulness of something, or its price (Turkish Language Association). Value is described as a tendency to prefer a certain situation to another. Values are understandings that source and judge behaviors (Erdem, 2003). Values refer to concepts which are given importance, preferred and wanted to be achieved and realized in a society (Turan, Durceylan, and Şişman, 2005). Each society has different values based on its culture. In this respect, value is one of the basic elements that shape people's behaviors. Humans are an entity that produce value and regulates and interprets their own world according to these values (Şişman, 1995). Therefore, based on the individuals' protection or ignorance of values in a society, they are either lost or transferred to the next generations. The persistence and permanence of values for years depends on their internalization and general acceptance (Akbaba-Altun, 2003).

Individuals in a society adjust their behaviors and expectations according to values. At the same time, values provide a legal identity to an organization's purpose, duties, authorities, and responsibilities (Sağnak, 2005). Although the people who form an organization have similar values to the culture they live in, their values differ. People with differing values have to balance their values and the organization's values to be able to achieve the purposes of the organization and make themselves happy. From the perspective of managers, recognition of other values and norms existing in the organization may provide them with multiple benefits. When those values are known, the members' behaviors can be predicted and precautions can be taken to correct those behaviors when necessary (Şişman, 2002).

This study used the "Managerial and Cultural Values Adopted by Managers Scale" developed by Turan et al. (2005) based on Hofstede's four value dimensions. Hofstede's model's dimensions on cultural values are as follows (Turan et al., 2005):

1. Femininity-masculinity dimension: Refers to the roles attributed to females and males. In societies where feminine values are dominant, there are sincere and warm relationships. Conversely, in societies where masculine values are considered as dominant, values like competition, success, and ambition are more commonly observed.
2. Individualist-collectivist dimension: This dimension shows whether people in society prefer to act as individuals or members of society. In individual-centered societies, the individual tends to consider himself and his benefits before the organization. However, for people with collectivist values, the organization's benefits are more important than their own.
3. Power distance dimension: This dimension refers to the level of acceptance or refusal of the differences or inequalities in a social system by the members. A great distance from power will make employees more dependent on their supervisors in organizations. In societies with lower power distance, the inequality between managers and employees is minimized.
4. Ambiguity avoidance dimension: This dimension refers to what extent the members of a society or culture avoid ambiguity. In organizations where the avoidance of ambiguity is strong, individuals are rule-centered. In societies where avoidance of ambiguity is weak, the rules may be stretched and there is no need for over prescriptivism.

According to Turkish Higher Education Law No. 2547, a university is a higher education institution with scientific autonomy and public legal entity in which higher levels of education, scientific research, publication, and consultancy activities are conducted. Universities are composed of faculties, colleges, and similar institutions and

departments. Higher education institutions have the function of producing solutions for the problems of the society and humanity besides the function of increasing human capital, scientific research, scientific accumulation protection, dissemination and development (Güçlüoğlu, 1996). Since universities are value-based organizations, the values adopted by managers are also important in these institutions and will contribute to the literature. In this respect, the purpose of this study was to investigate the managerial and cultural values adopted by the managers in universities. In line with this purpose, the sub-purposes of the study are as follows.

To investigate whether the managerial and cultural values adopted by the managers in universities:

1. differ according to gender.
2. differ according to age.
3. differ according to professional experience.
4. differ according to managerial experience.
5. differ according to faculties.

Methodology

This was a survey study. A survey study reveals the beliefs, views, characteristics, and past or current behaviors of the participants (Neuman, 2007). The participants of this study were composed of 100 deans, vice deans, and heads of departments in Afyon Kocatepe University. Table 1 gives background information of the participants including their gender, age, professional experience, managerial experience, and their faculty.

Table 1. The distribution of participants' demographics

Options		Total
Gender	Female	14
	Male	86
	Total	100
Age	31-35	10
	36-40	24
	41-45	20
	46-50	27
	51 or more	19
	Total	100
Professional Experience	1-5 years	4
	6-10 years	11
	11-15 years	20
	16-20 years	16
	21-25 years	29
	26 years or more	20
	Total	100
Managerial Experience	1-5 years	45
	6-10 years	29
	11-15 years	13
	16-20 years	10
	21 years or more	3
	Total	100
Faculty	Education	12
	Science and Literature	22
	Engineering	14
	Veterinary Medicine	15
	Economics and Managerial Sciences	13
	Tourism	3
	Technology	7
	Fine Arts	6
	Islamic Studies	8
	Total	100

Data Collection Tool

Study data were collected using the Managerial and Cultural Values Adopted by the Managers Scale that was developed by Turan et al. (2005). The scale was composed of 30 items and used a 5-point Likert type scale. The scale had a four-dimensional structure of "Values shared by managers on femininity-masculinity dimension",

“Values shared by managers on individualism-collectivism dimension”, “Values shared by managers on power distance dimension”, “Values shared by managers on ambiguity avoidance dimension”. The Cronbach’s Alpha internal consistency of the scale was calculated to determine the reliability of the scale, and it was found as 0.80.

The Confirmatory Factor Analysis (CFA) was conducted for the scale in order to ensure the construct validity of the scale. CFA is a method used to determine an existing theory (Matsunaga, 2010). At the end of the CFA, the scale was found to have a four-factor structure as in its original form and the following results were obtained $\chi^2 = 752.52$; $df = 399$; $\chi^2 / df = 1.8886$; RMSEA = .095. Point one zero (.10) or a lower result is sufficient for fit in the results obtained from RMSEA. A χ^2 / df ratio between 2 and 5 references a good fit and lower than this refers to a perfect fit (Jöreskog and Sörbom, 2001). When the goodness of fit values of the scale were investigated, the scale was found as acceptable. Additionally, at the end of the reliability analysis, the Cronbach’s Alpha value was found as 0.70.

The one-sample Kolmogorov-Smirnov Test was performed to investigate the distribution of data in the study and the coefficient of skewness was calculated. As seen in Table 2, an analysis of the skewness coefficients showed that the factors have a normal distribution although the data appears to not be normally distributed in each factor according to the Kolmogorov-Smirnov test data. If the skewness coefficient is between the $-1 < SC < 1$ limit, it can be interpreted that data does not show any important deviation from a normal distribution (Büyükoztürk, 2007; p. 40).

Table 2. The results of the one-sample Kolmogorov-Smirnov test and skewness coefficients

Factors	<i>n</i>	<i>p</i>	<i>S.C.</i>
Femininity-Masculinity	100	.000	.852
Individualism-Collectivism	100	.033	.418
Power distance	100	.002	-.445
Ambiguity Avoidance	100	.004	.198

Findings

Table 3 shows the mean scores and standard deviation values of factors regarding managerial and cultural values adopted by managers in universities.

Table 3. N, X and SD Values of managerial and cultural values adopted by managers in universities

Factors	N	Minimum	Maximum	X	sd
Femininity-Masculinity	100	1.13	3.75	2.22	.49
Individualism-Collectivism	100	2.22	4	2.89	.34
Power distance	100	1.71	4.43	3.36	.53
Ambiguity Avoidance	100	2	4	2.86	.40

According to Table 3, the mean score in femininity-masculinity values of 2.22 revealed that the managers in universities mostly agree on feminine value statements. Therefore, university managers adopted feminine values more. The 2.89 mean score in individualist-collectivist value dimension illustrates that university managers are slightly closer to the collectivist value dimension. The 3.36 mean score in power distance value expression reveals that the university managers agree on high power distance value statements. The 2.86 mean score in ambiguity avoidance value statements shows that the university managers tend to use weak ambiguity avoidance value statements.

Table 4 presents the results of an unpaired t-Test implemented to determine whether the managerial and cultural values adopted by university managers differed according to gender.

Table 4. t-Test according to the gender variable

Dimensions	Gender	N	X	S	SD	t	p
Femininity-Masculinity	Female	14	2.07	.301	98	1.212	.228
	Male	86	2.24	.518			
Individualism-Collectivism	Female	14	2.92	.327	98	.322	.748
	Male	86	2.89	.344			

Power Distance	Female	14	3.29	.593	98	.564	.574
	Male	86	3.37	.521			
Ambiguity Avoidance	Female	14	3.01	.431	98	1.557	.123
	Male	86	2.83	.393			

When the data in Table 4 was investigated it was observed that the managerial and cultural values adopted by university managers revealed no statistically significant difference in all dimensions according to genders ($t_{(98)}=1.212$; $t_{(98)}=.322$; $t_{(98)}=.564$; $t_{(98)}=1.557$, $p>.05$). Thus, the female and male university managers adopted similar managerial and cultural values in all dimensions.

Table 5 presents the results of a One-Way ANOVA Test implemented to determine whether the managerial and cultural values adopted by university managers differed according to age.

Table 5. ANOVA Test results according to the age variable

Dimensions	Age	N	X	S	F	p
Femininity-Masculinity	31-35	10	2.42	.627	2.016	.098
	36-40	24	2.03	.355		
	41-45	20	2.16	.534		
	46-50	27	2.24	.471		
	51 or more	19	2.38	.516		
Individualism-Collectivism	31-35	10	2.86	.314	.212	.931
	36-40	24	2.92	.346		
	41-45	20	2.93	.392		
	46-50	27	2.90	.330		
	51 or more	19	2.84	.330		
Power distance	31-35	10	3.67	.350	1.613	.177
	36-40	24	3.47	.574		
	41-45	20	3.26	.566		
	46-50	27	3.27	.394		
	51 or more	19	3.28	.633		
Ambiguity Avoidance	31-35	10	3.03	.489	.559	.693
	36-40	24	2.85	.364		
	41-45	20	2.82	.410		
	46-50	27	2.86	.366		
	51 or more	19	2.82	.451		

When the data in Table 5 was investigated it showed that the managerial and cultural values adopted by university managers did not reveal any statistically significant difference in any of the scale dimensions ($F_{(4,95)}=2.016$; $F_{(4,95)}=.212$; $F_{(4,95)}=1.613$; $F_{(4,95)}=.559$, $p>.05$). Consequently, the managerial and cultural values adopted by university managers were similar in different age groups in all dimensions.

Table 6 presents the results of the One-Way ANOVA carried out to determine whether the managerial and cultural values adopted by university managers revealed any statistically significant difference according to professional experience.

Table 6. ANOVA Test results according to the professional experience variable

Dimensions	Professional Experience	N	X	S	F	p
Femininity-Masculinity	1-5 years	4	1.97	.312	1.090	.371
	6-10 years	11	2.31	.571		
	11-15 years	20	2.07	.404		
	16-20 years	16	2.14	.591		
	21-25 years	29	2.34	.452		
	26 years or more	20	2.27	.531		
Individualism-Collectivism	1-5 years	4	2.50	.192	2.587	.031 (1-5/16-20)
	6-10 years	11	2.92	.311		
	11-15 years	20	2.89	.248		
	16-20 years	16	3.10	.468		
	21-25 years	29	2.84	.248		
	26 years or more	20	2.87	.385		
Power distance	1-5 years	4	3.39	.741	.627	.680
	6-10 years	11	3.44	.721		
	11-15 years	20	3.49	.438		
	16-20 years	16	3.38	.445		
	21-25 years	29	3.33	.508		
	26 years or more	20	3.21	.570		
Ambiguity Avoidance	1-5 years	4	2.79	.370	.921	.471
	6-10 years	11	3.01	.456		
	11-15 years	20	2.86	.398		
	16-20 years	16	2.83	.422		
	21-25 years	29	2.91	.402		
	26 years or more	20	2.72	.360		

The data in Table 6 showed that there was a significant difference in the managerial and cultural values adopted by university managers regarding individualism-collectivism dimension according to professional experience variable ($F_{(5,94)} = 2.587$, $p < .05$). The mean score of the answers given by university managers participants with 16-20 years of experience ($X = 3.10$) revealed the highest mean score, and it was followed by participants with 6-10 years of experience ($X = 2.92$), 11-15 years of experience ($X = 2.89$), 26 years or more experience ($X = 2.87$), and 1-5 years of experience ($X = 2.50$). A statistically significant difference between the participants with 1-5 years of experience and 6-20 years of experience exists when the differences are investigated.

Evaluating the data in Table 6 showed no statistically significant difference in any of the dimensions except for professional experience dimension ($F_{(5,94)} = 1.090$; $F_{(5,94)} = .627$; $F_{(5,94)} = .921$, $p > .05$). The managerial and cultural values adopted by the participants are similar to each other for all dimensions except for individualism-collectivism dimension. Table 7 presented a One-Way ANOVA Test used to determine whether the managerial and cultural values adopted by university managers revealed any difference in managerial experience.

Table 7. ANOVA test results according to managerial experience variable

Dimensions	Managerial Experience	N	X	S	F	p
Femininity-Masculinity	1-5 years	45	2.23	.565	.959	.434
	6-10 years	29	2.12	.408		
	11-15 years	13	2.29	.416		
	16-20 years	10	2.44	.534		
	21 years or more	3	2.00	.000		
Individualism-Collectivism	1-5 years	45	2.89	.374	.731	.573
	6-10 years	29	2.94	.327		
	11-15 years	13	2.94	.300		
	16-20 years	10	2.78	.287		
	21 years or more	3	2.70	.257		

Power distance	1-5 years	45	3.49	.476	1.846	.127
	6-10 years	29	3.25	.566		
	11-15 years	13	3.24	.575		
	16-20 years	10	3.37	.491		
	21 years or more	3	2.90	.577		
Ambiguity Avoidance	1-5 years	45	2.92	.395	.730	.573
	6-10 years	29	2.76	.390		
	11-15 years	13	2.86	.359		
	16-20 years	10	2.87	.537		
	21 years or more	3	2.83	.289		

Table 7 illustrated no statistically significant difference according to the managerial experience variable in any of the dimensions ($F_{(4,95)} = .959$; $F_{(4,95)} = .731$; $F_{(4,95)} = 1.846$; $F_{(4,95)} = .730$, $p > .05$). University managers with different managerial experience adopted similar managerial and cultural values.

Table 8 shows the results of One-Way ANOVA Test which was carried out to determine whether there was any significant difference in the cultural and managerial values adopted by university managers according to the faculties.

Table 8. ANOVA test results according to the faculty variable

Dimensions	Faculty	N	X	S	F	p
Femininity-Masculinity	Education	12	2.18	.618	.723	.671
	Science and Literature	22	2.14	.516		
	Engineering	14	2.40	.433		
	Veterinary Medicine	15	2.17	.497		
	Economics and Managerial Sciences	13	2.12	.222		
	Tourism	3	2.37	.545		
	Technology	7	2.34	.443		
	Fine Arts	6	2.02	.215		
	Islamic Studies	8	2.41	.807		
Individualism-Collectivism	Education	12	2.85	.403	.815	.591
	Science and Literature	22	3.00	.450		
	Engineering	14	2.90	.252		
	Veterinary Medicine	15	2.81	.329		
	Economics and Managerial Sciences	13	2.96	.274		
	Tourism	3	2.70	.170		
	Technology	7	2.79	.290		
	Fine Arts	6	2.98	.237		
	Islamic Studies	8	2.79	.281		
Power Distance	Education	12	3.40	.541	.524	.016 ISF-SLF,Tour,Vet.EA F,FAF
	Science and Literature	22	3.35	.458		
	Engineering	14	3.42	.378		
	Veterinary Medicine	15	3.21	.497		
	Economics and Managerial Sciences	13	3.11	.529		
	Tourism	3	3.24	.359		
	Technology	7	3.65	.487		
	Fine Arts	6	3.05	.933		
	Islamic Studies	8	3.93	.241		
Ambiguity Avoidance	Education	12	2.87	.370	2.057	.048(SL F-Tech)
	Science and Literature	22	2.64	.314		
	Engineering	14	2.89	.311		
	Veterinary Medicine	15	2.98	.422		
	Economics and Managerial Sciences	13	2.90	.337		
	Tourism	3	3.00	.764		
	Technology	7	3.19	.531		

Fine Arts	6	2.94	.310
Islamic Studies	8	2.67	.454

The data in Table 8 exhibits a statistically significant difference between the managerial and cultural values adopted by university managers and their faculties ($F_{(8-91)} = 2.524$, $p < .05$). The university managers' answers regarding power distance dimension indicated that those in Islamic Studies Faculty had the highest mean score ($X = 3.93$) followed by the members of Technology ($X = 3.65$), Engineering ($X = 3.42$), Education ($X = 3.40$), Science and Literature ($X = 3.35$), Tourism ($X = 3.24$), Veterinary Medicine ($X = 3.21$), Economics and Managerial Sciences ($X = 3.11$), and Fine Arts ($X = 3.05$) faculties. Interpreting the power distance dimension shows a statistically significant relationship between university managers who are members of Islamic Studies Faculty, and Science and Literature, Tourism, Veterinary Medicine, Economics and Managerial Sciences and Fine Arts Faculty members.

When the data in Table 8 was investigated, the ambiguity avoidance dimension of the managerial and cultural values adopted by university members revealed statistically significant differences according to their faculties ($F_{(8-91)} = 2.057$, $p < .05$). When the mean score of the university managers' answers was examined, the Faculty of Technology was found to have the highest mean score ($X = 3.19$) followed by Tourism ($X = 3.00$), Veterinary Medicine ($X = 2.98$), Fine Arts ($X = 2.94$), Economics and Managerial Sciences ($X = 2.90$), Engineering ($X = 2.89$), Education ($X = 2.87$), Islamic Studies ($X = 2.67$), and Science and Literature ($X = 2.64$). A statistically significant difference between the university managers who are members of Science and Literature Faculty and the participants who are members of Faculty of Technology was emphasized.

The data in Table 8 reveals no statistically significant difference in femininity-masculinity and individualism-collectivism dimensions according to their faculties ($F_{(8-91)} = .723$; $F_{(8-91)} = .815$; $p > .05$). The managerial and cultural values adopted by university managers in different faculties were similar in femininity-masculinity and individualism-collectivism dimensions.

Conclusions, Discussion, And Implications

In this study, the mean scores and standard deviation values toward the data obtained were investigated first. The findings concluded that managers adopted feminine values more. The results of the study by Turan et al. (2008) was consistent with the results of this study since they also found that university managers adopt feminine values. Additionally, it was observed that university managers were closer to the collectivist dimension. Turan et al.'s (2005) study revealed that the managers were closer to the collectivist values, which is also consistent with the findings of the present study. Additionally, it is found that university managers had a high distance of power. Similarly, Turan et al. (2005) found in their study that in general, the managers agreed on statements with high power distance. Additionally, the results of this study revealed that the university managers tended to use statements in which ambiguity avoidance is weaker. The results of the study by Turan et al. (2005) indicated that not all managers were rule-centered, and thought that ambiguous situations increased the danger and risk possibility in their institutions.

Secondly, this study investigated whether the managerial and cultural values adopted by university managers revealed any statistically significant difference according to gender, age, professional experience, managerial experience, and their faculties. The findings concluded that university managers with different genders adopted similar managerial and cultural values in all dimensions. According to the findings of Turan et al.'s (2005) study, there was no statistically significant difference between the managers' preference of feminine or masculine values. In addition, their study's views regarding power distance, and views on ambiguity avoidance and gender variable were found to be partially consistent with this study.

Further, the managerial and cultural values adopted by university managers in different age groups revealed similar results in all dimensions. The study by Turan et al. (2005) revealed partially consistent results with this study as they found a statistically significant difference between the university managers' preference of feminine or masculine values and views on the ambiguity avoidance and age variable.

When the individualist-collectivist dimension of managerial and cultural values adopted by university managers was investigated according to professional experience, it was found that university managers with 1-5 years of experience adopted more collectivist values compared to the university managers with 16-20 years of experience. Along with this, the managerial and cultural values adopted by managers with different levels of experience revealed similar results in femininity-masculinity, power distance, and ambiguity avoidance dimensions.

An investigation of the change in the managerial and cultural values adopted by university managers according to experience showed that the university managers with different lengths of experience revealed similar results in all dimensions of managerial and cultural values. The results of Turan et al.'s (2005) study showing that managers with different managerial experience had similar managerial and cultural values were consistent with the results of this study.

When the power distance dimension of managerial and cultural values adopted by university managers was investigated according to their faculty, it disclosed that the university managers who are members of the Islamic Studies Faculty revealed values of higher power distance compared to members of Science and Literature, Tourism, Veterinary Medicine, Economics and Managerial Sciences and Fine Arts Faculties. University managers in Islamic Studies Faculty think that the managers are privileged, their decisions are right and hierarchical structure is important compared to managers in Science and Literature, Tourism, Veterinary Medicine, Economical and Managerial Sciences, and Fine Arts faculties.

When the change in the ambiguity avoidance dimension of managerial and cultural values adopted by university managers according to their faculties is considered, it highlighted that the ambiguity avoidance is higher in university managers who are members of the Technology Faculty compared to the university managers in Science and Literature faculty. Science and Literature Faculty members thought that rules should be more flexible compared to the university managers in Technology Faculty. In addition to this, it was seen that the managerial and cultural values adopted by university managers were similar in femininity-masculinity dimension and individualism-collectivism dimension. In line with the results of this study, the findings of Turan et al.'s (2005) study showed that there was no statistically significant difference in university managers' adopting individualism-collectivism values and their fields, however, their finding regarding the statistically significant difference between the preference of femininity and masculinity values by managers contradicts with the results of this study.

This study aimed to determine the managerial and cultural values adopted by university managers and was designed as a survey study. However, the author recommends that qualitative studies involving long-term observation and interviews should be designed to obtain in-depth information due to the limitations of quantitative studies. Additionally, the university staff's perception of the university managers' value judgment may be investigated as a follow-up study. The managerial and cultural values of the managers in different education levels may be investigated rather than limiting the study to university managers.

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Analysis Of Cyber Home Learning System As An Informatization Model Of Education In Korea

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Abstract

The Cyber Home Learning System started as a conceptual model in 2004 to alleviate gaps, to reduce private tuition expenses, and advance public education areas that have continued to plague Korean society as a whole. It is the representative learning system at schools and is still in operation today. Though there are a number of factors involved in the Cyber Home Learning System becoming Korea's education service of choice, the most notable factor may be the decision of the government to make it their mission to reduce private education fees, and to fulfill this mission through large amounts of investment capital. Other factors include the following: System Maintenance, Collaboration among Implementing and Operating Bodies, and Efficient Support and Management by Cyber Teachers and Learning Management System (LMS). As with EDUNET services, estimated expansions must be projected beforehand, and matching infrastructure planning and investment will need to occur throughout operations, and not simply in the initial phase. Moreover, ensured active and consistent cyber teacher participation will require other arrangements such as credits for the hours spent on the service.

Introduction

The Cyber Home Learning System started as a conceptual model in 2004 to alleviate gaps, to reduce private tuition expenses, and advance public education areas that have continued to plague Korean society as a whole (Korea Education & Research Information Service, 2007). It is the representative learning system at schools and is still in operation today. Following the 'Policy Measure for Reducing Private Education Costs Through Education Normalization' passed in July, 2004, the System initially served as a basis for servicing the home through e-learning revisions, cyber teacher counseling and consultations functions that evolved and expanded

Since its trial conception in September 2004, the Cyber Home Learning System - an education service providing an Internet environment for self-directed learning at home through the use of custom contents and cultivating an online community of students of the same grade - has entered successful implementation and dissemination with the help of experience accumulated among the 16 regional offices of education and agencies (UNESCO (2007). Each of these offices of education runs a unique service suited to each environment. The number of tutors designed to help cyber teachers are directly proportionate to the increasing number of students using Cyber Home Learning System Services, and parents or college students that demonstrate the more dynamic tutoring aspects. Under these circumstances, which involve plans for replacing several regular classes, connecting home and school can be understood as efforts to improve public education with the support of parents and to narrow the educational gap by socioregional differences (Presidential Committee on Education Innovation, 2007).

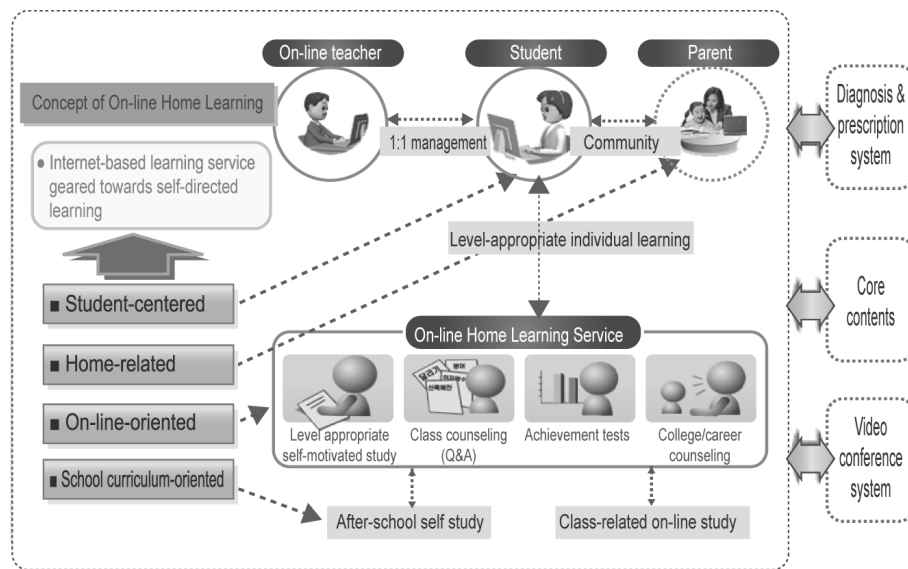
Policy Analysis

The diagram of the Cyber Home Learning System is shown in [Figure 1]. The core services of the Cyber Home Learning System as shown in [Figure 1] consist of the individual Learning Management System (LMS)-based study admin services, study guidance and counseling from a cyber teacher or tutor, self-directed learning services implementing Cyber Home Learning System contents, and additional services such as study diagnostics and video conferences.

Students who wish to study through the Cyber Home Learning System register through the system homepage run by their local office of education. If the class is class-specific, the student is assigned to an online class and begins e-learning with the content provided by the teacher; if the class is term-based, questions may be directed to available cyber teachers or discussed among fellow students. Cyber teachers are chosen among current instructors known for their strong sense of responsibility, and must be evaluated by students to continue the following term. Class-specific students are managed on the Learning Management System (LMS), where the cyber teacher can monitor student progress at any given time. For those not in class-specific systems, learning is self-regulated: by logging-in to the self-directed system, the student can study at his or her leisure regardless of one's academic history and without class management or learning admin services.

Cyber Home Learning System contents for each grade had expanded phase-by-phase to service elementary grades 4-6, middle school, and 1st year high school students by the first semester of 2007. One basic set of contents was available for each year, however, it caused many to voice concerns over contents shortages; to truly foster self-directed learning, additional contents including supplementary study, intensive study, and video lectures were developed (Han, 2008).

[Figure 1] Cyber Home Learning System: Diagram



Supplementary study contents were delegated to the regional offices of education for development, and later passed through quality inspections by the e-learning contents quality control office, and KERIS. To address issues like standards, level of contents, and time-tables, that arise from such division of labor, the central Cyber Home Learning System Service, KERIS drew up guidelines for developing contents and oversees all administration. Intensive study contents, on the other hand, were joint efforts from the 16 regional offices of education, with KERIS supervising progress. This sort of contents made it possible for learners to study cooperatively and was later reconfigured for the Learning Contents Management System (LCMS).

According to student surveys, current animation-oriented contents have the advantage of facilitating a range of different learner interactions, which has led to a growing demand for even more diversity in video contents. Consequently, plans are underway to package video contents for 4th graders to 1st year high school students aired on EBS from 2014 to 2016 to be serviced from 2015 to 2017 for a total of 16,539 episodes. As the Cyber Home Learning System flourished, various services reflecting student demands, such as core material reviews and quizzes have been developed. Current services include 3 core contents for each of the 9 subjects per exam period for the biggest market, 3-year middle school students.

The main function of the Cyber Home Learning System is to provide a venue where the cyber teacher and student can come together. Of course, interaction is best achieved face to face, and there was criticism regarding the limitations of the System in this respect. This is why it is important to foster a longer lasting relationship with the learner, the central Cyber Home Learning System Service introduced real-time video consultation. Supplementary coursework geared towards enriching level-specific study and performance is available on the System, as well. However, shortcomings in the current system in reaching these aims have prompted the development of a new system management tool in which the learner's scholastic ability and study style can be diagnosed, the appropriate study material and strategies can be suggested, and the contents for the diagnosed intellectual standard generated. Cyber teachers will be able to implement the resulting analysis of the learner's standing and study patterns in counseling the student, and students can make up for their weaknesses via the correction clinic, revision, and extra problem-solving contents prescribed to them.

Outcomes

Since its trial operation in September 2004, the Cyber Home Learning System usage has fast grown through a collaborative effort from the Ministry of Education, Science and Technology, KERIS, and the 16 regional offices of education.

The number of Cyber Home Learning System users has increased over time. The total number of registered users as of August 2015 was 6.09 million, a 800% increase since 2005. This increase is also reflected in the number of class-oriented classes and students, as well as the number of self-regulated learners. The number of logins has also increased by 962% since 2005, with an average of 800 thousand per day. Steady increase is shown in cyber-teacher and parent/college tutor participation, to reach 90,900 and 14,500, respectively.

The major objectives of the Cyber Home Learning System are to provide individual learners with customized learning services for academic success, and to reduce private education fees. It follows, then, that these objectives target those in farming or fishing villages or less financially fortunate homes. This user bracket is as follows: 63% of service priority students use the same services, and these students show higher rates of academic improvement than regular students. This may be a sign that the system is doing its part in narrowing the educational gap between different regional and social groups. Bridging the education gap and reducing private education costs actually seem viable. The latter has had savings of approximately 800 billion won (2012) and 4,061.4 trillion won (2015) (21). Student satisfaction rates for the Cyber Home Learning System show a steady increase year to year, from 57.1 in 2005 to 69.6 in 2015 with 81% of those responding that the Cyber Home Learning System has helped their academic improvement.

According to the 2015 Research and Analysis on the Efficacy of the Cyber Home Learning System, the highest ranking element was 'increased interest in the subject' at 32.5%, followed by 'became more autonomous' at 25.3%, 'improved grades' at 20.7%, and 'more confident in the subject' at 20.1%. Interestingly, 'increased interest in the subject' and 'more confident in the subject' were found to be higher in self-motivated learners, at 36.1% and 22.2%, respectively, while 'improved grades' and 'became more autonomous' were high in those who were introduced to the service by parents or friends.

The higher the grade of the student, the lower their opinion regarding the service (UNESCO UIL 2010). The lower the school grade, the higher the opinion that it has promised as an alternative to private education. Those who have ceased or plan to cease private education felt the Cyber Home Learning System alone would be sufficient, whereas those who continue or plan to resume thought the Service 'merely supplements school lessons.'

Overall satisfaction levels are on the rise as services find stability. But because new contents for different levels have not yet been added, numbers are not expected to make a sudden leap. With the introduction of these new contents in late 2008, and added services including diagnostics and prescribed learning, and video conferences, however, satisfaction levels are expected to jump. Concerning the socio-educational effects of the Cyber Home Learning System: 24% of instructors replied it has played a part in resolving knowledge gap issues, with approximately 30% who felt it aided the otherwise alienated classes, and approximately 25% claiming it reduced private education fees. Though these figures are lower than was initially expected, considering the nature of the current Cyber Home Learning System, these statistics should be seen as showing that it is well on its way to fulfilling the project aims.

Critical Factors

Though there are a number of factors involved in the Cyber Home Learning System becoming Korea's education service of choice, the most notable factor may be the decision of the government to make it their mission to reduce private education fees, and to fulfill this mission through large amounts of investment capital. Other success factors include the following:

System Maintenance

As an integral part of the measures to reduce the costs of private education, this system was actively pursued by both the government and regional offices of education and aggressively implemented in academic activities. Specifically, the integration of KERIS in the early stages of system installation for an optimal response team, composed of specialists, was very important. Likewise, as a result of having regional offices of education establish their own Cyber Home Learning System service, while designating the Cyber Home Learning System Advancement Committee (Ministry of Education, KERIS, and regional offices of education participating) as part of the official cooperative community, it was possible to distribute a balanced amount of resources between the regions and share know-how, as well as stabilize and spark system operation in the short amount of time given. There were efforts to run Cyber Home Learning System demonstration and research training centers for the purpose of verifying the merits of the service in the field, which helped to quickly establish it under the time constraints.

Collaboration among Implementing and Operating Bodies

With consideration to its target subjects (students of every level across the nation) and its objective of stimulating customized learning, the service divided relevant tasks between the participating agencies and hence set up a cooperative community. For example, systems installation and operation, cyber teacher recruitment and management would fall under the jurisdiction of each regional office, whereas general tasks including the Cyber Home Learning System planning and evaluation, service contents development and quality control fall within the scope of the core system, KERIS. In other words, the regional offices deal with field-related components, while KERIS oversees the progress of these offices by isolating elements that apply to all and focusing on these elements to push for an efficient execution of policy (Han, 2010).

Efficient Support and Management by Cyber Teachers and Learning Management System (LMS)

The most vital components of the Cyber Home Learning System are quality content, enthusiastic cyber teachers, and maximal Learning Management System (LMS) -applied efficiency. The quality of contents is monitored by KERIS, in which all contents, be it developed by the Center or municipal/provincial offices, are equally checked and verified. Cyber teachers were hired and managed by the regional offices of education; though not all the same, these offices offered teachers an array of incentives including financial bonuses to encourage cyber teacher participation and continued zeal. In the case of LMS, a myriad of tools such as cyber class programming, individual progress monitoring, and various teacher support to stimulate student interest and keep them engaged played a part in maximizing the operations efficiency.

Conclusion And Implications

In the early stages of the Cyber Home Learning System operations, the mediocre quality of LMS and contents that left something to be desired posed many problems. One such example had to do with hasty planning: appointed with the nation's mission to reduce private education costs, the system hurried to attain quantitative results even before qualitative standards were established. As a result, user satisfaction faltered, and implementers often found themselves overwhelmed by the aftermath.

Afterwards, when contents met standards and passed quality control, user numbers experienced a rapid increase each year. However, infrastructure could not match the expansion, resulting in a number of problems including server delays. Especially under the time constraints, LMS that usually applied to cyber universities or civilian remote education institutions, had to be customized and introduced, which made developing, running, and even maintaining services catering to elementary, middle, and high school learning altogether challenging. Of course, measures were underway at KERIS. It ordered each metropolitan and provincial office of education to evaluate the Cyber Home Learning System infrastructure, and initiated system consultation to come up with solutions; service improvements, which however, would prove inadequate as the core underlying problems of infrastructure investment shortages and counter-intuitive system structure persisted (Presidential Committee on Education Innovation, 2007).

Attracting cyber teachers in the early stages consisted of encouraging voluntary involvement, which quickly fell short: teachers were not easily convinced to continue their role and responsibility after-school for extended periods of time. Soon, many cyber teachers who were initially active began to drop, which, in turn, caused problems in operations. To resolve this issue, each metropolitan and provincial education office planned and offered incentives to cyber teachers, budget permitting. Due to limited funding, this incentive method could not be promoted on a wider scale (Noesgaard and Ørngreen, 2015).

Therefore, as with EDUNET services, estimated expansions must be projected beforehand, and matching infrastructure planning and investment will need to occur throughout operations, and not simply in the initial phase. Moreover, ensured active and consistent cyber teacher participation will require other arrangements such as credits for the hours spent on the service.

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Analysis Of Sources Of Help To Residents Of A Socially Excluded Locality In The Moravian-Silesian Region Related To An Increase In Social Inclusion – Implications For Educators In Social Work

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Abstract

The number of segregated localities in the Czech Republic continues to rise, with the largest increase being mainly in the Moravian-Silesian Region (hereinafter as “MSR”). Of 26 localities identified as socially excluded in this region in 2006, the number increased to 78 in 2015 and continues to have a rising tendency. One of the key instruments of local social inclusion strategies and thus the mitigation of social exclusion, which is seen as a multi-dimensional problem, is considered to be social work. Social work interventions are not primarily focused on mitigating the problem of spatial segregation, and therefore this research through the identification of sources of help seeks to find the use of these sources for social inclusion. The research sought an answer to the following research question: “How do participants operating in a socially excluded locality in the MSR interpret sources of help that could lead to the process of social inclusion?” The research was carried out using a case study method, with one excluded neighbourhood of a middle-sized town in the MSR being selected for the case study, the research participants being social and community workers working in the locality and actual residents of this locality. Significant differences were identified in the interpretation of sources of help by the residents themselves and by the social workers. The residents mostly saw a source of solutions to the current problems in their own informal social networks and the method of community work, which helps to solve the common interests of the residents. In contrast, social workers identified the institutional sources as the source of the solution to the population’s problems. The challenge for social work educators is to provide social workers with competencies for analysis of social networks of their clients, and at the same time to be able to create the offer of help in such a way that would be considered important by the residents of the localities affected by social exclusion for solving their adverse situation.

Key Words: *Sources of help, socially excluded localities, education in social work*

Introduction

In recent years, there has been an increase in the number of socially excluded localities (SEL) in the Czech Republic. According to research carried out based on an agreement with the Ministry of Labour and Social Affairs, the largest increase in their number is in the Moravian-Silesian Region (hereinafter MSR). In the period from 2006 to 2015 there was an increase of 50 municipal localities in the region, which according to the research methodology were evaluated and marked as segregated. According to the research methodology, “SELs” denote spaces (house, street, neighbourhood) with a high concentration of persons who we can identify with the signs of social exclusion and limited access to: (1) the labour market; (2) public services, including social services or education system; (3) social contacts with their surroundings; (4) resources for solving their personal crises; (5) political participation; or they limit the skills and abilities to use these resources, as well as the negative perception of the locality by the surrounding population (GAC, 2015). The Czech Republic has formulated a solution to social exclusion (and therefore the SEL too) in the Social Inclusion Strategy for 2014-2020. At the regional level, this strategy is followed upon by the Strategy for Integration of the Roma Community 2015-2020 in the Moravian-Silesian Region. These key documents identify as a basic source of solutions to socially excluded localities the intervention of social work and the coordinated cooperation of all involved participants (i.e. at the level of the actual community – residents living SELs and at the level of individual local administrations, non-governmental non-profit organisations, schools etc.)

Given the deepening problem of social exclusion and the rather low efficacy of social work interventions in its mitigation, we wanted to find out how the sources contributing to the social inclusion process are understood by the actors (including the residents themselves) operating and living in a SEL. In our research we therefore asked the question, “How do participants operating in a socially excluded locality in the MSR interpret sources of help that could lead to the process of social inclusion?” The data collected will help to understand the sources of help for people residing in these segregated localities and actors operating in SELs, which can provide insights into the design of social work interventions and the training of social workers.

Theoretical Background

The theoretical background for research is social constructivism and an interpretative paradigm. In their interpretation, social reality is constructed on the basis of interactions. It is the actual actors who interpret phenomena on the basis of their own understanding (Denzin, Lincoln, 2005). Research conducted within this paradigm is strongly geared towards the process of knowledge creation and the use of the methods as natural as possible in their acquisition, such as interviewing and observation (Angen, 2016). In an interpretativist concept we try to understand macro-social phenomena such as inequalities in society through in-depth analysis, where we explore social interactions and their interpretations by research actors at a micro-level. The research result is not the reconstruction of reality but the understanding of the possible sources of help in socially excluded localities. Social exclusion is understood as a threat to the social integrity and cohesion of society (Mareš, Sirovátka, 2008) and as a mechanism of social, material and cultural isolation (Giddens, 2004) as well as a limited participation in the society activities (Hills, Le Grand, Pichaud, 2002). We conceptualize social exclusion for the purpose of this research as a multi-dimensional phenomenon (Percy-Smith, 2000), a comprehensive and multi-dimensional process that includes the lack or denial of sources of help, rights, goods and services, and the inability to engage in normal relationships and activities that are available to the majority population, whether in economic, social, cultural or political areas (Levitas, R., Pantazis, et al., 2007).

Defining social exclusion requires access to resources, rights and services.

As part of this research, I will refer to the division of the sources of help as per Levitas and Pantazis, (2007) into three areas.

1. Material and economic resources
2. Access to public and private services
3. Social resources

I assign this concept to the fourth resource domain: Personal resources¹ (see Törnblom and Kazemi, 2007).

The material resources domain plays an important role in determining the income and financial resources of the population at risk of social exclusion (Scharf et al., 2005). The most obvious indicator of material and economic resources is income. Of course, debt can be understood to be the opposite of financial assets, thus rendering such material resource problematic or even negative, further deepening social exclusion (e.g. Kempson and Whyley, 1999, SEU, 2004, Kempson et al., 2004; McKay and Collard, 2006). The domain, which is no less important, is access to services, whether private or public, including domestic public services, which is related to the concept of sources of help that can lead to social inclusion (e.g. Howarth et al., 2001). These services include public services, transport (infrastructure accessibility), private services (e.g. hairdresser and cinema visits, etc.) and access to financial services. Social resources are understood as elements of a social network of actors or an "interpersonal environment." They provide opportunities to realize the interests of an individual or a group, and at the same time enable them to acquire information leading to a personal development (Halbesleben, 2014). The extent and quality of social networks is also dependent on participation in the labour market and access to public services (Demos, 1997). We do not associate social resources in this research with the concept of social capital as this concept is rather a perspective of an individual than of communities, even though there are common elements of these concepts.

In reference to the above, we base our research theory on the concept of social inclusion as a development of the capacity and possibility to participate in society not only in economic terms, but also in social, psychological and political terms (Levitas, R., Pantazis et al., 2007). Integration is a two-way multi-dimensional process where, on the one hand, there is a majority society that has power or access to resources and, on the other hand, there is a minority society that only partially participates in access to power and resources or has no access at all (Rákoczyová, Pořízková, 2009).

Methodology

The research method used was a case study (Yin, 2009), with the research subject being a socially excluded site in one of the towns of the Moravian-Silesian region, and the case being the interpretations of the sources of help by all actors operating in SEL, including the actual SEL residents. The data collection was conducted using semi-structured interviews, in particular group interviews (with families, groups of workers, etc.), direct observation in the research area. The interviews were recorded and transcribed word-by-word; the observation outputs were recorded by taking field notes. The research was carried out in one SEL on the territory of MSR, which was chosen by purposeful sampling and met the following selection criteria:

¹ Personal resources represent the characteristics of an affected person and the contextual and situational conditions in which these resources are used (Törnblom and Kazemi, 2012).

- The SEL cooperates with the Agency for Social Inclusion² (assumption of strategic concepts on social inclusion).
- Social inclusion instruments are implemented in the SEL, specifically field social service programmes (MLSA, 2014) and community work (Schuringa, 2008).
- The SEL actors are willing to participate in research.

Research participants were those in the municipality community and social workers as well as field social workers from non-governmental organisations. The workers helped mediate contacts with families living in an excluded neighbourhood, while other families were already contacted through snowball sampling. A total of 6 female workers (identified as KPW, only female) and 14 residents (identified as KPRM – Male and KPRF – Female) were involved in the research. The research was carried out in Spring 2018 and was funded under the Grant Project SGS02/FSS/2018 Analysis of Sources of Help to Residents of a Socially Excluded Locality in the Moravian-Silesian Region Related to an Increase in Social Inclusion. The research adhered to basic ethical principles of qualitative research, including the informed consent on research participation, and confidentiality rules (Guillemin, Gillam, 2004, Silverman, 2013).

Data Analysis And Interpretation

The interview transcripts were re-read and analysed using open encoding techniques and notes containing ad hoc interpretations and conceptualisations (Howard, Berg, 2016). The codes were then grouped into larger units from which a categorical system was created. Individual categories represent different interpretations of the sources of help, which was followed by assigning of individual topics addressed by the actors to these sources.

The workers active in a socially excluded locality identified 5 key sources of help: 1. Social work methods – community work, field social work implemented by NGOs 2; Social work focused on a housing issue of the residents provided by the municipal authority; 3. Self-help – the residents manage to solve their problems themselves or with little support; 4. Coordination of all entities operating in SEL; 5. Personal ties of workers who use them to solve the topics/issues of SEL residents

Methods of social work (especially community work and field social work carried out mainly by NGOs) are used to address the topics of discrimination in the labour market, networking of doctors, debt counselling, discrimination in the housing market, and events for children. KPW 1: "It's different than with what a client is coming to see me for. The topics are quite diverse, you see. There are some discriminatory issues, also relationship problems, doctor search, debt counselling, that's a frequent topic here... families who have children are interested in past time activities of their kids. There's a lot that people want to deal with. But most of all, if I were to express it as a percentage, 70% of the interventions focus on debt counselling and housing issues, such as housing networking, housing conditions, etc." NGO workers are trying to address all identified needs of clients (field notes), including health-related topics, using social work methods. KPW2: "It's different, last year I was dealing with social and medical assistance a lot...we had oncology patients, and in fact, these patients were also provided with certain material assistance."

Another source of help to the residents is the social workers employed by a municipality who are supposed to help address housing issues related to municipal flats. Through social casework, they address housing issues in particular, but also work with the residents toward getting and keeping jobs, and mediate food aid for the poorest. KPW3: "In the first place, we're here to resolve housing issues, but we also help to write CVs, and we've also at times arranged food aid for the families in need." Social workers who intervene at SEL also identified the ability of people to address some topics themselves, through their own competencies, information and/or social networks. KPW4: "And those people here are capable of helping themselves. They can solve some problems on their own." KPW1: "I would just like to add that we provide some counselling, but I have already learned for myself that these people are doing much better arranging for this. For example, they can negotiate better Internet rates for themselves than the city." As for self-help by the residents, social workers ranked also the ability of administration of social benefits. KPW5: "But they are able to fill out a social benefit form, go there, file it in, and hand it over to their contact worker and communicate well their needs. Because they are very skilled and well oriented in their own financial situation and those benefits."

The fourth identified source of help to the residents of a segregated site in the investigated city by the workers operating in the SEL was the coordination of all entities intervening or affecting SEL. The social work workers pointed out that this coordination works in particular when dealing with more complex and long-term topics affecting the locality or the residents, usually the housing issue, especially poor housing conditions and the poor

² The Social Inclusion Agency is one of the departments of the Human Rights Section of the Office of the Government of the Czech Republic and falls under the responsibility of the Czech Ministry of Justice. The agency has been active since 2008 and is a governmental instrument to support municipalities that address social exclusion.

technical condition of the residential buildings located in these parts of the city, and the issue of executions. KPW2: "We work with the labour office, the city's housing department...we attend crime prevention coordination meetings and cooperate with the school...I would like to say that we meet frequently and work together mostly in dealing with the long-term problems such as housing." At the same time, the coordination of different entities is referred to by professional workers as a key instrument for social inclusion of the excluded population. KPW1: "...if that cooperation worked perfectly, the population would be integrated, which is the only way, in my opinion, toward inclusion."

The fifth source of help was personal ties of workers used to solve the topics of SEL residents. This source was emphasized by one of the workers. KPW2: "If I no longer know how to help people get some housing, I call some other people I know, make a reference for the families and ask them to rent it to the Roma, otherwise there's no chance that they would get a flat."

Figure 1 below summarizes the sources of help identified by SEL workers and the topics that are addressed by these sources.

Figure 1: Sources and addressed topics from the perspective of professional workers

Another group of communication partners were residents of a socially excluded locality who identified five sources of help to address their current topics/needs: 1. Nuclear family 2. Relatives (distant family) 3. Community work 4. Social networks and 5. Self-reliance. The statements by residents themselves show that the greatest source of help for them is their social ties and family.

The nuclear family is a source of help used primarily for housing financing, but also for family budgets. KPRM2: "It's my mother or mother-in-law who help me most when I need money." KPRF4: "Who else can help you but the family...that's a foundation stone, especially with money, right?" An extended family is the source of informal social networking, especially when looking for some new rental housing. KPRM1: "If I need to find a new flat, I call my family cousins or aunts if they know about something available or I ask them where they lived before and whether they have an owner's phone number." An identified need by the residents/respondents themselves was the difficulty with getting and maintaining a job. Residents spoke of great barriers when trying to secure jobs; those barriers ranged from failing to complete secondary education and their ethnicity. KPRF4: "I went to that office but I didn't get the job because I dropped out of school and have no qualification." KPRF5: "The woman in the labour office treats all the Roma in the same way." KPRM3: "I'm trying to find a job to feed my family, I show up...they see the Roma and no one hires you." They use social networks as a source of handling employment issues. KPRM2: "I'm going to see and ask the guys with whom I've been already working, but I'm sometimes forced to "work under the table" and that's no good."

Another identified source of help and strong support, particularly in addressing shared issues affecting the majority of residents was a community work method with which they have some experience in the site. In particular, they emphasized that community work helps them improve the site's condition and offers different activities and events for children. KPRF1: "It helps cleaning a mess around the house, helps painting hallways, they organize activities for kids... so it would look nicer here." Above all, the communication partners talked about the already implemented activities. KPRF2: "We took children to the ZOO, or the community worker helped those families to solve eviction problems." This source, which, in their opinion, produces immediate results, was perceived by all in a very positive manner. KPRF5: "I'm glad that it's here, we wouldn't be able to manage anything...for example, the container was perfect, we got rid of a mess, etc."

The last identified category of sources of help is self-reliance. The research respondents identified self-reliance as a very important source of solutions to their problems, which they did not associate with their ethnic group traditions (KPRF1: "With other Roma...we all just mind our own business...I can't rely on anybody here but myself"), but with the faith in their own competences and personal resources (KPRM2: "What I can do, I do myself. I arrange for it on my own...I do not need anyone."). They use their personal resources to tackle discrimination in access to public services... KPRF2: "I'm giving myself a haircut, doing my nails, everything by myself, I don't need anyone," and also to finance the running of their household... KPRM3: "I'm a guy, so I have to take care of myself."

Figure 2 below summarizes the sources of help identified by the residents and the topics that are addressed using these sources.

Figure 2: Sources and addressed topics from the perspective of the residents

When comparing sources of help between professional workers and SEL residents (see Figures 1 and 2 above), we observe that both respondent groups do agree on identification of the topics and needs, however both groups interpret different sources of help in addressing them. Professional workers primarily use institutional, or else institutionalized resources as opposed to the residents who interpret their sources primarily as using their supporting social networks and community work methods.

Conclusions – Implications For Educators In Social Work

The results of a case study focused on interpretation of sources of help for the residents of a socially excluded locality show that both types of respondents identified identical key topics and issues in the locality but interpreted various sources of their solution. Research has shown that the local residents use support and informal networks to address their problems; the networks, which are very powerful but not very extensive, and that the residents also rely to a large extent on their own competencies. On the other hand, professional workers, in order to meet the needs of the socially excluded population, prefer using organisational, institutional networks, which are more extensive and have a wider reach, however they are not so strong in terms of relations and personal ties and may constitute a certain dependence on social services. It follows from the above that the challenge for social work educators is to equip social workers with competencies for analysing the social networks of their clients and with more intensive work methods encouraging the development of their competencies. The challenge is also to create an offer of help in a way that will be considered by the residents of the localities affected by social exclusion important to finding solution to their situation. The use of social networks is so important for residents that social worker educators should focus on teaching methods of working with support networks (informal groups, self-help groups, etc.) in the context of SELs.

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Analyze The Effectiveness Of Intercultural Education In Chinese Universities For Cultivating International Talents

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Abstract

This study of cross-cultural competence (ICC) by Byram model theory, to Chinese college students as subjects, for their ability to cross-cultural dimensions and evaluation questionnaire a empirical investigation, system comprehensive analysis of China's college students' intercultural competence awareness, attitude, knowledge, skills, such as dimension, and carries on the exploratory and confirmatory factor analysis, so as to build a good reliability and validity of Chinese college students' ICC evaluation questionnaire, the questionnaire including native culture and foreign culture knowledge, attitude and cross-cultural communication skills, cross-cultural cognitive skills, consciousness and so on six major factors. The results showed that the localized ICC evaluation scale of Chinese university students was proved to be reliable and effective in actual measurement. The intercultural ability of Chinese college students is multidimensional. The six factors evaluate and explain the effects of intercultural ability of Chinese college students, among which foreign cultural knowledge has the strongest influence, intercultural communication skill has the second influence, national cultural knowledge and attitude have the middle influence, intercultural cognitive skill has the weakest influence, and intercultural consciousness has the weakest influence.

Introduction

In the era of globalization integration, the most important issue of education will be how to foster competent human resources in the global society. The training of talented people with the ability to achieve future achievements and outstanding achievements is a very important task in university education and will become the power of national competitiveness.

From the perspective of the "internationalization" development path of personnel flows directly across national boundaries and across regions in the early days, although it can cultivate students' international ability and expand students' international vision, the effect is often limited to the individual participants, and it is difficult to meet the demand of international talents in the popularization of education. So, the internationalization of higher education internationalization urgently calls for a new form and new path to develop.

At the same time, In China, the outline of the national medium and long-term plan for the reform and development of education (2010-2020) has clearly stated that it is necessary to meet the requirements of the country's economic and social opening to the outside world and cultivate a large number of international talents with international vision, international rules, international affairs and international competition. This indicates that developing a global perspective, applying an international perspective and understanding the international talents of different cultures have risen to national strategic dimensions.

Under the background of economic globalization, China's international cooperation and exchanges are increasing, and the demand for international talents is also increasing. Therefore, colleges and universities should not only cultivate solid professional talents, but also cultivate internationalized talents with cross-culture ability. In foreign countries, many higher education institutions emphasize not only the professional quality of cultivating talents, but also the improvement of their intercultural ability (Hayward2000). Stier, 2003); Various education institutions have adopted various international talent training methods to improve students' intercultural communication and communication skills (Deardorff 2004:11).

In recent one hundred and twenty years domestic linguistic in cross-cultural ability (Intel - cultural communicative competence, ICC) cultivation framework and method of the composition, got a lot of research results, some around the intercultural competence and dimensions of theory and empirical research (Yang, en-ping zhuang 2007; Wang yanping, yu weihua 2008; Xu lisheng 2011 Zhang weidong and Yang li 2012), some discussed how to cultivate the intercultural ability of college students from the aspects of foreign language classroom environment and language skills courses such as foreign language listening, speaking, reading, writing and translation (jia yuxin 1997). Xu lisheng 2000; Gao yihong 2002; Zhang hongling 2007; Zhang weidong and Yang li 2012), some of them discussed the factors influencing the cultivation of intercultural ability of college students from the perspectives of motivation, attitude and cultural sensitivity (xu lisheng 2000). Gao yongchen 2006; Hu yan 2011). However, there are few empirical studies in China to analyze the dimensions of intercultural ability and evaluation

scale of college students, and there are few influential intercultural ability evaluation scales in China. Some relevant studies generally lack empirical data support. Therefore, it is particularly urgent to conduct a systematic and comprehensive empirical investigation and analysis on the dimensions and evaluation scales of intercultural competence of Chinese university students.

The Necessity Of Intercultural Learning

Why is intercultural cultural necessary to cultivate intercultural competence in Chinese universities? As mentioned earlier, education is a worldwide trend for education. In order to successfully enter the society in the era of the global village, Chinese universities also focus on policies of "strengthening global power" on certain education contents. In order to adapt to this trend, the opportunity to learn the languages and cultures of various regions of the world locally, if given to most students, will be of great help to improve their intercultural ability. But it is no easy task, given the high cost to Chinese students. In particular, research has shown that the global competencies of students wherein the local universities and those in capital circles universities vary greatly (간미석, 2013).

To overcome these problems and limitations, it is necessary to develop lectures or education programs related to learning across competencies. Therefore, we decided to focus on the requirements of the rapidly changing times and the abilities emphasized at home and abroad to observe the necessity of cross-cultural capacity learning.

Intercultural competence has become a very important factor in the 21st century, when international exchanges have become commonplace at all levels. In order to cope with these situations properly, mutual cultural capacity should be cultivated. As cultures of the world come into contact and exchange through media and business, opportunities for interpersonal interaction with people from different cultural backgrounds are increasing, and mutual cultural communication is inevitable in such a process. Therefore, Intercultural competence is at a higher level than ever before in the global era where many cultures meet.

In addition, for each culture ability, the requirements of the population statistics (mixed culture, cultural diversity), and technology are developed, and the mass media, network, satellite, mutual cultural contact connection), economic development, capital, technology, information exchanges between countries, information). In the modern society, and culture to meet each other almost not limited by time and place, such as beyond national boundaries, through the media channels, in the business situation, travel, political meetings, etc., culture meet each other happens. In such meetings, it is necessary to learn from each other's cultural abilities in order to have good communication with each other.

The Concept And Dimension Of Intercultural Ability

Foreign scholars began their research on intercultural ability in the 1950s. They have conducted extensive research on intercultural ability from different perspectives and fields, and gradually formed a relatively consistent understanding of the connotation of intercultural ability. They generally believe that intercultural ability is an individual's ability to effectively and appropriately complete communication activities in a specific intercultural environment (Chen&Starosta1996). Byram1997; Spitzber g2000; Wiseman2001; Deardorff, 2004). It is not difficult to find that their understanding of the connotation of intercultural ability refers to two elements: specific intercultural environment and effective and appropriate. Deardorff (2004) through the expert investigation method, the study found Byram (1997) definition of cross-cultural ability expert highest recognition, its content is summarized as follows, "other countries' cultural knowledge, their cultural knowledge, cross-cultural communication skills, communication skills, cognitive and interactive skills, recognition and respect different cultural values, beliefs, and behaviors, critical cultural awareness and sense of self ability dimension for the individual in specific cross-cultural environment effectively with people from different cultures appropriate exchange and interaction plays a key role" (Byram1997:34; Deardorff, 2004).

In addition, some scholars also put forward their views on the dimension of intercultural ability from different research perspectives, with different focuses. Ability of cross-cultural dimension is one of the most influential Byram (1997) put forward the mode of European Union, represented by the cross-cultural ability is divided into four and so on knowledge, skills, attitudes and awareness capability dimensions, namely the attitude dimension Including respect, openness, curiosity, optimistic to accept and tolerance, and so on (Byram1997; Deardorff, 2004; Risager 2007); The knowledge dimension includes the cultural knowledge of the country and other countries (such as social politics, religion, history and geography, social etiquette, behavior norms, living customs and values, etc.) (Byram1997). Skill dimensions are divided into two categories. One is intercultural communication skills, namely, the ability to explain, understand, relate, observe, analyze and evaluate cultural differences or conflicts and effectively coordinate and solve them. The other is cross-cultural cognitive skills, namely the ability to learn new cultural knowledge, attitude and awareness through language or non-language communication and interaction (Byram1997; Deardorff, 2004); The dimensions of consciousness include critical cultural awareness, self-awareness, sociolinguistic awareness and so on (Byram1997; Fantini 2001). Later, some scholars think that effectively appropriate communication among people of different cultural motivation is particularly important in the cross-cultural ability, in the European Union Byram model based on substitute motivation for attitude is put

forward by knowledge, motivation, skills of three dimensions of cross-cultural can force model (Spitzberg 1997; Samovar & Porter 2004; Gudykunst 2004; Spitzberg & Changnon 2009). Other scholars describe the dimensions of intercultural ability from the perspective of development process, and divide intercultural ability into three development stages, including consciousness, knowledge and skills. They believe that the development of intercultural ability is based on the continuous learning process in the three development stages (Bennett 1993). Pedersen 1994). In recent years, most scholars have reflected their different western perspectives on the connotation and dimensions of cross-cultural competence, while there is still a gap in how to view cross-cultural competence from a non-western perspective. Some Oriental scholars have discussed intercultural abilities from the perspective of interpersonal relations and attitudes in east Asian culture, including empathy, adaptation and tolerance, which are often mentioned. Kim 2001), emotions, relationships (Jia yuxin 1997; Kim 2001), etc. Although the dimensions of intercultural competence in the eastern perspective are different from those in the western perspective, there is consensus on the dimensions of competence such as knowledge, skills, attitudes and consciousness (Chen 1996; Jia yuxin 1997; Kim 2001; Yang ying, Zhuang enping 2007; Zhang weidong, Yang li, 2012). Moreover, at present, most foreign intercultural experts also have a commonly agreed opinion, that knowledge, skills, consciousness, attitude and other ability dimensions are indispensable in intercultural ability dimensions (Byram 1997; Dodd 1998; Fantini 2000, 2006; Wiseman 2001; Kim 2001; Hammer et al. 2003; Samovar & Porter 2004; Deardorff, 2004, 2006; Spitzberg & Changnon 2009; Behrmd 2011).

These measurement concerns (respondent faking, adequate predictive validity, and incorporation of the interactional and culture-general domain without over reliance on specific culture content) challenge those seeking to assess ICC. Furthermore, conceptual concerns regarding existing ICC models also complicate the task. A useful framework for ICC must provide specific definitions, clearly delineate between the construct and its nomological network, incorporate both the cognitive and noncognitive subdimensions, and clarify the relationships between the subdimensions. Moreover, such a framework offers the most utility when constructed to redress the measurement concerns described herein. Based on all the above reasons, a new framework designed to overcome both sets of concerns is developed.

A Proposed Framework For Intercultural Competence In Higher Education

Are view of the literature (see Appendix for a description of the literature search process) revealed a multitude of definitions of ICC. The ICC definitions (Richard L. Griffith, 2016) used in the higher education literature tend to be associated with models used in education, training, and research. These models fall in to five categories: compositional, co-orientational, developmental, adaptational, and causal (Spitzberg & Changnon, 2009). Compositional models (e.g., Deardorff, 2006; W.D. Hunter, White, & Godbey, 2006; Ting-Toomey & Kurogi, 1998) merely describe the characteristics (knowledge, skills, and attitudes) of ICC. Co-orientational models (e.g., Fantini, 1995; Kupka, 2008; Rathje, 2007) tend to describe the components or process of a successful intercultural interaction. Developmental models describe ICC in terms of individual development over time (e.g., Bennett, 1986; P. M. King & Baxter Magolda, 2005). Adaptational models (e.g., J. W. Berry, Kim, Power, Young, & Bujaki, 1989; Gallois, Franklyn-Stokes, Giles, & Coupland, 1988) combine the developmental components of the aforementioned models and present the main interactional context of adapting to a foreign culture. Finally, causal path models (e.g., Arasaratnam, 2008; Deardorff, 2006; D. A. Griffith & Harvey, 2000; Hammer, Wiseman, Rasmussen, & Bruschke, 1998) attempt to integrate the characteristics of compositional models and situate the main interaction in which variables influence each other to predict ICC. A recent review of ICC focusing on research across multiple contexts (Leung, Ang, & Tan, 2014) presented another system of grouping ICC model. This system differentiates between models that include intercultural traits, intercultural attitudes and worldviews, and intercultural capabilities, or some mix thereof. The term intercultural traits refers to stable personality traits that drive likely behavior, and they commonly include openness to experience and tolerance for ambiguity. The term intercultural attitudes and worldviews refers to constructs involving the perception and evaluation of information from outside an individual's own culture.

To begin, we draw on a definition from prior research: ICC "reflects a person's capability to gather, interpret, and act upon these radically different cues to function effectively across cultural settings or in a multicultural situation" (Earley & Peterson, 2004, p. 105). Next, we propose a framework that builds on a process model of social thinking (Grossman, Thayer, Shuffler, Burke, & Salas, 2015) by splitting cross-cultural interactions into three stages and specifying the skills necessary to support successful performance in each stage. This process model breaks individual behavior in a complex social situation down into four stages (scan, appraise, interpret, and interact) and the cognitive and behavioral skills that support them. In this way, the ICC framework is also developed. Intercultural interaction may be conceptualized as occurring in three stages: approach, analyze, and act, see [Figure 1].

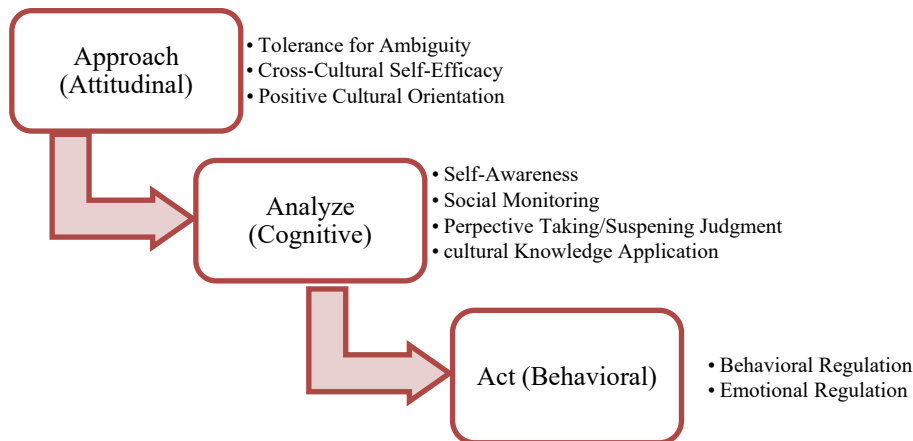


Figure1. The conceptual model of the approach, analyze, and act intercultural competence framework.

These stages act as the dimensions of the framework. The approach dimension includes the characteristics that impact the likelihood that an individual will initiate and maintain intercultural contact voluntarily, as well as those traits that will define the overall positivity with which an individual respond to cross-cultural interactions. These characteristics include a positive cultural orientation, a tolerance for ambiguity, and self-efficacy. The analyze dimension captures an individual's ability to take in, evaluate, and synthesize relevant information without the bias of preconceived judgments and stereotyped thinking. The analyze dimension includes the following traits: self-awareness, social monitoring, perspective taking/suspending judgment, and cultural knowledge application. The act dimension incorporates the behaviors determined by the previous dimension to assess individuals' ability to translate thought into action while maintaining control in potentially challenging and stressful situations. The act dimension includes behavioral regulation and emotional regulation.

Research Design

Research Questions This study mainly answers the following three questions:

- (1) What is the reliability and validity of the Chinese University Students Intercultural Competency Assessment Scale? (2) Does the cross-cultural competence of Chinese college students have multidimensionality? (3) What is the importance of each competency dimension of Chinese college students' cross-cultural competence?
- 3.2 Study Samples The sample of this study was from 447 second-year university students from five comprehensive universities in the country. These students were from computer, automation control, management, materials, law, electronic information engineering, etc. The proportion of liberal arts is 21%, science and engineering accounts for 69%, and other disciplines account for 10%.

Survey tool

The design evaluation scale of this study is based on the cross-cultural competence (ICC) multi-dimensional model (knowledge, skills, consciousness, attitude) proposed by Byram (1997), with reference to the cross-cultural ability evaluation compiled by Fantini (2000, 2006). Table (A YOGA FORM, with 4 dimensions, 22 descriptions) and the Federal International Life Experience (FEIL) research project Intercultural Competency Assessment Scale (AIC, with 4 dimensions, 43 descriptions), combined with Chinese college students The actual situation of cross-cultural communication has made the following improvements to the two scales compiled by Fantini: First, the description items of the four competency dimensions of knowledge, skills, consciousness and attitude in the two scales are combined and then invited. Three experts who have been engaged in cross-cultural research for many years participated in the discussion and revised the new scale. At the same time, the new scale was distributed to some students for group discussion and selection of their own descriptions, and some students were interviewed integrated expert And the students' opinions screen and eliminate the unimportant or repetitive description items, construct a set of cross-cultural competence test scales for Chinese college students with 4 dimensions and 60 description items. Finally, through small-scale test research on college students, The factor analysis method was used to extract the factors, and the ICC test scale was revised again. A set of Chinese college students' cross-cultural competence (ICC) evaluation scales with 4 dimensions and 40 description items was designed. The localization of the scale includes: 1) the knowledge dimension (understanding the knowledge of domestic/foreign lifestyles and values, understanding the basics of concepts such as culture and cross-cultural communication and communication); 2) the attitude dimension (willing to be as tolerant as possible) Foreigners' different values, eating habits, taboos, etc.) 3) Skills dimension (the ability to communicate through body language or other non-verbal means when language communication barriers occur, try to avoid prejudice against foreigners when

communicating with foreigners) And the ability to prejudice, when communicating with foreigners, avoids mentioning foreigners' ability to be concerned about privacy topics, and has the ability to be sensitive to cross-cultural differences. When it comes to events in other countries such as politics, economics, and religion, it will The ability to look at issues from different cultures and perspectives; 4) The dimension of consciousness (be aware of the differences between one's own cultural identity and the other's cultural identity when communicating with foreigners). From the above, we can see the empathy, adaptation, tolerance, emotion, and interpersonal relationship that are common in Chinese university students in intercultural communication. The questionnaire consists of two parts: the first part is personal information, including gender, grade, major, college English score, going abroad and cross-cultural contact experience, etc. The second part is the cross-cultural ability evaluation scale, including 4 main Dimensions: Consciousness, Attitude, Skills, and Knowledge are represented by 40 description items. They are scored from "0" to "5" by using the Lectra scale, and "0" stands for "Nothing". 1" stands for "very weak/slightly", "2" stands for "weaker/point", "3" stands for "general/some", "4" stands for "stronger/more", and "5" stands for "very strong" /Much".

Data Collection And Analysis

In Oct 2016, a total of 447 questionnaires were distributed through student classrooms, express mailings and e-mails. A total of 331 valid questionnaires were collected, with an effective rate of 74%. Questionnaire data were statistically analyzed by SPSS. Firstly, the structural validity analysis of the questionnaire data--factor analysis, through the exploratory factor analysis (EFA) to find out the number of key factors affecting the cross-cultural ability of Chinese college students, and the correlation between each factor and its observed variables. Then, the reliability of the questionnaire was analyzed, and the consistency of the scale (Cronbach α coefficient) was tested. Finally, Amos was used for confirmatory factor analysis to evaluate the model fit of the Chinese college students' cross-cultural competence evaluation scale.

Research Result

Exploratory Factor Analysis

The exploratory factor analysis method was used to extract the factors of the collected questionnaire data. The principal component analysis method and the variance maximum rotation method were used for orthogonal rotation. The rotation converges after 14 iterations. The first EFA The KMO value of the analysis results is $0.915 > 0.9$, and the Bartlett spherical test result is significant (approximate chi-square value is 66818.58, degree of freedom is 780, $p=0.000 < .05$), indicating that the selected sample size meets the requirements. The data collected is suitable for factor analysis. Subsequent two EFA analysis results showed that 12 description items such as ic14, ic15, ic16, ic17, ic18, ic33, ic35, ic36, ic37, ic38, ic39, and ic40 did not meet the requirements for factor extraction, such as factor load value is less than 0.4 (Kumar 1999), or both factors with a factor load of 0.4 or higher (Diamantopoulos & Si guaw 2000), or distributed in the same independent factor, and the number of items included in the factor is less than 3 (Bandalos 1993), so delete it. The third EFA analysis showed a KMO value of $0.896 > 0.8$, and Bartlett's spherical test results were significant (approximate chi-squared value is 459.2.37, degree of freedom was 378, $p=0.000 < .05$), after orthogonal rotation. The rotation converges after 7 iterations, extracting 6 main factors, the eigenvalues are all greater than 1.0, and the cumulative variance contribution rate is 63. 020%, a more comprehensive explanation of the characteristics of the major factors in the scale, constitutes a scale of evaluation of cross-cultural competence of Chinese college students composed of 28 description items.

There are twenty-eight description items for the Chinese University Students Intercultural Competency Assessment Scale. Six factors with eigenvalues greater than 1 can be extracted. All the description items are aggregated into six main factors: "Knowledge A" has three (ic1, ic2, Ic3), "Knowledge B" seven (ic4, ic5, ic6, ic7, ic8, ic9, ic10), "attitude" three (ic11, ic12, ic13), "skill A" nine (ic19, ic20, ic21) , ic22, ic23, ic24, ic25, ic27, ic30), "skill B" three (ic26, ic28, ic29), "conscious" three (ic31, ic32, ic34). The total variance of the cumulative interpretation of the scale is 63.020%, and the factor load of all description items is between 0.479 and 0.859, indicating that the above six major factors more comprehensively reflect the knowledge, attitudes and skills in cross-cultural competence. And four dimensions of consciousness and other content.

Trust Level Analysis

In order to ensure the reliability and effectiveness of the research tool, a reliability test is performed on the improved ICC evaluation scale, that is, the consistency Cronbach alpha coefficient value in the test scale. see Table 1.

Factor	knowledge A	knowledge B	attitude	skill A	skill B	consciousness	total amount
Cronbach A coefficient	0.734	0.910	0.863	0.873	0.779	0.878	0.913
Number of items	3	7	3	9	3	3	28

Table 1. Reliability analysis results of six factors in the ICC evaluation scale

It can be seen from Table 2 that the Cronbach α coefficient of the six factors in the ICC evaluation scale is between 0.734 and 0.910, and the Cronbach α coefficient of the overall scale is 0.913, indicating that the scale has strong internal consistency. Higher reliability.

Confirmatory Factor Analysis

A confirmatory factor analysis was performed using Amos 17.0, and the model fit evaluation was performed on the improved ICC evaluation scale obtained by EFA. The model fitness index results are obtained by CFA hypothesis model verification (see Table 3), χ^2/df (chi-square degree of freedom ratio), NFI (standard fit index), NNFI (non-standard fit index), CFI (Comparative Adaptation Index), GFI (Compatibility Index), AGFI (Adjusted Fit Index), RMR (Residual Mean Square and Square Root), RMSEA (Relative Residual Mean Square and Square Root), etc. The index is within the acceptable range and meets the evaluation criteria of the SEM overall model fit degree, indicating that the ICC evaluation scale structure model path map (see Figure 1) has a good fit to its actual observation data, or improved The ICC six-factor model has high validity. Thus, the combination of EFA and CFA confirmed that the improved ICC six-factor evaluation scale has good structural validity.

Index	χ^2/df	NFI	NNFI	CFI	GFI	AGFI	RMR	RMSEA
Reference value	1-3	>0.80	>0.90	>0.90	>0.90	>0.90	<0.08	<0.08
Index value	2.14	0.82	0.91	0.92	0.91	0.93	0.07	0.03

Table 2. Confirmatory factor analysis results of ICC evaluation scale fitness index

Discussion And Analysis

The Multidimensionality of Chinese College Students' Intercultural Competence

This study used exploratory factor analysis to analyze the data from the ICC evaluation scale and extracted six main factors, including: (1) knowledge related to national culture (knowledge A); (2) knowledge related to foreign culture (Knowledge B); (3) Attitude; (4) Intercultural Communication Skills (Skills A); (5) Cross-Cultural Cognitive Skills (Skill B); (6) Consciousness. The above factor extraction results show that the cross-cultural competence of Chinese college students is composed of six dimensions. The multi-dimensional competence of cross-cultural competence can be derived from the cross-cultural competence dimension proposed by foreign intercultural competence research scholars Byram (1997), Fantini (2001, 2006), Gudykunst (2004), Deardorff (2004, 2006), and Risage (2007). The model is fully supported by theory. The multi-dimensional model of cross-cultural competence represented by Byram is a cross-cultural competence model based on cross-cultural experience in European context (Byram 1997; Risage 2007); Fantini (2000) builds knowledge with core consciousness as A four-dimensional model of cross-cultural competence of attitudes and skills; Gudykunst (2004) proposes a three-dimensional model of cross-cultural competence motivation, knowledge and skills with "motivation instead of attitude". The multi-dimensional model of cross-cultural competence proposed by the above scholars can strongly support the multi-dimensionality of Chinese college students' cross-cultural competence.

The Importance Of Each Competency Dimension In The ICC Evaluation Scale Structure

The data after EFA and CFA analysis proves that the Chinese college student ICC evaluation scale has good reliability and validity. Six of these factors have different roles in evaluating and explaining the cross-cultural competence of Chinese college students. Factor 1 "Knowledge related to national culture" (Knowledge A) includes three descriptive items covering knowledge from national history, geography, socio-politics, social etiquette, religious culture, lifestyle and values, explaining 4.790% The total variance is a factor of importance in the six factors.

Factor 2 "Knowledge related to foreign cultures" (Knowledge B) includes seven descriptive items covering foreign history, geography, socio-politics, social etiquette, religious culture, lifestyles and values, cultural taboos, cross-cultural communication and communication strategies, and Skills, basic norms and behaviors of different cultures, among which "understanding and contrasting the basic norms and behaviors of different cultures" have the highest factor load in all twenty-eight descriptions. Moreover, the second factor explains the total variance of 30.790% and is the most important factor in the overall ICC evaluation scale. The above two factors can be attributed to a common dimension—knowledge, and the degree of importance can also be supported by some field survey data and conclusions abroad. For example, the American Council for Education (ACE) fosters internationalization of six universities across the United States. A three-year (2004-2007) field survey was conducted on the talent development plan and the specific implementation strategy. The study found that almost all the schools under test emphasized the promotion and enhancement of cross-cultural communication knowledge as the primary evaluation index (Norris 2007). Moreover, Baumann & Shelley (2006) conducted a cross-cultural competence level survey of some advanced learners of distance learning in the German Open University. It was found that most students

generally believe that knowledge about cultural, community and social aspects of other countries is closely related to intercultural competence. Contact, and they also believe that understanding and mastering German native culture is also important.

Factor 3 “attitude” includes three description items, such as “willing to learn foreign languages and understand foreigners”, “willing to communicate and learn from foreigners from different cultures”, “willing to try to tolerate different values and eating habits of foreigners. , taboos, etc., explained the total variance of 5.745%, with a middle degree of importance among the six factors. Byram (1997)'s study of Europeans found that attitude factors are the cornerstone for evaluating cross-cultural competence. This view was also endorsed by scholars such as Lynch, Hanson, Okayama, Furuto, Edmondson, and Deardorff (Berardo 2005). Similarly, to support this view, it is worth mentioning that the “attitude” in the Delphi expert survey method used by Deardorff (2004) is the only impact factor that is 100% endorsed by all cross-cultural experts.

Factor 4 “Cross-Cultural Communication Skills” (Skill A) includes nine descriptive items that can be summarized as explanations and comprehension skills, such as negotiating and interpreting with communication obstacles and misunderstandings, communicating with non-verbal means such as body and gestures, etc. Relevance and observation skills, such as viewing political, economic, religious and other events in other countries, can look at problems from multiple perspectives, and avoid avoiding prejudice, prejudice, privacy or offense when communicating with foreigners (in speech, behavior, wearing Analytical, evaluation and interactive skills, such as evaluating and analysing the sensitivity of cross-cultural differences, objectively evaluating and analysing foreigners, being polite, using foreign languages and being effective with people from different social and cultural backgrounds and fields. Successful communication. Of the six factors, factor 4 explained the total variance of 13.279%, which is second to none.

Factor 5 “Cross-Cultural Cognitive Skills” (Skill B) includes three descriptive items such as “the ability to use a variety of methods, techniques and strategies to help learn foreign languages and cultures”, “Rethinking when cross-cultural conflicts and misunderstandings arise” And the ability to learn and seek a proper solution, “the ability to directly acquire intercultural communication knowledge through contact with foreigners”, explaining the total variance of 4.339%, which is relatively important in the six factors. weak. The above two factors can also be summarized as a common dimension—the skill, which is subdivided into two, on the grounds that the importance of the two is somewhat different. In terms of two types of skill factors, especially cross-cultural communication skills, almost all scholars use it as a key factor in evaluating cross-cultural competence (Fantini 2006). In the doctoral dissertation written by Deardorff (2004), an striking conclusion was drawn that all skills-related abilities were unanimously endorsed by the subject, including analysis, interpretation, association, cognitive skills, and so on.

Factor 6 “Awareness” includes three descriptive items, such as “Aware of cultural similarities and differences between each other when communicating with foreigners”, “Aware of the differences in cultural styles and language use, and their impact on society and work situations. "Impact", "Aware of the difference between one's own cultural identity and the other's cultural identity when communicating with foreigners" explains the total variance of 4.077%, which is the weakest among the six factors. However, many years ago, as international education goals increased emotional factors into knowledge and skills, consciousness began to become more and more considered to be another essential factor in the development of cross-cultural competence. Therefore, intercultural scholars generally believe that consciousness and attitude, knowledge, and skills together constitute the main dimension of intercultural competence, but consciousness is not the same as the importance of other three factors. Fantini is building awareness, attitude, skills and knowledge. When the four-dimensional model is used, the consciousness is placed at its center (Fantini 1995, 2000). In addition, consciousness cannot be reversed. In other words, once a consciousness is formed, it is difficult to return to an unconscious state. And as awareness increases, it will lead to deeper understanding, stronger skills and more complex attitudes. Thus, awareness is one of the key factors in cross-cultural competence (Freire & Macedo 1998).

Conclusions

At present, the application research of ICC evaluation scales at home and abroad generally lacks systematic empirical data support and relatively mature statistical tests. This study combines the actual situation of Chinese college students, improves and corrects the internationally accepted ICC evaluation scale, and uses the exploratory factor analysis and confirmatory factor analysis commonly accepted by the international statistical community as statistical tools for Chinese college students ICC. It is important to carry out reliability analysis and validity test on the evaluation scale. The improved localized ICC evaluation scale in this study has good reliability and validity. It can be used to measure the actual situation of Chinese college students' cross-cultural competence development. The empirical survey data can help college students predict their cross-cultural competence. The actual level helps them to better understand their strengths in cross-cultural competence or to help them develop a self-awareness of their intercultural competence (ie, the factors that many scholars are concerned with when studying cross-cultural competence). At the same time, it can also provide reference for domestic universities to train international talents and provide relevant cultural capacity training courses. However, the improved localized ICC evaluation scale in

this study needs to be combined with more diverse subjects for lateral and vertical empirical studies to further confirm its validity and reliability, as well as other methods such as interviews and cross-cultural competence test data. Wait for a comprehensive evaluation together.

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Analyze The Influencing Factors Of Self-Reflection On Teacher's Behavior Through The Activities Of The Global Citizenship Education Leading Teachers In China

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Abstract

This study, through the study of the self-reflection of the teacher behavior of the GCED leaders' teachers, how to understand the GCED, a new global education system at the regional level, and how to practice empirical research at the school site. This study analyzes the factors that influence the self-reflective behavior of the leader teachers of global citizenship education (GCED) in China and applies GCED's new educational content to Chinese schools. On the basis of literature research, the self-reflective behavior analysis model of GCED class teacher is constructed to explore the contextual factors that influence their self-reflective behavior. By doing so, this study aims to discover the significance of improving the role of teachers as agents of change in schools.

Introduction

As globalization progresses, the national curriculum is affected by the global education agenda. In particular, as educational achievements and results between countries become comparable, the accountability of educational systems has been emphasized more than ever (Nagel, Martens & Windzio, 2010; Zhao, 2010). This global trend demands that schools constantly adapt to change, and countries are investing a lot of resources in revising curricula and implementing new educational policies. How will this effort change the actual school scene? The role of teachers in this trend is emphasized. Teachers are now expected to play the role of experts, learners, and researchers in the school scene. Teachers' daily teaching and learning choices determine how educational policies are realized in the school setting and determine whether institutionalized practices or behaviors in the school will continue or change, and teachers as institutional agents can see. Recently, the discourse about teachers has been viewed as agents of change (Fullan, 2003), not just those who execute the curriculum and convey knowledge, but actively reorganize and practice the curriculum.

With the one-belt-one policy promoted by the Chinese government now, all of its students should realize that China's opportunities for cooperation with neighboring countries and the world are expanding gradually. In order to achieve this goal, being in China is key to enhancing the cultural capabilities surrounding the education of cultural diversity, and it is necessary to develop a cultural literacy that finds different meanings in various cultures for all people (郑金洲, 2013: 56). In particular, it is an essential capability for teachers who are responsible for cultural diversity education. Recently, the discourse of teachers has been regarded as agents of change, which is not a person who simply carries out a curriculum and communicates knowledge but reorganizes and practices the curriculum positively (Fullan, 2003). This viewpoint seeks to realize the educational policy and change the school scene through the development of the professionalism of teachers and the development of competence. In other words, it can be seen that education change can be achieved by deepening understanding of teachers' individual education policies and curriculum and strengthening motivation for practice. However, this approach can overlook the situational context of teachers by emphasizing the individual ability of teachers to practice education policy.

Teachers are accepted as key stakeholders in the implementation of the new educational policy, but the teachers have to reflect on the difficulties of applying the school site. This is due to the lack of training of individual teachers, but also to the structural context in which teachers are involved. Recently, the concept of teacher activeness, which is actively being studied overseas, can provide a useful framework for understanding the contextual contexts experienced by teachers in the school field in the course of implementing educational policy. According to Biesta & Tedder (2007), activeness is accomplished in the context of the teachers rather than as a characteristic of the teacher. This position calls for attention to the cultures and structures that interact with teacher actors.

The purpose of this study is to investigate how teachers' participation and activities in teachers' participation in the Global Citizenship Education Leadership Competency Enhancement Project are expressed through interaction with situational contexts. The importance of global citizen education is increasingly emphasized in the Chinese school scene, and the role of teachers is also emphasized. Therefore, previous studies analyzing the experiences and perceptions of Korean teachers on global citizen education suggest that Chinese teachers recognize that global citizen education is an 'alternative educational paradigm' that will bring about changes in the school scene, but it is inevitable that the traditional education paradigm. It is inevitable to face a dilemma at the school site (Lee, Sung-ho, 2016). Through the in-depth exploration of the momentum, motivation, and practice of teachers' interest in

global citizenship education, and that they are practicing global citizen education in other ways (Park, Soon-Yong, Kangbo, 2017).

These studies suggest that individual factors such as teachers' perceptions, values, and motivation are preconditions for the effective diffusion and settlement of the global citizen education on the Chinese school site. However, the teachers' suggests that further research is needed on how these individual factors interact with the environmental and situational conditions in which teachers are involved since they cannot be separated from the context and environment in which they are located. The purpose of this study is to understand the experiences of leading teachers in global civil education by focusing on situational and environmental factors that promote or obstruct activity by applying the concept of teacher's behavioral concept.

Ecological Approach To Teacher Behavior Self-Reflection

Schweisfurth (2006) found teacher network as a facilitator, hierarchy of the school, hierarchy of the school, and hierarchy of the school as the obstacles. This is useful because it is a good factor to apply to Korean teachers. The usefulness of the Priestly, Biesta & Robinson (2015) model in understanding and explaining the experience of leading citizen education teachers is due to the fact that contextual factors are subdivided into cultural, to be. Bridwell-Mitchell (2012), Vahasantanen (2013), and Pantic (2015) focus on teacher competence, which considers that facilitating teacher conduct depends on the competence of teachers.

In this sense, the policies on the development of teachers' competencies focus on improving individual teachers' competencies rather than on how teachers contribute to their situation and how they affect (restrict or promote) do. For this, Priestly et al. (2015) suggested that researchers should pay more attention to the cultural and structural dimensions of the teacher's work, and that attempts to reinforce the teacher's behavior are not merely focused on individual competence and that teachers should pay attention to the factors and dimensions that make up the work world. Therefore, the ecological approach to teacher behavior is fundamentally different from the claim that "teacher is the most important factor," and is also distinguished from the concept of 'teacher leadership' and 'teacher autonomy' (Priestly et al., 2015).

Teacher Behavior The premise of the phenomenon being achieved by the interplay of context and teacher competence, rather than having a teacher, and not having a teacher, is that all teachers, not a few teachers, (Priestly et al., 2015: 5). In this way, teachers are more likely to be educated. Likewise, in order for global citizenship education to take place in the Korean school scene, more teachers, not a few teachers, need to be involved and participate in global citizen education. Therefore, it is important for teachers to have easy and convenient access to global citizen education. If global citizenship education is perceived as an education that requires a high level of dedication and enthusiasm by highly qualified teachers, teachers who are not able to devote such enthusiasm and energy to world citizenship education will feel frustrated or worried about world citizenship education and will lose interest. As the empirical data presented in subsequent chapters show, it is suggested that the project of leading global citizen education is dependent on the dedication and enthusiasm of individual teachers. This suggests that institutional support should be accompanied by the strengthening of teachers' capacity to educate the world's citizens. Therefore, in order to be a global citizen education in which all teachers can participate, it is necessary to deeply grasp the situation context that promoted or obstructed their behavior based on the experience of the leaders of global citizenship education, based on this, it is necessary to provide institutional support to enable global citizen education in school field in the future.

In this study, we try to make an analysis focusing on the ecological environmental condition of the teacher in this view and set up the analysis model as shown in Figure 1.

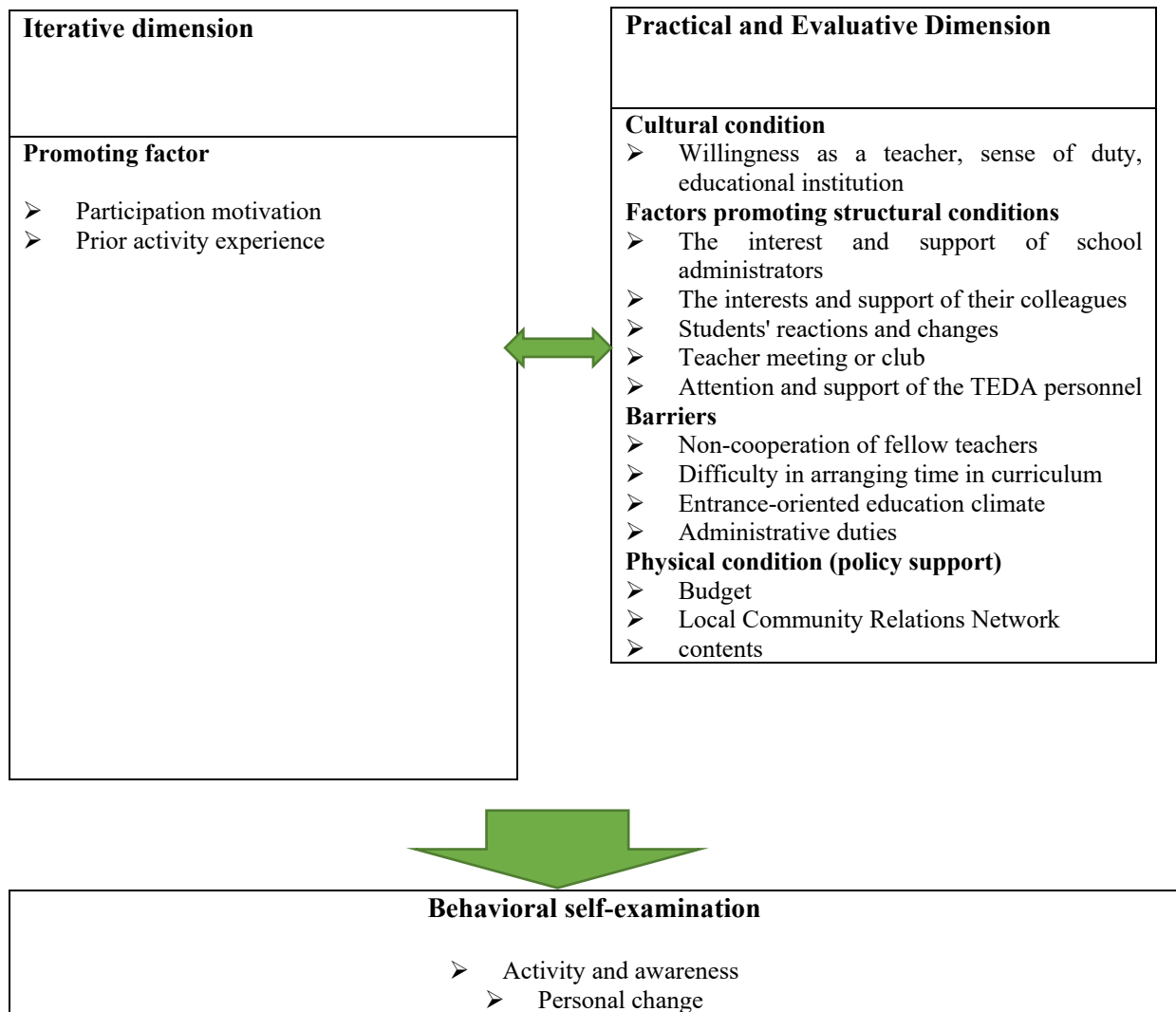


Figure 1 The analysis model of teacher behavior self-reflection in this study

Global Policy Formation For Global Citizenship Education

Global Citizenship Education aims to strengthen learners' capacities to ensure that they have an active role to address and address global challenges locally or globally. The ultimate goal of global citizen education is to enable learners to make a leading contribution to creating a more just, peaceful, tolerant, inclusive, safe and sustainable world. The global citizen education is attracting global attention in earnest, as the global education first initiative initiated by UN Secretary-General Ban Ki-moon in 2012 is expected to expand educational opportunities and improve the quality of education. Since the introduction of the 'fostering global citizenship' as one of the priorities of the education-related ages. Since then, UNESCO has hosted expert meetings and forums on global civic education, contributing to the global shaping of global citizen education. In response to this, the global citizen education began to attract attention in Korea. In May 2015, ahead of the UNESCO World Education Forum in Incheon, Korea has embarked on the task of shaping global education as a host nation.

This effort contributed to the global citizen education reflected in the "Sustainable Development Goals" adopted by the United Nations in 2015. Among the 17 sustainable development goals, SDG4 related to education aims at ensuring inclusive and equitable quality education and ensuring inclusive and equitable quality education and promoting lifelong opportunities for all, With the inclusion of global citizenship in Target 4.7, one of the targets, the promotion of global citizen education has become one of the development goals that the world must endeavor to achieve by 2030. At the UNESCO General Conference in November 2015, the Implementation Plan of the World Education Forum Incheon Declaration, including the Global Citizenship Education, was adopted, so that the United Nations and UNESCO Member States have the obligation to include and actively promote global citizen education in national education policy. In this regard, the OECD is expected to continue to increase interest in this area in the future as it introduces global competencies to PISA 2018 (OECD, 2016).

The Role Of Teachers Prescribed In Global Citizenship Education

Global citizenship education is an education that expresses transformative education. The goal of global citizenship

education is to nurture citizens of the world who think, share and act for a more just, peaceful, and sustainable society. Instead of learning the skills and skills needed to live with knowledge, emphasize active action to change. It is innovation-oriented and change-oriented in that it seeks the arrival of a better world through education. Thus, it emphasizes that learners not only understand and understand the problems that are happening in the world, but also think critically about them. Emphasis is also placed on defining areas such as empathy and care and emphasizing moving things into action. The following transformative pedagogy is important for carrying out this transformational education.

First, it enables learners to critically analyze real life problems and find possible solutions in creative and innovative ways.

Second, the learner critically examines the hypothesis of mainstream discourse, the relationship between worldview and power, and helps the alienated people and groups to be considered.

Third, we respect diversity and diversity. Fourth, emphasize participation in action to bring about hopeful change.

Fifth, involve a variety of stakeholders, including those outside the educational environment of the community or in a broader social context.

To implement such a teaching method, additional training and support for educators will be needed (UNESCO, 2014). Therefore, global citizenship education emphasizes learner involvement, dialogue, interaction, and cooperation in an integrated way of learning, and requires teachers to become accustomed to these learner-centered teaching methods (UNESCO, 2014). At this time, the role of teachers is facilitators of learning, not mere knowledge transferors, and agents of change. International organizations such as UNESCO are encouraging the educational departments of each Member State to present entry points into the curriculum and to innovate the curriculum to introduce transformational pedagogy, and to encourage teachers to interact with learners in the classroom, (UNESCO, 2014b) to encourage training opportunities and system reforms so that they can use pedagogical methods to develop their skills.

In Chinese, the emphasis is on the development of school-centered curriculum after the 7th curriculum. In addition, the teacher has to characterize the national curriculum according to the characteristics and needs of the unit school. It is recommended to use. Therefore, support for the application of national curriculum requires teachers to shift their expertise and to encourage teachers to cooperate with each other, rather than allowing them to passively follow curriculum guidelines.

Policy Interpretation At The National Level

At the national curriculum level, efforts are being made to link the elements of the curriculum to the elements of global citizenship education. Among the statements on the human image pursued by the 2015 revised education curriculum, the world citizens' education pursues the expression of 'creative person', 'understanding of plural value', 'expression of community', 'democratic citizen communicating with the world' And the relationship between the characteristics of the students and the students (Ministry of Education, 2015).

In addition, the 2015 revised curriculum features the 'core competencies' that students should develop, and it can be seen that the learning outcomes pursued by the global citizenship education are reflected well. In addition, · Includes topics that can be linked to global citizen education such as health education, personality education, career education, democratic civic education, human rights education, multicultural education, unification education, economic and financial education, environment and sustainable development education (Ministry of Education, 2015).

In addition, the curriculum of each subject can identify the parts that can be linked with the global citizen education. For example, the core competencies pursued by Chinese language schools in the revised education in 2015 are critical and creative thinking ability, data and information utilization ability, communication ability, community and interpersonal ability, cultural enjoyment ability, self-reflection, , Which is a learner with knowledge and critical literacy that is a characteristic of the learner pursued by global citizenship education, a learner with diversity in abundant social relations, a learner with ethical responsibility, They have very similar characteristics (Ministry of Education, 2015).

Research Method

A total of 99 teachers who participated in the global civic education center in 2015 and 2016 were surveyed in order to investigate the teachers' Day to May 17. The questionnaire was made online through the Google survey and 74 respondents (75%) were recovered. The questionnaire was developed by the researcher in consultation with the on-the-spot researcher and consulted by the on-the-spot researcher. The detailed contents are shown in Table 1.

classification		number
Personal Information	Gender	1
	Position	2
	Teaching career	3
	School level	4
	Responsible for curriculum	5
Personal Experience Factors	Participation motivation	6
	Experience with prior related activities	7
	The type of activities related to their prior experience	8
A factor in self-reflection	Performance by type and type of activity as a leading teacher	9-1~9-5
	Awareness of GCED activity outcomes	10-1~10-5
	Personal change after participation	11-1~11-3
Influence factor	The level of agreement on the promotion of global education activities	12-1~12-5
	The level of agreement on the factors that impede education in the world	13-1~13-5
	the sufficiency of institutional support	18-1~18-5
	the reaction of one's peers at one's school	14
	Response of school administrators	15

Table 1 The constitution of survey tools

SPSS 23.0 version was used for statistical analysis. Frequency analysis, factor analysis, correlation analysis and multiple regression analysis were used as statistical methods.

Research Result

Topic	Factor analysis
Experience of participating in the project as a leading teacher of GCED	<ul style="list-style-type: none"> ✓ Activities as a leading teaching experience ✓ Participation time and experience of the prior activity ✓ Awareness of global citizenship education performance ✓ Changes in personal experience
Factors Related to GCED Activity and Personal Change	<ul style="list-style-type: none"> ✓ Factors Promoting the Activities of Leading Teachers of Global Citizenship Education ✓ Factors Preventing the Activities of Leading Teachers of Global Citizenship Education
Analysis of factors influencing perception and personal change in activity performance	<ul style="list-style-type: none"> ✓ Activity and Personal Change as a Self-motor of Teacher Behavior. ✓ An Analysis of Factors Affecting Activity, Recognition, and Personal Change

Table 2 The subject of factor analysis in this study

Experience of participating in the project as a leading citizen education teacher

1. Experience as a leading teacher

The results of this study are summarized as follows: 1) The question 2 (What kind of method did global citizen education teachers implement in this policy framework?), see Table 3

Kinds	Average	Standard Deviation	Minimum value	Maximum value
Classroom activities for students	3.811	.7706	2.0	5.0
Extracurricular activities for students	3.595	1.0057	1.0	5.0
Sharing activities with fellow teachers	3.676	.9807	1.0	5.0
Institutional spreading activity	3.324	1.0351	1.0	5.0
R & D Activities	3.581	1.0204	1.0	5.0

Table 3 The type and frequency of activities conducted by leading teachers of global citizenship education (N = 74)

As a result, it was revealed that the leading teachers of global citizenship education performed the most 'classroom activities for students' and 'sharing activities with fellow teachers'. The following were 'extracurricular activities for students' and 'research and development activities'. On the other hand, it was found that they participated in 'institutional expansion activities' in a limited manner.

2. Participation time and experience of prior activity

Participation time and related activity experience prior to project participation can be a factor in promoting teacher activeness. In order to explore the research question 3 (what are the factors promoting or restricting teachers' awareness of global citizenship education teachers), we surveyed the participating teachers of the global citizens' 37% (50%) of the respondents said that they participated in the personal interest or mission of the global citizen education, and 23 (31.1%) responded that they participated in the invitation of MOE officials, (8.1%), and five (6.8%) answered that they participated in the invitation by the principal.

In the other responses, one (1.4%) participated in the invitation by the assistant principal, and one participated in the curiosity of the world citizen when the senior teacher participated in the invitation. The percentage of participation in personal interest and mission, and the involvement of others such as school officials, school administrators (principals, vice-principal), and other teachers (including senior teachers).

3. Citizen Education Activity and Recognition

The area that teachers perceive as the most accomplishment is that 'meaningful educational activities in the classroom have been done and it was rewarding', and the teacher community for the practice of global citizen education was formed in the affiliation. 'The evaluation of fellow teachers and school administrators' awareness of global citizen education in the school has improved more than usual. However, there was a moderate evaluation of the formation of a group of teachers who would like to do this in school.

Items	Average	Standard Deviation	Minimum value	Maximum value
Meaningful educational activities were carried out in the classroom and I felt rewarded.	4.338	.7635	2.0	5.0
Fellow teachers' awareness of global citizen education in the school has increased	3.662	.9257	1.0	5.0
A group of teachers for the practice of global citizenship education was formed in the school	3.054	1.2702	1.0	5.0
School administrators' awareness of global citizen education in the school has increased	3.541	1.1726	1.0	5.0
A community of teachers for the practice of global citizen education was formed within the group	4.095	1.1955	1.0	5.0

Table 4 Global Citizen Education Leadership Teacher Activity and Recognition (N = 74)

Factors Related to Global Citizen Education Activity and Personal Change

1. Factors that Promote the Activities of Leading Teachers of Global Citizenship Education

Based on the analysis of the previous research, we selected factors that could affect the teacher's behavior of the

leading teachers of global citizenship education and asked whether each factor promoted the global citizen education activities or whether they are obstacles. Table 2 shows the responses to the facilitation factors. Leading teachers most agreed that 'willingness, mission, and education as a teacher' are the driving forces of global civil education. In addition, many responded that 'response and change of students' and 'teacher study group / club that share the same interests' were also facilitating factors. On the other hand, the interest rate and support of the school fellow teachers and the school administrators were low in the agreement rate.

Factors	Average	Standard Deviation	Minimum value	Maximum value
As the will and sense of mission, educational view of teachers	4.392	.5926	3.0	5.0
The interest and support of school administrators	3.419	1.1227	1.0	5.0
Interest and Support of Peer Teachers in Their Schools	3.432	.9943	1.0	5.0
Students' Responses and Changes	4.203	.6821	2.0	5.0
Share common concerns of teacher seminar/association	4.000	1.0068	1.0	5.0

Table 5 Promoting the Activities of Leading Teachers of Global Citizen Education (N = 74)

2. Disability Factors of Leading Teachers of Global Citizenship Education

Table 6 shows the results of responses to the obstacles to the activities of leading teachers in global civic education. As a result of the frequency analysis, it was found that 'administrative work' and 'educational climate focusing on the entrance examination' were relatively recognized as the most obstacles. Also, 'difficulty of preparing time in curriculum', 'Chinese tribe' also showed similar response level. Relatively 'non-cooperative attitudes of fellow teachers' were less recognized as obstacles.

Factors	Average	Standard Deviation	Minimum value	Maximum value
Uncooperative attitude of fellow teachers	2.743	1.1111	1.0	5.0
Difficulty in preparing for the education course	3.595	1.0057	1.0	5.0
Exam-oriented education	3.703	.9894	1.0	5.0
Heavy administrative work	3.865	.9411	2.0	5.0
Lack of understanding of global citizen education at the school site	3.622	.8868	1.0	5.0

Table 6 Disability Factors of Leading Teachers of Global Citizenship Education(N = 74)

Analysis of factors influencing perception and personal change in activity performance

1. Activity and Personal Change as a Self-motor of Teacher Behavior

In this study, the factor analysis of 'citizenship education activity and perception' and 'individual change' as the factors of teacher 's activeness are shown. 'Global Citizenship Education Activity and Awareness' all showed a value of .630 or more, and all three items showed a value of .762.

This is the result of analyzing the needs of the teacher to explore the facilitation and obstacles of the actor's character. The results of this study are as follows. First, teachers 'interests and support of school administrators, teachers' associations or clubs (learning communities) sharing their interests, interest and support of their fellow teachers, and they were named as structural promoters. The lack of understanding about global citizenship education in the school field, the uncooperative attitude of fellow teachers were tied to one factor with a value of 0.764 ~ 0.583, Respectively.

2. Factors Affecting Activity, Recognition, and Personal Change

This is the result of a key analysis conducted to explore factors that facilitate and prevent teachers' behavior. The school manager's interest and support was shared by the teachers' association or seminar (study community), the

interests and support of their fellow school teachers, the intent to serve as teachers, and the educational institution promoted them to a single group of 0.829 to 0.5088. Educational climate for college entrance exam, difficulties in establishing time for the curriculum, administrative work, lack of understanding of world citizenship at school sites, and uncooperative attitudes of fellow teachers were cited as one factor.

Conclusions

This study started from the awareness of the need for attention not only to the strengthening of individual teachers' capacity but also to the situational and environmental context of the leading teachers in supporting the activities of the leading citizens' education teachers. Therefore, in this study, we tried to analyze the factors that promote or obstruct their behaviorally by recognizing that teachers are actors interacting with the context in which they are placed by applying the concepts of teacher conduct and ecological approach.

The main factor affecting teachers' behavior was the learning community. The change in education field and school change were more important than anything, and the starting point for this was teacher activation. However, the results showed that teachers' will, mission and education centers have failed to influence their performance and personal changes, and that the interests and support of school administrators are important factors. The principal's interest and support will be in line with the education office's policy support. To change education, it is necessary to attract the principal's attention and support, and to simultaneously enhance teachers' performance through the teacher learning community.

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Architectural Education For Sustainability Awareness

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Abstract

Sustainability and sustainable urban development are key concepts of the globalized world in last decades. Architecture as an applied discipline has a vital role in achieving sustainable urban development. Architectural education should be a guide for the architectural students in their future professional life in order to make attempts to achieve sustainable urban development. Being the backbone of architectural education, architectural design studio is a great opportunity in order to make the students conscious about their important role for the future of the world. In the scope of this paper, one of the architectural design studios at department of architecture of Bursa Uludağ University is presented. The aim of this design studio is to develop environmental awareness of the architects of the future during the fourteen weeks of the semester via design practices of a production plant in which local agricultural products will be processed. Architectural design criteria were the requirements of environmental, socio-cultural and economic sustainability. Students experienced to develop architectural proposals in order to solve the problems of a local community and support sustainable development of their living environments. This experience let them to increase their awareness about sustainability as the architects of the future. The paper presents and evaluates the architectural projects of the students with their concepts and technical drawings.

Introduction

Architectural Design Studio And Sustainability Awareness

Architecture is one of the main professions that plays a great role in achieving sustainability. Thus, architectural education has a vital responsibility of making students aware of sustainability concept and its importance for their career. The UNESCO-UIA (International Union of Architects) charter on architectural education puts stress on this role when explaining the main aims of architectural education. These are; *to produce competent, creative, critically minded and ethical professionals* and *to produce good world citizens who are intellectually mature, ecologically sensitive and socially responsible designers and builders* (UIA,2002). UIA (2008) also defines architecture as a creative intellectual task of research and design that draws on humanity, culture, nature and society. As understood from the definitions the notion of architecture and architects have a vital role for achieving sustainability.

The architectural design studio constitutes a great part of the curriculum and is the core of architectural education. Theoretical knowledge and designing skills penetrate each other in architectural design studios. The students begin to feel and act like an architect throughout this designing experience and develop their ability of holistic and also problem-solving thought. Shon (1985), stated that the central pedagogic vehicle for architectural education is project-based learning. Students are expected to offer architectural design proposals for a given problem and a preliminary program. However, there is no one correct form of this design project. Rather the works of the students are unique and individualistic, but they should meet the requirements of the architectural program and should offer a sufficient solution for every actor included in the given problem.

The nature of architectural design studios also fits to the requirements of sustainability. Designing for sustainability needs to have an holistic approach. On the other hand, it should be sensitive to the local conditions and requirements. As Keitsch (2012) indicates, the main criteria of sustainable architecture can be determined as; minimizing the negative environmental impact of buildings by enhancing efficiency and moderating the use of materials, energy and development space, developing measures to relate form and adapt the design to the site, the region and the climate and as the last one; establishing a harmonious, long lasting relationship between the inhabitants and their surroundings by addressing the essence of good form-giving (Abidin, et. al,2008).

Being conscious about the responsibilities of architecture and architects for a sustainable future, the authors put stress on the necessities of sustainability throughout architectural design studios they supervise. In the context of this paper, the process and final products of these design studios undertaken in undergraduate program of architecture at the Faculty of Architecture, Bursa Uludağ University are discussed via some example projects of 3rd. grade undergraduate student. In the following section, after explaining the aims, inclusion and development of

the studio process, some examples of student projects are presented. The students' proposals to improve the quality of life in the project area, a valuable local environment, and the change in their degree of sustainability awareness are discussed as a conclusion.

The Study

'Design For Local Production' Architectural Project

Today, it is an accepted fact that 'locality' has been gaining more and more importance in spite of the unrelenting speed of globalization. In fact, some sustainability explanations highlighting locality were made over the last decade. Levine, et.al,(1999), defined sustainability as; *"a local, informed, participatory, balance-seeking process, operating within an equitable ecological region, exporting no problems beyond its territory or into the future"* at the XX. UIA Congress. The concept of sustainability is also defined as; *"a dynamic process which enables all people to realize their potential, and to improve their quality of life, in ways which simultaneously protect and enhance the Earth's life support systems"* in the report of the Forum for the Future Annual 2000 (DETR, 2000).

The researches and implementations all around the world show the contributions of local production as; improvement of sustainability performance, product security, provision of social connectivity, cohesion and community participation, build-up of stronger local economies. What's more, local production minimizes transport emissions, enables efficient resource and energy use, improves overall carbon footprints and facilitates better human-nature relationships for better biodiversity. So, it is obvious that supporting local people to produce their unique products around their territories will contribute to the achievement of sustainability.

In the light of these, the authors thought that an architectural design problem of which main aim is to provide proper spatial and physical conditions for local production will let the students to understand the role of architecture for achievement of sustainability and help them to gain sustainability awareness. Sericulture, which has been a unique traditional production for Bursa since 14th. century, was chosen as the problematic of the architectural design studio. As Oral and Ahunbay (2005) indicate, Bursa, being the first capital city of the Ottoman Empire, became an important sericulture center on the Silk Road during the fourteenth century and preserved its importance until mid-twentieth century. Nowadays, the local government has been making a great effort in order to redevelop sericulture in Bursa. The local production of silkworm and silk is financially supported. These were important facts for the decision of the type of local production to be studied throughout the semester. The studio took place in 2017-2018 autumn term Architectural Project 5, class of 3rd graders. The Studio lasted for 14 weeks with participation of 30 students and 2 moderators.

The expected gains of this architectural studio were (1) to understand the necessity of natural and built environment and socio-cultural factors and the relationships between them for architectural and urban design (2) to gain the ability of using these relationships in favour of local people during the design process (3) to handle the architectural and urban design problems with a holistic and integrative approach (4) to gain consciousness about the importance of local values for development of the village (5) to improve sustainability awareness and earn the ability to design sensitively for a unique local settlement.

As the study area; Misia village was chosen not only for its natural properties and local sericulture history, but also for its cultural and historical values (Figure 1). It is also very close to the city of Bursa where architectural studio participants study and live (Figure 2).



Figure 1: The Layout Pattern of Misia Village (adapted from google earth, 26.04.2018)

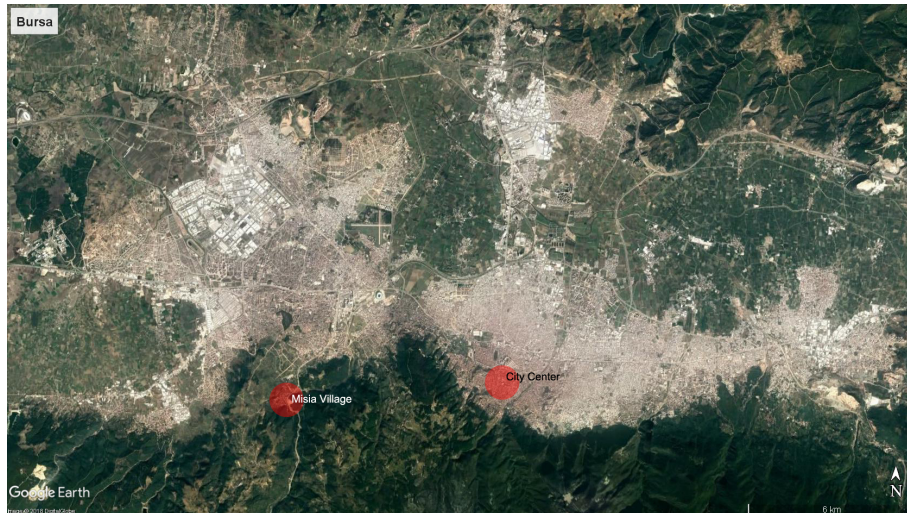


Figure 2: Misia Village in Bursa (adapted from google earth, 26.04.2018)

At the beginning of the studio, participants were enlightened about the project theme, workload distribution throughout 14 weeks of study, the expectations and the evaluation criteria of the moderators, which are based on the curriculum and Bologna credit system were stated. The main parts of the architectural program that was expected from the students to design were; the production plant including all the required sections of sericulture, a small museum in order to present sericulture, a small accommodation unit for the visitors and supportive units for shopping, eating, etc.

After explaining the theme, participants were asked for the preliminary work to overview the project area by analyzing via physical and socio-cultural researches (observations, surveys, field identification studies, etc.) throughout their field trips. They also made archive analysis about sericulture at the end of which they found out data related with physical requirements of sericulture, and also information about its history. Studio took place 2 days a week and during studio time. Every student had a chance to show and explain their ideas to the moderators who acted not as a commentator but a guide helping the participants to find their own deficiencies and fulfill them. Three interim juries took place during 14 weeks of study and a final jury was made at the end of the semester for the final evaluation. During the juries not only the moderators but also the students spoke their minds about their projects to improve them.

Evaluation criteria can be listed under two main headings as subjective and objective. Subjective criteria include the answers of the following questions; does the project include an integrative and holistic approach?

Is the project proposed able to protect the unique image of the settlement together with providing it to be used in a sufficient way today? Does the project propose suitable architectural and urban design solutions for the determined problems? Do the architectural solutions and details offer suitable places for the production type? Does the architectural proposal offer sustainable solutions? Objective criteria refer to the two-dimensional and three-dimensional presentation techniques of the project and quality of the presentation. Some examples of student projects are as follows.

Example Projects

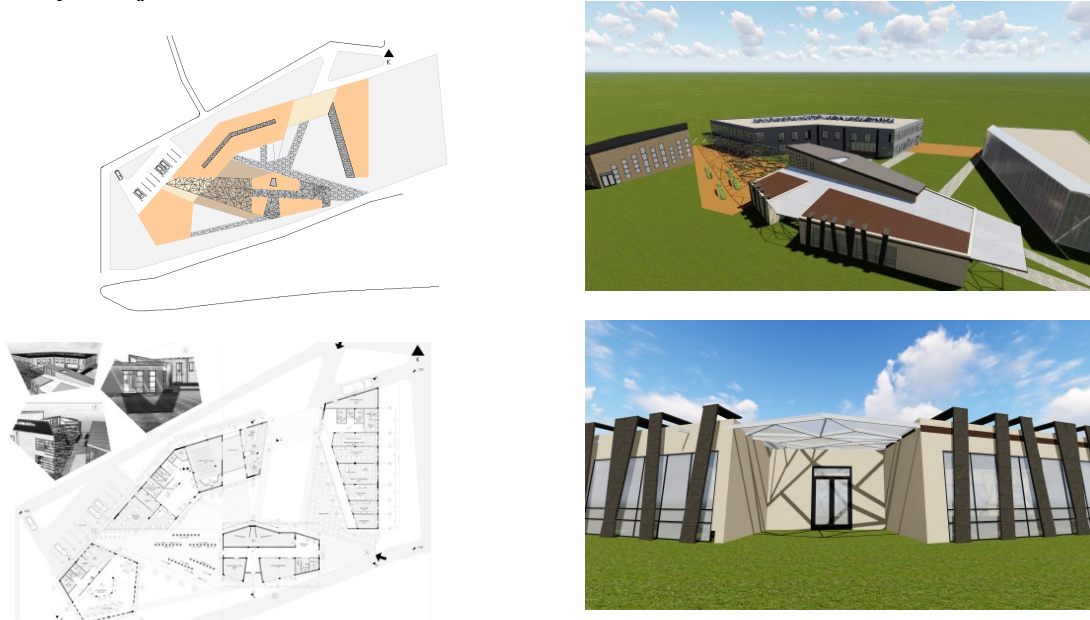


Figure 3. Participant: Hande Akar, Project Theme: Revive Traditional Production Resources

The aim of this project was to revive a forgotten tradition, sericulture, in the village of Misia, which was one of its centers at the past. The inspiration of this project was the silk bogs' cocoon motifs. The geometrical design of these motifs was used to create a layout plan for the production complex. This geometrical organization also affected the structural system of the roof and the canopies.





Figure 4. Participant : Sabri Gelen, Project Theme: Renovation of a Traditional Production

The concept of this project was to integrate the sericulture education with the production process. One of the main aims was to make the school of the village a part of this complex and let the young villagers to learn about new technologies of sericulture and accept it as a career. The complex itself also includes some places for education.



Figure 5. Participant: Zeynep Fazilet Kaya, Project Theme: Production-based Cultural Interaction

The main aim of this project was to provide a multicultural sericulture center. Besides the required units, it also includes places for education, workshops and presentation in which the villagers and the visitors can come together and share their knowledge and experiences. This production complex was designed for hosting different sericulture producers from different cultures of the world.



Figure 6. Participant: Eylem Akdemir, Project Theme: Live in and Develop the Village

This project consists of four parts in four different locations of the village. The main aim of this decision is to be able to provide close relationships with the entire village. It is thought that the visitors and the workers of this sericulture complex should be a part of the village and suitable locations were defined for different functions. On the other hand, the visual similarity of the buildings let the users to understand that they are the parts of the same complex.

Conclusions

The presented architectural studio experience shows again, that in order to promote students' sustainability awareness the design studio courses are very important tools. Working in a traditional environment is an enriching experience, which not only combines the creative aspects of architectural design with in-depth research to understand the existing environment and its context, but also a great training to improve the design of new buildings in a traditional built environment. Throughout this 14 weeks design studio, the students of architecture - in the other words the architects of the future- were given a chance to understand how essential is to have an integrated and holistic approach in order to offer sustainable architectural solutions for development of local environments together with their unique values. They also understood the links between all the physical, social, cultural and economic aspects of complicated architectural and urban design projects. At the end of this 14 weeks course time, it is monitored that the students understanding about relationship between architecture and local sustainability progressed. They gained the ability of analyzing the existing situation of the natural and the built environment together with the local social and economic needs.

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Are State Subsidized Student Loans So Attractive? Recent Study From Slovakia

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Abstract

This paper describes a system of providing student loans in Slovakia and the loans attractiveness for tertiary students. The higher education sector in Slovakia is subject to a wide reform covering accreditation, funding, cooperation with employers and widening the social makeup of the student population. The number of students enrolled in tertiary education determines, in part, a country's future competitiveness in terms of its ability to create, transform, and use knowledge in innovative ways. The Education support fund, Slovak student loan institution, is a non-state special-purpose fund established in 2013. The Education support fund provides loans to students in higher degrees in Slovakia and Slovak students studying abroad. The state subsidized student loans are accessible to every student actively enrolled in higher education. Student may applied for maximum EUR 2,300 per academic year regardless of the type of course. In January 2018, we carried out the survey focused on the financial habits of the tertiary students in Slovakia. The survey was anonymous and went online through the website about student finance. Most of the participants were in the age of 19-24 years. In the present study, a sample of 1,250 current students at the Higher Education Institutions in Slovakia was questioned to identify their actual financial situation and usefulness of various types of state financial direct support. The purpose of the survey was to analyze the social and economic conditions of Slovak tertiary students as well as their financial habits. Savings are just one way of securing the future. Our study found that around 36 % of tertiary students can not save money because of the poor social situation in their family. More than 8% of the participants said that they did not need to save because their parents donate their living expenses. We found that two thirds of students save money every month. Research has also identified social and economic implications of being in debt. Research demonstrated that the attractiveness of the state subsidized student loans is decreasing. Implications of current findings are mentioned. Limitations and directions for future research are discussed.

Introduction

We have gained a better understanding of the students' social characteristics, economic, and study conditions indicating significant changes in students' composition. Understanding these changes is fundamental to having the ability to ensure accessibility to higher education.

The higher education sector in Slovakia is subject to a wide reform covering accreditation, funding, cooperation with employers and widening the social makeup of the student population. The number of students enrolled in tertiary education determines, in part, a country's future competitiveness in terms of its ability to create, transform, and use knowledge in innovative ways (Figure 1). The tertiary educational attainment rate nearly doubled over the last decade, increasing from 14.4 % in 2006 to 28.4 % in 2015. In view of the strong correlation between tertiary education and the educational attainment of parents in Slovakia, pointing to low social mobility, efforts are needed to broaden the socioeconomic make-up of the student population (Saxunová and Chrovatovičová, 2018). Due to demographic trends, the absolute number of students entering tertiary education is decreasing, putting pressure on higher education institutions. Slovak adults with tertiary education qualifications earn on average nearly 75 % more than those who attained upper-secondary education. The employment rate for higher education graduates was 80.3 % in 2015, compared to the EU average of 81.8 % (Eurostat, 2018b).

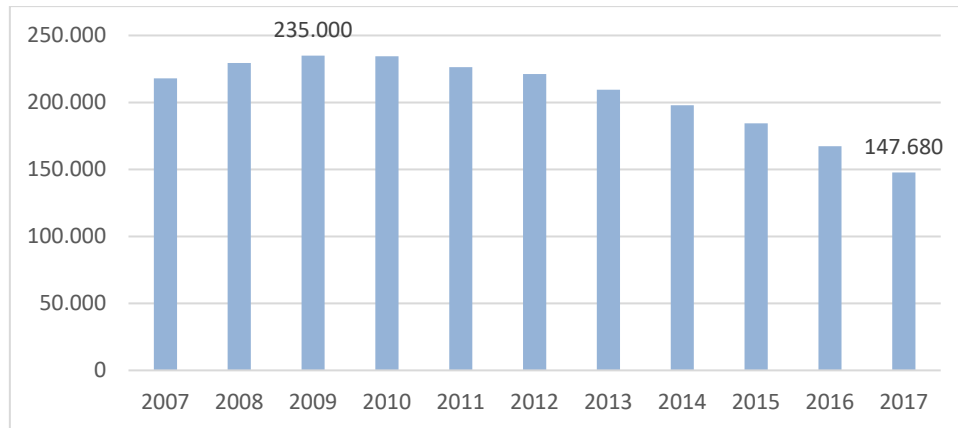


Figure 1: Students enrolled in tertiary education in Slovakia (2007 - 2017)

While income and wealth are two distinct concepts (Skopek, Bucholz and Blossfeld, 2014), both have been shown to influence the educational attainment across generations in families in different countries (Pfeffer and Hällsten, 2012). A family's income is not only related to prior educational attainment, but also to the possibilities for the acquisition of social and cultural capital and of course directly affects the amount of direct financial support a family is able to offer their children (Wightman and Danziger, 2014). In addition, family wealth may provide "insurance against negative mobility outcomes during the status attainment process" (Pfeffer and Hällsten, 2012). The highest shares of students from – by their own assessment – averagely well-off families can be found in Romania, Slovakia, Lithuania, and Norway, where at least 55 % of students agree (Figure 2).

Share of students (in %)

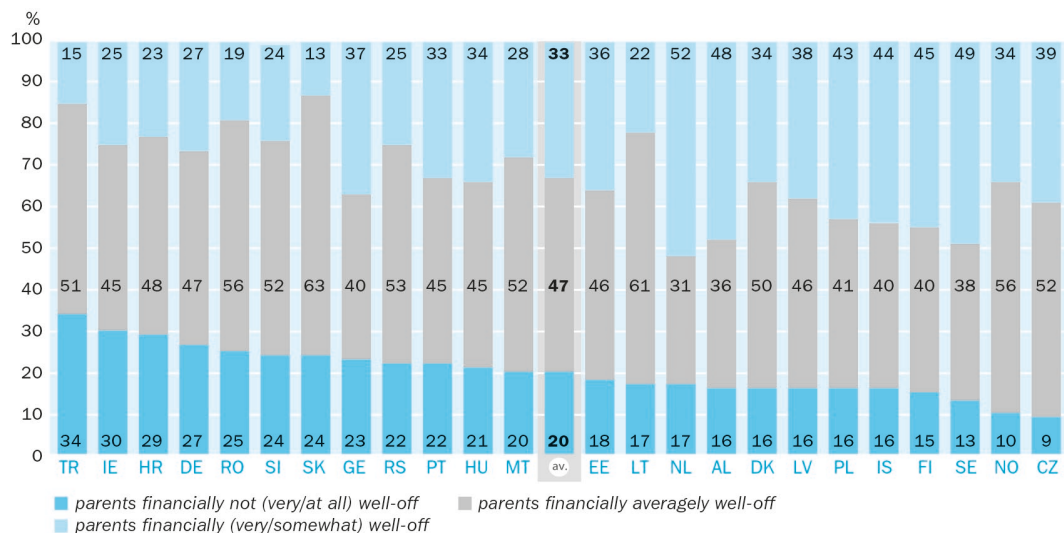


Figure 2: Students' assessment of parental financial status

The Financial Conditions Of Tertiary Students In Europe

In countries with a high GDP per capita – such as those at the bottom end of the axis – the overall price level is also usually markedly higher than in countries with a low GDP per capita (Figure 3). GDP per capita in Slovakia was under the EU 28 average in 2017 (Eurostat, 2018a). This will affect any minimum amount of income students need to cover their expenses (Stachová and Paškrťová, 2015). There are also indications that the students' expenses in the high-GDP countries are especially driven by their living costs. In Finland, Norway, Sweden, and Switzerland, students who are not living with parents spend on cross-country average 94 % of total expenses on living costs, whereas this share amounts only to 82 % across Armenia, Georgia, Serbia, and Slovakia

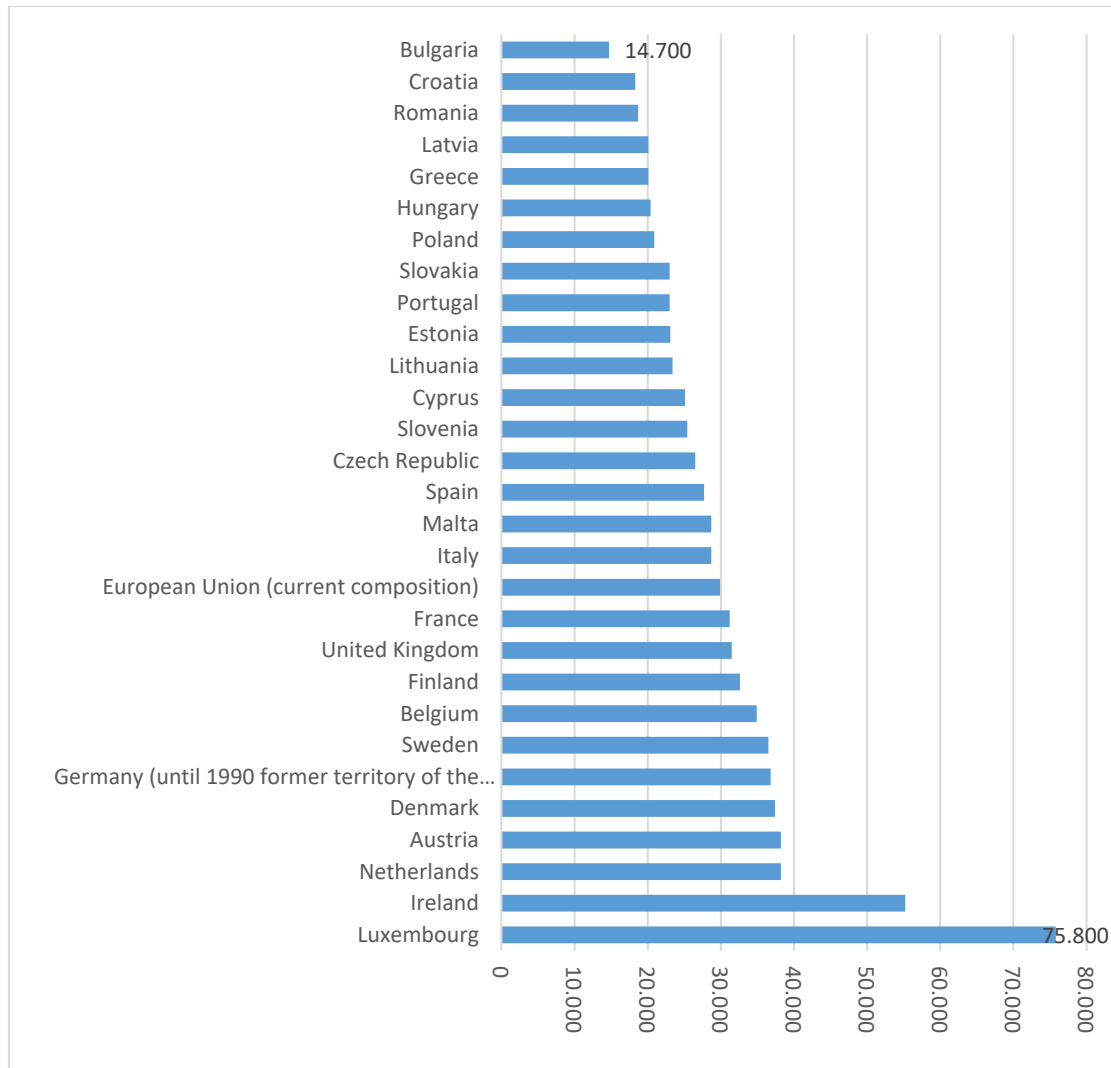


Figure 3: GDP per capita in PPS (2017)

On aggregate, students who are depending on family support dedicate 292 Euro per month to accommodation and utilities. Their peers who are depending on own earnings pay slightly less (287 Euro per month) for this purpose. Students who are depending on public support spend 215 Euro on housing. In all Scandinavian countries and Switzerland, the values for the three student groups are rather high. The amounts paid by students dependent on family support, for instance, are clearly above 500 Euro, with a maximum in Denmark with more than 1,200 Euro. In Latvia, Romania, Serbia, Slovakia, Georgia, and Armenia, the level of accommodation costs is relatively low. Students depending on family support spend less than 100 Euro per month on housing (Hauschildt, Vögtle, and Gwosc', 2018).

A student is depending on an income source if the respective source provides more than 50 % of total monthly income (including transfers in kind). Again, three sources are differentiated, which are considered to be the most important ones: "family support", "own earnings", and "public support" (Lacy, Conzelmann and Smith, 2018). There are clear differences between the student groups depending on the different sources (Looney and Yannelis, 2015). Across all countries displayed in the figure 4, students who depend on gainful employment receive on average a total income (from all sources) of 1,197 Euro per month. If students depend on family support they have a mean income of 959 Euro and those who depend on public support receive 607 Euro per month. On a more disaggregated level, this pattern is even clearer: Out of 25 countries for which data on at least two income groups are available, students who depend on own earnings have the highest income in 21 countries (Hauschildt, Gwosc', Netz, and Mishra, 2015). Only in Norway, Denmark, Malta, and Montenegro, there are students who are depending on family support who reach the highest income level.

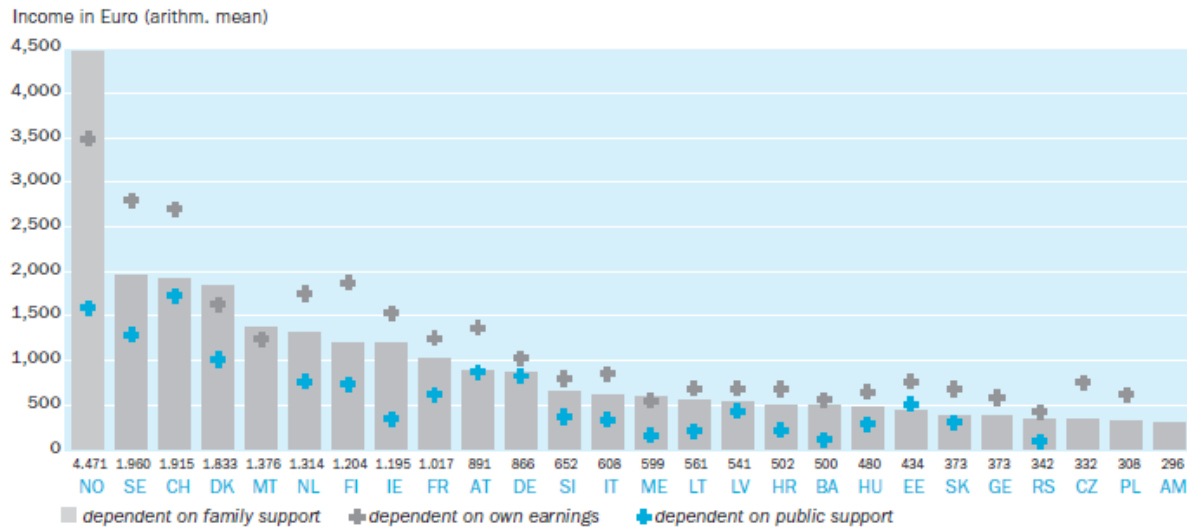


Figure 4: Magnitude of students' income by dependency on income source – students not living with parents

Most systems offer need-based grants to financially support the participation of disadvantaged students (Figure 5). Eligibility is determined on the basis of a set of socio-economic criteria. The most frequent criterion is family income. Other criteria include whether students live with their families, parents' employment status and/or education (Hungary), special educational needs or orphan status (Bulgaria and Romania) or whether students have dependent children. Seven countries (Bulgaria, Greece, Ireland, France, Italy, Cyprus and Austria) have developed grants based on a mixture of need- and merit-based criteria. Often these grants aim to reward academic performance giving priority to disadvantaged students. In Norway, all students can take a study loan and 40 % of their borrowed amount can be converted into a nonreimbursable grant if they pass all their exams and they do not live with their parents. About 49 % of first cycle full-time students obtained a grant in 2015/16. Grants with need- and merit-based criteria together are awarded on the basis of an assessment of the financial situation/socio-economic conditions of the students and academic performance. Countries may differ based on the weighting they give to certain criteria (need or merit). There is no grant based on socio-economic need in Latvia, Bosnia and Herzegovina, Iceland, Montenegro and Serbia. (Monks, 2014).

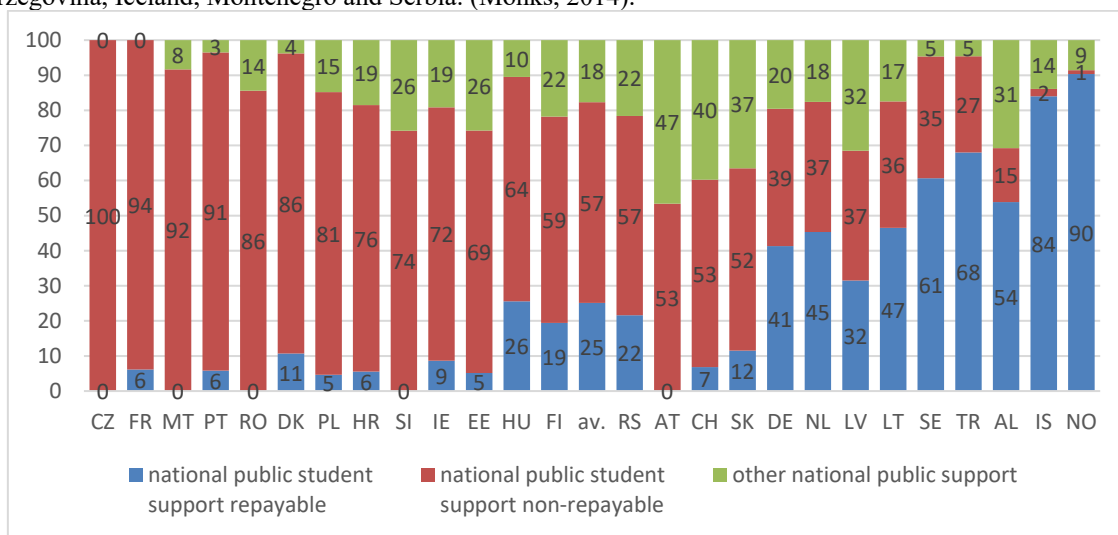


Figure 5: National public student support (2015)

Data And Methodology

Student income derives from a variety of public and private sources (OECD, 2017). Official statistics are usually not able to reflect all these income items. This already applies to the reporting of public support, especially when it is granted from various institutional levels. Especially in countries where students can receive public support directly from the HEI they attend, data on this sometimes cannot be included in the country's official statistics on public support.

Four sources of student income are distinguished. The respective categories are named family/partner contributions, public sources, self-earned income and other income. This source of student income refers to support

that students receive from their parents, other relatives, or their partner. It comprises on the one hand disposable income such as cash/money transfers which students can freely use for monthly spending (= transfers in cash). On the other hand, it contains so-called “transfers in kind”. Transfers in kind are students’ living and study-related costs that are paid by the students’ parents, other relatives, or their partner. Public sources comprise payments, which students receive directly from the state, usually because of their student status. It includes on the one hand grants and scholarships (= non-repayable support) and on the other hand loans which may be subject to interest or not (= repayable support). Support from all possible institutional levels as well as from the HE institutions (HEIs) is taken into account.

In collecting the data, we conducted an electronic survey in May 2018 from tertiary students studying at the HEIs in Slovakia or abroad. The survey was anonymous and went online through the website about students’ finance. Most of the participants were in the age of 19-24 years. The final reports of the EUROSTUDENT survey and the survey conducted by the authors of this study among a sample consists of 3 154 tertiary students are the main sources of data in this paper. The survey consists of 15 questions related to the financial habits of the tertiary students. The survey focused on three main topic areas: characteristics of students, students’ employment as well as current financial conditions.

Results

On cross-country average, 9 % of students report to currently have very serious financial difficulties and another 17 % state serious problems. There are seven countries, in which more than half of students have only slight or no difficulties at all; this includes Germany, Finland, Sweden, Slovakia, the Czech Republic, Switzerland, and the Netherlands (Figure 6).

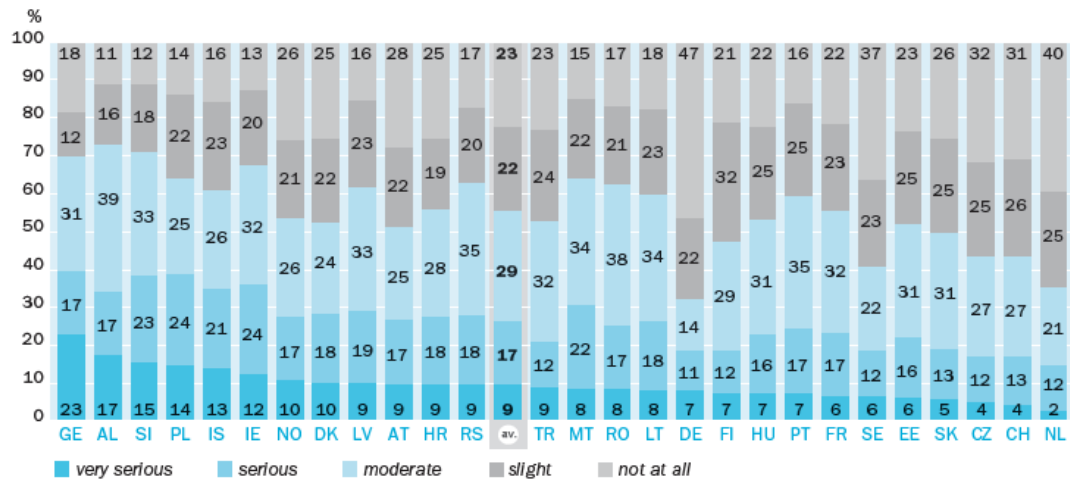


Figure 6: Students’ assessment of their financial situation

Figure 7 displays financial habits of tertiary students related to saving money. The results of the survey showed that around 44 % of tertiary students save money by themselves. More than third of tertiary students do not need to save money. Their current financial conditions are above the average. Their actual decision can lead to an irresponsible financial habit.

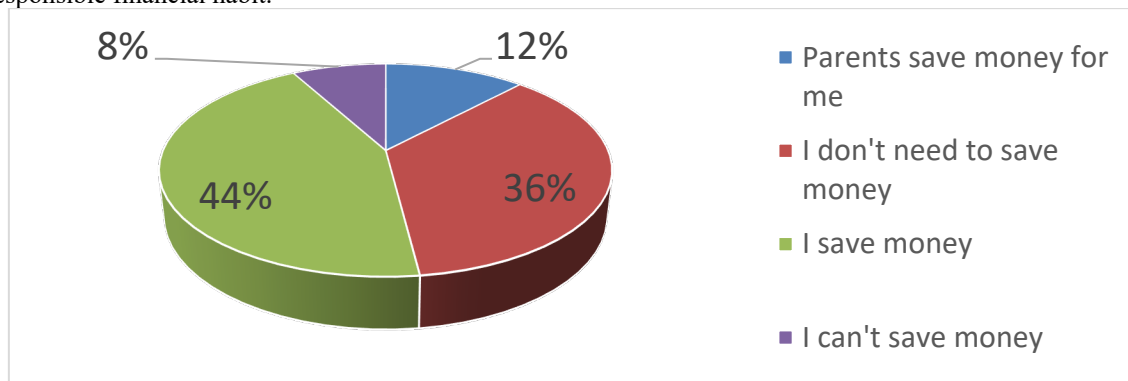


Figure 7: Are tertiary students in Slovakia saving money?

The amounts of self –earned income differ not only between countries, but also between various student groups (Figure 8). Monthly earnings of students with regular paid jobs during the lecture period differ greatly by field of

study. Students in the field of education, in business, administration and law, and in ICTs have rather high earnings, with cross - country median of more than 360 PPS per month. The median earnings are rather low at 240 PPS per month for students in the field of natural sciences, mathematics, statistics, as well as in agriculture, forestry, fisheries and veterinary subjects (Rall and Olin, 2018).

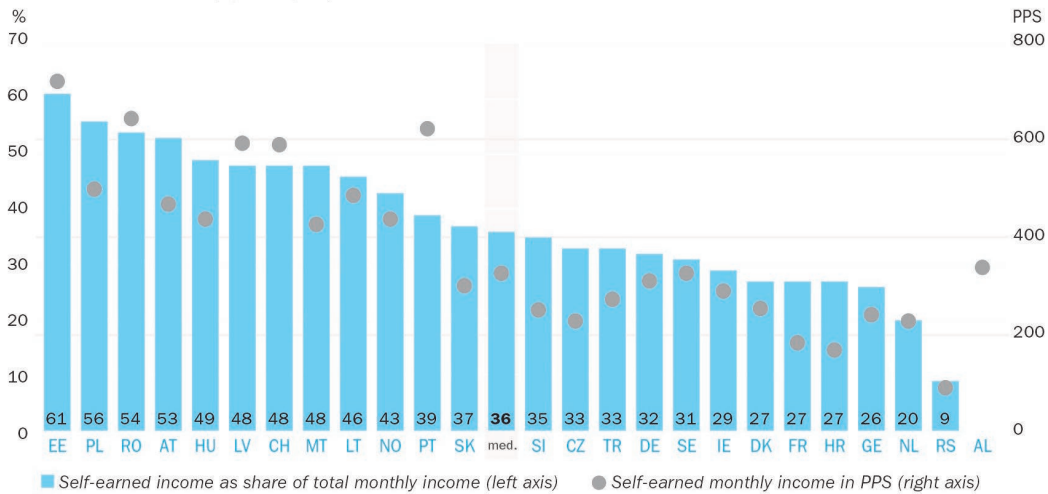


Figure 8: Students' income from current paid job

Figure 9 shows the frequency how often tertiary students in Slovakia save money. Most of students who save money by themselves save money regularly - every month. Almost one third of students saves money irregularly.

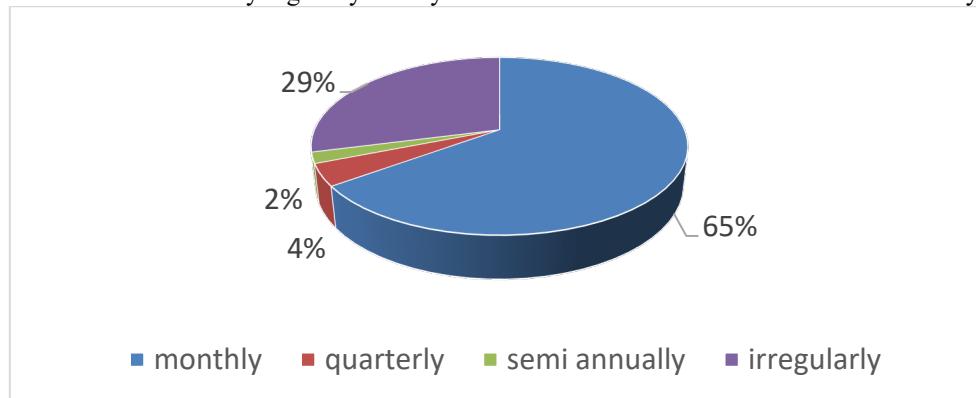


Figure 9: Tertiary students' frequency of saving money in Slovakia

Monthly saving is a responsible financial habit (Whatley, 2017). There is also evidence that the financial expectations of the head of household have an influence on their offspring's saving behavior (Shireman, 2017). Around a half of tertiary students saves money on monthly base between 10 and 29 euros.

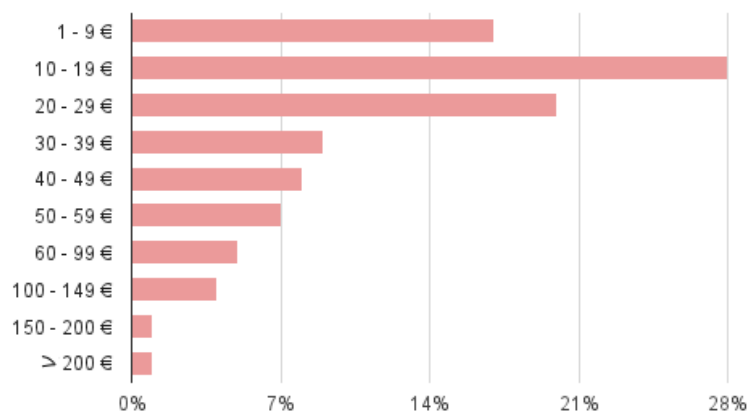


Figure 10: Amount of monthly saved money by tertiary students in Slovakia

Table 1: Total costs for student loans in Slovakia approved in the academic year 2017/2018

Amount of the loan	EUR 500	EUR 1 600	EUR 2 300
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Maturity	10 years	10 years	10 years
Postponed repayment	7 years	7 years	7 years
Annual interest rate	3.00 % p.a.	3.00 % p.a.	3.00 % p.a.
Monthly instalment	EUR 5.02	EUR 16.07	EUR 23.10
Annual percentage rate	1.57 % p.a.	1.57 % p.a.	1.57 % p.a.
Total paid	EUR 602.40	EUR 1928.40	EUR 2 772
Interests paid	EUR 102.40	EUR 328.40	EUR 472

The comparison of the state subsidised loan system and the commercial bank's model is showing the advantages of the student loans provided by the Education Support Fund (Table 1 and Table 2). The biggest disadvantage of the student loan provided by the commercial bank is immediate maturity of the student debt.

Table 2: Total costs for student loans provided by the Slovak commercial bank – Slovenska sporitelna, a.s. in 2018

Amount of the loan	EUR 1 000	EUR 2 300	EUR 8 500
Maturity	8 years	8 years	8 years
Postponed repayment	0 years	0 years	0 years
Annual interest rate	8.50 % p.a.	8.50 % p.a.	8.50 % p.a.
Monthly instalment	EUR 15.63	EUR 35.17	EUR 129.52
Annual percentage rate	10.86 % p.a.	10.22 % p.a.	10.12 % p.a.
Total paid	EUR 1 500.77	EUR 3 376.21	12 433.99
Interests paid	EUR 500.77	EUR 1 076.21	3 933.99

Table 3 identifies the most significant differences between the student loan from the Education Support Fund and the student loan from the commercial bank – Slovenska sporitelna, a.s. In case of the student loan from Slovenska sporitelna, a.s., the paid interest will reach EUR 1 076.21. Difference between interests paid in these two loans achieved EUR 604.21.

Table 3: Direct comparison of the student loan from the Education Support Fund with the student loan from the Slovak commercial bank

	Education Support Fund	Slovenska sporitelna, a.s.
Amount of the loan	EUR 2 300	EUR 2 300
Maturity	10 years	8 years
Postponed repayment	7 years	0 years
Annual interest rate	3.00 % p.a.	8.50 % p.a.
Monthly instalment	EUR 23.10	EUR 35.17
Annual percentage rate	1.57 % p.a.	10.22 % p.a.
Total paid	EUR 2 772	EUR 3 376.21
Interests paid	EUR 472	EUR 1 076.21

Conclusions

Our findings suggest that parental allowances/pocket money lower (increase) the probability that student saves. There is also evidence that the financial expectations of the head of household have an influence on their offspring's saving behavior.

Accommodation is, in all countries, an important expenditure item for students who have moved away from their parents' home and in more than four fifths of the countries observed it proves to be the most expensive item. However, depending on the type of housing, expenses for accommodation burden the budget of students and their

parents/partner in different ways. Students who are living alone supported by family/partner pay across the countries an average monthly amount for accommodation including utilities of 294 Euro. For students who are living with their partner/children the respective amount is 320 Euro. The average housing costs for living in a student accommodation amount to 212 Euro per month.

On aggregate across countries, the students' families/partners provide about half of students' total monthly income. Students themselves earn about one third of their income through gainful employment. Public support accounts roughly for one tenth of students' means. The rest is provided by other sources. These results hold for both groups, students who are living with parents and those who are not. Our research showed that tertiary students in Slovakia save money by themselves.

The most attractive for students is the student loan provided by the Education Support Fund. The best loans for students will almost always be the loans designed exclusively for them and provided by the Education Support Fund. These state subsidized loans are the most popular due to the lowest interest rate and the easiest to obtain.

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Attitudes of English Language & Literature Students towards Methodology Courses

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Abstract:

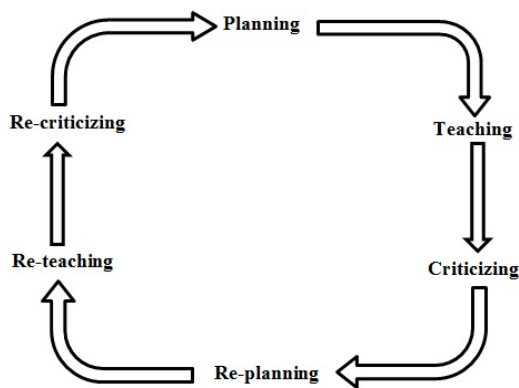
This paper evaluates the attitudes of Bulent Ecevit University English Language & Literature Department third year students towards microteaching experiences. The research was conducted with a total of 59 students. The data were collected via a five-point Likert-type scale questionnaire developed by the researcher. The research results were evaluated regarding the benefits and disadvantages of microteaching. The findings revealed that although microteaching experience was short, it provided students to have a sample picture of a real classroom and themselves as teachers.

Keywords: *Microteaching; student-teacher attitudes; ELT; teaching experience*

Introduction

Microteaching as a professional development tool provides students with opportunities to explore and reflect on their own and others' teaching styles. In the process of microteaching, students acquire new teaching techniques and strategies and develop their teaching skills. Thus, we may state that it has an important role in preparing students for the teaching profession. A number of studies reveal that microteaching is an effective means of improving student teachers' teaching skills depending on the preparation of lesson plans (Yeany, 1978, Arends, 2000; Demirel, 2004) and a tool of continuous training applicable at all stages of the teaching profession. Microteaching is "a favorable learning and teaching experience" (Ogeyik, 2009; p, 210).

Figure 1. Stages of Microteaching



Microteaching is teacher-training technique which practices one skill at a time, reducing the duration of micro lesson to 5-10 minutes and limiting the content. The students are provided immediate feedback from their peers and the instructor. The microteaching cycle, in general, includes the stages shown in Figure 1 below; process of teaching, criticizing, re-planning, re-teaching and re-criticizing (Peker, 2009).

Some researchers believe it enables student teachers to improve pedagogical skills in presentation and participation or to increase the range of behaviors (Mayhew, 1982). Others claim microteaching can create awareness among student teachers of the values, assumptions and attitudes that inform their practice. Sadiq (2011) highlights the fact that microteaching is more

beneficial for pre-service teachers because they are more receptive to feedback and that microteaching encourages self-evaluation. Sadker and Cooper (1972) believe in the importance of microteaching in creating greater awareness on teachers' behavior. Among them are specific personal habits and mannerism, teaching acts and techniques, activities and interrelationships of children in the classroom, problems of structuring and pacing in the classroom and effective acquisition of alternative teaching patterns.

Students attending the English Language & Literature Departments in Turkey generally prefer to work as English teachers or instructors. Since they lack the basic teaching training provided in English Language Teaching departments, they start teaching with advanced level of English proficiency; however, without any theoretical or practical knowledge in language teaching. They pay a high fee and take "Teacher Training Practicum" for a year beforehand. Generally, professors from other departments give courses in the practicum, and they lack English Language Teaching background. In 2016-2017 education year fall term, third year students attending the English Language & Literature Department at Bulent Ecevit University attended elective "Methodology I and II" courses. The goal of Methodology I and II courses in English Language and Literature department was to provide students with English Language Teaching background and an awareness on teaching English. The Methodology I syllabus included overall structure and how to teach four language skills; reading, writing, speaking and listening, a brief summary of approaches, how to prepare a lesson plan and microteaching. The aim of the course was to raise consciousness in students about teaching profession with the theory and practice. Students prepared 10-minute microteaching sessions in their own class. In Methodology II course, students attended classes in near-by state primary, secondary and high schools. They were called teacher-trainees in official papers to receive permission; thus, they were known as teacher-trainees by the students in those schools. There was a group of four teacher-trainees in each classroom. They observed the teacher of the class for 6 weeks, and then, they taught lessons for 4

weeks. Each teacher-trainee has taught at least 4 lessons under supervision of the teacher of the class and their professor. The other group members observed them while teaching.

The Findings The aim of this study was to identify thoughts and attitudes of students taking “Methodology I and II” courses to understand whether the courses have reached their aim or not. Thus, firstly, a questionnaire on the attitudes towards and beliefs on microteaching was administered to the students taking “Methodology I” course after they have fulfilled their microteaching sessions. The aim of the questionnaire was to make students reflect on their microteaching experience and learn about their first-microteaching experiences.

The results displayed in Table 1 indicate that almost all students believe microteaching was beneficial for their future occupation to see course designs in different linguistic and age levels through microteaching activities. For most of the students microteaching offered them a practical opportunity to teach a lesson and gave them an opportunity to improve their lesson planning. It also encouraged most of the students to develop teaching activities and materials, and it was enjoyable and beneficial when applied individually. Microteaching gave them an opportunity to learn by observing others, and it was beneficial for evaluating their teaching performance.

Table 1. The Results of Frequency Analysis of the Microteaching Questionnaire

No	Microteaching	Frequency %	
		Mean	Std D
1	consumed a lot of my time.	3,31	1,307
2	was carried out in an artificial environment	3,38	1,024
3	forced me to do difficult tasks	3,08	1,269
4	made me feel embarrassed when teaching my colleagues	3,00	1,321
5	forced me to think of the evaluation criteria while planning	3,38	1,214
6	helped me learn to organize my time	3,98	,934
7	helped me learn how to manage the class	4,12	1,044
8	offered me a practical opportunity to teach a lesson	4,25	,688
9	gave me an opportunity to improve my lesson planning	4,23	,660
10	encouraged me to develop teaching activities and materials	4,15	,875
11	helped me learn to use technology appropriately	3,77	1,115
12	helped me develop awareness of my teaching competence	3,94	,998
13	helped me develop the actual teaching skills I'll need later.	4,00	,989
14	gave me an opportunity to learn by observing others	4,10	,751
15	made me aware of what makes a good teacher	4,00	1,011
16	helped me discover my teaching strengths and weaknesses	4,00	,923
17	helped me develop confidence in my speaking ability	3,75	1,158
18	helped me learn to speak clearly	3,58	1,145
19	allowed me to apply ideas I learned from different courses	3,75	,934
20	raised my motivation in the present methods course	3,81	1,104
21	helped me to better understand different teaching methods	4,04	,988
22	was beneficial for my future occupation to see course designs in different linguistic and age levels through microteaching activities	4,85	,850
23	forced me to learn how to prepare lesson plans	3,79	,944
24	was beneficial for evaluating my teaching performance	4,10	,805
25	was enjoyable and beneficial when applied individually	4,12	,733
26	was time consuming (i.e., not useful)	2,60	1,300

In the second term, these students attended “Teacher Training Practicum” in Methodology II course. They attended English classes with the English teacher of the class in groups of four in state primary, secondary and high schools. There were 56 students taking the course. Primary and secondary schools had 2 hour-English lessons every week for each class starting with 2nd grade. Anatolian High schools had 6 hour-English courses every week for each class. Thus, we had a variety of schools for “Teacher Training Practicum”. The students fulfilled a ten-week program; six weeks for observation and 4 weeks for teaching. They prepared a file including their observation of the school, the class, the teacher, the lessons, the materials, the technological devices, the methods and techniques the teacher used and their class-mates while they were teaching. They wrote reports each week reflecting on one.

They also reflected on their own teaching experience. The teacher and their instructor observed them while teaching and reported their observations both orally and written. They were asked to write about the benefits and shortcomings of “Teacher Training Practicum” at the end of the term. The researcher grouped their answers below as “The benefits of Teacher Training Practicum”:

- it helped them to put theory in practice
- made them the responsible of the class
- gave them self-confidence
- became aware of the difficulties of teaching
- made them realize that they are role-models for the students
- gained experience in communicating with students
- learned to be patient
- gained experience in preparing lesson plans
- realized that they should have extra materials or extra plans
- gained classroom management skills
- learned how to plan/ organize a lesson
- learned how to prepare materials
- realized the dimensions of the teaching profession

The shortcomings of the program:

- it made them feel the pressure of being a role model
- communicating with students was difficult
- they had discipline problems in the classroom
- it was hard to prepare students to start a lesson, and it took time
- they were nervous, and it caused them to make mistakes or forget things
- their time-management skills were not adequate
- they could not use smart boards effectively
- they had low self-confidence
- they couldn't understand clearly whether the students grabbed the content or the pattern or not
- they were regarded as student-teachers by the students and the teachers in schools
- it was hard to be a student and a teacher at the same time
- they felt they needed to be more talkative, patient and outgoing for a good lesson
- it was very short
-

Conclusion

As the related literature suggests, microteaching is effective in developing teaching skills. This study also suggests and supports that although microteaching experience was short, it provided students to have a sample picture of a real classroom and themselves as teachers. The constructive feedback on their teaching styles, performance and material evaluation provided after the observation may assist them to become aware of themselves with their strengths and weaknesses as teachers.

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Attitudes Of Students And Faculty Members At The College Of Communication Toward The Blackboard Usage In The Practical Courses.

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Abstract

There are many scientific and electronic methods that support the educational process and transform it from the stage of indoctrination to the stage of creativity, interaction and skills development, in terms of using the latest methods in the fields of education and management of the educational system, in light of the boom and rapid transfer in the field of technology, Self-development, especially in the fields and patterns of e-learning.

Despite the importance of learning management systems, only about 15% of Arab universities have e-learning management systems that include open universities, virtual universities, some science and technology universities in Arab countries, Gulf universities,

The aim of the research is to study the reality of the attitude of students and faculty members in the communication field of the Black Board Learning Management System, especially in the practical courses. To achieve this goal, the research attempted to answer the following questions:

- What is the use of students and faculty members for the practical courses at the faculty of communication for the Blackboard system?
- What are the views of students and faculty members on the practical courses at the Faculty of Communication on the pros and cons of using the Blackboard?
- Are there any statistically significant differentiation between the responses of the study sample towards the use of Blackboard system due to the variable of degree?
- Are there any statistically significant differentiation between the responses of the study sample from faculty members towards the use of the Blackboard system due to the variable training courses?

Based on the objectives of the research and its questions, the researcher used the descriptive approach to suit the research objectives. The research sample was chosen for a community of 100 students and 19 faculty members in the faculty of communication. The researcher used the questionnaire as a main research tool.

The research found that e-mail and forums are the most active tasks by students, and duties are the most active among the faculty members, and participated in the fact that the glossary of terms less operational tasks. The disadvantages of the system from the point of view of the students are the lack of follow-up of some of the teachers to the site of the course, and the need for a long time to follow up and management of the decisions from the point of view of faculty members. And the absence of significant differences between the responses of the research sample from the faculty members towards the use of the Blackboard system) due to the variables of the degree and training courses.

The researcher recommended adding the standard of using the Blackboard system for learning management within the standards of assessment of faculty members at College of Communication.

Keywords: *Blackboard, Blackboard usage, Colleges of Applied Sciences, Faculty members,*

Introduction

Media and its arts studies rely heavily on developments in information, communication and technology. Most of the operative concepts like 'Information and Network Society', 'Knowledge-based Economy', 'Interactivity', 'Mediation', 'E-Learning', 'New Media', 'Cyborg' and so on, are founded on technological innovations.

These concepts would not have entered the academic curricula without social and cultural values that provide the necessary political, educational and business frameworks. Thus, the link between theoretical frameworks and practical developments is crucial in media studies.

However, traditionally, many academics in media studies have theorized on technology without firsthand experience. Some of experts describe how the lack of experience and practice in media and technology among European media scholars and lecturers leads to a situation of widespread disdain for media industries, such as television, games and the Internet.

As a result, the young students of media studies do not consider practice and effort in learning technology as a fundamental necessity of theorizing media.

Teachers and students are still somehow used to a talking head, the professor, and an audience taking notes. (Shirmacher, 1991)

A scholar of new media needs to be in tune with new developments in the media industries and know how to incorporate them into his/her pedagogy.

Practice has to be reflected upon, while theory needs to be grounded in actual experience. Among other strategies to help students understand the importance of collaboration between theorists and practitioners.

Teaching theory is challenging, especially theories of new media. The concepts are often abstract and may seem speculative to students who do not have experience with either art or creative media. Using relevant examples can help alleviate the problem of comprehension, but this method has limitations.

Students learn mainly from their practical creative projects that constitute the largest proportion of the final grade.

Currently, educational community became one of the communities which radically modified because of the information revolution that affected all fields of life.

Education turned from the learning based on transferring knowledge from the teacher, to student-based learning due to new technology utilizing in teaching, such as Learning Management System (Blackboard).

Learning Management Systems (LMS), such as Blackboard are innovative technological applications that support the endeavor of online learning and e-learning especially in the institutions of higher education.

With its varying features as instructional tools Blackboard offers faculty innovative choices in delivering classroom content in spite the distance and time (D'silva and Reeder, 2005).

Blackboard has many features that support teaching and learning because it is available to both students and their teachers as a web-based and accessed Platform on the internet. So, faculty can upload their course materials, lecture, quizzes, assignments, and grades, all of which students can access blackboard anytime, anywhere.

Blackboard is considered as a fast communication tool not only between students and their instructors but also between the students themselves.

This kind of communication between the students themselves can use a different kinds of tools such as announcements, discussion boards, virtual classroom, blogs and email options (Bradford, et al, 2007).

Currently, many educational specialists consider e-learning as one of the promising types of learning which enhance learning and education to motivate learners to continue education (Al-Khaneen, 2017).

Review of Literature

Education literature states that students' actively engaging with content and assuming larger responsibility for learning are keys to knowledge retention.

The rationale for moving toward a more learner-centered teaching approach instead of passive instruction varies among curricula. Many proponents of such pedagogy often cite the need to engage students, develop problem-solving and critical-thinking skills, and enhance application of course content as reasons for implementation.

Our analysis aimed to present the findings of a student survey about their attitudes toward change in the course format, homework completion, their academic performance, and incoming grade point average (GPA) ranges based on preference for content delivery.

Literature review Research on college-level online learning, though sparse and sparse, as analyzed in the synthesis study by Patrick & Powell (2009), revealed "no significant difference" in student performance in online courses versus traditional face-to-face courses; and in particular programs, researchers also found that students learning online are performing "equally well or better" than their peers in traditional instructional media (Patrick & Powell, 2009, p. 8).

The present study is compatible with lots of previous studies in the objective, investigating the effectiveness of e-learning in the development of academic achievement such as Al-Kandri study who aimed to identify the impact of using e-activities in Blackboard- based learning on the academic achievement and motivation in the Environmental Education Course, College of Education, Kuwait University. His study comprised experimental group, of 102 students, that utilized e-learning strategy through Blackboard with e-activities and control group of 50 students that assumed e-learning through Blackboard without e-activities.

His study Results showed significant differences between the average scores of both groups' students in the academic achievement in favor of the experimental group. (Al-Kandri, 2013) ; and Al-Kadri study which aimed to identify the effectiveness of teaching physics electronically utilizing Blackboard on 52 of third-year students achievement of physics concepts on two groups; where the experimental group studied on the internet, the control group adopted the traditional method.

Results showed significant differences in the achievement test of physics concepts in favor of the experimental group. (Al-Kadri, 2013); Akyuz (2009) examined the effects of blended learning on students' critical thinking skills.

The sample of this study comprised 44 students in the computer department at Ankara University. This study used the pretest posttest single model.

Findings indicated no significant difference between pretest and posttest results. According to the researcher, this may be attributed to the short duration of the study (five weeks).

The study of Abdel Aziz aimed to investigate the impact of comprehensive, blended and supporting e-learning level in teaching courses based on the e-learning management system "Blackboard" on cognitive achievement and learning

competence among the 195 female students on three groups: comprehensive e-learning system blended e-learning system and supporting e-learning system.

It showed significant differences in favor of supporting e-learning in academic achievement and learning competence (Abdel Aziz, 2014); Artino (2010) examined the relation between personal factors and students' choice of instructional format.

Findings showed that students who preferred to enroll in online courses reported greater confidence in their ability to learn online and greater satisfaction with their online learning experience than other students.

Sawafta and Al-Garewai studied the effectiveness Blackboard in achievement of physics and learning retention among 53 students divided into two groups; where the experimental group studied physics by Blackboard and control group studied the same course traditionally.

Results indicated the effectiveness of Blackboard in both direct and delayed achievement among the students. (Sawafta & Al Garewai, 2016), regarding self-confidence, Al-Ghamdi and Afshi aimed to explore the effectiveness of collaborative e-learning strategy in the development of self-confidence and critical thinking skills among 12 students divided into both experimental and control groups.

Results showed no significant differences in self-confidence scale and critical thinking test which concluded that literature illustrates the interest in blended teaching, based on Blackboard and the development of study skills and self-confidence. (Al-Ghamdi & Afshi, 2017).

Aliweh (2011) explored Egyptian EFL students' learning styles and satisfaction with web-based materials, and the study showed highly positive perceptions because of an array of benefits (e.g., usefulness, enjoyment, accessibility, convenience, and richness of resources).

Although students' gender had a significant effect on students' learning style preferences, it had no bearing on their satisfaction with web-based materials. Bendania (2011) attempted to explore instructors' and learners' attitudes toward teaching and learning online at King Fahd University of Petroleum and Minerals in Saudi Arabia.

The results of the study showed positive attitudes toward the use of ICT in instruction and learning. In this study, the factors related to attitudes, mainly experience, confidence, enjoyment, usefulness, intention to use, motivation and whether students had ICT skills were all correlated.

Finally, in her study of the obstacles facing faculty members in using Blackboard as a blended learning system in Saudi Arabia, El Zawaidy also found lack of needed training in using ICT as being the main obstacles.

She also found that slowness of internet signal tended to interrupt faculty use (El Zawaidy, 2014). Limited experience and unfamiliarity with Blackboard, which can be linked to insufficient training and support, besides technology constraints, is one of the factors highlighted by researchers in the field.

Previous studies aimed to investigate the effectiveness of blended teaching, based on the e-learning management system "Blackboard", in the development of various variables, such as academic achievement

This paper matches the former studies concerning the academic level of the participants; university students. However, it only handled the effectiveness of blended teaching, based on the e-learning management system "Blackboard", in the development of academic achievement, study skills and self-confidence among students.

Statement of the Problem

The traditional educational systems at universities are no longer able to meet the needs of all those wishing to enroll in higher education. Because of the increasing number of people who wishing to obtain university education, the sources of knowledge acquisition have become more widespread. The principle of lifelong learning and self-learning has become an urgent necessity.

There has also been a need to facilitate knowledge dissemination among learners on the basis of ICT.

The Black Board system is considered as one of the methods of achieving e-learning. It has been applied at University of Sharjah for many years in all colleges.

Because of the students in the traditional education have no role in gaining and developing information in a proper way, this kind of education method proved inappropriate for the students of this stage who should gain and apply knowledge by themselves.

It doesn't also match the prospects of learners who are preoccupied with modern technology, e.g. tablets and smart phones, which they handle efficiently and proudly.

Moreover, university classroom teaching faces some educational issues, such as the tremendous number of students in the classroom. Consequently, students cannot comprehend and follow-up the course easily and on time.

Also, the instructor is unable to identify individual differences among students and apply the strategies of modern teaching. Blended teaching, which solves the problem of the large number of students in classrooms, is one of the strategies which can be utilized and blended with classroom learning.

The present study aims to investigate the differences between the students and their teachers' attitude toward the e-learning management system "Blackboard" as one of the most famous platform of blended teaching.

Study Questions

This study asking the following main question: What is the students and their teachers' attitude toward the e-learning management system "Blackboard"?

It is further subdivided into the following minor questions:

- 1) What is the effectiveness of blended teaching, based on the e-learning management system "Blackboard", in the development of study skills among the students?
- 2) What is the use of students and faculty members for the practical courses at the faculty of communication for the Blackboard system?
- 3) What are the views of students and faculty members on the practical courses at the Faculty of Communication on the pros and cons of using the Blackboard?
- 4) What are students and faculty's perceptions regarding the advantages and limitations of blended e-learning?
- 5) To which extend there are any significant differentiation between the responses of the study sample towards the use of Blackboard system due to the variable of degree?
- 6) To which extend there are any significant differentiation between the responses of the study sample from faculty members towards the use of the Blackboard system due to the variable training courses?

Definition of Terms

Blended teaching is considered as a blending e-learning with traditional teaching to overcome its weaknesses (Al-Omari, 2013). It is defined procedurally as combining teaching based on classroom traditional teaching and the e-learning management system "Blackboard" and its technologies where the practical courses of media and its evaluation is presented.

Learning Management System "Blackboard": According to the official site of Blackboard Company, it is software that enhances virtual learning environments to keep pace with traditional learning and distance education programs. Thus, learners will be capable of managing courses efficiently, creating course content, making tests and enhancing collaborative learning. It also helps educational institutions accomplish objectives of learning, communication and assessment through providing course management facilities, discussion board, virtual classrooms, cooperative projects, questionnaires, assessment and other learning tools. It is defined procedurally as a learning management system that presents the practical courses of media and its evaluation and e-content using text, sound, video, image, movement and drawings to match student learning methods, cooperative learning through discussion forums, assessment through assignments, tests and questionnaires, following-up through student evaluation center, and virtual classrooms.

The attitude, in psychology, an attitude refers to a set of emotions, beliefs, and behaviors toward a particular object, person, thing, or event. Attitudes are often the result of experience or upbringing, and they can have a powerful influence over behavior.

Research Instrument

A questionnaire was designed to collect the data required for this research from faculty members and students in the college of communication, University of Sharjah. The Questionnaire of students consisted of three parts:

- The first part was designed to collect demographic information about students, i.e. gender, age, and the specialization. The information collected by this section is used to explore the variation in Blackboard usage among students as a result of these demographic variables, and thus to answer the second research question.
- The second part consisted of 8 items eliciting from students their reported use of different functions of Blackboard. The data obtained from these items is used to answer the research questions.
- The third part contained 20 items relating to assist the student's experience of learning and studying perceive as having an effect on their Blackboard usage (resources availability on blackboard, general effectiveness of blackboard on their teaching experience and attitudes). In this section the participants were asked to give their opinions about each statement using a five point-scale (1= Disagree, 2=Disagree somewhat, 3=unsure 4=agree somewhat, 5=agree).

The second Questionnaire was to faculty members consisted of two parts:

- The first part was designed to collect demographic information about faculty, i.e. gender, age, academic rank, teaching experience and specializations. The information collected by this part is used to explore the variation in Blackboard usage among faculty members as a result of these demographic variables, and thus to answer the research question.

-The second part consisted of 25 items eliciting from faculty members their reported use of different functions of Blackboard. The data obtained from these items is used to answer the research question. In this part the participants were asked to rate their usage of each function of Blackboard using a five-point scale (1=disagree, 2=disagree somewhat, 3=unsure, 4=agree somewhat, 5=agree).

Methodology

This study applied a descriptive method employing quantitative data collection and analyses methods through the administration of two instruments: Students and faculty's Perceptions and Attitudes towards the effectiveness of blackboard as an educational platform to teach the practical courses in media studies field.

This study made use of two surveys: a survey that was distributed to a sample of students and a the other one to the faculty members at the college of Communication, university of Sharjah, dealing with different dimensions of attitude towards using virtual learning technology, Perceived Self-effectiveness, Enjoyment, Usefulness and System Satisfaction. Each item was statements indicating a positive attitude towards the dimension in which it was located and respondents were asked to respond on a five point scale ranging from strongly agree with statements presented to strongly disagree.

Sampling and Population

Sample of 250 out of 850 students were chosen to participate in the study, but only 204 of them has been responded. This number included 33 male and 171females. Regarding the sample of faculty, the college's entire faculty participated in this survey (20 faculty members).

Survey was distributed to a sample of 204 students of different educational levels randomly drawn from the student population of the college of communication, University of Sharjah. The Faculty's Perceptions and Attitudes towards Online Testing Survey were distributed to 25 teachers in the college of the same institution.

Student's Sample

As shown in table (1) below, 204 students from the college of communication participated in this study. This table provides a detailed description of the research sample. Within the semester, 204 students (92.73% response rate) completed the survey. 83.82% of participants were female, and 46.57% were juniors and 42.16 were seniors, age of 44.61 of them between 20-24 years and 42.16 of them between 18-20, Broadcasting came on the top of specialization with 32.35%, then graphic design with 23.35% while public relation came at the end of specialization list with 21.57% which reflect the demographics of the college of communication student body.

48.04% of them study practical courses via blackboard, and 53.92% of them rated themselves as excellent in computer literacy and 40.96% of them as very good.

In the survey, students were provided with examples of blackboard tools types of and, based on those, expressed content delivery preferences as follows: traditional lecture-based (traditional, 19%),

Table 1
Description of the students' sample

Independent Variables	Categories	N.	%
Academic Level	2 nd year undergraduate	23	11.27
	3 rd year Undergraduate	95	46.57
	4 th year undergraduate	86	42.16
Gender	Male	33	16.18
	Female	171	83.82
Age	18-20	86	42.16
	20-24	91	44.61
	More than 24	27	13.23
Specialization	Public Relations	44	21.57
	Graphic Design	48	23.53
	Broadcasting	66	32.35
	Mass Communication	46	22.55
	General		

Number of practical courses via blackboard	1-2	98	48.04
	2-3	91	44.61
	3-4	15	07.35
Computer literacy	Weak	00	00.00
	Good	11	05.39
	Very good	83	40.69
	Excellent	110	53.92

Faculty's sample:

As shown in table (2) below, 20 faculties from the college of communication participated in this study. This table provides a detailed description of the research sample. All faculty members at the college of communication completed the survey. The job ranking of 35% of them are associate professors, the age of 40% of them are between 45-55 years old.

Public relations came on the top of specialization of the faculty with 45%, then mass communication (general) with 35% while graphic design came at the end of specialization list with 10% which reflect the demographics of the college of communication faculty body.

48.04% of them study practical courses via blackboard, and 53.92% of them rated themselves as excellent in computer literacy and 40.96% of them as very good.

In the survey, students were provided with examples of blackboard tools types of and, based on those, expressed content delivery preferences as follows: traditional lecture-based (traditional, 19%),

Table 2
Description of the faculty's sample

Independent Variables	Categories	N.	%
Job/Position	Lecturer	06	30%
	Assistant Professor	05	25%
	Associate Professor	07	35%
	Full Professor	02	10%
Age	25-35	07	35%
	35-45	01	05%
	45-55	08	40%
	55 and above	04	20%
Specialization	Public Relations	09	45%
	Graphic Design	02	10%
	Broadcasting	04	20%
	Mass Communication(General)	07	35%
Teaching any practical courses	Yes	12	60%
	No	8	40%
Teaching Experience	Less than 5 years	06	30%
	5-10 year	05	25%
	10-20 year	05	25%
	More than 20 years	04	20%

Evaluation and Assessment:

Students usage of Blackboard:

Table 3

Student's usage of Blackboard

Independent Variables	Categories	N.	%
having a computer at home	Yes	200	98.040
	No	04	01.960
having Internet connection at home	Yes	189	92.647
	No	15	07.353
hours of using Blackboard per day	Less than 1 hour	79	38.725
	1 to 3	113	55.392
	3 to 5	12	05.883
	Above 5	00	00.000
Accessing Blackboard ratio	Daily	32	15.686
	Every other day	41	20.098
	Twice a week	128	62.745
	Once a week	03	01.471
	Less than once a week	00	00.000
	Occasionally	00	00.000
type(s) of networked device	Mobile Phone	184	90.196
	Tablet(e.g., iPad,Nexus,Galaxy)	12	05.882
	Laptop/netbook computer	202	99.019
	Desktop computer	196	96.078

Within the spring semester 2017/2018, 204 students (92.73% response rate) completed the survey. 83.82% of participants were female, and 46.57% were juniors and 42.16 were seniors, which reflect the demographics of the college of communication student body.

53.93% of them rated themselves as excellent in computer literacy and 40.96% of them as very good.

In the survey, students were provided with examples of blackboard tools types of and, based on those, expressed content delivery preferences as follows: traditional lecture-based (traditional, 19%).

Table (2) indicated that the majority of students having a computer and Internet connection at home and they are accessing Blackboard 1 to 3 hours per day, twice a week. Most of them access Blackboard by Laptop/netbook computer, then Desktop computer and Mobile Phones.

Student's usage of Blackboard features:

Figure (1)

Student's usage of Blackboard features

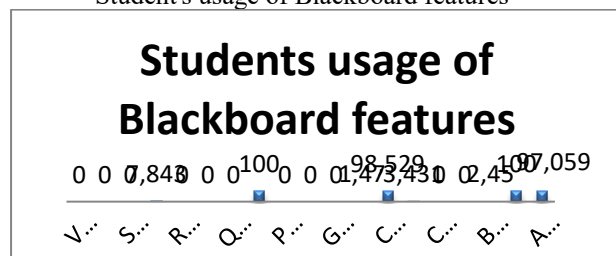


Figure (1) indicated that the majority of students are using only 4 of blackboard features with a very high percentage more than 97%.

Students 'experience of learning and studying

When students have been asked to give their reaction to every comment listed below, indicating how they really have been studying, they indicated the following:

Students' perceptions regarding the advantages and disadvantage of Blackboard

Table 4

Students' perceptions of Blackboard

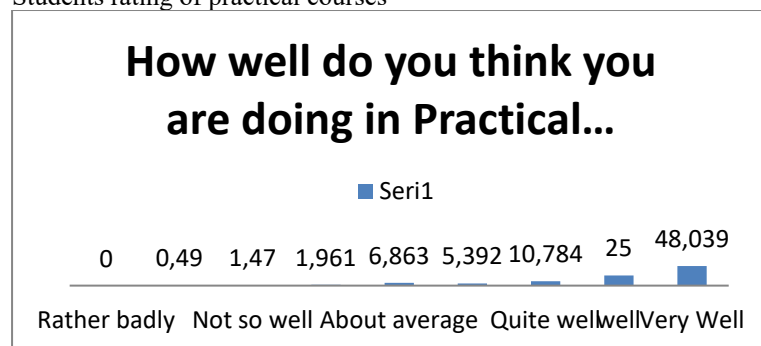
The Statements	agree	agree somewhat	unsure	Disagree somewhat	disagree	Mean	SLD
1. In e-learning by Blackboard, a good interaction using appropriate technology can give the same result of traditional education?	22 10.784	23 11.274	61 29.902	18 8.823	80 39.216	3.99A	1.2
2. I always organise my study time carefully to make the best use of it.	15 07.353	41 20.098	112 54.902	16 07.843	20 09.804	3.69A	1.1
3. Lecture notes and slides on Blackboard allow me to read ahead of the lectures and prepare in advance; I know 'what I'm going in for' when I go to lectures.	24 11.765	12 05.882	20 09.804	60 29.412	88 43.137	3.62A	1.2
4. Lecture notes and slides available on Blackboard help me to revise after lectures of my practical courses	71 34.803	56 27.451	23 11.274	32 15.686	22 10.784	3.62A	1.1
5. Technology plays a key role in the delivery of learning by using Blackboard and can affect positively?	90 44.117	32 15.686	22 10.784	31 15.196	29 14.216	3.61A	1.1
6. Lecture notes and slides available on Blackboard help me to complete the notes that I took during lectures my practical courses	122 59.804	61 29.902	02 00.980	10 04.902	09 04.412	3.63A	1.2
7. Notes and other video material on Blackboard help me to understand lectures or topics that I found difficult in my practical courses	109 53.431	42 20.588	14 06.863	19 9.314	20 09.804	3.59A	1
8. Is Blackboard student's users (learn) in practical courses of Media as much as students receiving traditional face-to-face instruction?	10 04.902	18 08.823	09 04.412	52 25.490	115 56.372	3.72A	1.1
9. Blackboard is helpful for me to catch up on the practical exercises that I missed	12 05.882	03 01.471	36 17.647	53 25.980	100 49.020	3.89A	1.4
10. Blackboard serves as a backup for the practical skills that were Practiced by lecturers	02 00.981	06 02.941	22 10.784	51 25.000	123 60.294	3.64A	1.2
11. Variety of resources available on Blackboard (external links, sample exercises, practice assignments) is helpful for my practical studies.	82 40.196	41 20.098	35 17.157	40 19.608	06 02.941	3.41N S	1.1
12. Learning by using Blackboard is effective in general and in media practical courses specifically?	16 07.843	11 05.392	96 47.059	43 21.078	38 18.627	3.30N S	1
13. Blackboard is a useful means of contacting staff members	18 08.823	24 11.765	93 45.588	55 26.961	14 06.863	3.25N S	1.4
14. Blackboard enables me to ask questions that I normally find difficult to ask in lectures/practical classes	104 01.961	10 04.902	44 21.569	62 30.392	84 41.176	2.83N S	1.4
15. Blackboard helps me to communicate with other learners who are doing the same module	00 00.000	02 00.980	02 00.980	36 17.637	164 80.392	3.30N S	1.1
16. Learning by using Blackboard is important nowadays?	163 79.902	22 10.784	04 01.961	05 02.451	10 04.902	3.44N S	1.2
17. Blackboard gives me the opportunity to revise and learn at places and times convenient to me	132 64.706	61 29.902	09 04.412	02 00.980	00 00.000	3.15N S	1.2
18. Announcements in Blackboard enables me to plan my study time/how I spend my time in the university	121 59.314	49 24.020	23 11.274	06 02.941	05 02.351	2.83N S	1.1
19. Blackboard enables me to study effectively	151	34	06	07	07		

	74.20	16.667	02.941	03.431	03.431	2.73N	1
						S	

- As shown in the table (4), eleven important advantages were reported and agreed (agreed & agreed somewhat). The highest rated advantage was the Learning by using Blackboard is important nowadays followed by Blackboard enables students to study effectively then Blackboard gives them the opportunity to revise and learn at places and times convenient to them and then Lecture notes and slides available on Blackboard help them to complete the notes that they took during lectures their practical courses. The students also appreciated the advantage of blackboard when Announcements enable them to plan their study time/how they spend their time in the university
- They also agree with the statement that Notes and other video material on Blackboard help them to understand lectures or topics that they found difficult in their practical courses and they appreciated that Technology plays a key role in the delivery of learning by using Blackboard and can affect positively and Variety of resources available on Blackboard (external links, sample exercises, practice assignments) is helpful for their practical studies.
- However, the students' responses revealed uncertainty when they were asked if they always organize their study time carefully to make the best use of it and when they were asked if Learning by using Blackboard is effective in general and in media practical courses specifically, also they were uncured if Blackboard is a useful means of contacting staff members
- They were also quite skeptical of the effectiveness of e-learning by Blackboard, as a good interaction using appropriate technology which can give the same result of traditional education and they also disagreed that Blackboard student's users (learn) in practical courses of Media as much as students receiving traditional face-to-face instruction, which is considered blackboard's advantage.
- Also As shown in the table, eight important advantages were disagreed by the students that Blackboard is helpful for them to catch up on the practical exercises that they missed and they disagree that Blackboard serves as a backup for the practical skills that were Practiced by lecturers and also Blackboard doesn't enable them to ask questions that they normally find difficult to ask in lectures/practical classes, they also disagree that Blackboard help them to communicate with other learners who are doing the same module.

Figure (2)

Students rating of practical courses



- When the students were asked how they would they are doing in Practical course units as a whole, most of them indicated that are very well.

Faculty's Background Information:

Faculty usage of Blackboard in teaching:

Table 5

Faculty usage of Blackboard in teaching

Independent Variables	Categories	N.	%
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Teaching experience using Blackboard	Less than 1 year	01	05%
	1 to less than 3 years	03	15%
	3 to less than 6 years	10	50%
	More than 6 years	06	30%
Attending training workshop on Blackboard	Yes	16	80%
	No	04	20%
Training effects on Blackboard usage	Not at all	00	00%
	Small Increase	04	20%
	Significant Increase	16	80%

As faculty members are becoming comfortable delivering content in this format and engaging students during in-class activities, they are also beginning to share their experiences with colleagues internally, planting a seed for the future curricular changes.

As shown in the table (5) the majority of faculty has teaching experience using Blackboard 3 to less than 6 years, and most of them attended training workshop on Blackboard and they believe that training has significant Increase effects on their Blackboard experience and usage.

Faculty usage of Blackboard features in teaching:

Figure (3)

Faculty usage of Blackboard features

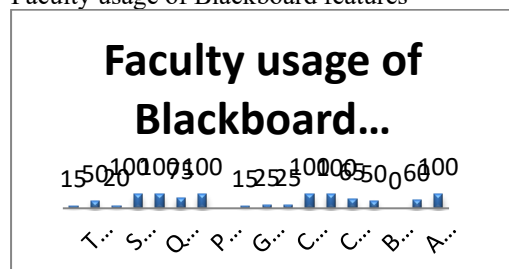


Figure (3) indicated that the majority of faculty are using 5 of blackboard features with a 100%, which are announcements, course messages, content- course material, grades, roster (for viewing a list of the other people in the course) and sending emails.

Then quizzes/tests (online) 75%, calendar 65%, assignments 60%, chat 50% and tasks with 50%.

Faculty 'experience of learning and teaching:

When faculty has been asked to give their reaction to every comment listed below, indicating how they really have been teaching, they indicated the following:

Faculty perceptions regarding the advantages and disadvantage of Blackboard

Table 6

Faculty perceptions of Blackboard

	S/ A	A	D/ S	D
1. Blackboard is user friendly	19	1	0	0
	95	5	0	0
2. Blackboard helps improve the teacher-student relationship in a course.	12	6	1	1
	60	30	5	5
3. Blackboard helps make teaching practical courses more successful	3	2	5	10
	15	10	25	50
4. Blackboard facilitates the way I teach	15	3	1	1
	75	15	5	5
5. Blackboard supports the pedagogical principles that I want to use for teaching practical courses with technology.	11	3	5	1
	55	15	25	5

6. I find it too time consuming to use Blackboard	3	2	9	6
	15	10	45	30
7. Blackboard lacks customization.	8	4	5	3
	40	20	25	15
8. I do not think using Blackboard will improve overall student performance in practical courses.	8	3	1	8
	40	15	5	40
9. The technical aspects of Blackboard discourage me from using it more frequently	4	2	2	12
	20	10	10	60
10. I like Blackboard because it is a structured e-learning platform	15	2	2	1
	75	10	10	5
11. I think Blackboard has enough functionality for managing my course skills.	6	3	5	6
	30	15	25	30
12. My perception of Blackboard changed as I have gained more online teaching experience	14	4	1	1
	70	20	5	5
13. Blackboard helps students improve their practical skills	15	3	2	0
	75	15	10	0
14. The rate of students' interaction with materials provided on Blackboard is encouraging.	8	2	1	9
	40	10	5	45
15. Blackboard is a good platform for students to learn a new skills and practical experience	7	2	4	7
	35	10	20	35
16. I believe that teaching practical skills via Blackboard will increase students' motivation to gain new experience.	9	6	3	2
	45	30	15	10
17. I think students get more exposure to practical courses learning via online activities available on Blackboard.	5	3	3	9
	25	15	15	45
18. The use of Blackboard tools focuses on students-centered learning	12	4	3	1
	60	20	15	5
19. I believe students' use of Blackboard would reinforce self- study learning.	12	4	3	1
	60	20	15	5
20. I think Blackboard will promote students' use of their skills to produce media production.	4	3	5	8
	20	15	25	40
21. Using Blackboard would enhance working collaboratively in peers as well as in groups	16	3	1	0
	80	15	5	0
22. The component of Blackboard would draw students' attention to learn practical skills efficiently	13	4	2	1
	65	20	10	5
23. I believe learning practical courses via Blackboard would make student feel autonomous.	4	2	6	8
	20	10	30	40
24. I would not recommend using Blackboard because it has several technical problems	0	0	4	16
	0	0	20	80
25. I do not think that learning via Blackboard is efficient as some teachers may find it difficult to handle.	0	1	5	14
	0	5	25	70

-As shown in the table (6), 17 important advantages were reported and agreed (strongly agreed & agreed) by the faculty. All of them agreed that Blackboard is user friendly, and the highest rated advantage from their point of view was that the usage of Blackboard would enhance working collaboratively in peers as well as in groups followed by, that Blackboard helps improve the teacher-student relationship in a course. Then they believe that Blackboard facilitates the way they teach and their perception of Blackboard changed as they have gained more online teaching experience. The faculty also appreciated the advantage of blackboard as they like Blackboard because it is a structured e-learning platform and the component of Blackboard would draw students' attention to learn practical skills efficiently.

-They also agree with the statement that Blackboard tools focuses on students-centered learning and they believe students' usage of Blackboard would reinforce self- study learning. They also believe that teaching practical skills via Blackboard will increase students' motivation to gain new experience.

-However, the faculty disagreed when they were asked if they find it too time consuming to use Blackboard, and they didn't agree also that Blackboard helps make teaching practical courses more successful. They think Blackboard will promote students' usage of their skills to produce media production, also they think that students don't get more

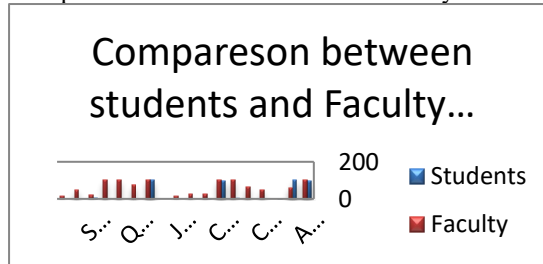
exposure to practical courses learning via online activities available on Blackboard, while they consider Blackboard is a good platform for students to learn a new skills and practical experience

Discussion

The majority reported to have an increase in course interest, retention of knowledge, and preparation for summative assessments and future practice experiences.

As shown by figure(4),an important finding was that both students and faculty members have been used Announcements, Assignments, Content- course material and grades of blackboard features while there is a big difference between both in using all other features .

Figure (4)
Comparison between students and faculty in blackboard features



Conclusions:

Blackboard was positively received by the students and faculty members in general, while they didn't appreciate it as the proper helping tool for teaching the practical courses.

A minority of students with a preference for traditional teaching format appeared not to enjoy Blackboard to the same extent.

It was found that the majority of users of Blackboard (students and faculty) used announcements, assignment, full grade center and content course material, while less than half who responded didn't use Blackboard features that foster communication between the faculty and their students, namely discussion board, course calendar, and performance dashboard.

Recommendations

The present study recommends the following:

- 1) Utilizing blended teaching, based on e-learning management system "Blackboard", in university teaching and creating supporting plans in universities;
- 2) Providing faculty members with various training courses to be capable of activating blended teaching, based on e-learning management system "Blackboard", in university teaching of various courses;
- 3) Providing classrooms equipped with the technologies essential for blended teaching.

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Bachelor Of Civil Engineering Technology: Alignment Of Programme Educational Objectives With The Learning Outcomes In Accordance With Sydney Accord

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Abstract

In widening the horizon of academic programmes offered at local universities, the compliance with international academic standards and guidelines are of utmost importance to ensure unified global recognition and accreditation for future prospects of the graduates. The Sydney Accord recognizes 4-year engineering technology programmes, and assists in determining if a bachelor-level programme attains the required level for purposes of licensure and registration, employment or admission to graduate school in another jurisdiction or signatories (International Engineering Alliance, 2017). As such, this paper examines the alignment of Programme Educational Objectives (PEOs) and Programme Outcomes (POs) of an undergraduate Civil Engineering Technology programme with stipulations of the Sydney Accord. At institution and faculty levels, the objectives and learning outcomes are oriented with the vision and mission respectively, assuring consistency of the programme outputs with the organizational aspirations in general. The mechanisms and processes involved to establish and then review the objectives from time to time are elaborated, showing a collaborative effort with stakeholders to keep the curriculum of the Programme abreast with current industrial needs and market trends. A discourse on how the POs are put in line with the PEOs ensues, detailing the mapping of the Programme's POs with the 12 standard outcomes of the Accord, as set forth in the Engineering Technology Accreditation Council (ETAC) Manual 2015, administered by the Board of Engineers Malaysia (BEM) as a provisional signatory of the Sydney Accord. Also, a graduate engineering technologist is to be equipped with the essential attributes embodied in the POs, which capture both academic and non-academic skills and competencies expected of a graduate of the Programme. Similar to the PEOs, the POs underwent review and revision periodically to maintain the relevance of the Programme with industrial demands. Finally attainment of the POs from the graduates is analysed and discussed with emphasis on the integrated monitoring and continual improvement mechanism substantiated by collective work-based evidence of staff and students alike. In a nutshell, coordination and alignment with the Accord is meaningless lest supported by a monitoring-feedback close-loop system for continual improvement of the programme implementation in the highly dynamic and driven field of technology

Introduction

The rapid growth of international engagement among institutions of higher learning is a result of dissolving national borders, figuratively. It is also driven by inter-related factors such as demand of stakeholders for profitable and sustainable academic programmes, regional and international trade activities, unified recognition of degrees awarded as well as inbound / outbound mobility or exchange of academicians and students (Stella & Woodhouse, 2010). In addition, technical graduates especially are expected to complement their technical knowhow with an acute awareness of not only the professional standards, but also environmental and societal demands (Embi, 2010). Mismatch of what the university teaches the students and what the industry needs would be disastrous, as exemplified by the increasingly high levels of unemployment in various fields of the job market (Bassey & Atan, 2012). This problem may have been further compounded by the general massification of higher education which overlooked the resulting inequalities in social mobility and teaching-practice mismatch (Mok, 2016).

In an effort to provide internationally recognised and competitive programmes, higher education providers in both the public and private sectors are obliged to adapt their respective engineering technology programmes to the requirements of Sydney Accord. Accreditation primarily derives from core operational values of an institution, which comprise of the institutional mission, autonomy and academic freedom (Eaton, 2010). A successful accreditation enables smooth processes of licensure and registration, employment or admission to graduate school in another jurisdiction or signatories of the Accord. This paper describes the development of a Civil Engineering Technology programme in accordance with the Sydney Accord, with emphasis on the establishment, alignment and monitoring of the programme outcomes.

Programme Development

While the Faculty is officially established in year 2012, the Programme has been developed at FKAAS (Faculty

of Civil & Environmental Engineering) since 2010 (Figure 1). Approval for development of the new programme was received from KPT (Ministry of Higher Education Malaysia) on 05 July 2011, while the Provisional Accreditation (PA) was awarded by MQA (Malaysian Qualification Agency) on 29 March 2012. As the Faculty was officially open in the same year (KPT's letter: 22 July 2012), the first review of the Programme (P1) was carried out and endorsed by Senate (01 August 2012) and LPU (13 September 2012), followed by KPT the following year, i.e. 14 April 2013. The review was primarily for content fine-tuning and refinement to align with the current as well as projected market trend and demand, as reflected in the updated PEOs and PLOs. With the programme refined, the Faculty welcomed its inaugural intake of 29 BNA students in September 2013 (Sem1 Session 13/14). Note that this first batch of students undertook a total of 141 credits for the Programme.

The second review of the Programme (P2) was carried out in year 2015, with endorsements by Senate, LPU and KPT on 11 January 2015, 24 February 2015 and 30 October 2015, respectively. One of the primary review outcomes was the revision and reorganization of the curriculum, which marginally reduced the total credits from 141 credits to 140 credits. This revised curriculum was adopted by the second intake of students in September 2015 onwards. Indeed, the Faculty began a double intake of students from 2016, i.e. in February and September. This is indicative of the maturity of the Programme and firm footing made in the arena of similar technical programmes, where the number of applications and enrolment is consistently encouraging.

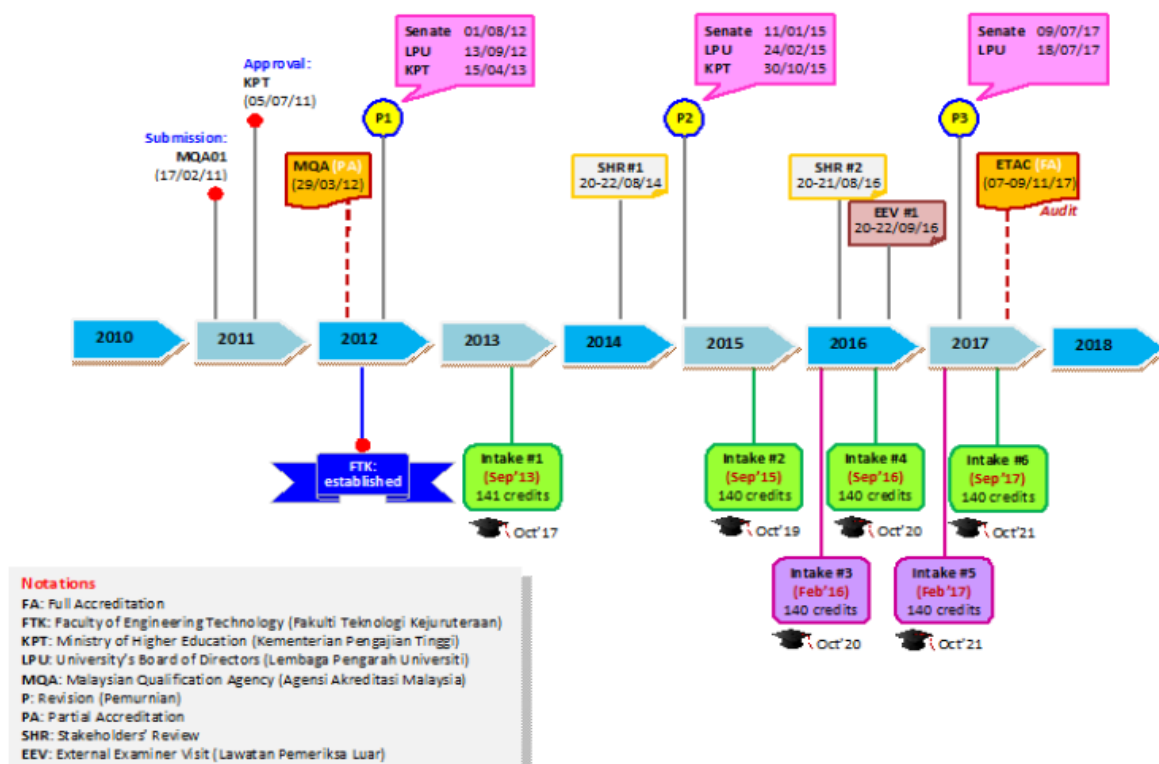


Figure 1. Chronological development of Programme.

The first External Examiner Visit (EEV) was carried out on 20-22 September 2016, with further revisions and improvements being introduced for the betterment of the Programme. This is ensued by the third Programme review (P3) as endorsed by Senate on 09 July 2017 and LPU on 18 July 2017. All in all, to date, the Programme has undergone 3 Stakeholders' Reviews and 1 External Examiner's Review from year 2012 till 2017. With the first batch of graduates to be conferred their degrees in the University's 17th Convocation (14-16 October 2017), and the on-going 5 batches of students in various stages of their respective studies (intakes September 2015, February & September 2016 and February and September 2017), the BNA programme has indeed come a long way from its inception in 2012 and first intake of students in 2013. Continuous monitoring, review and improvement exercises would be carried out to ensure regular self-check of the Programme to remain current, relevant and at the forefront of technical workforce tertiary training, specifically in the field of environment within the wider scope of civil engineering technology.

Vision And Mission: Institutional And Faculty Levels

UTHM is a public university established as one of four of the Malaysian Technical University Network (MTUN)

league, exclusively for engineering and technical education. The vision and mission of the University were specifically formulated to fulfill its purpose of establishment, and to function as beacons for charting the future development of the University, particularly in the fields of engineering and technical education. As such, it follows that the Faculty charted its own vision and mission oriented towards the University's aspirations for the present and future.

i. Vision and Mission of UTHM

- Vision: Towards a world class university in engineering, science and technology for sustainable development.
- Mission: UTHM is committed to generate and disseminate knowledge, to meet the needs of the industry and the community and to nurture creative and innovative human capital, based on the *tauhidic* paradigm.

ii. Vision and Mission of FTK

- Vision: Leadership excellence in generating and applying knowledge of engineering technology for sustainable development.
- Mission: FTK is committed to produce dynamic, creative and ethical graduates who will lead in the application of engineering technology to fulfill industrial and community need based on *tauhidic* paradigm.

Programme Educational Objectives

The Programme, Bachelor of Civil Engineering Technology (Environment), with Honours (BNA) has the Programme Educational Objectives (PEOs) as the foundation in its development. In consequence, the PEOs served as the foundation upon which the Programme Learning Outcomes (PLOs) and Course Learning Outcomes (CLOs) were formulated. Developed through a series of discussions and workshops involving both in-house staff and stakeholders from related fields, the PEOs were ensured to stay consistent with the Vision and Mission of UTHM in encapsulating the expected achievements of graduates of the Programme in their career and professional life 3-5 years after graduation.

Table 1. Programme Educational Objectives (PEO).

PEO	Statement	Key Performance Index
PEO1:	Practice with strong fundamental knowledge in Civil Engineering Technology.	At least 60% of graduates are involved in the field of civil engineering technology related to environmental engineering technology assessment, management and testing.
PEO2:	Engage in activities related to Civil Engineering Technology with technical competency.	At least 30% of graduates are registered as members in any professional bodies related to engineering technology.
PEO3:	Communicate with people in the related profession and stakeholders.	At least 30% of graduates are involved in technical, advisory or taskforce committees at national or international levels; or involved themselves in community efforts contributing to civil engineering technology issues
PEO4:	Adapt to changes related to civil engineering technology and the environment.	At least 30% of graduates are furthering or have furthered their studies; or have been attending professional development courses at least once in a year.

As listed in Table 1, the PEOs lay emphasis on equipping the students with a strong fundamental knowledge in civil engineering technology, technical competency, communication skills and adaption to changes related to civil engineering technology and the environment. Note that assessment of the attainment of PEOs would be conducted through a tracer study of graduates returning for the 17th Convocation on 14-16 October 2017. The survey results would be presented to the Auditors during the audit visit.

In order to instill awareness and understanding of the PEOs among Faculty staff and students, the Faculty has undertaken several initiatives to ensure that they are adequately published and publicized through:

- i. Programme Proforma.
- ii. FTK website: <http://ftk.uthm.edu.my/v3/academic/peo-plo.html>.

- iii. Posters: A3-size posters are displayed at strategic locations including laboratories, lecturer rooms, classroom and the Faculty's main office lobby.
- iv. Font cards: Handy pocket-size font cards are distributed to the Faculty staff and students for easy reference.

Relating Vision, Mission, Peo And Plo

The PEOs incorporate the spirit of the Faculty's mission (refer C1-1), where PEO 1 relates to the desirable attributes of being 'dynamic' and 'creative', PEO2 emphasizes on effective 'application' of technical competencies in meeting 'industrial needs', PEO3 focuses on the cultivation of graduates who uphold 'ethical conduct', while PEO4 relates to a sense of responsibility of services to the 'community'. Indeed, the PEOs are a reflection of the essence of the Programme, and the motivating force for the Faculty to produce highly competent, charismatic and market-ready environmental engineering technology is for civil engineering technologist with forte in the environmental aspect. These are future leaders of the nation's technical workforce who would propel the industry towards greater heights with their firmly instilled values and cultivated skills, always striving to be at the forefront of their respective sub-fields of the profession and evident 3-5 years post-graduation.

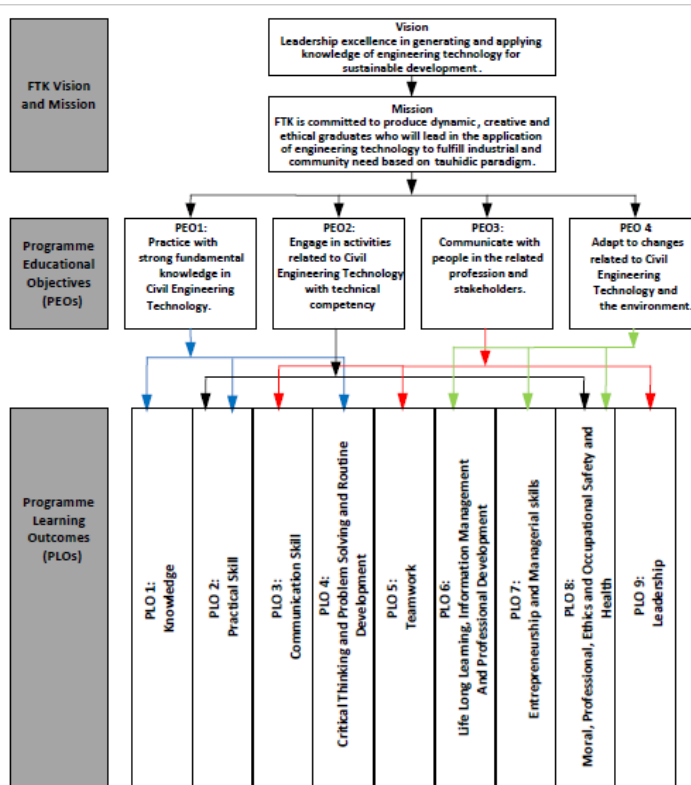


Figure 2. Relationship between vision, mission, PEO and PLO.

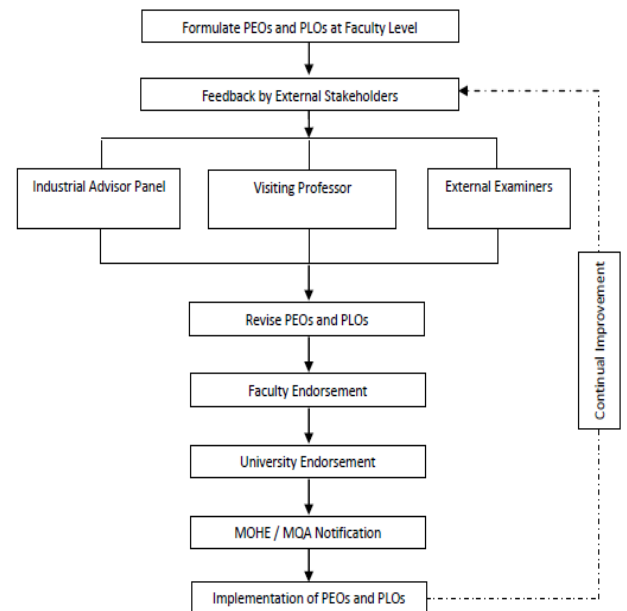


Figure 3. Establish, review and revise PEO and PLO.

As representation of the cumulative learning outcomes of all courses within the Programme's curriculum, the PLOs are necessarily derived from the PEOs and are measurable immediately upon completion of the Programme. Therefore there must appear a link threading through the PEOs and PLOs, demonstrating a trickle-down mechanism from a long to short term expectations of the graduates. Relationship and alignment of the Faculty's vision and mission, PEOs and PLOs are shown in Figure 2.

The PEOs were initially formulated by the Faculty, based on specific requirements of the Ministry of Higher Education (MOHE) and stipulations in the Malaysia Qualification Framework (MQF). As part of the initial steps in the Programme development, a market survey was conducted to ascertain the relevance, need for and expectations of the Programme among the related industries. The survey results were also referred to in designing the PEOs while not diverging from the Faculty's aspirations. The PEOs were then presented to the stakeholders (e.g. Industrial Advisor Panels, Visiting Professor, External Examiner and lecturers) for inputs, feedbacks and their respective requirements. Upon the review exercises, necessary and relevant inputs were adopted to revise the PEO. Revision to the PEOs, if necessary, was carried out in accordance to the procedures stated in **RPK-02 – Curriculum Review Procedures**. The revised PEOs were then forwarded to relevant in-house committees for

further debate and refinement, i.e. Faculty Academic Committee, Faculty Management Committee and Senate for endorsement. The process of establishing, reviewing and revising the PEOs and PLOs at the Faculty level as illustrated in Figure 3. As in a trickledown mechanism mentioned earlier, implementation of the revised PEOs was followed through attainment of the PLOs, with subsequent periodic reviews by the stakeholders to ensure continual improvement.

Mapping And Detailing Of Peo-Plo

Accrue ment of skills and knowledge throughout the 4-year programme, as illustrated in the 9 PLOs, are to be further enhanced and developed within the subsequent 3-5 years in the job market to fulfil the 4 PEOs. The relationships between outlined PLOs with the Programme Education Objectives (PEOs) are summarised in Table 2.

Table 2. PEO-PLO mapping.

Programme Educational Objectives (PEO)		Programme Learning Outcomes (PLOs)								
		PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9
		Knowledge	Practical Skill	Communication Skill	Critical Thinking & Problem Solving	Teamwork Skill	Life Long Learning & Professional Development	Entrepreneurship Skill	Moral & Professional Ethics	Leadership Skill
PEO 1	Practice with strong fundamental knowledge in Civil Engineering Technology.	✓	✓		✓					
PEO 2	Engage in activities related to Civil Engineering Technology with technical competency.		✓						✓	
PEO 3	Communicate with people in the related profession and stakeholders.			✓		✓		✓		✓
PEO 4	Adapt to changes related to civil engineering technology and the environment.						✓		✓	

Note that PLO and PO (Programme Outcomes) refer to the same item in this report, where PO is the term adopted in the ETAC Manual (2015). Briefly, POs are statements that describe what students are expected to know and be able to perform or attain by the time of graduation. The desired attributes relate to the skills, knowledge and behaviour students acquire and accrue throughout the duration of the programme. Referring to Section 5.0 of the Manual (2015), ETAC highlighted 12 outcomes that should be achieved by an engineering technology student upon graduation.

Students of an engineering technology programme are expected to attain the following in a practice-oriented learning environment:

- Knowledge:** Apply knowledge of mathematics, science, engineering fundamentals and an engineering specialisation to define and applied engineering procedures, processes, systems or methodologies.
- Problem analysis:** Identify, formulate, research literature and analyse broadly defined engineering problems reaching substantiated conclusions using analytical tools appropriate to their discipline or area of specialisation.
- Design/ development of solutions:** Design solutions for broadly-defined technology problems and contribute to the design of systems, components or processes to meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.
- Investigation:** Conduct investigations of broadly-defined problems; locate, search and select relevant data from codes, data bases and literature, design and conduct experiments to provide valid conclusions.
- Modern Tool Usage:** Select and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling, to broadly defined engineering activities, with an understanding of the limitations.
- The Engineer and Society:** Demonstrate understanding of the societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to engineering technology practice.
- Environment and Sustainability:** Understand the impact of engineering technology solutions in societal and environmental context and demonstrate knowledge of and need for sustainable development.
- Ethics:** Understand and commit to professional ethics and responsibilities and norms of engineering technology practice.
- Individual and Team Work:** Function effectively as an individual, and as a member or leader in diverse technical teams.
- Communications:** Communicate effectively on broadly-defined engineering activities with the engineering community and with society at large, by being able to comprehend and write effective reports

- and design documentation, make effective presentations, and give and receive clear instructions.
- xi. **Project Management and Finance:** Demonstrate knowledge and understanding of engineering management principles and apply these to one's own work, as a member and leader in a team and to manage projects in multidisciplinary environments.
 - xii. **Life Long Learning:** Recognize the need for, and have the ability to engage in independent and life-long learning in specialist technologies.

It is worth noting that while the POs are defined and numbered in different forms between the Manual (2015), MQA standard and the Faculty, they really encompass the same fundamental attributes expected of an engineering technology graduate who successfully undergoes the Programme. For ease of comparison, the 9 PLOs formulated by the Faculty are mapped against the ETAC's PO and MQA's LO in Table 3.

Table 3. Alignment of PLO to ETAC PO, MQA LO and learning domains: cognitive (C), psychomotor (P) and affective (A).

PLO	DOMAIN	ABBRV.	PRIMARY LEARNING DOMAIN			UTHM/ FTK	ETAC	MQA (Eng.Tech.)
			C	P	A			
1	Knowledge	K	x			1	1	1
2	Practical Skill	PS		x		2	2,5	2,5
3	Communication Skill	CS			x	3	10	7
4	Critical Thinking, Problem Solving & Routine Design	CTPS & RD	x			4	3,4	3,4
5	Teamwork Skill	TS			x	5	9	6
6	Life Long Learning Information Management and Professional Development	LL, IM & PD			x	6	6,12	12
7	Entrepreneurship & Managerial Skills	ES & MS			x	7	11	11
8	Moral, Professional Ethics & Safety	M, PE & OSH			x	8	7,8	8,9,10
9	Leadership Skill	LS			x	9	11	6

In Table 4, the Programme's original 9 PLOs (FTK) are listed on the left most column while the ETAC's 12 POs are on the right most. The middle 2 columns indicate the overlapping Learning Outcomes of the FTK and ETAC domains, as demonstrated in Table 3 and explained in the previous paragraph. Nonetheless there are a couple of key matters to be noted from the map in Table 4. Firstly, 4 of the PLOs (i.e. PLOs 2, 4, 6 and 8) correspond with a pair each of the ETAC's POs. Secondly, ETAC's PO9 appears to be separately covered by FTK's at PLOs 5 and 9 respectively. This elaboration further proves the compatibility of the Programme's original Learning Outcomes with those stipulated in the Manual.

Table 4. Mapping of FTK PLO (9PLOs) to ETAC PO.

FTK Domain (9)	Mapping of Outcomes		ETAC Domain (12)
	FTK(9)	ETAC (12)	
PLO1. Knowledge	PLO1	PO1	PO1. Knowledge
PLO2. Psychomotor / Practical Skills	PLO2	PO2 & PO5	PO2. Problem Analysis
PLO3. Communication Skills	PLO3	PO10	PO3. Design / Development of Solutions
PLO4. Critical Thinking, Problem Solving & Routine Design	PLO4	PO3 & PO4	PO4. Investigation
PLO5. Teamwork Skills	PLO5	PO9	PO5. Modern Tools Usage
PLO6. Lifelong Learning, Information Management & Professional Development	PLO6	PO6 & PO12	PO6. Engineering Technologist & Society
PLO7. Entrepreneurship & Managerial Skills	PLO7	PO11	PO7. Environment & Sustainability
PLO8. Moral, Professional Ethics & Safety	PLO8	PO7 & PO8	PO8. Ethics
PLO9. Leadership	PLO9	PO9	PO9. Individual & Teamwork
			PO10. Communications
			PO11. Project Management & Finance
			PO12. Lifelong Learning

With the addition of OBESys for omission of the compatibility

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co-sharing any of the components. However ETAC's PO9 remains unchanged and is shared between FTK's PLOs 5 and 9. Note that the 13 PLOs are applicable for the new intake of Sem1 Session 17/18 in September 2017.

Table 5. Mapping of FTK PLO (13PLOs) to ETAC PO.

FTK Domain (13)	Mapping		ETAC Domain (12)
	FTK (13)	ETAC (12)	
PLO1. Knowledge	PO1	PO1	PO1. Knowledge
PLO2. Psychomotor / Practical Skills	PO2	PO5	PO2. Problem Analysis
PLO3. Communication Skills	PO3	PO10	PO3. Design / Development of Solutions
PLO4. Critical Thinking, Problem Solving & Routine Design	PO4	PO4	PO4. Investigation
PLO5. Teamwork Skills	PO5	PO9	PO5. Modern Tools Usage
PLO6. Lifelong Learning, Information Management & Professional Development	PO6	PO12	PO6. Engineering Technologist & Society
PLO7. Entrepreneurship & Managerial Skills	PO7	PO11	PO7. Environment & Sustainability
PLO8. Moral, Professional Ethics & Safety	PO8	PO8	PO8. Ethics
PLO9. Leadership	PO9	PO9	PO9. Individual & Teamwork
PLO10. Design Solutions	PO10	PO3	PO10. Communications
PLO11. Problem Analysis	PO11	PO2	PO11. Project Management & Finance
PLO12. Environment & Sustainability	PO12	PO7	PO12. Lifelong Learning
PLO13. Engineering Technologist & Society	PO13	PO6	

The formulation of PLOs follows the same processes as undergone by the establishment of the PEOs (refer 4-5). With strict adherence to the PEOs, the PLOs were subjected to reviews and revisions by relevant stakeholders and academic committees or authorities in-house and externally. These processes ensured impartiality in the review exercises to avoid the 'silo effect' of excessive self-indulgence and tunnel vision which could impair the all-roundedness of the Programme often visible only through the eyes of outsiders, so to speak. In a nutshell, the processes of establishing and reviewing the PLOs in conjunction with the PEOs were carried out according to the workflow illustrated in Figure 3. Note that reviews of the PLOs were conducted simultaneously as the PEOs from time to time to maintain the relevance, timeliness and compliance to current industrial demands.

Attainment Of Po Via Student Assessment

In order to identify the attainment of POs via student assessment, it is necessary to first illustrate the overall academic performance management system adopted in the University. A comprehensive and interlinked online data capture and monitoring system was developed in-house to record, manage and measure individual student's academic achievement. The online system consists of 3 independent but connected sub-systems, namely Student Assessment System (SAS), Outcome-based Education System (OBESys) and Student Information System (SMP).

Essentially, all formative and summative assessments for each course of the Programme form the inputs for SAS, enabling measurement of the CLO attainment for the respective courses. Linked to OBESys, the cumulative attainment of PLOs, as contributed by the respective courses via the CLOs, are analysed and retrievable throughout the student's period of study at the University. The OBESys is accessible only by academic staff and authorities for reference and adoption in CQI of the Programme, for instance. On the other hand, students can access their academic performance via SMP for self-monitoring and improvement where applicable. To ensure CLOs of the specific course is properly assessed and achieved, the Table of Specification (TOS) and cognitive, psychomotor and affective (C, P, A) guidelines are used as instruments to assist in the planning of lecture delivery and assessment.

The key performance index (KPI) for all CLOs were set to 50% students achieving at least 50% marks or above. With each CLO is mapped to a specific PLO, the CLOs of selected courses would contribute to a particular PLO in an accumulative manner. Thus, with the assessment of CLOs completed, attainment level of the respective PLO mapped to the CLO is assessed. Figure 3 shows the results of the average PLOs attainment for each cohort of the Programme. PLO attainment is measured at the end of the 4-year programme, however, OBESys enables the current attainment of each cohort at the end of every semester.

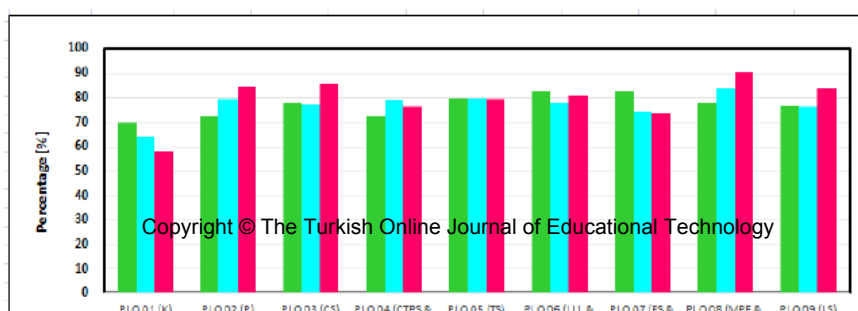


Figure 4. Average attainment of PO by different cohorts of students.

Conclusions

In line with the Sydney Accord programme accreditation requirements, the Programme Educational Objectives (PEO) and Programme Outcomes (PO) have been defined, reviewed and translated into implementation of the Programme. Students undergo a structured learning process, achieving the targeted outcomes in a cumulative manner over the 4-year period of study, i.e. becoming qualified professional civil engineering technologists with the competencies and skills expected of them.

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Beliefs And Confidence In Online Learning

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Abstract

All over the world, online education is being increasingly incorporated into educational institutions. Most universities have developed online courses, often leaving students no other options but to abandon the traditional classroom settings and to embark in this new pedagogy. In this research, over a thousand business students enrolled in an online undergraduate course in a Canadian university were surveyed. Their belief and confidence in the online learning technology is studied and the impact of gender and age is investigated. It was found that online learning is perceived as a very good test of students' time management skills for both male and female students. In general, older students show higher level of confidence in the benefits of online courses. The survey also revealed that male students show higher level of confidence about all aspects of online learning, especially the perceived easiness of the course and their expectation of higher grades. Overall gender and age have a certain impact on students' beliefs and confidence in virtual education.

Introduction

Throughout the world, the proliferation of "online information technologies" has impacted the education sector in general, and the rapidly growing electronic learning market, in specific. Some evidence on improved learning using Information Communication Technologies (ICT) has been trickling throughout the research community. This is especially true when pedagogy is more learner-centered (Wang, Wu, & Wang, 2009). From desktops to handheld devices, the massive integration and subsequently influence of computing devices, coupled with improving internet capabilities have altered the educational terrain.

There seems to be an 'electronic pressure' to participate in online education, felt at all levels from elementary school to higher education. Everybody is urged to use some form of information technology whether that may be a mobile device, a personal digital assistant or simply a laptop to connect to the internet for school, and continuing education. Considering this perspective, we can safely assume that the use of information technology for learning is becoming the more mandatory. It may therefore be expected that judgment on user satisfaction would be based on productivity gains using the information technology (Saadé, Kira, & Otrakji, 2012). In other words, the expectations to perform in an online learning environment continues to increase. Considering the simple task of internet surfing and playing games this may not be the case, since the driving motive of usage and satisfaction is more intrinsic. One can therefore assume that user satisfaction is based on the total subjective interactive experience in using an online environment (Lingaard & Dudek, 2002).

Background

The online learning technology has potentially transformed higher education (De Freitas, Morgan, & Gibson, 2015; McPherson & Bacow, 2015; Van Dijk & Poell, 2015). There are multiple explanations for that (Bonnici et al., 2016). First, the effectivity and efficiency of online education are indisputable. (Alavi & Leidner, 2001). The main issue for online learning is usability. According to the international standard on usability, ISO/DIS 9241-11 (ISO, 1997), the three pillars of usability are efficiency, effectiveness and satisfaction. Based on this definition, today's human-computer interface (HCI), regardless of its application (e.g. cellular phone, software, Internet, personal digital assistant ...), should be designed to meet these three pillars.

Second, there is a reduced cost involved with this method of learning. (Bryan, Leeds, & Wiley, 2018). Also, the learners' active participation and persistent self-learning (McLaren, 2004) create a more positive feeling in online students. This effect combined with other properties of online education like its availability and convenience (Kilburn, Kilburn, & Cates, 2014) as well as students' ability to learn on his own time and pace makes online education very appealing. (Rodriguez-Ardura & Meseguer-Artola, 2016). The important aspect is that a certain quality of online course material and course work should be reached for the best possible results (Dykman & Davis, 2008a; Santos & Boticario, 2015).

The personalized characteristics of online learning give the students a greater sense of responsibility and independency towards their education. (Balanskat, Blamire, & Kefala, 2006). Learners' dynamic contribution in terms of achievements, knowledge creation and sharing add value to online learning experiences and empower the students to achieve abundant results (Anshari et al., 2015; Sikand, 2017; Onyema & Daniil, 2017).

In online education it is expected of students to have some level of technical ability to use and interact with the online web-based platforms. (Baturay & Yukselturk, 2015). There are potential challenges, one of them is the failure to notice the possible individual setbacks that could be noticed early on in a face-to-face environment. Therefore, it is necessary that the teachers communicate with students and encourage them to keep their commitments (Dykman & Davis, 2008b; Collins, Weber, & Zambrano, 2014; Glazier, 2016). Learners who are the students with better self-regulation skills develop better learning strategies and achieve better academic performances than others (Zimmerman & Kitsantas, 2014). Proper self-regulatory activities and strategies are vital for achieving online learning goals and completing tasks (Lin et al. 2018).

Students become learners in the online educational environment since their personal qualities such as belief in themselves as active learners, self-motivation and determination, as well as belief in their IT, internet and time management skills are instrumental in their learning progress (Klopfenstein, 2003; Fish, 2016). Their belief in their personal and scholarship skills can guide them towards sustainable learning and give them perceptions concerning their strengths and challenges. To help students and improve their belief in being able to succeed in online courses it is recommended for students to take a mandatory online orientation course to prepare them for potential challenges and test their skills (Fish & Snodgrass, 2015).

The Online education has given students different beneficial ways to apply their knowledge and skills, for example by partaking in methodized assignments, like discussion panels, tests, and short papers (Rogers, 2015). Students can engage with the several aspects of the course for how often or how long that they choose (Vininsky & Saxe, 2017; Martin & Bolliger, 2018). This gives students a high level of control on how to interact with the online learning system which contributes to confidence in them. Studies have shown that, students identify online education to be offering more advantage than face-to-face education regarding areas of active learning and autonomy (Carver & Kosloski, 2015; Dendir, 2016).

With regards to individual traits, research has proven that different areas in the brain are used for different activities such as memory, language, learning and problem-solving. It is accepted by the research community that there are deviations in the structure and organization between the brain of one person and another across gender and age. This results in variations of the person's traits, interests, behavior, and psychological state such as anxieties, and confidence. To the point of this study, traits between men and women and across age groups have different expectations, behavior and confidence levels towards online learning. For example, (Saadé, Kira, & Otrakji, 2012) explain that many gender studies related to performance differences on spatial problems have been conducted in the past. Considering spatial orientation, women tend to rely on landmarks whereas men use simple geometric cues. Females memorize objects which are located on the route they take (Kimura, 2002). If those objects are removed or their position changed, women might get problems in reaching their destination. Men usually do not face such problems in finding their routes when following the geometric characteristics. Additionally, men perform better on more complex tasks. Men do well in mental manipulation of objects such as mentally rotating objects. The importance of noting these gender differences becomes acute in designing and using online learning platforms and pedagogy.

However, other finding suggests that men are as sensitive as women to perceived control therefore, we can say that gender does not have an effect in the level of self-efficacy of the students. The reason can be because cutting-edge online learning technology can offer high levels of adaptability and services to individual requirements (Rodriguez-Ardura & Meseguer-Artola, 2016). Women contemplate more on privacy and risk when sharing information online, this should be considered when designing online features (Hajli & Lin, 2016). Nonetheless, when female students engage and interact socially in conversations about the course or the events related to it, study suggests that they learn better due to active nature of online learning (Steyn & Van Tonder, 2017; Morante, et al., 2017). Other recent studies on gender differences show that male and female students in online education exhibit homogeneous behavior. (Harvey, Parahoo, & Santally, 2017; Mady & Seiling, 2017).

From a student behavior and satisfaction perspective, UTAUT-based studies (UTAUT: Unified Theory of Acceptance and Use of Technology) and previous literature (Wang, Wu, & Wang, 2009), gender and age are theorized to play an important role on the influence of performance expectancy, effort expectancy, social influence and facilitating conditions, on behavioral intention. That is, the influence of these constructs on behavioral intention will be moderated by gender and age, such that the effect will be stronger for men and particularly for younger men (Venkatesh, Morris, Davis, & Davis, 2003).

Venkatesh, et al. (2003) define effort expectancy as the degree of ease associated with the use of information systems and in the context of this study, online learning system. This construct is the extension of the Perceived Ease of Use from the Technology Acceptance Model. Previous studies show that constructs associated with effort expectancy may be stronger determinants of student's intention for women and for older workers (Venkatesh & Morris, 2000). Accordingly, based on the UTAUT, it was found that individual acceptance of online learning will depend on whether the online learning environment and learning tasks are easy to use, and that the influence of effort expectancy on behavioral intention will be moderated by gender and age, such that the effect will be stronger for older women.

With respect to social influence, Venkatesh et al. (2003) define it as the extent to which a person perceives that important others believe he or she should use a new information system such as learning management systems for online learning. Social influence is significant in shaping an individual's intention to use new technology and based on previous studies it was found that the effect of social influence on behavioral was moderated by gender and age, such that the effect is stronger for older women.

Another behavioral and confidence construct is perceived playfulness which can be either a state of mind (Moon & Kim, 2001) or an individual trait (Webster & Martocchio, 1992). Whereas, a state of mind refers to affective or cognitive episodes that are experienced in the short run and fluctuate over time, traits refer to comparatively stable characteristics of individuals that tend to be relatively invariant to situational stimuli. Previous research found that there are significant gender differences in attitudes towards computers. Moreover, previous studies found that the older the individual, the less interest they are likely to have in using ICT.

It has been known that with older, more mature students and technical course material, online learning provides reasonable success (George, 2001). Also, age has been considered a significant predictor of engagement. It is suggested that older students are more likely to engage with the coursework than the younger students (Spence & Usher, 2007). Reasons for taking online courses have been shown to be related to age of students (Morin et al. 2018). The main issue for younger students is that education is not only about learning for them, it is a way to become mature and develop personally, this part is missing in online learning (Bart, 2004). There are indications that the age of students makes a difference in their motivational factors (Yoo & Huang, 2013; Boyle & Abdullah, 2015). It is important to take into consideration that there is an increase in the number of mature students in higher education, mostly for 30-year-old till 39 and for 50 years old to 59. (Durkin, Filbey, & McCartan-Quinn, 2014).

In this study, we investigate the beliefs and confidence of students taking an online class in their online learning, as they differ across age and gender. As elaborated above, beliefs, confidence and behavior are anchored in behavioral and psychological theory and were found to differ in across age and gender. All the studies have investigated these relevant constructs from an information systems usage perspective, which is significantly different that online learning due to the important and less studied factor that in online learning there not only exists an information system (learning management system) but also the high stakes of performing while engaging in this online environment – and this adds to the complexity of understanding behavior.

The Study

This study was conducted in an undergraduate fundamental business technology course offered in a large Canadian university over a period of three years. The course is mandatory for all business students. It is offered entirely online through a series of virtual tutorials, electronic book and applied problem solving activities. Students registered in the course are invited to participate in the current study in exchange for some bonus points. Near the end of the semester, a survey instrument is administered. The questionnaire has several components, and for the purpose of this research, the following three segments are considered:

- Demographics
Respondents were asked to specify their gender and age.
- Beliefs related to Online Learning
A list of twelve common beliefs about online courses was established and respondents are asked to indicate their level of agreement with each of those beliefs. The levels of agreement are as follows: 1 corresponds to strongly disagree and 5 strongly agree with 3 as neither disagree not agree.
- Confidence towards Online Learning
Respondents are presented with a list of nine statements concerning their confidence and impression about online learning. They are also asked to indicate their level of agreement with each statement. The levels are quantified as for the beliefs.

The research question investigated is:

Do beliefs and confidence towards online learning differ according to gender and age?

Findings

The findings are divided into three parts, demographics, beliefs and confidence.

Demographics

Nearly 1400 students took part in the study, completing the questionnaire, with close to 47% female and 53% male. The average age of the participants is 21.4 years. For the purpose of the analysis, the variable Age is organized into four categories, as presented in Table 1.

Table 1: Distribution of respondents based on Age and Gender			
Age	Male	Female	Total
< 20	47.4%	52.6%	27.5%
20 - 24	56.5%	43.5%	57.1%
24 - 30	5.4%	4.3%	11.4%
>30	55.6%	44.4%	4.0%
Total	53.2%	46.8%	100%

In the younger category, we observe more female students than male students with 52.6% compared to 47.4%. However, in the other three categories, the proportion of male students is higher especially among those of 30 years of age or more. Overall, there are 6.4% more male than female students.

Beliefs

The average level of agreement with the different common beliefs about online courses by gender and age are presented in Table 2. The levels of agreement are 1 for strongly disagree, 5 for strongly agree and 3 for neither agree nor disagree.

Table 2 provides very interesting information about the respondents' beliefs about online courses. We first note as indicated in bold in the last column that the three most highly supported beliefs about online courses are B7: *A good test for my learning skills*, B8: *A good test of my time management skills* and B9: *A good test of my internet skills*. In general, it appears that students believe that online courses can be used as an assessment tool of their learning abilities. We can also note that respondents tend to be indifferent or slightly disagree with the belief B4: *I will be registering in as many as possible online courses*. It is not a supported belief that students will want to have more online courses.

Table 2 also reveals different levels of agreement between male and female respondents. We note that male respondents give higher level of agreement for all beliefs except for B8: *A good test of my time management skills*. Of those beliefs, some are highly significant different at 5% indicated by (G*). This is the case for statements B1: *Ability to learn more*, B3: *Becoming dependent on online courses* and B4: *Registering in as many online courses as possible* where male students are more convinced.

Using Table 2, we can compare the average levels of agreement across age categories. We first note that students in the older category of 30 years of age or more, indicated higher level of agreement with most of the beliefs. The highest levels are indicated by the shaded cells. It is interesting to see that this group perceive online courses as a good test to assess B6: *their IT skills*, B7: *their learning skills*, B8: *their time management skills*, B9: *their internet skills*, B10: *their personality skills*, B11: *their research skills* and B12: *their work coordination skills*. This could be explained by the fact that the course under study is taken at the beginning of the business program, and older students might see it as the ultimate test for their return to school after several years.

TABLE 2 Beliefs about online courses
Average Level of Agreement by Gender and Age

	Gender		Age category				All
	Male	Female	<20	20-24	24-30	>30	Total
In taking online courses, I think:							
B1: I would be able to learn more G**	3.32	3.06	3.17	3.21	3.15	3.44	3.20
B2: I would find it easier to manage my course work load A*	3.51	3.43	3.35	3.49	3.59	3.68	3.47
B3: I will become dependent on online courses G**	3.10	2.88	2.97	3.04	2.94	2.77	3.00
B4: I will be registering in as many online courses as possible G**	2.95	2.70	2.72	2.89	2.88	2.88	2.83
B5: I would be challenged to perform to the best of my abilities	3.33	3.26	3.25	3.34	3.27	3.50	3.30
B6: it would provide me with a good test of my IT skills A*	3.51	3.44	3.38	3.49	3.55	3.77	3.48
B7: it would provide me with a good test of my Learning skills A*	3.56	3.52	3.45	3.55	3.66	3.75	3.54
B8: it would provide me with a good test of my time management skills G** A**	3.68	3.79	3.62	3.75	3.77	4.07	3.73
B9: it would provide me with a good test of my internet skills	3.57	3.56	4.49	3.60	3.58	3.68	3.57
B10: it would provide me with a good test of my personality skills	3.06	2.99	2.97	3.07	2.87	3.16	3.02
B11: it would provide me with a good test of my conducting research skills	3.39	3.30	3.29	3.35	3.39	3.60	3.35
B12: it would provide me with a good test of my work coordination skills A*	3.44	3.38	3.30	3.45	3.45	3.61	3.42
G*: Significant Gender differences at 10% G**: Significant Gender differences at 5% A*: Significant Age differences at 10% A**: Significant Age differences at 5%							

An analysis of variance is performed to see if the average level of agreement across age categories are significantly different. Significant differences exist at the 10% level as indicated by (A*) and at the 10 level with (A**). Significance age differences exist for B2: *Easier to manage course workload*, B6: *Good test for IT skills*, B7: *Good test for learning skills*, B8: *Good test for management skills* and B12: *Good test for work coordination skills*. Overall we can conclude that Male students give higher levels of agreement for most of the common beliefs about online courses. We also observe that older students give higher levels of agreement than the other age categories.

In Table 3, we examine more closely how the levels of agreement are influenced differently according to the age categories. The first thing we note is that male students in the first age category are much more assertive in their levels of agreement than female students. When we exclude Beliefs B3 and B4, which lie in the neutral category (neither agree nor disagree), we see a very clear picture of the behaviour changing over the age categories. We note that 100% of the average agreement for the list of common beliefs is stronger for male students. For 20 to 24 years category, that percentage drops to 80%, and for the 24 to 30, group to 60% and to 0% for the older age category. In fact, the highest level of support is by older female respondents. As was mentioned previously, older students, especially female students of that category, might be returning to school after a few years and see this first course, which happens to be online as a very good test of their overall abilities, in IT skills, learning skills, Time management skills, Internet skills, personality skills, research skills and work coordination skills.

TABLE 3 Beliefs about online courses								
Average Level of Agreement by Gender and Age								
In taking online courses, I think:								
	<20		20 - 24		24 - 30		30+	
Beliefs	Male	Female	Male	Female	Male	Female	Male	Female
B1	3.38	2.97	3.33	3.05	3.16	3.12	3.17	3.64
B2	3.43	2.28	3.51	3.47	3.66	3.50	3.67	3.69
B3	3.12	2.82	3.13	2.92	2.85	2.92	2.83	2.73
B4	2.92	2.53	2.99	2.73	2.84	2.96	2.78	2.96
B5	3.36	3.14	3.36	3.25	3.15	3.43	3.22	3.69
B6	3.55	3.23	3.50	3.46	3.47	3.65	3.44	4.00
B7	3.58	3.34	3.55	3.56	3.68	3.63	3.28	4.08
B8	3.63	3.61	3.70	3.83	3.73	3.83	3.78	4.27
B9	3.58	3.41	3.61	3.60	3.48	3.71	3.22	4.00
B10	3.03	2.91	3.12	3.00	2.94	2.79	2.56	3.58
B11	3.44	3.15	3.38	3.32	3.40	3.38	3.78	3.84
B12	3.41	2.20	3.46	3.44	3.48	3.40	3.28	3.85

Confidence

Respondents were also asked to indicate their level of agreement with a list of statements about different aspects of online courses about their impact and confidence. The levels of agreement are 1 for strongly disagree, 5 for strongly agree and 3 for neither agree nor disagree.

TABLE 4: Confidence about Online Courses							
Average Level of Agreement by Gender and Age							
	Gender		Age category				
Online web-based courses:	Male	Female	<20	20-24	24-30	>30	Total
C1: give me confidence in getting a good grade G**	3.40	3.07	3.22	3.23	3.39	3.30	3.25
C2: make it easier to study for tests and exams G**	3.28	3.06	3.12	3.17	3.27	3.27	3.18
C3: make it easier to manage the course workload G** A**	3.49	3.33	3.28	3.41	3.70	3.70	3.42
C4: would help me to achieve my learning goals G** A**	3.39	3.13	3.13	3.28	3.49	3.53	3.27
C5: would help me reduce my chances of making errors during tests G**	3.20	2.84	2.99	3.04	3.17	2.95	3.04
C6: would help me use online learning system efficiently	3.84	3.69	3.68	3.79	3.83	3.93	3.77
C7: would help me use online learning system effectively A*	3.74	3.67	3.60	3.74	3.80	3.86	3.71
C8: I think that using online learning systems are entirely within my control G**	3.66	3.52	3.52	3.60	3.73	3.73	3.60
C9: I have the abilities, skills and knowledge to use online learning system to my learning benefit G* A**	3.74	3.65	3.61	3.69	3.88	4.07	3.70
G*: Significant gender differences at 10%							
G**: Significant gender differences at 5%							
A*: Significant age differences at 10%							
A**: Significant age differences at 5%							

Table 4 provides information about the respondents' confidence about different aspects of online courses. We first note as indicated in bold in the last column that the four most highly supported statements are Online web-based courses C6: *would help me use online learning system efficiently*, C7: *would help me use online learning system effectively*, C8: *are entirely within my control* and C9: *I have the abilities, skills and knowledge to use online*

learning system to my learning benefit. Since the course under study is taken at the beginning of the Business program, these results are encouraging for the instructors in the programs, since students view this first experience with online courses as a beneficial in helping them using online pedagogical systems efficiently and effectively. Most interesting, is the confidence expressed by respondents about their abilities, skills and knowledge to benefit from these courses and that the online learning systems are entirely under their control.

Table 4 also reveals different levels of agreement between male and female respondents. We note that male respondents always give higher level of agreement for all the confidence statements as indicated by the shaded cells. Some of these differences are highly significant ($p\text{-value} < 0.05$) as indicated by G^{**} . It is the case for statements C1 to C5. In fact, male respondents are more confident C1: *to get a good grade*, C2: *it is easier to study for tests and exams*, C3: *it is easier to manage the course workload*, C4: *it helps to achieve learning goals* and C5: *it reduces the chances of making errors in tests*. Male respondents also score higher on C8: *Online learning systems are entirely within their control*. The confidence in C9: *abilities, skills and knowledge to use online learning system to my learning benefit* is also significantly higher for male students ($p\text{-value} < 0.10$).

Across the age categories, it is interesting to note that the average levels of agreement are higher for the older two groups as shown by the shaded cells. There are significant differences between the average levels of agreement for different age categories. Highly significant ($p\text{-value} < 0.05$) differences exist for statements C3: *Easier to manage the course workload*, C4: *Helps to achieve learning goals*, and C9: *Being able to use online system beneficially*. Additional analysis using the Tukey-Cramer test reveals that the significant differences is found between between the younger group (<20) and the older two categories (24 to 30 and more than 30). Significant differences also exist for statement C7: *Ability to use the online system effectively* with $p\text{-value} < 0.10$ and the difference is found between the younger group (<20) and the older group (>30).

When Gender and Age categories are merged together as in Table 6, we find as we did for the beliefs analysis, that male respondents of the first two age categories consistently give higher average levels of agreement. However, for the older respondents' category, their average level of agreement is higher than female students for only 5 of the 9 statements. When reviewing all gender and age categories, we find that highest support is given by males of the 30+ category for statements C6 to C9. Older male students are more confident in their abilities to use the online system efficiently, effectively and beneficially while being in control.

TABLE 6 Confidence about online courses								
Average Level of Confidence by Gender and Age								
In taking online courses, I think:								
	<20		20 - 24		24 - 30		30+	
Confidence	Male	Female	Male	Female	Male	Female	Male	Female
C1	3.41	3.05	3.40	3.02	3.47	3.29	3.28	3.31
C2	3.22	3.02	3.29	3.00	3.39	3.35	3.22	3.32
C3	3.36	3.20	3.48	3.33	3.82	3.53	3.67	3.73
C4	3.29	2.97	3.38	3.15	3.61	3.33	3.50	3.56
C5	3.16	2.83	3.21	2.82	3.29	3.02	3.17	2.81
C6	3.73	3.64	3.85	3.70	3.92	3.71	4.11	3.81
C7	3.64	3.58	3.76	3.71	3.79	3.81	4.11	3.68
C8	3.58	3.47	3.66	3.53	3.81	3.63	3.94	3.58
C9	3.66	3.56	3.72	3.65	3.94	3.81	4.22	3.96

Conclusions

Students' beliefs and confidence in online courses do seem to be impacted by gender and age group as seen by the results in this study. We observe that male students are more convinced that online courses will be beneficial to them as they believe that they will learn more. Female students on the other hand, view online courses as a very good test of their time management skills, significantly more than male students.

We also observe that older students agree more that online courses are a good test of their IT skills, their learning skills, their time management skills, their research skills and their work coordination skills. This could be explained by the fact that the course under study is a first year course taken by all undergraduate students. Since these older students might be returning to university after a few years, they might view the experience as a test or a predictor

of their academic success. Therefore, it is even more important that this online experience be successful. When gender and age are analyzed together, we find that it is female students in the older category who feel more strongly about seeing online courses as a test of their abilities.

When it comes to confidence in different aspects of online learning, male students are more confident that online courses will help them get a good grade, that the exams will be easier, the workload will be more manageable, that it will be easier to attain their learning goals and that learning is entirely under their control. When gender and age are analyzed together, we observe that the confidence of female students in the older category surpasses that of male students in the same group, when it comes to obtaining good grades, easier exams, workload and learning goals. Male students in the older category have the highest confidence in the efficiency and efficacy and control. Male students in that category are the most convinced that they have the abilities to use the online courses to their learning benefits.

When studied together, gender and age of students play an important role in the learning virtual environment. It is left to be seen if these results could be replicated in other courses, at different levels and if the seniority of students in the program would be an additional factor to consider. Since new virtual pedagogies are constantly being developed, more testing will have to be done to address students' beliefs and confidence in the environment.

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Bring Your Own Device To The Classroom: Uses Of The Mobile Phone For The University Training

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Abstract

The advancement of technologies has conditioned our social behavior, specifically the introduction of mobile phones has changed the way we relate to people and how we work in our day to day. These technological social changes have been introduced in education with more incidence in universities, as the first agent of change in education. This paper analyses the use of mobile phones by university students of the Primary Education degree for their academic education. A quantitative methodology has been used with a descriptive character, using as an instrument of data collection an ad hoc questionnaire based on a Likert scale. Among the results, it is found that although the use of mobile phones a priori has a leisure character, it is also used as a resource for accessing contents and activities in university academic training. Finally, the educational conception of the students and the fact of bringing your own device to the classroom conditions the teaching dynamics, which from methodologies such as mobile learning can influence the improvement of the teaching-learning process of the students.

Keywords: *Bring Your Own Device, Mobile phone, Higher Education, Training, Mobile Learning.*

Introduction

Mobile phones and specifically smartphones have revolutionized the daily use of technology. Its use has been generalized practically to the entire population in modern societies due to its small size, high performance and ubiquity (possibility of consultation at any time and place). In this sense, each person who carries a mobile device is like carrying a computer everywhere. This fact has had an impact on its habitual use as a work, academic and social tool.

Following Saussure (2016) we can consider the smartphone as a mobile digital device that presents the functionalities of a conventional telephone, while allowing connectivity to the internet and the use of mobile applications (apps). Focusing on the educational field, its application is increasingly common as a means to produce the learning, especially in higher education stage. Such is the case that the Horizon Report (a reference report on educational technology) highlights in its latest editions that the concept of "bring your own device" and "mobile learning" are presented as a technology to be implemented in short-term higher education (Johnson et al., 2015; 2016; Adams et al., 2017).

This introduction of mobile devices in the classroom for didactic purposes is specified within the mobile learning teaching methodology, which is defined as the learning that occurs from the mediation of mobile digital devices (smartphones and tablets) for the development of digital competences (Aznar, Romero, & Rodríguez-García, 2018). But really to correctly introduce this teaching methodology it is necessary to know previously the use that university students are giving to mobile phones, in order to understand their concerns, perceptions and applications they perform. Similarly, the concept "bring your own device" (BYOD), stands as a necessary ally to introduce the methodology mobile learning in the classroom, since taking into account the resources of universities it is unfeasible for the center to provide the mobile devices phones to students. Therefore, it is the students themselves who use their mobile phone in the classroom to carry out the different tasks proposed by the professor.

Attending to previous research on the use of the smartphone in the educational field, Organista, McAnally and Lavigne (2013) highlight three categories of the use of the smartphone in university students and teachers: ubiquity, internet access and personal organization. In addition, the findings highlight the possibility of using the mobile device as a pedagogical tool to help the student or teacher.

On the other hand, González and Salcines (2015) in their study on the perception of the use of the smartphone in the teaching-learning processes in the University establish as advantages the ubiquity, accessibility, increase in

motivation and ease of communication in relation to its academic use. While other studies (Saussure, 2016) specify that students use the smartphone to search for information in applications such as Google Chrome and to access social networks Facebook and YouTube. Likewise, the university students affirm that the use of the mobile device as an educational tool has facilitated the development of skills for the search of information.

Finally, in this same line is the research carried out by Gutiérrez, Santana and Pérez (2017) where it is emphasized that university students use the smartphone to listen to music, access the internet, search for information, share content with contacts, access social networks, and watch videos on YouTube, video games and check email.

In summary, if we look at the various previous studies, the use of the smartphone is varied, with a main component of leisure, although university students also make an academic use of the mobile phone. The educational conception of the smartphone is the first step to correctly apply a methodology based on mobile learning. So that being aware of its educational use decreases its incorrect use in the classroom and makes it easier for the teacher to implement different activities based on the mobile phone.

Methodology

The purpose of this study has been to know the use made of the mobile device by students of the Faculty of Educational Sciences of the University of Granada. For this, a deductive method has been used to approach the reality observed from a solid theoretical basis, which will help us previously to understand the object of study. In this line, the methodology used to respond to the purpose is quantitative with a descriptive character (Hernández, Fernández, & Baptista, 2016), since it allows us to describe the observed reality. Therefore, an ad hoc questionnaire based on the scientific literature has been developed as an instrument for data collection, with 4 levels of responses collected on a Likert scale that refer to: none, some, enough and many.

The initial questionnaire was composed of 16 items, but for this study were analyses those items directly related to the use of mobile devices. Likewise, the statistical program SPSS version 24 has been used for the statistical analysis of the data.

In relation to the sample, it was composed by students of the Faculty of Educational Sciences of the University of Granada (n = 318). The application of the questionnaire took place during two academic years 2015-2016 and 2016-2017, framed within a teaching innovation project. It is important to highlight the importance of the sample, since it is about students of the Primary Education degree, who in the future will be teachers who will be able to implement the mobile learning methodology in their classrooms.

Results

Attending to the responses in the different items related to the use of mobile devices by the 318 university students, the first question "What for do you mainly use the mobile device?" is divided into 7 indicators with a response rate of 100%: talking on phone with average usage (58.18% - sum of enough and many), messaging and chat has regular use very high (98.11%), surfing the internet has a regular use high (88.68%), listen to music has regular use medium-high (65.41%), take photos or videos, regular use high (73.27%), alarms and calendar management, regular use high (80.5%) and play games, regular use very low (9.12%) [Table 1]. In this way, it stands out as the main use "messaging and chat" with present the highest percentage.

Table 1: Indicators associated with the question "what for do you mainly use the mobile device?"

Indicators	%			
	None	Some	Enough	Many
Talking on phone	2.83	38.99	36.48	21.70
Messaging and chat	0.00	1.89	17.92	80.19
Surfing the Internet	0.00	11.32	34.28	54.40
Listen to music	9.43	25.16	28.93	36.48
Take photos or videos	1.57	25.16	40.25	33.02
Alarms and calendar management	1.26	18.24	38.05	42.45
Play video games	60.38	30.50	4.40	4.72

Regarding the question "with what purpose do you connect to the internet on your mobile?" it is divided into 8 indicators which indicate the most frequent uses of the internet with mobile: information search has regular use high (88.99%), participation in social networks regular use high (86.48%), communication, regular use very high (98.11%) coinciding with the previous item "messaging and chat" as main use of mobile phone in the first question, audiovisual entertainment has a regular use high (70.13%), check the email has a regular use very high (90.49%),

collaboration has a regular use medium-low (48.74%), shopping has a regular use low (19.49%) and games has a regular use very low (10.37%) [Table 2].

Table 2: Indicators associated with the question “with what purpose do you connect to the internet on your mobile?”

Indicators	%			
	None	Some	Enough	Many
Information search	0.31	10.69	45.91	43.08
Participation in social networks (Facebook, Instagram, Twitter, LinkedIn)	3.46	10.06	22.01	64.47
Communication (SMS, WhatsApp)	0.00	1.89	16.98	81.13
Audiovisual entertainment (YouTube, Spotify)	6.29	23.58	32.08	38.05
Check the email	0.63	8.81	40.88	49.69
Collaboration	12.58	38.68	38.36	10.38
Shopping	49.69	30.82	12.89	6.60
Games	60.38	29.25	6.60	3.77

The following item "the mobile phone allows you to search for information wherever you are", it has been obtained the response based on the Likert scale: none (0.94%), some (4.72%), enough (28.30%) and many (67.61%) [Figure 1]. Concentrating the majority of responses in positive values (95.91%).

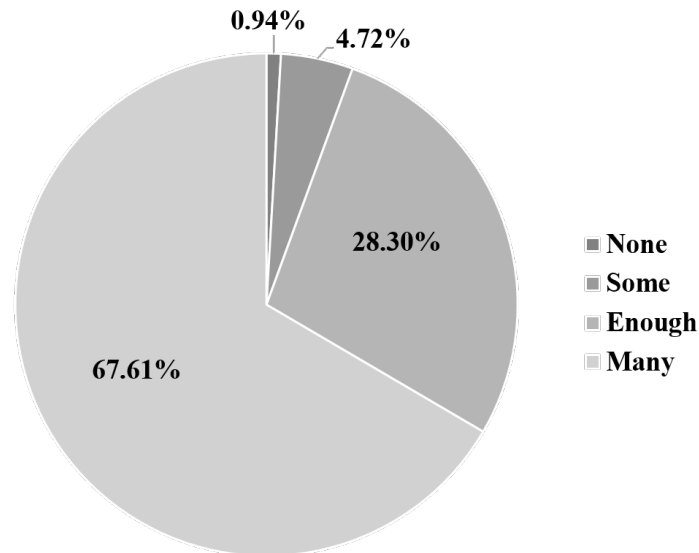


Figure 1: Percentage of responses to the item “the mobile phone allows you to search for information wherever you are”.

On the other hand, the item "the mobile phone allows you to always be connected with your surroundings", is specified in none (0.00%), some (6.29%), enough (23.90%) and many (71.07%) [Figure 2]. Obtaining a positive value of 94.97% with respect to this sentence.

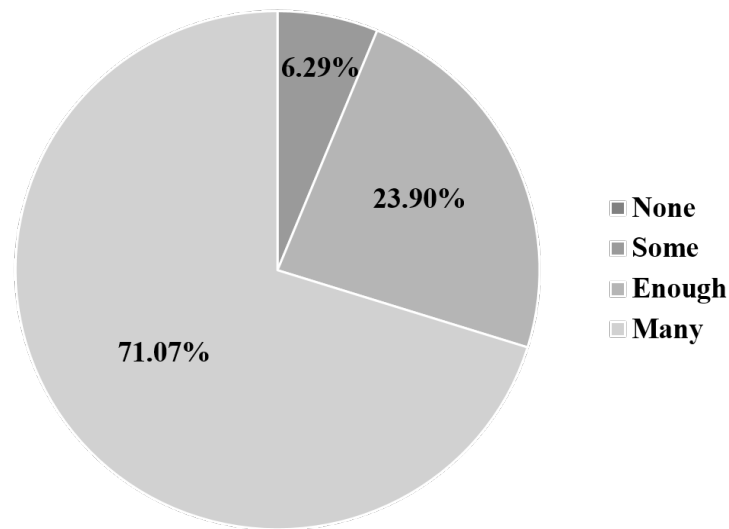


Figure 2: Percentage of responses to the item “the mobile phone allows you to always be connected with your surroundings”.

The results in the item "the mobile phone allows you to work from anywhere", the answers are none (1.57%), some (19.50%), enough (32.90%) and many (48.11%) [Figure 3]. Like the previous ones, the majority continues concentrating on positive values (80.5%) with respect to the item.

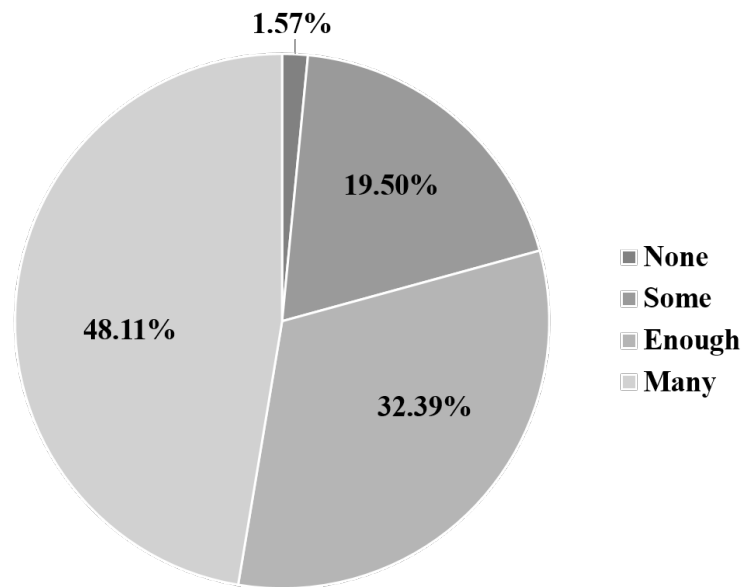


Figure 3: Percentage of responses to the item “the mobile phone allows you to work from anywhere”.

Focusing on the most specific items in relation to the use of mobile phones in university training, in the question "have you used your mobile device to access class contents?", Most of the answers are related to its frequent use (71.07%) in the University training, the answer are collected in: none (9.75%), some (21.38%), enough (33.96%) and many (37.11%) [Figure 4].

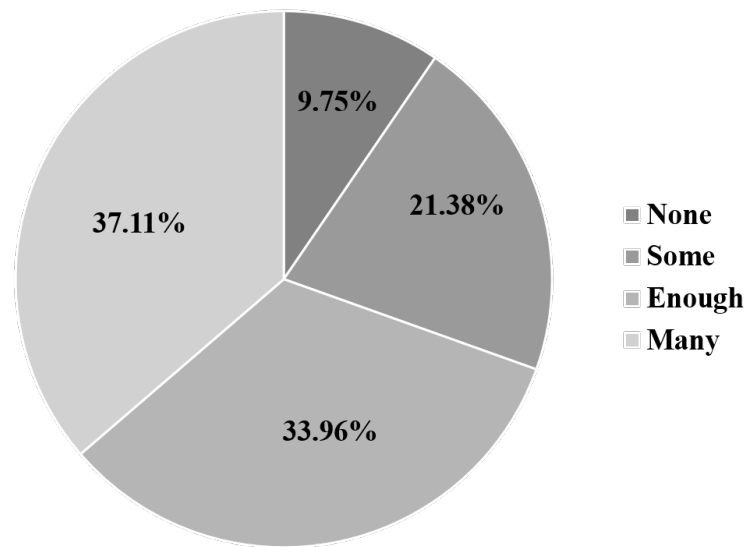


Figure 4: Percentage of responses to the item "have you used your mobile device to access class contents?"

Finally, in relation to the item "have you used your mobile device to access class activities?" The answers are similar to the access to the contents through the mobile phone, being exposed in the following way: none (11.32%), some (23.27%), enough (33.02%) and many (33.33%) [Figure 5]. The percentage of frequent use is 66.35%.

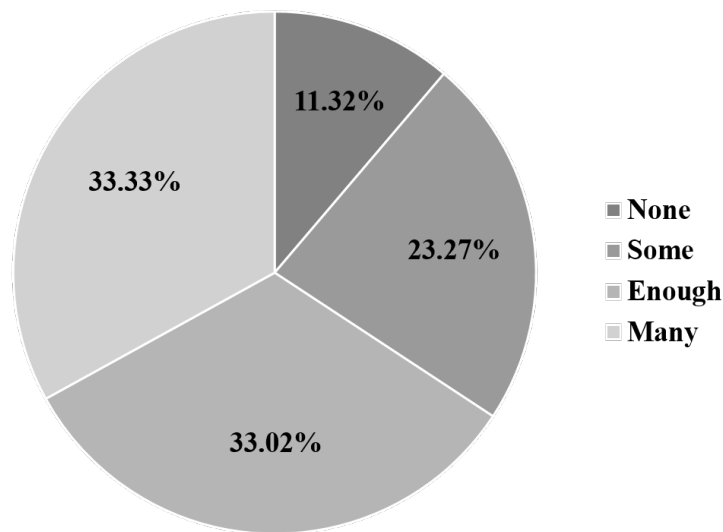


Figure 5: Percentage of responses to the item "have you used your mobile device to access class activities?"

Discussion

In relation to the results obtained, "messaging and chat" and "communication" (SMS and WhatsApp) are the most common uses of the smartphone with a very high percentage (98.11%), data similar to those obtained by Gutiérrez, Santana and Pérez (2017) where the 93% of young people consider contact through the mobile phone very important.

On the other hand, it is worth mentioning that talking on phone has an average use (58.18%) when the main function of a mobile phone in its origin has been the talking on phone, which denotes that smartphones have changed the use of the mobile device. Likewise, it highlights surfing the internet (88.68%) and take photo or videos (73.27%) as frequent uses, coinciding with the studies of Saussure (2016) and Gutiérrez, Santana and Pérez (2017).

These functions together with communication from apps like WhatsApp and participation in social networks (86.48%) are the main uses of the smartphone today (Saussure, 2016; Gómez, 2017).

In contrast, in this sample of students the use of mobile phones to play video games is very low (9.12%) in relation to other studies (Gutiérrez, Santana, & Pérez, 2017).

Regarding the intrinsic characteristic of mobile devices: ubiquity (Rodríguez-García, Aznar, & Alonso, 2016), students consider with a 95.91% that mobile devices allow you to search for information wherever you are, always being in touch with your environment (94.97%) and work from anywhere (80.5%), in the same way Organist, McAnally and Lavigne (2013) highlight it as one of the 3 characteristics associated with the use of the smartphone by students and university professors. Likewise, González and Salcines (2015) conclude in their study that ubiquity is one of the advantages of mobile devices.

Considering its use for university training, the smartphones are used by students to access content (71.07%) and activities (66.35%), so we could say that most of them have an educational conception of the use of the mobile device. In this same line González and Salcines (2015) highlight the ease of communication in university education that allows the mobile device. In agreement with this results, we found "check the email" has a regular use very high (90.49%) for communication from the institutional email. In turn, if we look at the use to search for information made by university students through the mobile phone, this function is associated with the development of digital skills in the management of information on the Internet (Aznar, Romero, & Rodríguez-García, 2018).

In summary, coinciding with the considerations of Organist, McAnally and Lavigne (2013) the mobile device acts as a pedagogical tool at the service of students.

Conclusions

Mobile devices allow new ways of teaching and learning through technology, its controlled and timely use can bring great benefits for learning and the development of digital competences. In this research we have analysed the uses that the students of the Faculty of Educational Sciences of the University of Granada perform of the mobile phone, thus fulfilling the stated objective.

As seen, the main functions of the mobile phone have evolved from a purely communicative use through the telephone call to a use related to Internet browsing, participation in social networks and communication via apps. Although first the uses of the smartphone are related to leisure, it is also observed its application as a resource for university training from access to content and activities. This fact awakens in the students an educational conception of the mobile phone, making it known as an educational tool for the improvement of the teaching-learning process.

Thus, the concept "bring your own device" is beginning to gain strength in the university classrooms, having overcome the previous step on the educational conception of smartphones by students. However there is still a long way to go for the mobile learning methodology is implemented as a natural part of the curriculum at the University.

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Building Learning Organizations: Emulating Business Organizational Structures In Academic Environments

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Abstract

This paper will explore the underlying concepts and foundations upon which to build effective learning organizations, principally through emulation of corporate organizational structures. Business modeling applied to learning organizations can yield effective academic and administrative reporting structures, curriculum design and classroom teaching paradigms. By examining corporate industry strictures in terms of academic learning, a case analysis uncovers learning disabilities through system archetypes. Consequently, recommendations for a corrective action plan can initiate academic solvency and positive learning outcomes. This specific educative stratagem will apply Peter Senge's five "Disciplines" as curative remediation. A final review applies a personal mastery plan to the organization that will employ a declaration of purpose, mission statement and sustaining vision for enduring and maintainable success.

Keywords: *Building Learning Organizations, Personal Mastery Plan, Peter Senge, Academic Structuring*

Introduction

Academic institutions and business organizations alike can stifle growth and inhibit positive change. By succumbing to common disabilities that invasively plague inert companies, academic institutions may also passively allow internal infirmities to riddle and ultimately incapacitate their organization from thriving. Identifying and addressing debilitating inefficiencies are only initial steps in rectifying an academic institutions' deficiencies and forging a counteractive blueprint for achievement. Explicit recommendations and thorough planning are integral to gauge accomplishments and attain scholastic success. Therefore, unremitting sustainability for any business organization is only possible with a clear and unobstructed statement of purpose and persisting vision for the company's future. Likewise, any learning organization's mission statement should focus on measurable goals and institutional growth. Whereas a corporation should be client-centric, an academic institution must also craft their own mission around their student constituency. A vision statement is similarly integral to maintaining a concentrated trajectory that affirms dedication to student learning while also advancing its pedagogical reach. Senge (2006) maintains that the "art of systems thinking lies in seeing through the detail complexity of the underlying structures generating change" (p.124). This systematic thinking is an attribute of successful business leadership whereby upper management and institutional leaders chart a course for the company by identifying business trends, institutional patterns and industry development. For an academic institution to successfully engage shifting student populations, they must, as Senge (2006) affirms, "...make the shift from seeing the world primarily from a linear perspective to seeing and acting systematically" (p. 125). Instituting systematic thinking into curriculum building fuses student engagement with academic organization. Forecasting for this evolution involves primarily identifying the limitations and "disabilities" that stifle an academic institution and cause it to disengage with its primary "client," the student. Thus, identifying these limitations and obstacles must be the initial first steps in curative remediation. These institutional confines are analogous in both business and academia. This study will assess organizational confines inclusive of both paradigms and then recognize a path to rectify these impediments to organizational success and institutional development.

Analysis

Learning disabilities evident in academic institutions are often reflexive of weak leadership. Consequently, weak leadership causes ineffective administrative management and yields dogmatic institutional policies which bear archaic teaching models. This in turn results in disaffected faculty and ultimately, reveals a disengaged student body. "A reinforcing (amplifying) process," as Senge (2006) states, "is set in motion to produce a desired result. It creates a spiral of success but also creates inadvertent secondary effects (manifested in a balancing process) which eventually slow down the success (p. 94). Successful leadership promotes effective management. Effective management achieves measurable benchmarks through staff participation. Staff participation facilitates best practices for positive faculty instruction. Positive faculty instruction engages student active participation. Active student participation promotes receptive learning.

Meadows (2008) states, "To be a highly functional system, hierarchy must balance the welfare, freedoms, and responsibilities of the subsystems and total system—there must be enough central control to achieve coordination toward the large-system goal, and enough autonomy to keep all subsystems flourishing, functioning, and self-organizing" (p. 85). She goes on to say, "Resilience, self-organization, and hierarchy are three of the reasons

dynamic systems can work so well. Promoting or managing for these properties of a system can improve its ability to function well over the long term—to be sustainable” (Meadows, 2008. p. 85). Academic institutions must be aware when crafting their own internal structural systems that leadership teams and managers are inclusive of existing subsystems and hierarchical structures within the organization.

In corporations when there is a lack of new product development or profits languish, participant constituencies can, as Senge (2006) asserts, “shift the burden” (103). Senge (2006) goes on to explain, that “The underlying problem grows worse...and the system loses whatever abilities it had to solve the underlying problem” (103). In this way, companies are stymied with an apathetic work force and “eroding goals” (Senge, 2006. P. 107). Senge (2006) warns, “Whenever there is a gap between our goals and our current situation there are two sets of pressures: to improve the situation and to lower our goals” (p. 107). This model plays out in academia as well. “Improving the situation” and “lowering goals” can be diametrically opposing objectives. Thus, a lack of real purpose and a muddled vision couples with inefficiencies in both time and purpose.

Results and Discussion

Senge’s (2006) “Five Disciplines” establish a substantive foundation upon which to formulate an actionable method for academic “systems thinking.” “Systems thinking,” according to Senge (2006), “...is a discipline for seeing wholes. It is a framework for seeing interrelationships rather than things, for seeing patterns of change rather than static ‘snapshots’” (p. 68). This shift of thinking is of primary importance if there is any desire to rectify a downward trajectory in teaching effectiveness. Because there is in its genesis a pattern of behaviors and not just individual exclusive events, an academic organization is best served to conceptualize the “mezzanine view” of its state of affairs, both leading up to its current state as well as where this trajectory will likely end up. In this sense, “Systems Thinking” is the “conceptual cornerstone that underlies all of the five learning disciplines,” and thus pertinent to address first and foremost (Senge, 2006. p. 69). Senge (2006) goes on to say, “Without systems thinking, there is neither the incentive nor the means to integrate the learning disciplines once they have come into practice” (p. 69).

Remaining cognizant of changing patterns and emerging trends, whether positive or detrimental, is central to preparing for change and tracking effectiveness of corrective measures. This self-awareness of over-arching principles, policies and practices is the essences of “seeing wholes” as a means to “learn how to foster health” (Senge, 2006. p. 69). Senge (2006) calls this awareness “seeing circles of causality” (p. 73). “If we want to see systemwide interrelationships, we need a language of interrelationships, a language made up of circles” (Senge, 2006. p. 73). In practice, an academic institution as an entity must simply be aware of the parts as well as the sum of those parts, both in administrative dealings as well as in operational acuity. Specifically, it is not solely the business outcomes or transactions, but also the mental causality precipitating those behaviors, decisions and actions.

“Personal Mastery,” as Senge (2006) avows, “means approaching one’s life as creative work, living life from a creative as opposed to reactive viewpoint” (p. 131). In this sense, academic institutions must become the creative talent it professes to be by creatively thinking outside of restrictive and outmoded teaching models. In this regard, that means providing new, novel and emerging learning paradigms within the scope of its pedagogy. By refusing to be constricted, passé modes in the creation of instructional learning academic institutions must provide a unique product and experience for both its clients and its students, which the institution should perceive as one in the same. To reiterate, in today’s landscape of higher learning, the student is also the client. The value, and in fact the monetary value in this case, is the message, how this message is taught and delivered, and also how it is received and perceived. In practice, this delivery mechanism is the creative transmission of erudition.

“Mental Models” come into play then, to discredit preexisting notions and resulting stereotyped, deeply held views that serve to limit growth and change. Senge (2006) concludes, it’s “why the best ideas fail” (p. 163). Conversely, he observes, “if mental models can *impede* learning—why can’t they also help *accelerate* learning” (Senge, 2006. p. 167). Here, what Senge (2006) suggests is, “...the impetus for the discipline of bringing mental models to the surface and challenging them so they can be improved” (p. 167). To accomplish this task, Senge (2006) provides “tools” and “skills,” specifically employing “skills of reflection and skills of inquiry” as a means to liberate the leader and engage the instructor in shifted, improved mental models (p. 175). In academia, outmoded attitudes in organizational teaching models must be abandoned from the starting point of academic administration and replaced with policy that integrates progressive inquiry methods and emerging trends in instructional teaching methods. Care must be taken to avoid new fads in classroom theatrics or instructional hyperbole, but instead seek out and embrace the creative realms of learning receptivity. Receptivity in this example is the crux of message delivery. In essence, the new message is always look for the *new* way to deliver a *new* message.

Logically, the next step is to recruit Senge's (2016) discipline of "building a shared vision" (p. 192). Senge (2006) asserts, "When people truly share a vision they are connected, bound together by a common aspiration" (192). He contends, "Shared vision is vital for the learning organization because it provides the focus and energy for learning" (Senge, 2006. p. 192). In reality, this shared vision is problematic because at this stage of the "five disciplines" a leader must recruit the subordinate support structure where the rest of the organization buys into the message. In academic institutions, this often comes across as vapid proselyting and unidirectional lecturing. Instead, administration must take the example from business models and empower organizational leaders to be "classroom" leaders to create and deliver a bold and identifiable message to their constituencies that is both accepted and consumed across a multitude of academic and classroom teaching models. In common parlance and in accord with the institution's prescription for change, the academic institution must adapt to *creatively* conceive and *creatively* deliver that message that is also *creatively* understood.

Once these disciplines are understood and the vision is shared by all, the academic leadership team must be molded to sustain the direction and viability of the enduring mission and that new vision. Concepts must be learned and repeatable, and not so stringently constricted. Instead, these notions must be adopted fully by the organization and continually adaptable to the changing needs of the marketplace. Senge (2006) writes, "Team learning is the process of aligning and developing the capacity of a team to create the results its members truly desire. It builds on the discipline of developing shared vision" (p. 218).

John Moorecraft (2007) notes, "The idea of rehearsing alternative futures is fundamental to contemporary strategic modelling and scenario development. The purpose of models and simulations is to prepare organizations and individuals for alternative futures by bringing these futures to life so they are imagined more vividly than would otherwise be possible" (p. 6). This notion assumes that modeling standards are necessary prerequisites functioning in academic modeling and business organizational structuring.

Relatedly, "team learning has three critical dimensions. First, there is the need to think insightfully about complex issues. Second, there is the need for innovative, coordinated action. Third, there is the role of team members on the other teams" (Senge, 2006. p. 219). In practice, this translates as the academic organization to explore new, but related avenues for innovative learning opportunities, to work collaboratively within a creative *workspace*, and finally, to work across cross-functional groups and amongst external departments with colleagues as well as the student/client both within and outside the organization.

Senge (2006) refers to these thinking paradigms as "metanoia" or a "shift in mind" (p. 219). "To grasp the meaning of 'metanoia' is to grasp the deeper meaning of learning, for learning also involves a fundamental shift or movement of mind" (Senge, 2006. p. 13). As Senge (2006) concludes, "This then, is the basic meaning of a 'learning organization' – an organization that is continually expanding its capacity to create its future" (p. 14). Extrapolating these concepts necessitates that academic organizations require a revived "shift of mind" and recommitment to embracing and incorporating change as a core tenant of doing business in the field of education.

Pragmatically, these disciplines espouse a plan of action that outlines feasible specific tactics that are easily implementable. Monthly reports by academic leadership should be instituted surveying how each department group interacts and integrates with the organization and across cross-functional teams. Additionally, upper administration must develop and regularly adhere to a primary and consistent purpose of business that provides a vision for continued success. At the same time, the organization should discard outdated mental models and instead embrace new mental models that allow adaptability of the unit to thrive in a changing academic landscape. Finally, care should be given to enlist the help of other members of this "new" organization to enact change and share this renewed vision for the company. In this case, the leadership team must sell the idea of creative change in the creative realm. Most importantly, however, academic leaders must provide personalized mentorship throughout the organization by measuring successes and quickly enacting corrective measures as a means of affecting institutionalizing effective learning practices and ingratiating new learning practices into the culture of the organization across all constituencies.

Conclusion

To most effectively adhere to these principles is to review personal mastery in the context of leadership organization and development. Developing a plan for personal mastery is contingent upon a clear understanding of that concept.

Bearing in mind, aspects of the "personal mastery" notion must be clearly understood by all individuals across all levels of the organization. In this definition, "Personal mastery is the discipline of continually clarifying and deepening our personal vision, of focusing our energies, of developing patience, and of seeing reality objectively"

(Senge, 2006. p. 7). As Sweeney and Meadows (1995) state, “Words are sometimes ill-equipped to convey the power, strength and dynamism of a clearly visualized goal or objective,” (34). Precisely for this reason, it is imperative that all members of the organization, and especially the leader, clearly understand how each member of the organization is crucial to implementing and furthering the institution’s message in accordance with the mission statement and in harmony with the outlined vision for the future.

To enact this fundamental alteration, an elemental approach to transformation must be embraced by the institution. In a sense, the company becomes an individual entity defined by values, purpose, vision and ultimately practice. A statement of purpose, therefore, is the most basic and primary foundation of which to build any organization, whether that be a business unit or academic institution. In the case of the academic model, the business at hand must exist outside of and exclusive of any one department head, and instead shared amongst administrative leaders as well as with faculty, staff and student constituencies. Consequently, the mission statement in its most rudimentary form should be to provide personalized, innovative and creative messaging that promotes erudition and inspired reception by the desired recipients, primarily the students in this scenario. Senge, Kleiner, Roberts, Ross, and Smith (1994) assert that this should be collaborative in an organization by “co-creating places [for] every member in a creative orientation. Every step involves choice. Individuals begin by drawing forth aspect of their personal vision” (p. 322). Therefore, an enduring vision can follow to subsist as a sustaining and positive creative force for learning effectiveness. Fundamentally, it is therefore the duty of an academic institution and its leadership to ratify and enthusiastically maintain positive change incorporating the values and disciplines outlined, in all future iterations and successive generations to continually adapt and reassess teaching practices for primary efficacy on an ongoing basis and in perpetuity.

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Burnout, Work Ability And New Technologies In A Sample Of Italian Teachers. Do Ict Improve Professionals' Abilities?

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Abstract

Teaching is one of the social works that most exposes to burnout. Moreover, the high average age of teachers, especially in the high schools, negatively influences the work ability. In this context, of general high burnout and moderate work ability, recently school reforms have introduced the information and communication technology (ICT) as a part of their pedagogical approach. The first aim of this study is to describe psychological health, work ability and teachers' perception and attitudes toward the use of ICT, in a sample of Italian primary, middle, and high school teachers. The second aim of this study is investigate the relationship between teachers' attitude toward the use of ICT, burnout and work ability. The study is cross-sectional; 985 self-reporting questionnaires were distributed and 755 teachers correctly filled out the questionnaire. Results show that there are differences about psychological health and work ability between different school grades: depersonalization is significantly higher among high school teachers ($F=8.43$; $p=.00$), while personal accomplishment ($F=11.04$; $p=.00$) and work ability ($F=3.08$; $p=.05$) are significantly higher among primary school teachers. Data show that there are differences also about teachers' perception and attitudes toward the use of ICT: high school teachers are more likely to use ICT ($F=3.39$; $p=.03$) and they believe that ICT is able to facilitate communication among students ($F=4.28$; $p=.01$). However, the primary school teachers perceive greater utility of ICT ($F=13.22$; $p=.00$). The regression model shows that believing that ICT facilitates communication among students has a positive impact on work ability ($B=.07$; $p=.05$). The study revealed some interesting findings, suggesting that there are differences about psychological health, work ability and teachers' attitudes toward the use of ICT between teachers of different school grades. In this direction, the study has relevant practical implications.

Introduction

Teaching represents a highly stressful occupation, like other human service professions that are highly demanding (Lodolo D'Oria et al. 2006; Stoeber and Rennert 2008; Viotti et al. 2015; Guidetti et al., 2017). It has been estimated that between 25% and 35% of European teachers are burned out (Quattrin et al., 2010). Burnout is a psychological syndrome involving emotional exhaustion, depersonalization, and a diminished sense of personal accomplishment that occurred among various professionals who work with other people (Maslach, 1982). Teachers show especially high levels of emotional exhaustion (especially women) and cynicism (especially men, Hakanen et al., 2006) that are the core dimensions of burnout (Maslach et al. 1996; Schaufeli and Enzmann, 1998). Some organizational and job characteristics of the teaching, such as high workload, conflict with colleagues, students and their parents, student behavioral problems are some of the main stressors linked to burnout of teachers (Lodolo D'Oria et al., 2003; Quattrin et al., 2010). As well, lack of social support from supervisors and students' parents, lack of self-efficacy (Grayson and Alvarez 2008; Otero-Lopez et al. 2010; Skaalvik and Skaalvik 2007, 2009; Velasco et al.2013) are linked to burnout of teachers. Generally, teachers have low autonomy, high accountability demands, and non-teaching-related workloads (Van Droogenbroeck and Spruyt, 2015).

However, the literature shows that some resources are important for reducing the risks of burnout at work and increasing the job wellbeing, especially skill discretion (Viotti and Converso, 2016), social support and users' gratitude (Loera et al. 2013; Martini et al., 2015; Converso et al., 2015; Viotti et al., 2016; Martini et al., 2018; Guidetti et al., 2018a). These seems to be particularly helpful for teachers (Velasco et al.2013; Loera et al. 2016). Another critical aspect of the teaching word is the high average of age. As a result of the recent legal reforms, the Italian teachers are the oldest in the world, especially in secondary school teachers (OECD, 2014). The aging of workers requires attention on two major issues that in the sustainability perspective are kept together: the first one involves workers' health; the second one involves performance and job productivity. The aging of workers is

associated to decline of work ability (WA). WA describes the physical and intellectual resources on which individuals can rely to respond to the emotional, cognitive, and physical demands posed by their work (Tuomi et al., 1991 and 2001). The literature shows an accentuated decline of the WA with aging, especially for teachers (Ilmarinen et al. 1997; Seibt et al., 2005; Freude et al., 2005; Converso et al. 2015; Viotti et al. 2016; 2017; Guidetti et al., 2018b).

However, even in this case, some organizational resources can improve work ability, like decision authority, social support, reward, skill discretion and meaning of work (Freude et al., 2005; Sottimano et al., 2017; Converso et al., 2018). In addition, some personal resources can improve work ability, especially self-efficacy (Guidetti et al., 2018b), hope and resilience (Converso et al., 2018).

In this context, of general high burnout and moderate work ability, recently school reforms have introduced the information and communication technology (ICT) as a part of their pedagogical approach, with the aim of facilitating learning processes of students (OECD, 2010). This changed aim at facilitating the learning process through the management of appropriate technological resources (Al-Emran and Shaalan, 2015). There are various technologies that have been employed in educational institutions in order to facilitate the learning process, such as tablets, smartphones, notebook, social media, forums and blogs.

One of the new research trend in this sector is Mobile Learning (M- Learning) that provides to students and teachers the opportunity to learn more into short time frame (Mostakhdemin-Hosseini, and Tuimala, 2005). It offers all the benefits of e-learning by allowing people to connect and interact using any other portable devices to exchange information (Georgiev, Georgieva and Smirkarov, 2004), encouraging both independent and collaborative experiences. Learning becomes more flexible, negotiable and fluid.

In this new context, teachers' attitude and the familiarity toward the use of ICT are crucial to foster its use in schools and to improve its educational affordances (González-Sanmamed et al., 2017).

The Study

In light of the critical issues (high burnout, reduced work ability) and the potentials (use of ICT) typical of the teaching and reported by the literature, the aims of study are:

1. to describe psychological health (three dimensions of burnout), work ability and teachers' perception and attitudes toward the use of ICT, in a sample of Italian teachers;
2. investigating the relationship between teachers' attitude toward the use of ICT, burnout and work ability in order to test if the attitude and the familiarity (in terms of ownership and usage) with ICT device and social network profile improve teachers' work ability.

The study sample (N= 755) consist of primary (37%), lower 821%) and upper secondary (42%) teachers in northern Italy. The majority of participants are female (81%), age ranged from 23 to 65 years (M=45, SD=9.8) and the average age increase by school levels.

Data were collected by the mean of a self-administered paper and pencil questionnaire, administered during the working hours. Since the answers had to be anonymous, in each school participants were instructed to close the compiled questionnaire into an envelope, and to put it into a dedicated box reserved to researchers. Teachers were volunteers and signed informed consent.

The study conformed to the provisions of the Declaration of Helsinki in 1995, revised in Edinburgh 2000 (World Medical Association, 2001). All ethical guidelines for conducting human research were followed, including adherence to the legal requirements of Italy.

The questionnaire included a demographic section to collect participants' characteristics, and a main set of scales aimed at measuring the key variables of the research. Specifically, burnout was measured with the Maslach Burnout Inventory (MBI, Maslach et al., 1996; Loera et al., 2014). The MBI measure the three dimension of burnout: exhaustion, cynicism and personal accomplishment. Exhaustion consist in 9 items, cynicism in 5 items and personal accomplishment in 8 items. Example of items are "I feel used up at the end of a working day" (Exhaustion), "I doubt the significance of my work" (Cynicism), "I feel confident that I am effective at getting things done" (Personal Accomplishment). All items are scored on a seven-point rating scale, ranging from 0 (never) to 6 (daily).

Work ability was measured with the Work Ability Index (WAI, Tuomi et al., 1998), which contains seven sections. These sections measure: (1) current WA compared with lifetime best (range of the score: 1–10); (2) WA in relation to mental and physical demands (range of the score: 2–10); (3) number of current diseases diagnosed by a physician (range of the score: 1–7); (4) estimated work impairment due to diseases (range of the scores 1–6); (5) sick leave during the past 12 months (range of the scores: 1–5); (6) self-prognosis of WA for the next 2 years (scores: 1–4 or 7); and (7) mental resources (range of the score: 1–4).

The teachers' perception and attitudes toward the use of ICT was measured with the short version of Mobile-Learning Perception Scale (Uzunboyulu and Ozdamli, 2011) proposed by Roche (2013) and translated into Italian (Zaminga et al., 2017). The questionnaire is composed of 13 items divided in three dimensions: subjective

professional resource (consist in 5 items), communication support (consist in 5 items), and perceived utility (consist in 3 items). Example of items are “New technologies immediately allow the availability of useful material during the lessons” (Subjective professional resource), “Students communicate more effectively thanks to new technologies” (Communication support), “New technologies are a reliable learning tool” (Perceived utility). All items are scored on a four-point rating scale, ranging from 1 (not agree) to 4 (totally agree).

The familiarity with ICT was measured by two indices relative to devices (such as iphone, tablet, pc, ecc.) and social media profiles (facebook, whatsapp, instagram, ecc.). For both, the index was calculated by weighting the ownership by the frequency of usage so that the lowest score corresponds to a teacher that, for example, do not possess any device (or social media profile) or at most one device and use it only few times in a year, and the highest score is associated to a participant that possess many devices (or profiles) and use them every day.

Data analyses were performed using SPSS Statistics 24. To evaluate whether the averages of EE, DP, PA, WAI are statistically different between levels of teaching was used a model of ANOVA, and since age increase by the school levels where participants teach all the performed analysis were controlled by age.

To examine the underlying structure of the Attitude towards ICT structure Explorative Factor Analysis was conducted (method of extraction: GLS, Rotation: Oblimin). The following criteria were used to evaluate the factor solution: explained variance, the percentage of residuals (i.e., differences among observed correlations and model-reproduce ones) over |0.05| (REPR). A REPR value of less than 10% is considered good, while a REPR less than 20% is satisfactory.

The reliability of the scale was evaluated with Cronbach's Alpha (α).

In order to determine the effects of attitude toward ICT and familiarity with ICT (devices and social network) on work ability, we performed a multiple linear regression analysis (OLS estimation, backward method). The model includes demographic variables (sex, age), levels of teaching (primary, low secondary, upper secondary used as reference category) and burnout scores as independent control variables. Model specification is focused on independent variables that measure relationship with ICT in terms of behavior and attitude. All these independent variables are regressed on the three indices of work ability, i.e. WAI, physical and mental WA, that constitute the dependent variables of the three estimated models. Goodness of models is evaluated considering the coefficient of determination adjusted R^2 , that is the percentage of explained variance respect to the observed variance of the dependent variable corrected by the complexity of the model. Since R^2 provide a general indication of the fit of the model considered as a whole, single t test on each standardized parameter is used to evaluate the contribute of every regressor and to preserve only the significant ones ($\alpha \leq 0.05$).

Findings

Burnout levels are quite low for all participants (EE: $M=15.5$, $SD=10.8$; DP: $M=2.9$, $SD=4.2$; PA: $M=38.1$, $SD=7.1$), and there are some significant differences in DP ($F(2,752)=8.9$, $p=0.000$) and PA ($F(2,752)=14.9$, $p=0.000$). DP is significantly more intense among the upper secondary school teachers, while PA is significantly higher into the primary subgroup of teachers.

The declared levels of WA, measured by the first item of the WAI, are quite high ($M=8.2$, $SD=1.1$), and remains stably high also considering both mental ($M=3.9$, $SD=0.8$) and physical ($M=4.1$, $SD=0.7$) work ability. There are no differences between groups based on school levels.

Teachers' device and social network profile possession are quite low: the index that measure the numbers of device, weighted by their usage at school, ranges from 0 to 53, while the mean of participants is 15.5(10.8), and the same occurs for social network profiles (range 0-27, $M=2.9$, $SD=4.2$).

The exploratory factor analysis (Explained variance=53.3%, REPR=18%) of the attitude towards ICT scale (Cronbach' $\alpha=0.89$) revealed the presence of three underling latent factors referred “Subjective professional resource”, a “Communication support”, and “Perceived utility” (Table 1).

Table 1: Explorative factor analysis of the attitude toward ICT: Pattern matrix and correlation between latent factors

Item	Subjective professional resource	Communication support	Perceived utility
11. New technologies immediately allow the availability of useful material during the lessons	0.780		
10. New technologies facilitate sharing of knowledge and information among colleagues	0.688		

12. New technologies allow the teachers to share and send school materials to their students	0.660		
9. Programs such as Messenger and Skype facilitate the debates without space-time limits	0.598		
13. New technologies can be useful during a classroom discussion	0.461		0.204
2. Students communicate more effectively thanks to new technologies		0.785	
3. New technologies facilitate the creation of a communicative environment		0.752	
4. New technologies can facilitate the quality of student relationships within the classroom		0.664	
1. Students can communicate more easily thanks to new technologies		0.611	
8. New technologies facilitate communication between professors and students		0.363	
6. New technologies increase the quality of the lessons			0.862
7. New technologies can be an important support for all classes and for all teaching subjects	0.228		0.635
5. New technologies are a reliable learning tool			0.618
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Subjective professional resource	1.000		
Communication support	0.530	1.000	
Perceived utility	0.559	0.427	1.000

The first factor includes the productive use of ICT in teaching, the second factor groups items inherent to the communication process in the classroom, and between teachers and students. The latest one regards the perceived reliability and usefulness of ICT in itself. The correlation between latent factors are quite high, and ranges from 0.43 to 0.56.

Results show that there are differences also about teachers' perception and attitudes toward the use of ICT: high school teachers are more likely to use ICT ($F=3.39$; $p=.03$) and they believe that ICT is able to facilitate communication among students ($F=4.28$; $p=.01$), whereas the primary school teachers perceive greater utility of ICT in itself ($F=13.22$; $p=.00$).

Regression models produce several interesting results (table 2). First, EE systematically reduce work ability, especially measured using WAI item, while PA improve all the ability, whit the greater effect on mental work ability. Age reduces work ability, but not perceived mental capacities, and the teaching level is significant only for mental work ability, stating a not intuitive result: teachers in the primary schools feels less able than those working in secondary upper courses. Second, going to the more interesting parts of the model, we can note that the belief about the supportive role for communication of ICT significantly improves WAI and physical work ability, while the perceived utility of ICT as professional resource increases mental work abilities. These latest are noticeably improved by the familiarity with social media too, and this is the more intense effect of ICT on work abilities.

Table 2: Regression analysis of burnout, ICT attitude, and familiarity with ICT on work ability: models determination coefficients (R^2) and standardized coefficients of the significant independents variables subset.

	WAI ($R^2=0.24$)			Physical work ability ($R^2=0.18$)			Mental work ability ($R^2=0.20$)		
	β	t	p.	β	t	p.	β	t	p.
Intercept		42.962	.000		31.980	.000		102.347	.000
Age	-.108	-2.835	.005	-.204	-5.122	.000			
EE	-.243	-6.275	.000	-.153	-3.776	.000	-.191	-4.817	.000
PA	.340	8.819	.000	.243	6.036	.000	.344	8.565	.000
Primary							-.080	-2.029	.043
Communication support	.066	1.730	.044	.097	2.456	.014			
Social media profile (ownership and usage)							.104	2.645	.008
Subjective professional resource							.074	1.886	.050

Conclusions

Considering all the psychological measures included in the study, data show that burnout levels of the sample are enough low (emotional exhaustion: ≤ 13 ; cynicism: ≤ 3) or medium (emotional exhaustion: 14-23; personal accomplishment: 39-34).

However, there are differences on burnout between school levels: teaching in a primary school protect against burnout, whereas working with young adults expose to emotional exhaustion and depersonalization, without the compensation of professional accomplishment. These results agree with the literature (Betoret, 2009; Shasheen and Mahmood, 2016) highlighting specific peculiarities for secondary schools. A possible reason of high burnout in secondary school as compared to primary school is the behavioral aspect of students of both age groups in form of different obedience levels. Young adults (secondary school level) are likely more demanding whereas students at primary school level are more affirmative (Shasheen and Mahmood, 2016).

About the WAI, the level is enough high, considering the first item, and there is no difference between school levels. The weak difference of mental work ability between teaching levels can be interpreted thinking at the posed demand: the item asks a prospective evaluation that might be meaningful for the youngest ones, and embarrassing for the oldest, i.e. the oldest teachers might have biased their answers to protect their identity, unconsciously too, acting a self-deception bias (Paulhus, 1984).

Also the attitude toward ICT, usage of ICT device and social media not differ between school levels. However, the regression models offer a lot of meaningful results on the role of attitude and familiarity with ICT on work abilities. The belief that ICT facilitate the communication with student is clearly a resource that facilitate homework assignments, sharing materials, class project and discussion, and above all the reduction, or elimination, of stationery and paper. Because of this facilitation the fact that this part of attitude toward ICT improves prospective physical work ability and limits the perception of reduced general work abilities is clearly understandable.

Remaining on the familiarity with ICT, the ownership and usage of devices do not result as a crucial characteristic for work abilities. On the other hand, interpreting ICT as a professional resource, or even more use social media profile to support teaching and relationships with students, requires a cognitive investing on teachers' activities, on work organization, shared information, and personal engagement in class life. Reasonably, we can interpret these results on mental abilities as a positive redefinition of teacher's role and work promoted by the familiarity with ICT and social media.

The findings are relevant for two reasons: the first one, these will help to implement effective intervention programs against occupational stress taking into account the differences between school levels. The second one, we can consider the positive attitude toward ICT like important resources for teachers, particularly it can improve the perceived ability to work. In this direction and in the light of the aging of the population, it is important to implement training courses in order to support teachers' digital skills, positive attitude and, indirectly, the work ability of teachers.

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Challenges Of Educational Policies For Higher Secondary Education In Aguascalientes

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Abstract

Education is one of the engines driving that drives the productive development of a nation, it is an obligation under the Mexican Constitution promotion by the government of the universal and free education for the population from Basic Education to Higher Secondary Education as a means of redistributing wealth, generating more equitable opportunities for all citizens. The aim of this paper was to analyze the proposals in education from the National Development Plan (NDP) 2013-2018 specifically on the following objectives: "Objective 1: To ensure the quality of learning in basic education...", "Goal 2: Strengthen the quality and relevance of higher secondary and job training..." and "Objective 3: to ensure greater coverage, inclusion and educational equity...". In the methodology, the descriptive analysis of educational indicators of the Educational Panorama of Mexico generated by the National Institute of Educational Evaluation in Mexico was considered. The results of the study showed a breach of the goals set, specifically in the aspects of agents and resources (net rate of coverage, approval rate, absorption rate) and educational results (employment rate). It concluded with a reflection about the challenges and needs in Higher Secondary Education in Aguascalientes and the pertinent actions to meet the proposed objectives.

Keywords: *Educational policy, agents and resources, educational results.*

Introduction

Countries population wellness is a responsibility for the presidents, because of this there is a big responsibility to promote the right conditions for people so that they can be able to increase their life level and participates in society as productive citizens that generate benefits to the companies and to the society. People must be the center of attention of the government, because of citizen's vote the governors are in those positions. Considering the third article of the Constitution of the United Mexican States is the obligation of the government to provide free and secular education to citizens. This education was obligatory up to the middle level but now high school was added.

It is a social benefit to have citizens with better educational levels because it is more convenient for employers to hire them, besides that salary is higher with people that have more studies, improving the opportunities of people in their environment.

Education must benefit citizens because it increases their competitiveness in the labor market, enabling them to get into large transnational companies that demand people with more academic training and greater ability to develop specific activities. This situation is extensive in local companies because they are in competition with foreign companies requesting equal or similar profiles to their competitors in order to remain in the market. The greater number of workers who are hired in the companies carry out technical activities in which a basic training of the position and studies at the high school level are needed, but these people with little training can acquire knowledge in the company by carrying out their activities or with short training courses. In this way, higher secondary education is now relevant because companies regularly require personnel with little training so that they can be trained in their plants, and since they lack higher education they must remain in their position. Therefore, higher secondary education cause them to stay in their work for many years, being attractive for companies to have citizens who perform technical activities available for hiring.

The objective of this document was to analyze the educational results of the National Development Plan 2013 - 2018 related to the proposal of Enrique Peña Nieto (EPN). The hypothesis of this document was the increase in public spending and if it could resolve the coverage of higher secondary education. Education was a substantial issue for the government, in the study conducted by Vargas (2012) entitled "Has public spending on education been progressive ?:

Mexico's experience in the 20 years of structural change", it aimed to evaluate public spending in education, relating it to its impact on families, the above was done with data from the Household Income Expenditure Survey for 1984, 1989, 1996 and 2002. Calculating the monetary transfers for each family, dividing them by decile and by type of education.

As a methodology to evaluate the progressivity of spending by educational level, the following indicators of inequality were integrated: Concentration index and Kakwani index. The results show that transfers in high school were mostly regressive, increasing the first decile by 455%. Regarding the concentration index, there was a decrease of 51% despite the fact that transfers continued to benefit people with higher incomes. In relation to the Kakwani Index, great progressivity was presented, presenting a percentage of 56% in 2002, while the high school result increased by 202% in that period. It was concluded by analyzing the progress in equity in the deciles of lower income that it was necessary to reduce the gap in then high school because there was a large bias in the deciles with higher income.

In relation to the Kakwani Index, great progressivity was presented, representing a percentage of 56% in 2002, while high schools results increased by 202% in that period. It was concluded by commenting on the progress in equity in the deciles of lower income that it was necessary to reduce the gap in the high school because there was a large bias in the deciles with higher income.

Through time public spending had been progressive, it benefited the highest incomes at the upper middle level, presenting a high value in the Gini coefficient, however, there was a redistribution of income in the population. Returning to the study by Ontiveros (2011) entitled "Educational spending and distributive policies of primary education in Mexico", it studied the link between education delivery and spending, recognizing the redistributive objective of educational spending. The methodology consisted in using a model of pressure groups with the purpose of identifying the factors that affect the allocation of public spending in basic education with the objective of evaluating their distributive objectives. The result of the research presented as a criterion for the allocation of education expenditure, the number of teachers hired, in such a way, the distribution of resources lacks criteria that benefited the poorest states or with lower educational levels to allocate greater resources.

It was concluded that there was an inverse relationship between the allocation of resources and educational level because the destination of resources for basic education was higher in the states with lower illiteracy rate and was lower in the states that had higher literacy rates.

According to the research of Gómez and Zárate (2011) entitled "Public spending on education against the behavior of the main economic aggregates in Latin America", considered education as the engine of the national growth and development because the investment in it increased GDP and employment although that relationship was regularly breached.

The objective of the study was to determine the relationship of the effect of public educational spending on the growth and development of nations, verifying its impact on variables such as employment. The study was carried out for a sample of eleven Latin American countries which correspond to: Argentina, Brazil, Chile, Colombia, Costa Rica, Cuba, El Salvador, Mexico, Panama, Peru and Uruguay, in which public expenditure values were used in education as a percentage of GDP, GDP per capita and the unemployment rate of a series of data corresponding to 10 years (1999-2008) these with information from the United Nations.

In the methodology, an analysis of correlations was carried out to determine the relationship of public educational spending with economic indexes, the program used was the SPSS. The results showed that Mexico had negative correlation coefficients that presented an inverse relationship, so this showed that by increasing educational investment, unemployment was reduced. It also showed that if investment in education increased, per capita GDP decreased, it was a contrary result to the theory. It was concluded by presenting the investment trends in education in Mexico related to the unemployment rate and GDP per capita. Regarding unemployment, it was shown that when educational investment was increased, it was reduced, while GDP per capita declined.

This document began by presenting in the theoretical framework the educational proposal of EPN to be a candidate which was reflected in the National Development Plan 2013-2018 adding an analytical discussion by several authors in relation to each of the elements of the proposal. Subsequently, the work methodology in which the indicators were published by the National Institute of Educational Evaluation (INEE), it was presented related with the elements of Enrique Peña Nieto's proposal.

Then it showed the results in which it was observed the educational backwardness that Aguascalientes had in higher secondary education by contrasting it with the objectives of the Education Sector Plan.

Continuing with the discussion that presented the challenges of the government in its commitment to citizenship. Then the irregularity of higher secondary education in the state was analyzed. It was finished with the conclusions that considered the search for alternatives that favor higher secondary education by detecting the precise needs to exercise public spending in higher secondary education based on the correct analysis of its indicators.

In the presidential campaign for the 2013-2018 period of President Enrique Peña Nieto, substantial changes were

proposed in education which were reflected in the National Development Plan, and then its substantial aspects were presented.

Literature Reviews

The educational proposal in the Enrique Peña Nieto campaign

Analyzing the educational proposal of Enrique Peña Nieto on his way to the Presidency of Mexico, it was observed that several educational issues were commented, however the large number of proposals were contemplated with a lack of care and programming. For this reason, it was necessary to reflect on the aspects of improvement in its proposal (CEE, 2012).

Quality

In relation to quality, EPN's speech commented about its importance without defining its concept. Analyzing the EPN's education proposal, it can be deduced that he considers educational quality as the coverage, infrastructure and technology provision (CEE, 2012). However, the quality of education referred to a discourse instead of a purpose, and its relation with education acquired different meanings (Martínez Boom, 2004), also, quality in education belittled pedagogical work and curricular research, privileging institutional management (Bruner, 2000).

However, the quality of education needed to be strengthened through the establishment of educational policies that improve the key elements to increase educational level, being necessary to use government resources in the school curriculum, teacher training and financing and institutional educational management (Elliott, 2000). Therefore, it was necessary to analyze what was expected from education, considering its trajectory and the way to provide education of quality in national schools. It was necessary to visualize the nation project according to the context and the opinion of a consensus with the purpose of defining the most appropriate path for the education, implementing relevant actions to achieve it (CEE, 2012).

Student learning

The main objective of EPN's proposal in relation to student learning had as the main purpose the student learning, that was why this concept had a close relationship with quality. This considered the school as the center of education, and it was important to have well-defined objectives for what and how students would learn (CEE, 2012). However, Ausubel, Novak and Hanesian (1997) referred to learning as the previous knowledge and the new knowledge of the students which showed through the organization and integration of information in the cognitive structures.

According to Ballester (2002), learning required to be significant by integrating previous knowledge with new knowledge, the student was the main actor as part of the strategies proposed so that they could assimilate new information through the processes of acquisition, transformation and evaluation (Bruner, 2004), therefore, learning implied reflected changes that enable the student to perform tasks, acquire experience or lasting knowledge (Puente, 1997).

Teachers and directors

EPN mentioned only a few actions for teachers and directors, he did not mention either its great importance related to the development of students (CEE, 2012). It was important to consider teachers and directors as essential actors of the discourse and purposes in education (CEE, 2012). It was important the commitment of the teacher in educational institutions because they are human resource trainers and promoters of innovation, so it was necessary the training of teachers to develop their role.

The training should be in teaching-learning, technical-methodological and scientific research skills, focusing on meeting the needs of the teacher (UNESCO, 1995). Being relevant to professionalize the teacher, according to UNESCO (1996) education was subject to the effectiveness of teachers referring to their teaching skills in the classroom. According to Luna (2002) the teaching skills of teachers and their mastery of the subject are necessary in education, therefore Zarzar (1988) believed that teaching was interrupted when teachers dominated the topics, but they had a lack of teaching techniques to transmit their knowledge in the classroom. On the other hand, managers needed to promote teacher training, however, managerial work is subordinated to the current educational model (Murillo, 2007).

School community

The importance of the school community, and its increasing related to the impact it produced on student learning. The school community was included superficially in the discourse of EPN, however, the school community needs to have spaces that increase social participation, strengthening the co-responsibility of families in education and allows the realization of educational activities (CEE, 2012). Claro (2011) considered the school community as the scenario for

the interaction of educational actors, so it needs to be studied in order to know the participant's opinions, because the space-time in the institution through a harmonious school climate is necessary for the formation of students (Morin, 2007).

School management and system administration

EPN considered that the design, implementation and development of educational policies should be directed by the education system, their work was essential to improve education. This needs to have an adequate planning, organization and management capacity in the relationships of educational actors (CEE, 2012). In addition, according to UNC (2007) the educational management demands an integral institutional strategic development because it directs the educational institution towards the improvement of the educational quality and the increase of the academic level, these activities must be based on policies and general strategies of the institution (PEA, 2007). It was necessary to define the educational administration as the review of the teaching-learning process in terms of ordering, systematizing, controlling and rationalizing (Lutz, 2007).

Plans and programs

EPN did not mention the plans and programs because he considered them as part of the administrative issues. However, this aspect should be mentioned, because of the need to articulate educational levels, in addition, the structure of the plans and programs should be reviewed because they are fundamental and relevant for students (CEE, 2012). The curriculum identified the current educational model; it was structured based on the teaching learning, proposed by the educational institution, allowing students to cover their learning needs (Nolla, 1998).

It was essential to review and reformulate educational programs and policies so that they consider local and regional conditions that promote social equity (Gutiérrez, 2009). Likewise, it required meeting the relevant objectives and contents in accordance with the national situation, integrating teachers and students (Díaz Barriga, 1989). The educational programs and teaching strategies must be linked vertically and horizontally between levels and modalities. Nowadays, there are still inconsistencies in these aspects due to the lack of coordination between the educational levels and the study plans (Gutiérrez, 2009).

According to Díaz Barriga (1989), the function of the educational plan guide institutions to fulfill educational objectives by contextualizing them with the necessary knowledge for students, leading them to fulfill their personal and professional goals, being difficult to design an educational plan that facilitates the learning process of students and the achievement of educational objectives (Zabaiza, 1987). The current educational plan should be designed based on the students and the competencies that must be developed in order to access greater opportunities in the current knowledge society (Gutiérrez, 2009).

Evaluation

In relation to the evaluation, EPN considered its importance to improve education, since this practice gathered useful information for the decision making of the educational trajectory, concluding that quality and evaluation should always be presented to generate positive results and relevant proposals. However, it was necessary to give greater value to the evaluation as a measurement parameter, leaving aside the criticism of the establishment of a ranking or a control or sanction instrument.

The evaluation must have a sense of continuous improvement and must be comprehensive (CEE, 2012). The evaluation requires a quantitative integration of the product and a causal analysis of the results (Duque, 1993), it also needs to align itself with the educational model generating an identity in the institution (Duque, 1993), it also acquires a transcendental role in teacher awareness and in the improvement of educational practices (González and Ayarza, 1996).

Attention to diversity and equity

In the EPN discourse, few equity aspects were mentioned. This issue must be integrated into the educational agenda, since the inequality gap must be reduced. Therefore, it was necessary to start developing it by studying the national situation and considering the actions and policies of positive discrimination, generating a benefit for schools and for disadvantaged actors (CEE, 2012).

According to Gutiérrez (2009: 22) "a large part of the student population of public high schools composed of young people between fifteen and eighteen years of age, lives in a situation of poverty, marginalization, therefore, exclusion". This student community did not have the same possibilities as other students to have access to different strategies of global interconnectivity, the management and mastery of ICT, and it is more difficult for them to adapt to the rhythm of a globalized and accelerated world (Gutiérrez, 2009).

School equity was a very marked aspect in education, since there have been considerable differences between people who study in private and public schools, urban and rural, indigenous and non-indigenous (Rodríguez, 2008). According

to the results obtained in the PISA test, private schools have better results than public schools (Patrinos, 2007). Rué (2000) considered that the attention to diversity and equity, generates different perspectives in which the special educational needs of some students were considered, they needed differentiated learning strategies with teachers trained in it, it was relevant the approach of a particular curriculum (Echeita, 2006). Giné (2001) considered that the general curriculum in each educational stage was object to discrimination for students who had special educational needs.

Research Objective

The main aim of this study was to analyze the proposal in education from the National Development Plan 2013 - 2018 specifically on the objectives 1, 2 and 3. More specifically, the study sought to analyze the objectives:

- a. Objective 1: To ensure the quality of learning in basic education and comprehensive training of all groups of the population.
- b. Objective 2: Strengthen the quality and relevance of higher secondary and higher education and job training to contribute to the development of Mexico
- c. Objective 3: to ensure greater coverage, inclusion and educational equity among all groups of the population for the construction of a fairer society

Method

The present study was quantitative of descriptive character using as methodology the formulas to analyze the educational results, it was calculated by using statistical data of the students, educational centers, among others. The statistics used in the formulas are found in the Administrative Registries at national and state level, representing a reliable database to know their values.

Each indicator had a formula that was internationally standardized to make comparisons between countries; it should be noted that the formulas used were published and used by UNESCO when carrying out educational studies. In this document, the following educational aspects were addressed:

1. Net coverage rate;
2. Approval rate at the end of courses;
3. Absorption rate;
4. Employment rate according to level of education for secondary education. Population of 25 to 64 years (%).

Materials

The data of the formulas presented in the document were taken from the INEE, which is the institution that publishes the results of the educational indicators in Mexico in its Internet portal. The document used information from the following categories:

1. Structure and dimension,
2. Social context,
3. Agents and resources,
4. Access and trajectory and
5. Educational results.

Results

Analysis of educational indicators of the Educational Panorama of Mexico generated by the National Institute of Education Evaluation (INEE)

In this section, the correspondence of the Education Sector Program 2013-2018 was analyzed in its objectives 1, 2 and 3 to the educational indicators of the Educational Panorama of Mexico generated by the National Institute of Education Evaluation. In relation to DOF (2013) there was a lack of compliance with "Objective 3: Ensure greater coverage, inclusion and educational equity among all population groups for the construction of a more just society", when considering the following indicators.

Structure and dimension

The number of students had increased, particularly in the 2014/2015 period it had the highest percentage increase with 15% compared to the 2012/2013 period (Table 1).

Table 1. Number of students.

	2012/2013	2013/2014	2014/2015	2015/2016

Aguascalientes	47,656	51,934	54,568	n.d.
National	4,443,792	4,682,336	4,813,165	9,985,080

Source: own elaboration with data of the INEE (2015).

n.d.: data not available.

The number of teachers had a reduction of 4% and 2% in the 2013/2014 and 2014/2015 periods compared to the 2012/2013 period (Table 2). However, the number of schools had grown scarcely, by 2% in the 2014/2015 period compared to the 2012/2013 period (Table 3).

Table 2. Number of teachers.

	2012/2013	2013/2014	2014/2015	2015/2016
Aguascalientes	3,392	3,264	3,340	n.d.
National	288,464	273,939	286,955	292,484

Source: own elaboration with data of the INEE (2015).

n.d.: data not available.

This fact showed that the facilities were not enough to satisfy the growth of the student population, because there were young students who were left without a place or the classrooms were overcrowded with too many students.

Table 3. Number of schools.

	2012/2013	2013/2014	2014/2015	2015/2016
Aguascalientes	180	163	183	n.d.
National	15,990	14,375	16,162	17,400

Source: own elaboration with data of the INEE (2015).

n.d.: data not available.

According to DOF (2013) there were deficiencies in compliance with "Objective 2: Strengthen the quality and relevance of middle education, higher education and job training, in order to contribute to the development of Mexico", considering the next indicator:

Social context

The proportion of the population that was in the desirable age of attending basic education offered by the National Education System (SEN) had a reduction from 6.1 in the period 2012/2013 to 5.6 in the period 2014/2015 in Aguascalientes (Table 4). Showing that the transformation and evolution of the population over time must be studied more thoroughly, in this way generating prospective policies plans on demand response.

Table 4. Percentage of population according with basic scholar age and middle high scholar age.

	2012/2013	2013/2014	2014/2015
Aguascalientes	6.1	6.0	5.6
National	5.8	5.9	5.8

Source: own elaboration with data of the INEE (2015).

In relation to DOF (2013), there was a situation of non-compliance with "Objective 3: Ensure greater coverage, inclusion and educational equity among all population groups for the construction of a more just society", considering the following indicator:

Agents and resources

Expenditure on education showed that the distribution of federal contributions for entities and municipalities in education and its evolution had increased significantly in Aguascalientes with a 52% growth in the 2014/2015 period compared to the 2012/2013 period (Table 5). However, this resource was still insufficient, for state needs.

Table 5. How much does the State spend on basic and middle education? (Millions of pesos at 2012 prices).

	2012/2013	2013/2014	2014/2015
Aguascalientes	3,504.9	4,120.40	5,334.80
National	309,933.6	335,497.80	380,783.40

Source: own elaboration with data of the INEE (2015).

According to the DOF (2013) there were deficiencies in the fulfillment of the "Objective 1: Ensure the quality of learning in basic education and comprehensive training of all population groups" and "Objective 3: Ensure greater

coverage, inclusion and educational equity among all groups of the population for the construction of a more just society ", when considering the following indicators:

Access and Trajectory

The net coverage rate in Aguascalientes in middle education had very low educational coverage, with 51.4% in 2015/2016 (Table 6), it was lower than in the 2012/2013 period which was 55.6%. This shows the great need for educational spaces of this level in the state.

Table 6. Net Coverage Rate.

	2012/2013	2013/2014	2014/2015	2015/2016
Aguascalientes	52.7	55.60	57.80	51.40
National	52.9	54.80	57.00	50.40

Source: own elaboration with data of the INEE (2015).

The approval rate for courses in Aguascalientes was 70.3 in 2014/2016 (Table 7), increasing with respect to the 2012/2013 period which was 65.80 shows that there is a large number of students who were in the middle level and that did not approve it, staying without studying at that moment.

Table 7. Approval Rate.

	2012/2013	2013/2014	2014/2015	2015/2016
Aguascalientes	n.d.	65.80	70.30	n.d.
National	n.d.	68.50	71.70	71.50

Source: own elaboration with data of the INEE (2015).

n.d.: data not available.

The absorption rate in Aguascalientes showed the need for growth in the education system in terms of middle education. The indicator in 2015/2016 was 107.5 (Table 8), showing the capacity of the system to serve the population that has completed the previous educational level and that was incorporated into middle education, increasing its value with respect to the 2012/2013 period, which was 93.90.

This limits the graduates of the previous level to continue studying, it also affected the laggards because it reduced the spaces and there was a saturation of places. For this reason, actions must be taken in planning and making decisions that improve the flow of students at various levels.

Table 8. Absorption Rate.

	2012/2013	2013/2014	2014/2015	2015/2016
Aguascalientes	90.7	93.90	95.10	107.50
National	100.9	105.60	100.70	101.10

Source: own elaboration with data of the INEE (2015).

According to the DOF (2013) there were deficiencies in the fulfillment of the "Objective 2: Strengthen the quality and relevance of middle education, higher education and training for work, in order to contribute to the development of Mexico", considering the following indicators:

Educational results

The employment rate of the level of education for middle secondary education was 69.0 (Table 9) in 2015/2016 in Aguascalientes improving with respect to the 2012/2013 period which was 50.90, for which approximately one third of graduates of this educational level lack employment and lack of employment opportunities. Glimpsing the analysis of the relevance of the contents of educational programs.

Table 9. Employment rate of the level of education for higher secondary education. Young Population between 15 and 29 years old (%)

	2012/2013	2013/2014	2014/2015	2015/2016
Aguascalientes	71.2	50.9	52.0	69.0
National	71.7	52.1	50.8	70.6

Source: own elaboration with data of the INEE (2015).

Discussion

The state of Aguascalientes suffered from lag in higher secondary education due to multifactorial conditions that occur in the state such as the insufficient educational spaces existing to teach class. Higher education institutions were unable to meet the demand of the candidates of the previous educational level and the laggards. Despite the effort and the increase in public expenditure recorded in data, there were irregularities in increases and decreases in the number of teachers and schools, reflecting their need for growth in order to meet first the existing demand of applicants of the previous level.

Regarding the evolution of the population of desirable age to cover higher secondary education, there was a need to study in depth the transformation and evolution of the population of Aguascalientes. This because basic education had increased in the number of students, which later postulate for a space in middle education and when the current deficit of places was considered the problem will be aggravated more and more, being pertinent to discuss in the agenda the topic referring to the attention of the educational demand. On the other hand, there was an increase in spending on higher education with higher resources for Aguascalientes, however there was a constant growth of applicants in the middle level that diluted the positive effect of increased public resources in the creation of spaces to register all the applicants.

The above was verified by reviewing the coverage of middle education in Aguascalientes showing that it was limited, therefore, many candidates to this educational level truncated their studies by running out of place. In addition, the absorption rate showed insufficient spaces, leaving almost 10% of applicants for middle secondary education without a place, obstructing the continuity of the students of the previous level. Regarding the approval rate at the end of the courses, it was shown that students who enter middle education in Aguascalientes had great problems to pass the classes and to conclude the educational level, directly affecting the terminal efficiency.

In addition, when reviewing the approval rate to September 30 a drastic rate of failure was presented, generating an overwhelming loss of students in this educational level. On the other hand, the employment rate of the level of education for middle was low, it showed that a large number of graduates of this level of education were unemployed without job opportunities.

As a point of analysis regarding the educational indicators of the Educational Panorama of Mexico of the INEE (2015), it was considered necessary to establish actions for the compliance of the Education Sector Program 2013-2018 in objectives 1, 2 and 3 for the state of Aguascalientes. This was because the fundamental elements that were in these objectives present inefficient results leaving the objective unfulfilled, it was a fact that hindered the achievement of the expectations of the students and candidates of the high average level.

The previous situation was glimpsed from the analysis of the proposals the campaign of the EPN and was checked with the statistics presented by the INEE. The campaign proposals were the actions that were reflected in the Sectoral Education Program, it should be noted that ideally in the Education Sector Program there must meet its objectives in all entities in the country.

Conclusions

The best government mechanism to reduce inequality and to provide opportunities for a decent life for the population is the education, for this reason, it is important to analyze the educational results of the entity, particularly higher secondary education because the large number of jobs that are offered in the state request people with this level of education.

In addition, this level of education is the gateway to higher education, being a key factor to improve the economic situation of citizens. The responsibility of attending the candidates to the higher secondary level is of the government, as well as ensuring through the Sectoral Education Plan that the educational level of the students is improved so that they can find employment. However, in Aguascalientes, this relationship was breached generating a point of opportunity, therefore, the government should consider its intervention through the local educational authorities, being a key factor to correct the deficiency in this educational level.

It is necessary to link the Education Sector Plan with the needs found in the Mexican states, considering the particularities of Mexico because there is a great diversity of conditions in which it is difficult to implement some actions that at the same time they are inoperable due to the deficiencies that are experienced in some places. Some complications are the lack of light, the lack of internet, among others. These elements hinder the fulfillment of the objectives established in the Education Sector Plan which generate a leak or a waste of the resources destined to education, this situation can be revised by analyzing the educational indicators published by the INEE.

The campaign proposals of the candidates for President are key to glimpse the future of the nation, therefore, there must be well-founded actions in which candidates have knowledge and domain of the relevance of the elements that compose this topic, because they will be established in the country, supporting it with public expenditure. The government has responsibility for its good functioning throughout the national territory. The achievement of these

objectives is considered weak in Aguascalientes, although it is one of the states with the best educational level in the country and better conditions for the scholar community, questioning what will be the result of the Sectoral Education Program in states with lower education level?

As new lines of research in which it is important to glimpse the possibility of disaggregating them by gender, firstly, there is a need to analyze the educational quality especially in the students' results, linking them with the knowledge they have, and establishing their relationship with their employment situation. Another approach necessary to analyze is the relevance of the programs at the high school level and its correlation with the occupation of graduates, because it is a factor that has influence with employment, it also should be noted that graduates of higher secondary education must be prepared to cover the requirements of the companies.

Also, the proper exercise of public expenditure in higher secondary education should be analyzed, visualizing a new direction that generates greater benefits than those obtained. It is recommended to consider the importance of ICTs in education, by offering distance education, as in the case of "PREPA EN LINEA SEP". However, the model must be linked to the educational offer in each state so that it has greater diffusion and they can add more and more students, solving the problems of coverage and absorption, as well as making the use of resources more efficient.

By maturing the distance education project, it will be important to install a state office to attend particular situations in which students must be motivated to complete their educational level. Another recommendation is the teacher training and the analysis of the causes of the high failure rates, presented in higher secondary education, enabling managers to search for new teaching-learning strategies to reduce the disapproval and the negative derivations that are found around like the desertion.

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“Chicos, Sacad El Móvil De Vuestras Mochilas Porque Lo Vamos A Usar”: Empowering Spanish As Foreign Language Students Through Mobile Devices

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Abstract

In a post-globalized world, mobiles and tablets are the most popular electronic devices among university students, since they are their first option to access the Internet, exchange messages, take pictures, record videos, play games, etc. Taking into account that they are part of their daily life, it is urgent to take advantage of them to explore learning experiences inside classrooms (Toledo, 2015), by involving students in interactive and gamified tasks (Osores, et al, 2013; Álvarez, 2016; Chou, 2016).

Under the scope of a case study related to the learning of linguistic and cultural varieties of Latin-American Spanish (Cruz, 2018; Moreno Fernández, 2010), we will present didactic experiences with digital tools, which were carried out with Spanish as Foreign Language students (A2/B1.2 levels) of the Graduation Degree in Foreign Languages and Cultures at a School of Education in Porto, Portugal. Following a qualitative methodological approach, we have collected and analyzed students' representations about the use of mobile devices (though questionnaires) and their project works related to the Latin-American Spanish varieties.

Results show that students have empowered themselves in the learning process, revealing that they have (re)constructed knowledge related to the topic through hyper sensory strategies and resources (Cruz & Orange, 2016).

Introduction

Present-day work environments require not only solid knowledge about specific topics, but also different skills, which include critical reflection, self-direction, cross cultural skills, etc. (Cruz & Orange, 2016). As we already know, mobile devices allow students to get an almost permanent presence in the virtual world, allowing them to participate, share, discuss and access information of any kind (Cruz, 2005). Both mobile phones and tablets have put our students into contact with language and cultural diversity.

Therefore, being exposed to a global Spanish which is present in and through the mass media (the Internet, the radio, the cinema, the TV channels, etc.), there is a need to rethink the way in which languages have been taught. In our opinion, one should be paying attention to new multimodal and hyper sensory settings which allow our students to be in contact with a lot of information through different sensorial channels.

Within this context, due to the economic and cultural dynamism of the region, a teacher of Spanish as a Foreign Language should be paying attention to the linguistic and cultural varieties of Latin America Spanish (Moreno Fernández, 2010), by implementing an holistic model of teaching and learning with pan-Hispanic uses (Anadón Pérez, 2003). In this way, we believe multimodal within the Spanish language learning and teaching should be valued, by developing aspiring students to be plurilingual within such an historical language.

In this article we will first of all explore how mobile devices have been revolutionizing our society and classrooms. Secondly, we will focus on Spanish linguistic and cultural varieties topic within the scope of Spanish as a Foreign Language (SFL) teaching and learning process. Thirdly, we will present, analyze and discuss our project, which deals with the use of mobile devices to study the linguistic and cultural varieties, in which students have been empowered and incited to be more active producers of knowledge, rather than passive consumers.

1. New Challenges In The Use Of Mobile Devices In The Transformative 21st Century Classroom

In present days, mostly digital and *glocal* (Cruz, 2005), we advocate the development of a teaching process that addresses the needs of students, demanding learning experiences which should be significant and overwhelming. Thus, we must develop an experiential communicative approach, which is a "philosophy and methodology in which educators purposefully engage with learners in direct experience and focused reflection in order to increase knowledge, develop skills and clarify values" (AEL, 2008, WEB).

In fact, a highly experiential teaching draws from the experience that must be relevant, authentic and always linked to our students' surrounding context. It is a multidimensional, holistic and multi-sensory approach that aims at developing students' skills, namely: communication, self-learning, cultural relativization and critical thinking. This, in turn, should be stimulated through a kind of exploratory teaching based on permanent questioning. In this process of seeking knowledge through experience(s), the creativity, cognitive flexibility and leadership skills are

particularly relevant.

Authors like Fernández-Corbacho (2014) list some characteristics of this type of approach, namely: a) each proposed task should pose challenges to the students, generating intrinsic interests; b) the variety of tasks should combine both a multimodal format and seek to meet different learning styles; c) the activities should include moments for the development of the learners' autonomy, while stimulating the development of cooperative strategies, instilling them responsibility in the decisions that have to be undertaken (individually and in group); d) the use of Web 2.0 and Web 3.0 tools, i.e., instant response systems such as *Plickers* or *Kahoot!*, or even the old WebQuests, can favor skills acquisition in hyper-sensory environments (Cruz, 2018).

These hyper sensorial environments transform the senses into channels of perception that activate, in turn, brain connections (Shams & Seitz, 2008), giving students the opportunity to experience something, by better retaining the information they receive, through the manipulation and simulation of tasks in the surrounding reality. By carrying out these tasks, students have the opportunity to develop reflective paths that stimulate their critical analysis of the experiences they have gone through, while enriching their *Weltwissen* with proactive knowledge, which allows them to recreate similar paths in other contexts (Fernández-Corbacho, 2014).

Since 1984, when the first video games appeared, we live with technologies that have finally redefined the way we contact and even face the *glocal* world, which we make part of. In this context, the gamification pedagogy and the use of mobile devices can enrich the teaching-learning process based on an experiential approach. According to Kapp (2012), gamification is no more than the use of game assumptions, such as its mechanics, motivation and problem solving characteristics, in the creation of didactic activities, in order to make them more attractive to the eyes of our learners. Thus, drawing techniques and elements of the game, such as narrative, points and challenges, we are able to motivate learners and condition their behavior so that they respond to the challenges they have to face (Duarte & Cruz, 2017).

As stated by Foncubierta & Rodríguez (2015), the gamification pedagogy can be defined as the use of technology which the teacher mobilizes in the design of learning activities, either analog or digital, introducing elements of the game (logos, time limits, punctuation, randomness, etc.) and critical thinking (challenges, competition, cooperation, etc.) in order to enrich the learning experience and to control the behavior of the class throughout the whole process. Within this context, it is of utmost importance the proper control of the emotions of the students in the process of undertaking gamified activities. According to Mora (2013), it is necessary to awaken in students the so-called "encendido emocional", i.e., the motivation for them to continue working in the task, by feeling involved in collaboration or competition, by stimulating their curiosity, and being moved by an almost instant recognition and feedback (cf. Hamari & Koivisto, 2013).

In order to develop a true gamified experience, one shall have the Octalysis Framework (Chou, 2016) into account. This is a tool which includes 8 core drives (see Figure 1) and must be tackled within the engineering and design for any gamified task, in order to transform activities into meaningful and enriching experiences (Duarte & Cruz, 2017). According to Chou (2016), if there are no core drives involved in a specific task, there is no motivation and therefore no behavioral changes will occur (cf. Chou, 2016).

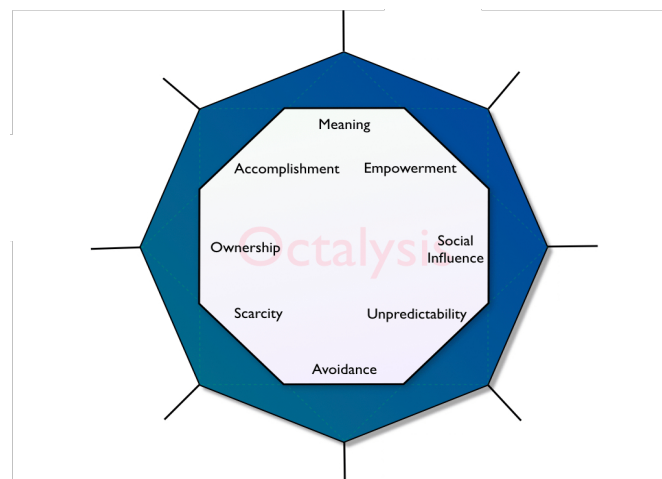


Figure 1 - The Octalysis Framework (adapted from Chou, 2016)

Upon closer examination of these 8 core drives, the first core drive is known as *Core Drive 1: Epic Meaning & Calling*, and it is related to the calling and meaning a specific task offers our students, i.e., students feel somehow involved in a quest which is bigger than themselves. The second core drive, *Development & Accomplishment*, is related to progression, skills development and achievement. It usually takes the shape of points, badges and leaderboards. The third core drive is known as *Empowerment of Creativity & Feedback*, and it is felt within the

creative process students undertake in order to solve problems. It is related to hypermedia content and stimulus. The fourth core drive, *Ownership & Possession*, is felt when pupils are engaged in a group activity for the group success on a project work. In relation to the fifth core drive, entitled *Social Influence & Relatedness*, includes all the social elements which motivate people, namely social feedback, companionship and even fewer good feelings, such as competition and envy. In education, it can serve as one of the strongest and long-lasting motivations for pupils to become connected and engaged. As for core drive 6, *Scarcity & Impatience*, it is related to the longing for a rare and exquisite object, token or reward. The difficult in obtaining it is what moves students to continue on task. The seventh Core Drive, *Unpredictability & Curiosity*, is related to the infatuation with experiences that are quite uncertain and involve luck. The last core drive, known as *Loss & Avoidance*, is the motivation to avoid something negative from happening (Chou, 2016; Duarte & Cruz, 2017).

By applying this gamification framework in our practices, students will gain more opportunities for experiential, self-paced and life-long learning (Duarte & Cruz 2017). In this way, through the use of virtual environments and mobile applications, students may feel empowered and engaged in enjoyable activities and tasks, being therefore rewarded with knowledge and skills. As Prensky (2001) adds, the use of digital technologies stimulates multitasking skills, network learning and experimentation and simulation in so-called virtual realities. Taking all of this into account, we can say that learners will be more proactive and more critical if we provide them hypersensitive environments. Prensky (2001, p. 4) goes further on this topic and suggests the following:

“As educators, we need to be thinking about how to teach both Legacy and Future content in the language of the Digital Natives. The first involves a major translation and change of methodology; the second involves all that PLUS new content and thinking. Its not actually clear to me which is harder – “learning new stuff” or “learning new ways to do old stuff.” I suspect its the latter. So we have to invent, but not necessarily from scratch. Adapting materials to the language of Digital Natives has already been done successfully. My own preference for teaching Digital Natives is to invent computer games to do the job, even for the most serious content. After all, its an idiom with which most of them are totally familiar.”

Therefore, it is up to the teacher to stimulate the ability to use technologies, such as mobile phones or tablets, in a proactive way. In most contexts, students use these technologies more passively, limiting themselves to the basic functionalities that these tools offer them. After having implemented a study carried out with "Google Generation", Rowlands, Nicholas, Williams, Huntington, Fieldhouse, Gunter, Withey, Jamali, Dobrowolski & Tenopir (2008, p. 1) concluded that students are not able to develop skills such as critical thinking through devices they own:

“The study shows that much of the impact of ICTs on the young has been overestimated. The study claims that although young people demonstrate an apparent ease and familiarity with computers, they rely heavily on search engines, view rather than read and do not possess the critical and analytical skills to assess the information that they find on the web.”

In fact, as we can easily guess, the use of mobile phones or tablets by students does not allow them to directly improve their search and analysis of information skills. They need a mediator teacher and stimulator of proactive use of technology.

During the last decades we have been hearing voices stating that as soon as students enter the classroom they have to leave the mobile phone aside. When we inhibit their use, we are banishing a tool that is part of their daily lives, and in this way we are not allowing them, on the one hand, the development of skills which permit them to maximize the power of technology which mobile phones and tablets offer them; on the other hand, we believe that students are left unprepared to leave digital marks on the Internet and even to develop a truly proactive e-citizenship, based on the assumptions of Rosnay (2005), in order to improve the surrounding society which they are part of.

More and more educational institutions and teachers are taking advantage of the wave of innovative electronic devices that offer portability and instant use, such as mobile phones or tablets, including iPods, iPhones, iPads, e-readers, and more. These devices offer a great flexibility in the scope of communication strategies and collaborative work among teacher-students and student-students. Portability allows students to continue the learning they have experienced in the classroom on their own mobile phone or tablet. At the same time, they give students a sense of empowerment, as decision makers of learning pathways, while allowing a customization of it. In 21st century learning, we should be moving away from a Taylorist view of education that treats students equally. Mobile phones or tablets with touch technology, WIFI connection, P2P communication tools, web 2.0 and web 3.0 applications facilitate learning processes which promote the critical search for information, critical thinking, pedagogical differentiation and problem solving through collaboration strategies enriched by hyper sensorial environments.

In the language classroom mobile devices may cater for stimulating the development of communication skills in

a globalized world, in which linguistic and cultural diversity exists. In the next chapter we will tackle this issue in relation to SFL teaching, specifically.

2. From Peninsular Spanish To Latin-American Spanish Varieties In The Spanish As Foreign Language Classroom: The Power Of Mobile Phones And Tablets

Technology-driven globalization has been generating paradoxical effects because it contributed for both homogenization and heterogeneity in present-day society. On the one hand, the mass media and their rich and engaging messages have been contributing to the creation of a culture based on the market rules. On the other hand, we have been living a sort of adaptation of the contents of these messages to the context of a specific region, a phenomenon called *glocalization* (Regueiro Rodríguez, 2009).

The globalized market we are experiencing has generated a couple of consequences, namely: the disappearance of borders, the need for labor mobility and the development of plurilingual communication. Within this context, English is no longer enough as a lingua franca. Some of these needs towards other languages have been felt in relation to the Spanish language. In fact, the positioning of Spanish as an international language and the prominent role that Spanish-American peoples have in the vitality and projection of the language in the globalized world are the main reasons behind it (Mora-Figueroa, 1998). Therefore, one can say that the presence of linguistic diversity is increasingly being felt, both in terms of the existence of numerous languages in international communication, either in presence or virtually, and in terms of varieties within the same language (Cruz, 2011).

There are two main reasons for dealing with varieties within the language classroom. On the one hand, it increases the confidence of the speakers of a language leading them to the understanding that learning the language does not have to be totally based on a single variety but rather in real and useful situations, so that they may feel they are part of the (re)building of the language they speak. On the other hand, we should not forget that the greatest wealth of a language is precisely its diversity, and we should expect students to be prepared to deal with that diversity, i.e., the actual use of the language in concrete situations (cf. Del Rios and Aires, 2015).

In fact, within the Spanish classroom, students can get in touch with the language and cultures of the varieties of Latin American Spanish through physical or virtual environments of an intercultural and plurilingual nature. According to Bortoni-Ricardo (2014), the main aim of providing such teaching environment is to increase the effectiveness of pragmatic communication of students in specific contexts.

The study of the Latin America region is relevant, not only because of the cultural heritage of the region that *is Europe transferred and America transfused* (Alvar, 2002, p 251), but also due to the creation and implementation of market or cultural unions, such as the Common Market of the South (MERCOSUR) or the Latin American Integration Association (ALADI), and the tourist attraction it offers to the world. For these reasons, it is impossible to neglect the great dynamism of the region in the SFL class and therefore, it seems important to work with the linguistic varieties that foreigners who visit Latin America can find and the cultural references that will mark interpersonal relationships (Alvar, 2002).

Portuguese-speaking university students who study Spanish, as other European students, reveal interest in the Latin American varieties of Spanish due to: a) their linguistic richness, including their exoticism because of the region's own cultural miscegenation; b) professional needs in the future, as many want to work or look forward to work in the region; c) attraction for knowledge of geography, history, music, cinema, but above all, the boom and post-boom Latin American literature (Altmann & Vences, 2004).

In the teaching and learning process, the SFL teacher has to show respect towards the culture of the Spanish-speaking countries and the country of the society in which he/she lives and works, being aware of his/her role as an intercultural mediator and making the most of the technological and audiovisual resources while dealing with cultural topics in the classroom (Cruz, 2018).

A teacher should also be aware that the lack of knowledge about the diatopic differences between the Latin American Spanish and that of Peninsular Spain may cause some communicative misfortunes, especially if we think about lexicon and pragmatics (Regueiro Rodríguez, 2016). Moreover, there are main differences that can cause communicative misfortunes, and therefore one should not rely on the cohesion of the Spanish language as it offers a great diversity of linguistic uses and pragmatic communication patterns.

However, different linguists prefer to emphasize its homogeneity and accentuate its character of koiné, which allows a certain unity, homogeneity, and facilitates communication among all Spanish speakers (Moreno Fernández, 2000). The truth is that we can not forget that “la intercomprensión entre un mexicano y un santiagueño, un zaragozano y un limeño es mucho más sencilla e inmediata que la que se da entre un australiano y un escocés, un irlandés y un sudafricano (...)” (Marcos Marín, 2001, pp. 70-73) than that between speakers of different varieties of English, for example.

It is also known that Spanish is one of the languages “más conexas entre las grandes, sin variantes dialectales ininteligibles que apunten hacia la fragmentación, y fonéticamente muy clara, con diferencias dialectales mínimas en comparación con las que suelen ofrecer otros dominios lingüísticos y no impiden nunca ni siquiera dificultan la intercomprensión” (Salvador, 2001). Authors such as Lapesa (1980), Zamora Vicente (1967) or Roña (1965) agree to emphasize the existence of a continuum of understanding existing in the Spanish language, as they

consider that the differences within the extensive American territory are minimal within the structure of total speech. However, this variation is due to the linguistic differences that the settlers brought from the peninsula to miscegenation (Sueiro Justel, 2011) and later to the influence of the substratum (Amerindian languages) and also to the later superstrate (African slaves or migration and Italian in Argentina, for example) (Lapesa, 1980), which makes Spanish a *mestiza* language, a linguistic code that represents a synthesis of all these cultures and contacts between all languages (Torres Solórzano, 2010; Konieczna-Twardzikowa, 2002).

According to Moreno Fernández (2010), Lapesa (1980), Zamora Vicente (1967) and Roña (1965), the main differences of the Spanish language in Latin America are related to the lexicon (archaisms, Indigenisms, Anglicism, etc.), phonetics (*seseo*, pronunciation of *z* as *s*; *yeísmo*, pronunciation of *ll* as *y*; rotacism, confusion of *r*- and *l*; aspiration of initial *h*- from *f*- Latin and from Castilian *j*; relaxation or loss of implosive consonants (followed by another consonant, in the middle of a word); loss of intervocalic -d-); morphosyntax (*voseo*, i.e., the use of the pronoun *vos* for informal treatment instead of *tú*; use of *ustedes* with second-person plural value; post-positioning of possessives, as in *la hija mía*; great use of the diminutive appreciative suffix, as in *ahorita*, the use of suffixes -*ada* as in *muchadada*, *platicada*, etc.; absence of *leísmo*, *laísmo* or *loísmo*).

3. Our Project: A Tour Through Latin-American Spanish Varieties In The Spanish As Foreign Language Classroom

This project focuses on the Latin-American varieties of Spanish language (Liceras, Carballo & Droege, 1995; Beaven & Garrido, 2000) which reflect the binomial cohesion-diversity, which we have just analyzed in the previous chapter, resorting to literary and hypermedia discourses with contributions from historical sociolinguistics.

According to authors as Fernández-Corbacho (2014), Mora (2013) and Knutson (2003), due to the affective dimension it contains, the experience should function as a compass which allows students to guide their learning with a strong relationship with the real and virtual worlds. In fact, it seems to us that the experiential communicative approach is the most effective approach for the implementation of the study of linguistic and cultural varieties in the Spanish as Foreign Language classroom, because it implies the connection of the language contents with the student, their hobbies and interests and with his/her experience of the world (Fernández-Corbacho, 2014).

In this way, students participate in an interactive process of co-construction of cultural knowledge about the societies of the Spanish-speaking countries and theirs own, by analyzing their similarities and differences among them and acquiring skills that allow them to acquire knowledge by themselves and interact successfully with native speakers (Valls Campà, 2011). Let us now focus on our study, including its research design and didactic proposals.

3.1. Research Design: Methodologies, Aims And Questions

Our macro study was developed around the specific aims and research questions that one can find in Table 1. Taking our macro study into consideration, we have used the following research tools: a) questionnaires aimed at students, about both the use of mobile devices in the Spanish as Foreign Language Classroom (<https://goo.gl/forms/OGIj3yZ4sWlc8wGc2>) and their representations and knowledge of Latin-American linguistic and cultural varieties of Spanish language (<https://goo.gl/forms/m00rxsA3I0B7XIEg2>); b) questionnaires aimed at teachers about their representations on the teaching of linguistic and cultural varieties of Spanish language (<https://goo.gl/forms/m00rxsA3I0B7XIEg2>); c) analysis grid of course books on the presence of Spanish linguistic and cultural varieties; d) analysis grids of graduation degrees of Portuguese higher education institutions in relation to the presence of linguistic and cultural varieties of the Spanish language; e) project works, developed by students within the nature of our study; f) self-assessment questionnaires which were implemented in the end of each didactic unit.

Table 1: Aims and research questions

Aims	Research Questions
<p>A. Describe the sociolinguistic and sociocultural representations and knowledge that teachers and students have about the linguistic and sociocultural varieties of Latin America, regarding the process of teaching Spanish as a Foreign Language in higher education institutions.</p> <p>B. Analyse y the representations that teachers of higher education institutions have of teaching practices that favor the (re) construction of knowledge related to Spanish and its varieties.</p> <p>C. Analyse the degrees that offer content about Latin America in Portuguese higher education institutions, regarding teacher training.</p> <p>D. Analyze Spanish as Foreign Language teaching course books regarding the approach of content related to the linguistic and sociocultural varieties of Latin America Spanish.</p> <p>E. Create didactic proposals based on literary and hypermedia discourses that capture the linguistic and cultural varieties of Latin America, considering an experiential communicative approach.</p> <p>F. Demonstrate the creation of new sociolinguistic and sociocultural representations and knowledge by students, when they are stimulated through practices based on an experiential communicative approach.</p>	<p>1. Which representations have students and teachers got of the linguistic and cultural varieties of Latin American Spanish in higher education in Portugal?</p> <p>2. How are the linguistic and cultural varieties of Latin-American Spanish taught in teacher training degrees in Portugal?</p> <p>3. Which literary and hypermedia discourses and their phonetic, morphosyntactic and lexical features can facilitate work with the linguistic and cultural varieties of Latin American Spanish?</p> <p>4. Which practices can be mobilized in educational contexts that may contribute to the reconstruction of the sociocultural and sociolinguistic knowledge of Spanish and its Latin-American varieties?</p>

As we have already mentioned, the main and only aims of this article are both to analyze the students' representations on the use of mobile devices in the teaching and learning process of Spanish as a Foreign Language, and at the same time present didactic proposals which entail the development of skills related to the linguistic and cultural varieties of the Spanish language, and finally analyze students' projects which were developed within this project. Therefore, taking Table 1 into account, in the scope of our micro study, we will focus on research question number 4 only.

In relation to our micro study, we would like to mention that this is an empirical research of exploratory and descriptive nature because it is our aim to describe the collected data results (Yin, 2005). According to Coutinho & Chaves (2002), this kind of research aims at transforming a certain educational reality, allowing for knowledge of great value and precious insights.

Focusing on the questionnaires related to the use of mobile devices in students' daily lives and learning process, which were created and applied, include Likert-type scales (see Figure 2) and can be accessed here: <https://goo.gl/forms/OGIj3yZ4sWlc8wGc2>. They were built according to categories which emanated from scientific literature we analyzed (Tuckman, 2000), including Carrega's study (2011). This questionnaire is based on a study carried out by Carrega (idem), in which the researcher figures out that the mobile phone became an almost mandatory accessory used by younger generations in everyday situations, from classes to free time activities. Let us know analyze the data we collected during our research.

13. A) Nas aulas das diferentes unidades curriculares que frequentou, participou em atividades que envolveram o uso de... ? *

	Nunca	Raramente	Poucas vezes	Algumas vezes	Muitas vezes
de sítios Web (Google, Wikipedia, Dicionários, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
de sítios Web educativos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
de vídeos (Youtube, Vimeo, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
do manual adotado	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
de ferramentas de apresentação (Powerpoint, Keynote, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
de plataformas de ensino à distância (Moodle, Dokeos, Blackboard, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
de aplicações de smartphone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 2 - Sample of the questionnaire on the use of mobile devices in students' daily lives and learning process

3.2. Analysis Of Students' Representations On The Use Of Mobile Devices In The Learning Process

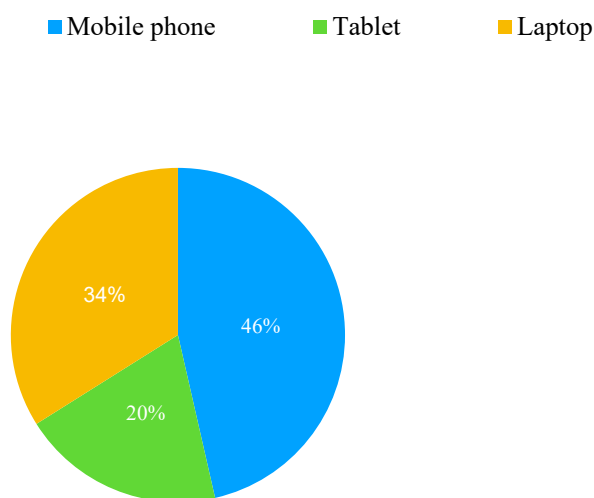
After having presented the design of both our macro study and micro study, we will now analyze the collected data within the application of questionnaires related to the use of mobile devices in students' daily lives and learning process.

In relation to the sample, we would like to start by mentioning that 82 students answered the questionnaire. 75% of the students are female and 25% male. 90% of the students are less than 25 years old and all of them are studying Spanish as a Foreign Language (either A2 level or B1.2 level) and other curricular units in the Graduation Degree in Foreign Languages and Cultures at a School of Education in Porto, Portugal.

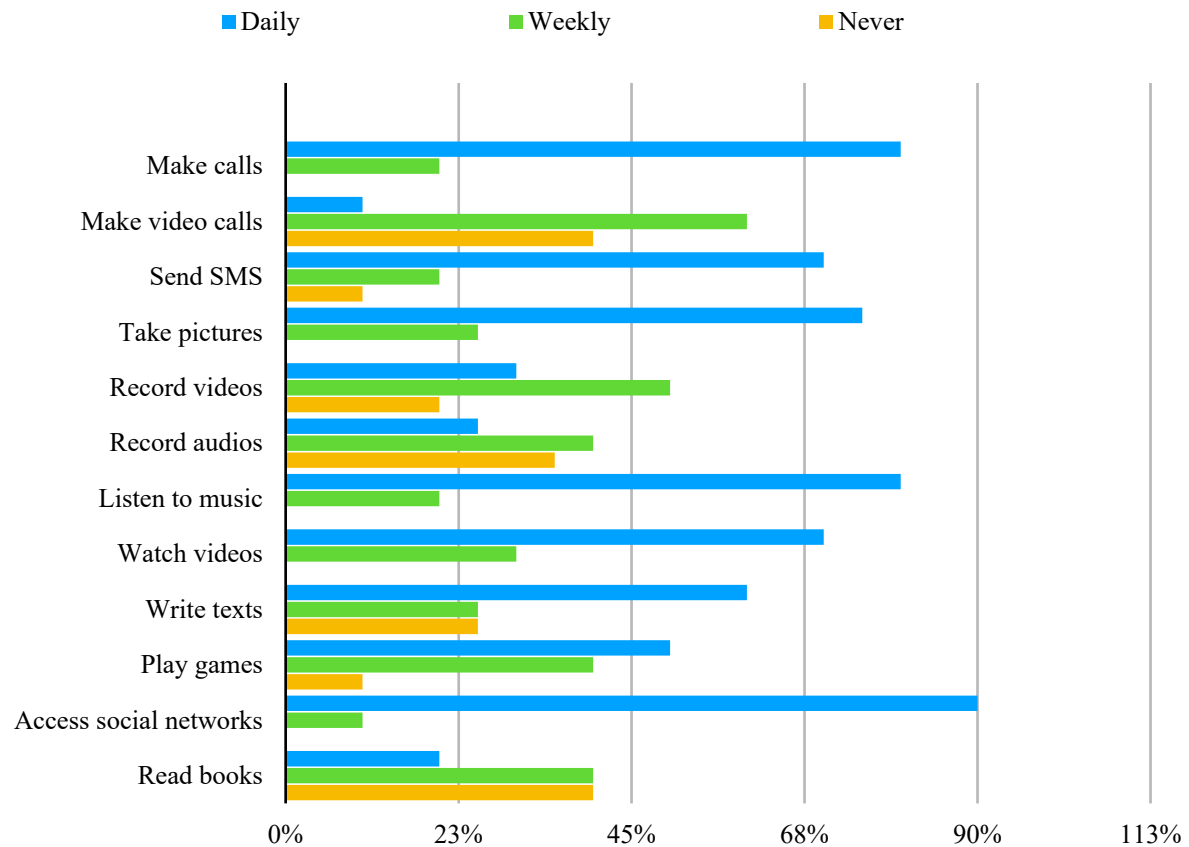
Taking the answers to the question "Which mobile devices do you own?" into consideration, most students have got mobile phones (46%) and some of them own laptops (34%). As we can see in Graph 1, tablets are still owned by few (20%), perhaps due to the fact that they are still rather expensive.

If we focus on Graph 2 and analyze their answers regarding the types of use they make of these devices in their daily lives, we can see that students are used to access social networks (90%), making calls (80%), send SMS (70%), take pictures (75%), listen to music (80%), watch videos (70%), etc. on a daily basis.

Some of the activities are undertaken on a weekly basis by a great group of students, namely video calling (60%) and video recording (50%). One of the things which is really impressive is the fact most of them do not write or read in their mobile devices. We were expecting this to be quite different, as tablets made this more practical and quite easier. This must be related to the fact that most students do not own a tablet.

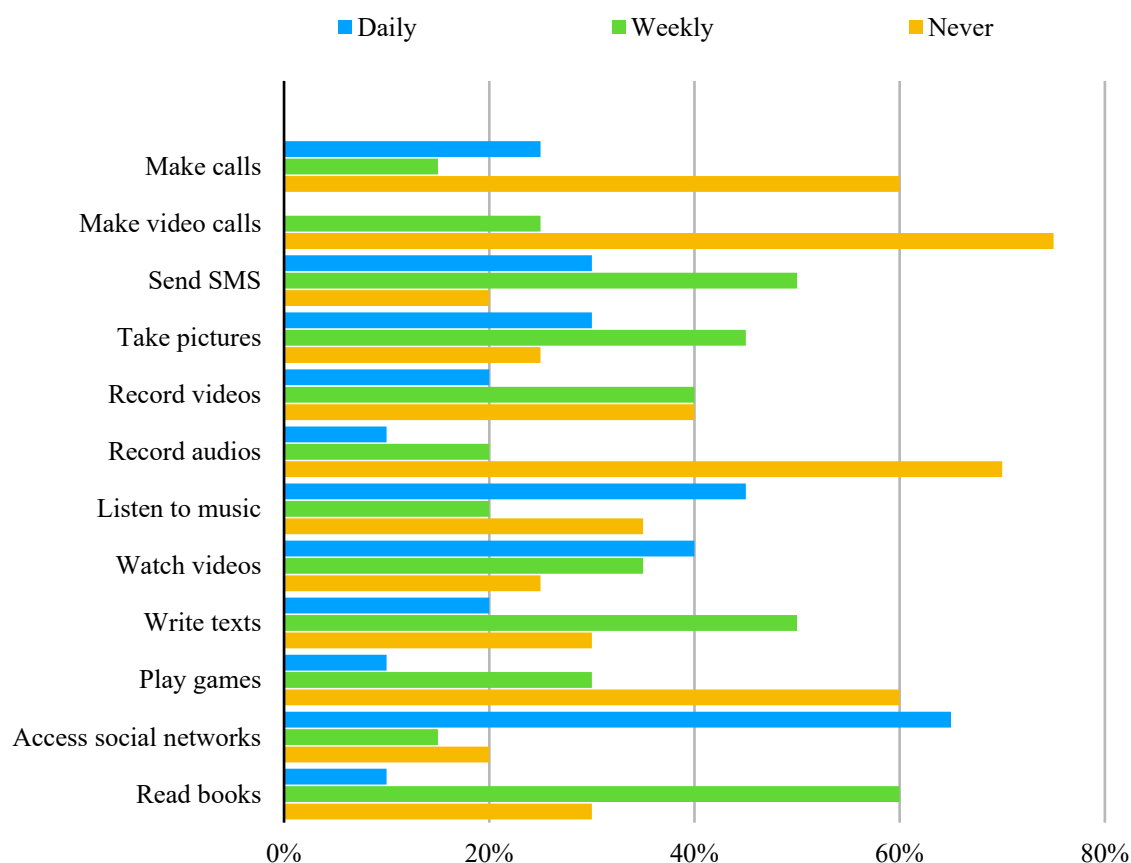


Graph 1 - Mobile devices students own



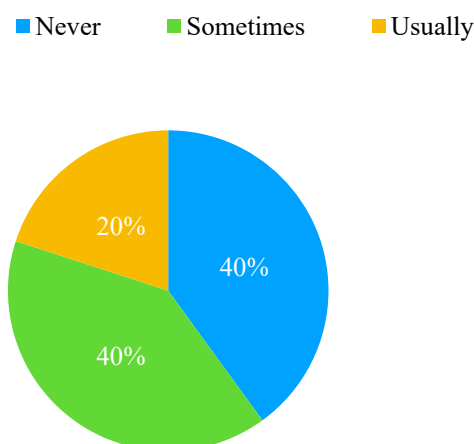
Graph 2 - How many times students use their mobile devices in their daily life to...

In Graph 3, and taking their answers in relation to the types of use they make of these devices for learning purposes into account, we can see a lot of differences. In fact, we can easily notice that most activities they undertake outside the classroom walls and learning environment on a daily basis are sort of forgotten. This is the case of pro-active tasks one can perform with the mobile phone, namely take pictures, listen to music, play games, record videos and record audios.



Graph 3 - How many times students use their mobile devices to learn...

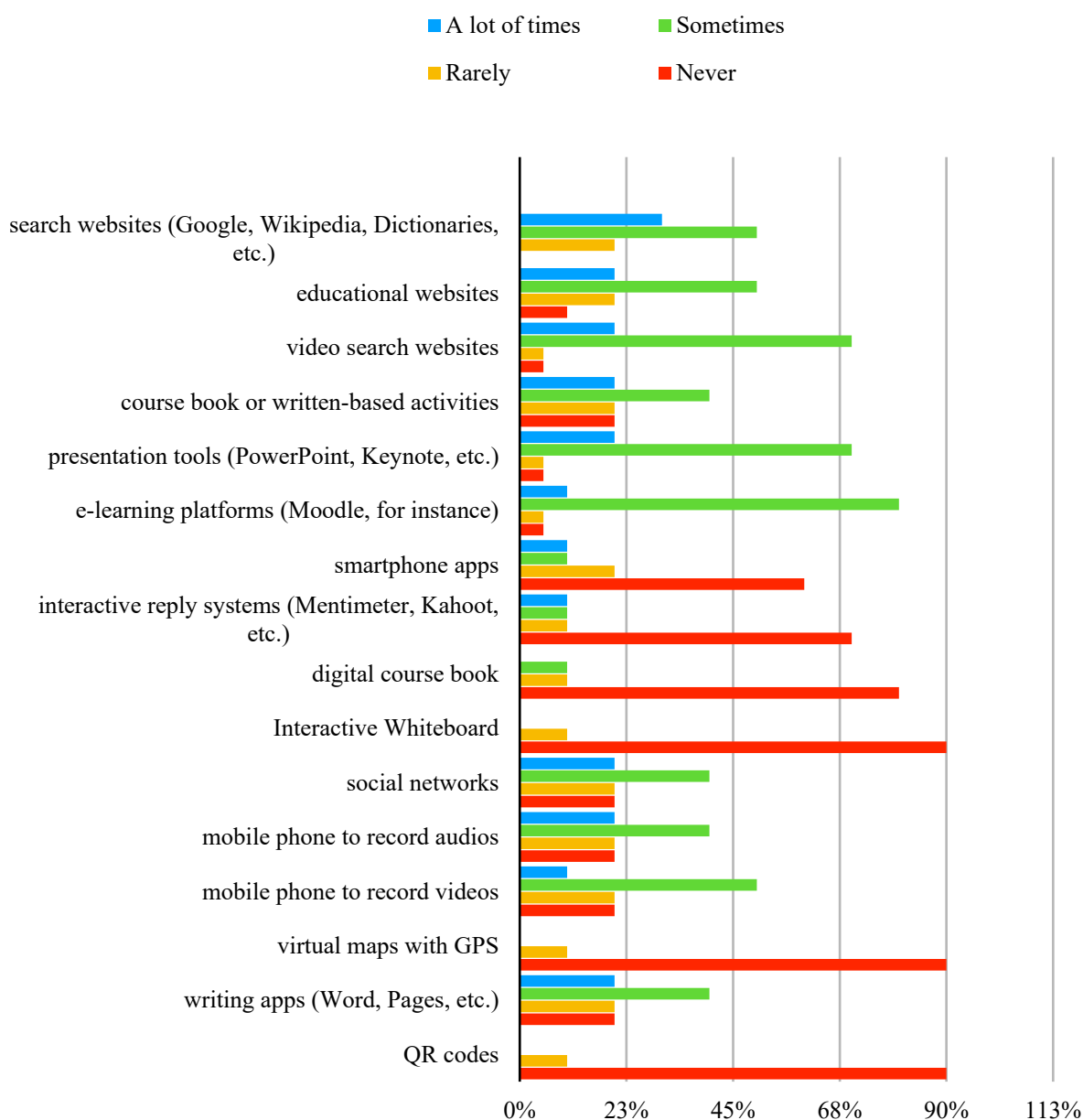
In relation to the question “Do lecturers let you use mobile devices within the classroom?” (see Graph 4), most students answer “Never” (40%) or “Sometimes” (40%). The students who answered both “Usually” or “Sometimes” mentioned some of the tasks they undertake with their mobile devices, by replying as follows: “search for answers and online dictionaries”, “interactive games”, “they always let us use whenever it is necessary, for example for a class search or for taking notes”, “only for searching the web”, “search for information on an online dictionary”, among others.



Graph 4 - Do lecturers let you use mobile devices within the classroom?

Going further on the analysis, if we ask them to assess how many times they undertake different activities, we can

easily find out that some of the resources/activities may be considered as almost forbidden within the classroom walls due to the fact that they are scarcely used or almost not used at all, namely: interactive reply systems, virtual maps or QR codes. However, video websites search, presentation tools, e-learning platforms and course-book and written-based activities strike as the most popular tasks undertaken in educational contexts (see Graph 5, for further details).



Graph 5 - What do students use their mobile devices in classroom for

Summing up the results we obtained with the applied questionnaires, we may say that students are not taking the most out of their mobile devices within classroom walls and learning environments. On the one hand, as we have seen before, mobile devices should be used continually, i.e., if students use their mobile phones or tablets to explore the world outside the university, they should be using these devices within the university to explore learning experiences and get involved in interactive, engaging and gasified tasks, as much as possible (Toledo, 2015; Osóres, et al, 2013; Álvarez, 2016). Even though they are using technology in classroom, most of the times they are using it as passive consumers, rather than avid and active producers of knowledge. In Spanish A2 and Spanish B1.2 curricular units we implemented some activities which catered for an active posture of students towards learning, which we will analyze in the following subchapter.

3.3. Analysis Of Students' Project Works Related To Latin-American Spanish Varieties

In this subchapter present and analyze activities and student's project works, in which they were engaged and involved in an active manner, bearing in mind that these proposals are related to Latin-American Spanish language and cultures. By being in contact with living samples of Latin-American countries, students were able to develop skills, such as: critical thinking, communication and critical cultural awareness. After the presentation of the activities, a brief analysis of self-assessment questionnaires' replies completed by the students, will be made.

We organized his chapter in two sections: section A) related to students and their gamified experiences in the SFL classroom; section B) related to activities in which students engaged as try producers of knowledge. Let us start with section A.

A) Gamified experiences in class

One of the activities which make part of most motivational steps is brainstorming. Nowadays we may use digital platforms, such as *Mentimeter* (<https://www.mentimeter.com>), *Kahoot!* (<https://kahoot.com>) or even *Plickers* (<https://www.plickers.com>), in order to perform this type of motivational tasks.

Mentimeter is a free website which allows for the creation of fun and interactive questionnaires for the classroom. By inserting a code within the application on their mobile devices, students have the chance to participate by creating tag clouds (see Figure 3), answering small questions with shot texts (see Figure 4) or even giving their opinion on specific topics, contributing for the instantaneous creation of classroom charts.

In Figures 3 and 4 we can see examples of activities developed by students, in which they focus on both linguistic and cultural content of Spanish-speaking countries, namely cultural items from the target-cultures and the history related to the Inca people.

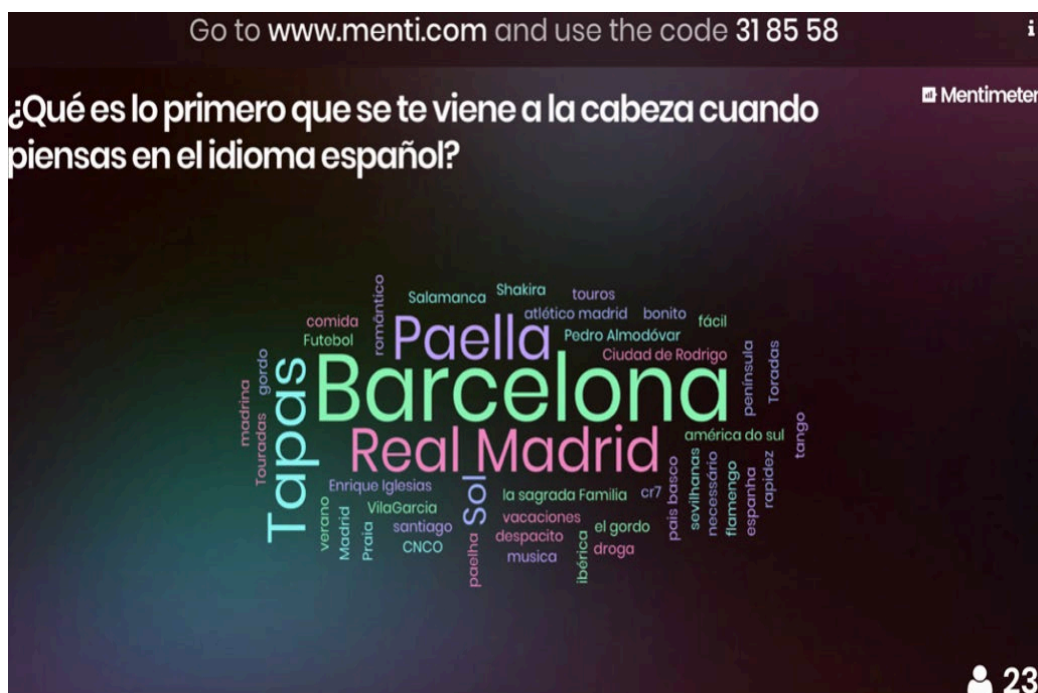


Figure 3 - *Mentimeter* “What is the first thing that comes to your mind when you think of Spanish language”

The gamified experience within this platform can be felt through the setting up of a timer for each task, which students have to undertake. In fact, the design of a gamified activity within this platform takes the following core drives into account: a) core drive 1, as students are called to give their opinion; and, b) core drive 3, as they can get creative in the answers they give. If we compare it with other platforms, such as *Kahoot!* or *Plickers*, it offers a little less quality gamified experience, as not all of Chou's Octalysis core drives are tackled.



Figure 4 - Mentimeter “How was Inca empire?”

The *Kahoot!*'s experience tackles all of the Octalysis core drives and for this reason is considered to be a true gamified application. Within the scope of our project we implemented the *Kahoot!* questionnaire entitled “How much do you know about Latin America?”, which can be accessed here: <https://play.kahoot.it/#/?quizId=468cbd0c-9da9-4fa9-a546-9cc3a51624d2>. Throughout this game, students have the chance to answer questions related to topics such as history, geography, culture and language varieties of Spanish-speaking Latin American countries, including vocabulary, expressions and accent of Spanish language in the region (see Figure 5, for more details).

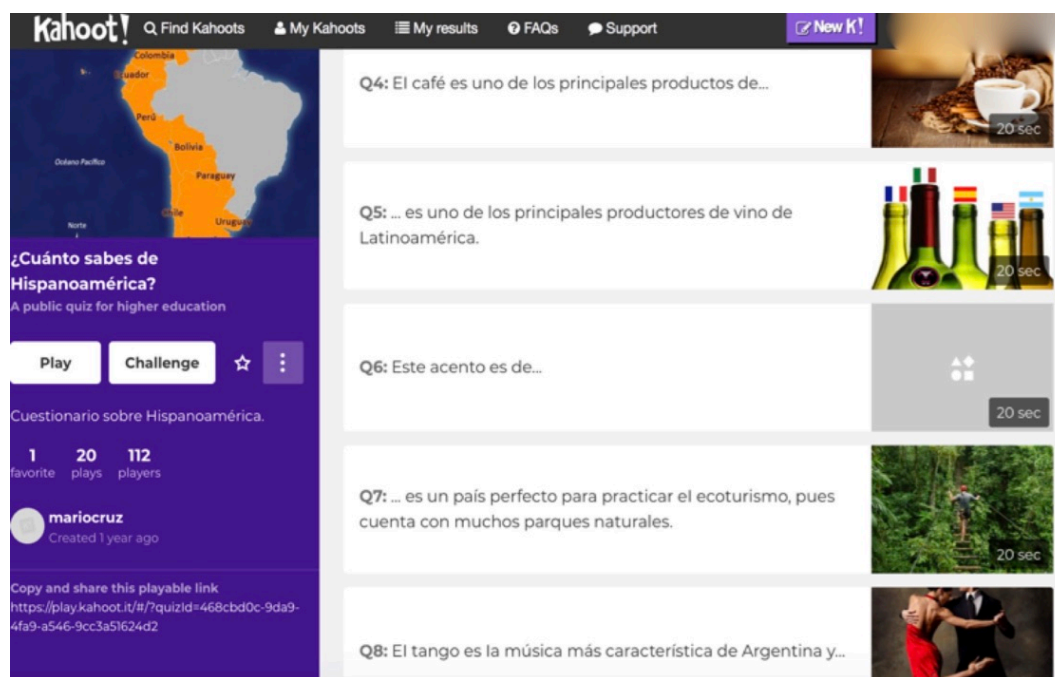


Figure 5 - Kahoot! “How much do you know about Latin America?”

Taking the Octalysis framework (Chou, 2016) into account, we considered the following while designing this activity: a) core drive 1, as students are called to solve problems in the form of short but difficult questions; b) core drive 2, because there is a points and leaderboard system, which gives them the sense of progression or not; c) core drive 3, as they have to tackle some issues, by analyzing pictures and videos, and feel important by giving them such power; d) core drive 4, as they participated in the activity in small groups and groups have to “fight

against” other groups during the questionnaire application; e) core drive 5, competition drives them to try to defeat other groups in the following rounds in the game; f) core drive 6, as winners would win a prize which was a CD from a famous Latin American music band, which acted as a kind of token; g) core drive 7, as uncertainty and curiosity upon what comes next move them within the game; h) core drive 8, as they tend to avoid bad things from happening, such as their group losing one of the rounds.

Concerning other gamified platforms, our students had the chance to develop other warming up activities, as the one related to the use of *Heads Up!* (<https://itunes.apple.com/pt/app/heads-up/id623592465?mt=8>) and the revision/activation of vocabulary on the topic “clothes”. Some of the vocabulary was of Latin American origin, namely *pollera*, *remera*, *musculosa*, etc. As we can see in figure 6, students were divided in groups of two members. One of the students has to perform some gestures and sounds, giving some clues, and the other one has to guess the words on the card present on the tablet on his/her head, before the timer runs out. They may flip the tablet down if they guessed the word correctly and up if they did not guess it properly or simply want to pass to another word, avoiding the loss of time.

Due to its nature, the platform allows for repetition of some of the words which allows students to find new strategies to make their partners guess them. At the same time, it permits recording their partner’s performance while giving gestures and uttering sounds, so that it can be analyzed in a critical manner.

In relation to the Octalysis framework (Chou, 2016), we designed the activity taking the following core drives into account: a) core drive 1, as students feel this is a meaningful activity for them; b) core drive 2, as progression is also stimulated and encouraged by the repetition capabilities which the application offers and the instantaneous feedback which *Heads Up!* system gives in the end of each game; c) core drive 3, because students have to be creative so that their partners guess the words through their gestures and sounds; d) core drive 4, as they are involved in a true group activity which is bigger than themselves; e) core drive 5, as there is a lot of competition involved, in relation to the number of words guessed per group.



Figure 6 - Students playing *Heads Up!* game on vocabulary related to clothes

B) Students as producers of hypermedia content

One of the things we figured out in the answers students gave in the questionnaires we implemented is that students do not quite have the chance to get involved in the creation of content through mobile devices. In this section we will give examples of activities which can foster students’ involvement and engagement in the analysis of topics,

creation of news reports or even instructional dialogues.

One of the applications which contribute for the development of oral production skills is *Flipgrid* website (<https://flipgrid.com>). In this platform, students get the chance to share ideas and learn together while recording small videos about topics you want them to discuss. All of their videos appear in a grid, as one can see in Figure 6. One of the activities which students participated in is “Which animals of the Spanish-speaking world are in danger of extinction?”. First students had to search for information on one of the animals of a specific or group of specific Spanish-speaking countries. Second, they created their text on the topic and had the opportunity to train their performance before recording a definite version. Third, they had to record their video directly from the *Flipgrid* app within their mobile devices.

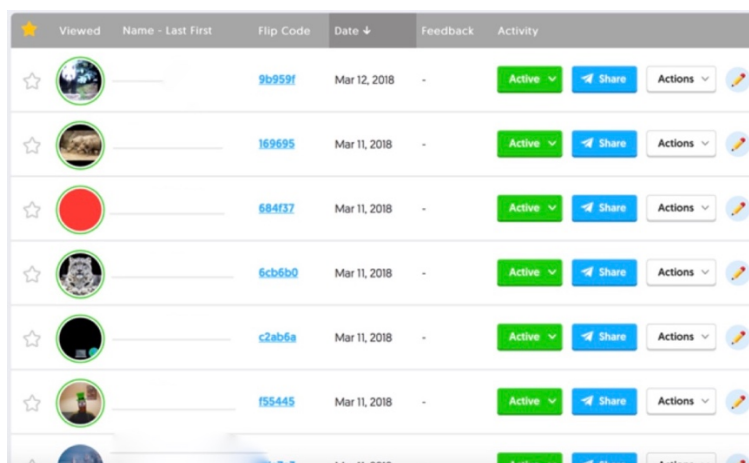


Figure 7 - *Flipgrid* on the topic “Animals from Spanish-speaking countries in extinction”

What is special about this platform is its interface (Figure 8), which allows for instantaneous feedback both on other students’ and teacher’s counterparts in a *Facebookian* style. Students get assessed by the teacher in relation to their performance (from 1 to 5 points) and ideas (also from 1 to 5 points). Students get ranked according to their points. Other students may also assess their fellow mates’ performances, selecting smileys and emoticons (hearts, rockets, etc.), which makes the activity quite funnier.

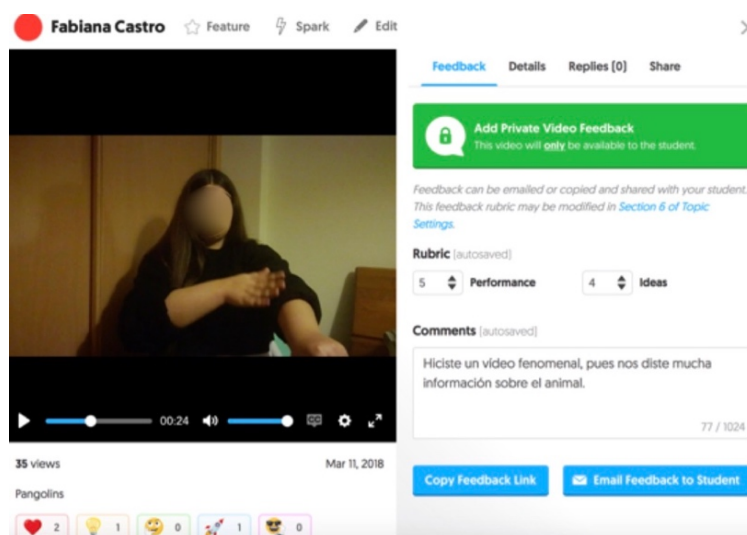


Figure 8 - Example of a *Flipgrid* video on the topic “Animals from Spanish-speaking countries in extinction”

Bearing in mind that a lot of students are nowadays true videobloggers, a lot of them felt really engaged and empowered during this kind of tasks, in which teachers tend to discover new talents or that some of the timid students are not really that timid as they usually show in traditional class environment. Students of Spanish A2 curricular unit also had the chance of using *Flipgrid* to present their parts of the house and the objects they entailed.

A sample of this activity can be found here: <https://www.youtube.com/watch?v=IQZUZwADL0Y>.

Another interesting activity, which was developed within the scope of our project, is the one related to news reports. First, students had the opportunity to analyze multiple types of news on multiple platforms from the Spanish-speaking diaspora, focusing on newspapers, websites and TV channels from Spanish-speaking countries. Second, they had to create a written report on one of present-day topics, which would be corrected by the teacher. Finally, they had to convert it on both a studio and street report, recording a video and formatting it using video editing software. Students had the chance to experiment on the job of a journalist, as some of the students choose this type of career as their master's degree.

In Figure 9, we can see one of the project works created by a group of two students of Spanish B1.2 curricular unit. By watching it, we easily find out that these students mastered both their written and oral production skills, but also skills related to video production, including the work with technological means, by using a mobile phone or a tablet.

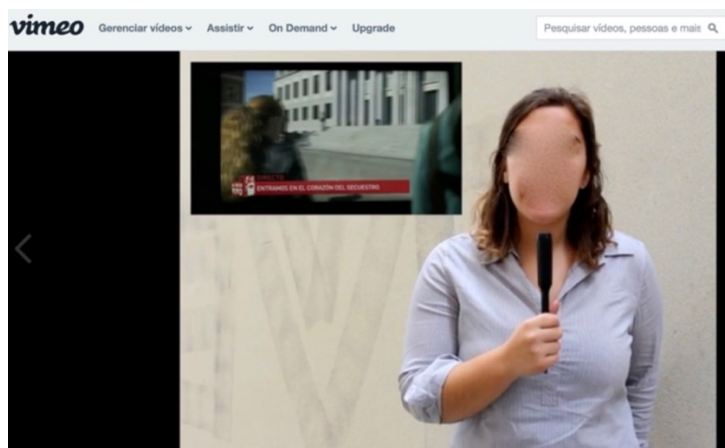


Figure 9 - Example of a News Report created by a group of students (<https://vimeo.com/279823407>)

The same occurred with another task developed by students of Spanish A2 curricular unit. A lot of our students tend to become air hostesses once they finish their graduation degree studies. Therefore, it is of utmost importance to give them contexts in which they can train skills they are going to need in their future jobs. That is why we asked our students to create an instructional video on the topic “airplane security before and during flights”. At first, students watched different videos from diverse Spanish-speaking flight companies, such as *Iberia* or *Volaris*. Then, they prepared their own videos (plot, setting and text). Last, they had to record it using their mobile phones. Students got quite involved during the task, by showing a very professional attitude and very rigorous oral performance regarding the use of the Spanish language (see Figure 10, for an example and a link to the video).



Figure 10 - Example of an Instructional Video about Airplane Security (<https://youtu.be/wmfhK372rjw>)

As we can see, creativity can also be stimulated. The screening of short films from Spanish-speaking countries, especially from Mexico and Argentina, induced us to foster the creation of this type of videos within the community of our students in the Spanish A2 curricular unit. In fact, one of the tasks they liked the most was the creation of a short film, in which they would be using verbs in present tense. These short films can be watched on Vimeo platform here: <https://vimeo.com/251930220>, <https://vimeo.com/251944241> and <https://vimeo.com/251931271>.

After having carried out all these activities, students were asked the following “Taking the Spanish classes you attended into account, mention resources and educational strategies used by the teacher which you consider as the most effective ones. Give examples of things you learned and experiences you had based on the use of digital resources in the classroom.” Most students enjoyed the lessons, especially because of they dynamic and interactivity (“I really enjoyed classes with Internet access and Kahoot!, as they turn out to be more dynamic.”). Some other students understood the power of mobile devices in their learning process, as tools which can empower them (“The use of mobile phones to create small videos like a YouTuber was really inspiring and stimulating”). Others uttered some words on either the applications and developed activities (“I really loved creating short films and developing micro-tasks in Moodle platform, and at the same time I enjoyed writing small stories or inventing comics”) or the contents related to linguistic and cultural varieties (“I find it defying to get to know words as “Vaina” which is used in specific contexts in Latin America, especially in Venezuela”; “Up until now I did not know that Spanish had such a diversity in its linguistic component. Now I know words such as petaca, valija, boleto”; “I loved to learn new things on my own related to Quiroga or even the Inca empire. It was really inspiring. Latin American countries are really exotic and overwhelming!”).

Conclusions

Some of our present-day education systems are still tied to a Taylorist model of staff preparation for a full-employment economy, being not capable of creating citizens for the 21st century. Within this context, teachers tend to rely on course books to offer adapted activities to their students. However, some researchers feel that these: lack in variety of strategies, offer a poor response to the true needs of students, diminish opportunity for spontaneity and curricular flexibility, and also do not stimulate creativity in the use of the language itself (Cunningsworth, 1995). As Allwright (1981, p. 8) mentions, “content (potential intake) is not predictable. It is, rather, something that emerges because of the interactive nature of classroom events.”

Language learning is about dealing with specific contexts, spontaneous and vivid ones, which entail diversity that our *glocal* society offers. If one thinks about foreign language teaching, and specifically in Spanish as foreign language learning process, one should be offering students opportunities to contact with that diversity, in order to make them become as plurilingual as pluricultural as possible, as learning speakers of the target language.

As we have seen in this article, we believe in a pedagogy which uses technologies, especially mobile devices, the Internet and the apps it offers, to aim at the constant transformation of the conditions in which one learns. Moreover, it implies the development of a social responsibility, a critical awareness of the state of the society and a proactive role by the learners in the whole process.

Therefore, through some mobile technology-driven and gamified activities, prepared within the Octalysis framework (Chou, 2016), students felt empowered within the learning process. In this way, we may conclude that:

- a) Mobile phones and tablets allow for the empowerment of students and convert them in pro-active producers;
- b) Technology-driven methodologies may allow us for the creation of a society of multilingual, multiliterate, multicultural and critical thinkers who possess both linguistic and technological knowledge, rather than monolingual, mono literate and monocultural test-takers only.;
- c) the gamified materials seem to be suitable instruments to be used in the SFL class, since the students learn the varieties of Spanish language in an interactive and pro-active manner, either re(building) their views on language or cultures or even creating new knowledge.

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Child Maltreatment A Challenge For Teachers

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Abstract

Introduction: Today, worldwide, ill-treatment in children and young people is understood as a true scourge of public health. Teachers, acting as agents for detecting situations of abuse and with specific responsibilities, have a privileged position on child protection. Urging, in a pressing and permanent way, the combination of efforts and fruitful articulation between the various sectors of society, namely health and education, in order to reduce this scourge.

Objective: Identify what teachers know about child maltreatment

Method: This is a quantitative, descriptive, non-experimental, cross-sectional study, conducted on a sample of 310 teachers in the 1st cycle and pre-school of schools of the central region of Portugal, mostly women (84.9%), with ages comprehended between 31-51 years old and with a average professional experience of 25.76 ± 6.916 standard deviation. Data collection was conducted through a questionnaire of sociodemographic and formative characterization and two scales developed by Cunha (2014, DGS, 2011) "Risk Factors/Aggravation" and "Bad Indicators Tracts." **Results:** This study revealed that 31.2% of the teachers have basic training, with only 21.3% claiming to have continued training in the subject. 59.4% consider important in their education, and only 14.8% have knowledge of the "Guidance for Education Professionals in Bad Situations Approach treatment or other hazard situations." With regard to knowledge of risk factors/protection/worsening, 10% had a low knowledge about them, 17.4% moderate knowledge and 72.6% high knowledge.

Conclusion: In view of the results is considered essential to focus on training, integrating it into the teachers of basic training and encouraging the in-service training. The subject areas to focus should include characterization of mistreatment, response protocols, legal aspects of intervention, coordination mechanisms between the intervention partners, domestic violence, parenting skills, conflict management and communication skills and family mediation.

Keywords: *Child abuse; Teachers; Child; Health education; School*

Introduction

Child maltreatment is currently a worrisome problem throughout the world, presenting itself as a multifaceted phenomenon, susceptible of different dimensions of analysis. With the passage of time, the phenomenon has assumed progressive gravity, requiring, therefore, early identification and immediate intervention, and it is essential to prevent its occurrence in children/families at risk.

The concept of child maltreatment of the World Health Organization (WHO) has a consensus within the scientific community. Thus, this is defined as "...all forms of physical and/or emotional maltreatment, sexual abuse, neglect or negligent treatment or trade or other exploitation, resulting in actual or potential offense to health, survival, development or dignity of the child, in the context of a relationship of responsibility, trust or power" (WHO, 2002, 59). In a broader sense, according to the Direção-Geral da Saúde (2011, p.7), "child maltreatment refers to any non-accidental act or omission perpetrated by parents, caregivers or others that threatens the victim's safety, dignity and biopsychosocial and effective development". From the earliest times, in the twilight, a reality that has accompanied human existence!

However, in everyday life, child maltreatment is being increasingly intensified. This is due to the number of cases of abused children, the greater acuity and sensitivity of the professionals/population for the detection of situations of risk and a better social response of the community structures.

The WHO estimated that in 2002 about 31 thousand deaths were the result of homicide in children under 15 years of age. The complexity of the phenomenon, coupled with the inexistence or insipidity of registration systems, contributes to the difficulty in establishing, with some reliability, the size of it. There are numerous social, ethical and methodological constraints; in addition to being a problem, as a general rule, restricted to the private sphere, and as such difficult to diagnose, there are still some social and cultural values that tolerate (and accept) forms of violence as educational strategies (Magalhães, 2005).

The numbers, according to Martins (2008), are truly alarming. It is therefore important to reflect on the physical and psychological sequelae that these children will hold for life, and to be aware that there will probably be other dimensions of child maltreatment still unknown.

It is imperative, therefore, the articulation between the sectors of society, being examples health and education.

Early detection and appropriate intervention will contribute to the reduction of cases and consequences of childhood maltreatment, and the communication quality between nurses and teachers is of particular importance here, so that the former can fully exercise the functions of health promoter.

According to data provided by the Health Action for Children and Young People at Risk (ASCJR) report of October 2012, were reported in Portugal: 68% cases of neglect, 13% cases of psychological maltreatment, 9% cases of physical maltreatment, 7% cases of sexual maltreatment and 3% other forms of maltreatment (Direção-Geral da Saúde, 2012).

The Annual Report on the Evaluation of the Activity of Committees for the Protection of Children and Young People reveals that in 2010 the Commission for the Protection of Children and Young People (CPCJ) monitored 68,300 cases (+ 2% compared to 2009), of which 32,799 had no resolution at the end of 2010 having moved to 2011. There is a downward trend for opening new cases (-1.05%) but an annual increase in the number of cases reopened (+ 33.5%). Of the total cases that were filed in only 4% the danger situation was not confirmed (Carvalho, 2011).

In 2014, according to data from the Annual Activity Assessment Report, the Commissions for the Protection of Children and Young People (CPCJ) monitored 73019 cases of promotion and protection, of which 35,597 cases were carried over to 2015, that year the data show that an average of eight children a day were mistreated.

In the year 2017, in Portugal, preliminary data from the annual report of the National Commission for the Promotion of the Rights and Protection of Children and Young People (CNPDPJ) show that on average seven children a day were victims of mistreatment, that is, 2719 signs were made to the commissions of minors of physical and psychological abuse to children.

Epidemiological monitoring emphasizes violence against children and young people as a universal and endemic phenomenon, despite the problems of reporting and the omission demonstrated by the silence of many, statistics begin to highlight violence against children and adolescents as a universal phenomenon and endemic. Failure to prevent and report these cases prevents children, as well as their families, from receiving protection and treatment and minimizing the consequences thereof. Thus, it is of the utmost importance that the knowledge and attitudes of educators be assertive to promote early detection and immediate intervention as advocated by the World Health Organization and International Society for Child Abuse and Neglect Prevention (WHO and ISPCAN, 2006).

Of course, the intervention of the competent bodies in this field of Children and Youth, which includes teachers, occurs when parents or caregivers do not fulfill their role. Pre-school educators and 1st cycle teachers are key elements in the early detection of these cases since, due to the monoculture existing in these cycles, they have greater access to certain aspects of children's lives than other teachers, that is, access privileged to the daily learning of children, to various forms of their individual, family and social behavior, to their school performance and to their inclusion process (Cunha, 2014). On 3 June 2006 a cooperation protocol was signed between the Ministry of Labor and Social Solidarity and the Ministry of Education, which establishes in the teacher's role defined functions with regard to intervention in situations of risk and child danger.

Adequate knowledge of indicators of child maltreatment is necessary to ensure that appropriate intervention is possible with competent authorities. However, knowing the indicators of maltreatment and the risk / aggravating factors is not enough to detect possible situations of mistreatment or other situations of danger. It is also important to consider the child's age and stage of development, depending on these, the existing warning signs of danger may be different (Cunha, 2014).

In this context, there is a clear interest and need to investigate this problem, since in Portugal there are still few studies in this thematic area. Thus, we sought to identify the sociodemographic variables that relate to the knowledge of pre-school teachers and the 1st cycle in the face of maltreatment in the child.

The Study

The quantitative, cross-sectional and descriptive study. It was carried out in a non-probabilistic sample for convenience, consisting of 310 pre-school teachers and first cycle teachers working in public schools in the central region of Portugal, in the 2015/2016 academic year. The data collection was authorized by the Ministry of Education and was carried out through the Assessment of Knowledge Rating Scale (EACI) of Cunha (2014). The EACI aims to perceive the knowledge that teachers have about the factors of protection and risk against child abuse. This scale is a Likert type with 6 categories: totally disagree, disagree, do not disagree or agree, agree, totally agree and have no opinion scored from 1 to 5, consisting of 50 items.

"I do not disagree or agree" and "have no opinion" gave a score 1. Score 2 and 3 were assigned to "totally disagree" and "disagree" and scores 4 and 5 responses to the "agree" and "agree" totally "for the true statements and the inverse for the items with false statements.

After data collection, the questionnaires were debugged in order to eliminate all those that were incompletely or incompletely completed. The data were then entered into a computerized database and processed in the statistical treatment program Statistical Package for Social Science 24.0 (SPSS) in order to treat them.

Findings

Aiming to chart the profile of respondents, it was observed that the majority are between 41-50 years or more than 50 years old, with similar percentages (43.2% and 43.6%), living with a partner (76.8%) and have children (86.5%). The statistics on the professional experience reveal that respondents had a minimum of five years professional practice and a maximum of 39 years, it corresponds to an average experience of 25.76 years with a standard deviation of 6.92 years.

For males, who represent only 15.2% (47) of the total sample, the mean service time (mean = 26.26 years \pm 6.36 SD) is higher than the female (25.66 years \pm 7.02 SD), which represents 84.8% (263) of the sample.

Formative characterization and signaling

Concerning training and signaling, and with regard to male respondents, the majority have no basic training on child maltreatment (80.9%); nor did they receive further training (78.7%); however, attach great importance to this continuous training (57.4%); (83.0%) are not aware of the existence of the "Guide". Mostly, they have never reported students to maltreatment (92.6%) but are aware of the existence of institutions for this purpose (88.9%). On the other hand, the majority of women do not have basic training on child abuse (68.8%); nor did they receive further training (78.7%); however, they also attach great importance to this continuous training (59.7%); with the majority (85.6%) not aware of the existence of the "Guide". Mostly, they never reported students on maltreatment (78.6%) but are aware of the existence of institutions for this purpose (93.7%).

The Chi-Square values (X^2) showed that there were no statistically significant differences ($p > 0.05$) between sex and the different variables. (see Table 1).

Table 1 - Characterization of training and signaling of the sample according to sex

Table 1. Characterization of training and signing of the sample according to sex										
Sex		Male			Female			Total		Chi Square (x²)
Variables		Nº (47)	% (15.2)	Resid.	Nº (263)	% (84.8)	Resid.	Nº (310)	% (100.0)	
Basic training on MTI's										
	Yes	9	19.1	-1.3	82	31.2	0.5	91	29.4	0.095 (ns)
	No	38	80.9	0.8	181	68.8	-0.4	219	70.6	
Did training on MTI's										
	Yes	10	21.3	0.0	56	21.3	0.0	66	21.3	0.998 (ns)
	No	37	78.7	0.0	207	78.7	0.0	244	78.7	
Importance of training										
	Very important	27	57.4	-0.2	157	59.7	0.1	184	59.4	0.674 (ns)
	Important	20	42.6	0.5	99	37.6	-0.2	119	38.4	
	Little important	---	0.0	-1.0	6	2.3	0.4	6	1.9	
	Nothing important	---	0.0	-0.4	1	0.4	0.2	1	0.3	
Knowledge of the "Guide"										
	Yes	8	17.0	0.4	38	14.4	-0.2	46	14.8	0.648 (ns)
	No	39	83.0	-0.2	225	85.6	0.1	264	85.2	
Signed your students										
	Yes	2	7.4	-1.4	31	21.4	0.6	33	19.2	0.090 (ns)
	No	25	92.6	0.7	114	78.6	-0.3	139	80.8	
Knowledge of institutions										
	No	3	11.1	0.8	9	6.3	-0.3	12	7.1	0.370 (ns)
	Yes	24	88.9	-0.2	134	93.7	0.1	158	92.9	

What socio-demographic variables are related to the knowledge of pre-school and elementary school teachers (1st cycle) in the face of maltreatment in children?

Para saber a influência da idade no conhecimento dos professores sobre os maus tratos na criança efetuou-se o teste de Kruskal-Wallis. The Kruskal-Wallis test was used to know the influence of age on teachers' knowledge about child maltreatment. It should be noted that the respondents aged 41-50 dominate in most dimensions, except for the "Physical" (31-40 years), "Behavioral parents" and "Academics" (> 50 years). There were no statistically significant differences in any of the dimensions or overall scale ($p > 0.05$).

The Mann-Whitney U test was used between sex and the dimensions of abuse. It should be noted that the domain of female respondents in all dimensions, except for "False maltreatment" and "Social", dominated by elements of the opposite gender, however, with no significant statistical differences ($p > 0.05$).

Regarding the influence of marital status on the knowledge of teachers about child abuse, the Mann-Whitney U test was used, highlighting the mastery of the elements without companion in all dimensions and overall, except for "False maltreatment", dominated by those who have a partner, and with very significant statistical differences ($p = 0.003$) for the "Physical" dimension.

Regarding the influence of the existence of children on the teachers' knowledge of child maltreatment, a Mann-Whitney U test was performed. It is highlighted the dominance of the elements with children in all dimensions and

global, except for "Physical", dominated by those who do not have children, however, with absence of significant statistical differences ($p > 0.05$).

Finally, for the influence of professional experience on teachers' knowledge of child maltreatment, the Kruskal-Wallis test was performed. It should be noted that respondents with > 32 years of service dominate in most dimensions, with the exception of "False maltreatment" (20-25 years) and "Physical" (< 20 years) and with statistically significant differences ($p = 0.007$) for the dimension "Academics".

Conclusions

The results of this study made it possible to perceive and acquire more information about the knowledge of teachers of pre-school and basic education of the 1st cycle on child maltreatment in the Central region, as well as the deficits that these present at the level of training. Thus, 68.8% of the teachers did not present basic training on child abuse, 78.7% said they did not have continuous training in the subject area and only 14.8% had knowledge about the "Guidelines for Education Professionals in Approach to Situations of Ill-treatment or other Situations of Danger". Regarding the knowledge of risk / protection / aggravation factors, 10% had low knowledge about them, 17.4% had moderate knowledge and 72.6% had high knowledge. However, it was also possible to infer that teachers are more likely to recognize characteristics related to deficits in parental capacities than to indicators of abuse observed in children. In view of all the above mentioned data, we can conclude that it is undeniable, as Cunha (2014) points out, citing Lombo (2000), that teachers occupy a privileged position to signal the phenomena of maltreatment in children and practice preventive measures. However, they have no notion of their actual obligations and potentialities in the face of a case of mistreatment as Mendonça (2008) observes. This study revealed, above all, that there is a huge discrepancy between teachers with basic training (31.2%) and those who consider it important in their training (59.4%). In this sense it is considered essential to invest in training, integrating it in the basic training of teachers and encouraging it in continuing training. Thematic areas to be addressed should include characterization of child abuse, action protocols, legal aspects of intervention, mechanisms for articulation between intervention partners, gender equality, domestic violence, parental competencies, conflict management and communication techniques, and family mediation. These trainings should include teachers but also be extended to the whole school community in order to foster the empowerment of teachers in particular and the school community in general on this theme. It is also recommended that the effectiveness of the training activity be evaluated.

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Comparative Study Of Competences 2.0 Between Young And Senior People. Present Time And Challenges For Their Inclusion

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Abstract

Nowadays, Information and Communication Technologies (ICT) have taken a leading role in virtuality, interactivity and information flow at all educational levels and ages in employment and interpersonal skills. In this context of technological boom, it is important to study the skills of young and senior university students. The main objective of this research is to compare the digital skills in knowledge and use of ICT in social communication and collaborative learning, skills useful for searching and treating information, as well as interpersonal competence among young and older students from the University of Granada (Spain). A descriptive study with a quantitative methodology using the questionnaire as an information tool has been made. The sample consists of 200 subjects, 100 with ages between 18 and 22 years of age, and another 100 between 80 and 85 years of age. There is a great difference in their competences, illustrating the current unequal situation and the need to include older people in technology as it is important to create learning and communication contact between both generations.

Key Words: *Young people, seniors, Digital Literacy, ICT, Inclusion.*

Introduction

One of the characteristics of today's society is that now, unlike previously, information and knowledge are available to any individual, who has certain skills and the necessary technological resources can search for information, so that everyone can inform themselves and has access to any medium at any time and from any place. Through the Internet a large part of the activities provided by other technologies can be carried out (Heredia and García, 2017, Domínguez, 2009, Álvarez, 2011, Martínez, Cabecinhas and Loscertales, 2011, Daghan, 2017). In this sense, for Castells (2000), the Information Society represents a new industrial revolution. In this panorama of virtual connections / disconnections, two generations coexist, the "before computer" generation (Freixa, 2006) and the one that was born and grew up interacting with various technological devices, the so-called "digital natives".

1. Internet Uses

The population accesses technological equipment in a dizzying way and uses it with an increasingly higher frequency, for purposes as diverse as training, communicating, enjoying themselves and working. In addition, Internet is not limited to the mere transmission of information, but becomes a powerful mechanism of socialization, transmitter of ideas and values (Fainhole, 2006, Xavier and Cabecinhas, 2000). Although its original purpose was to reach safe, fast and economic information to facilitate communication, today it has become a means that can cause significant changes in people and society (Şahin, 2018).

Recent studies provide evident data about the crucial role that technologies have as emotional mediators that lay the strategic and structural foundations of significant relationships, enriching the emerging lines of debate around the application of ICT Information and Communication Technologies in socio-affective development (Colás-Bravo, González-Ramírez and de Pablos-Pons, 2013, Espinoza, 2015, Calvo and San Fabián, 2018).

In 2016, worldwide, 3.500 million people were using the Internet, of whom 2.5 million were from developing countries (ITU, 2017). Consequently, we consider that all our activity is linked in one way or another to the digital world, to such an extent that it becomes unthinkable to face life without these new tools. This technological wave is not exempt from weaknesses and risks, manifested in a world where there is a large gap between different parts of the planet, inequality in terms of sex, age, culture, etc. According to this premise, numerous studies have been carried out in order to analyse the influence of Internet on the youngest, considering them a priority and more vulnerable sector. In this way, we have tried to know both the positive and negative effects that Internet may have, and the uses that are made of it (Livingstone and Helsper, 2010, Yang and Tung, 2007, Ruíz-Corbella and De Juanas, 2013, Ballesteros and Megías, 2015).

In the Spanish panorama and according to the source of the Instituto Nacional de Estadística (National Institute of Statistics) (2017), 84.6% of the population aged 16 to 74 has used Internet in the last three months. 69.0% do so on a daily basis, a percentage that is slightly higher (1.3 points) than last year. 46.5%, of people between 65 and 74 years old use Internet compared to 98.0% of young people between 16 and 24 years old who use it, that is, more than twice the number of older people. Despite these results, as shown by the study conducted by Linne (2015), it is clear that Spanish university students are not addicted to Internet and more specifically to social networks. Other recent research (Martínez, Cabecinhas and Loscertales, 2011) shows that university senior students connect to Internet frequently, daily or between two or three times a week. These seniors emphasize the importance of Internet to be updated, to contact family and friends, for academic use and to consult the press. They consider the network to be easy but they could live without it. That is, it is not essential in their lives as it is for young university student. While young people are the main drivers of the society of the future, no less attention should be paid to the group of older people and therefore, older university seniors have been included in this research as interest in them worldwide is increasing. In the particular case of Spain, their evolution represents an important percentage not only of the current population but also that of the future.

The proportion of the population aged 65 and over has gone from representing 11.2% in 1981 to being 17.3% twenty years later and to 18.7% in 2015. But, if it is translated into figures, it means that between 1981 and 2015 the elderly population doubled to a little over 200,000 individuals. Between 2050 and 2060, the total population will fall by just over two million inhabitants and the group of people over 65 will only shrink by only 0.1%. In the year 2060 there will be something less than 15 million more, less than double the present, and will represent more than a third of the total Spanish population (35.6%). (Institute for the Elderly and Social Services (IMSERSO, 2017, p.36).

There are many benefits that Internet and the use of ICT can bring to the elderly. The activities that can be carried out are multiple and useful to encourage creativity, practice writing, improve sociability, exercise memory and mind, learn things they have not been able to do before due to lack of time, their profession, etc. (Pavon, 2000). A recent study (Martínez, Cabecinhas, and Loscertales, 2011), has revealed the main uses and motivations of active seniors to use Internet, as well as the main barriers for those who do not use it. Among the uses that are highlighted is the search for information, academic activity, reading the press and also navigation without any specific purpose. For those who do not use it, it is mainly due to the lack of good reason to do so and it is not because they do not see a limitation in their age or consider it a waste of time among other factors.

2. Digital Skill. Conceptualization

The European Parliament and the Council on 18 December 2006 put forward a set of recommendations on key competences for lifelong learning at the European level. It seeks to define the new basic qualifications that permanent learning should provide as an essential measure of Europe's response to globalization and the shift towards knowledge-based economies, with people as Europe's main asset.

The concept of competences was decided on linked to the work environment, and refers to all those aspects (capacities, skills, attitudes, etc) that a professional must have to develop their work in an effective way. As a result of this, in 2006, the European Parliament and the Council (2006) published a recommendation identifying eight Key Competences for Lifelong Learning. The development of key skills enables people to develop their innate potentialities and abilities to the fullest in order to be able to function in different contexts throughout their lives. Among them digital competence is highlighted as the basis of the research report that we present which implies the safe and critical use of Information Society Technology (IST) for work, leisure and communication. It is based on the basic principles and skills of ICT: the use of computers to retrieve, evaluate, store, produce, present and exchange information, and communicate and participate in networks through Internet (Ferrari, 2012, Bennett and Maton, 2010).

According to Lankshear and Knobel (2008) what we now understand as digital literacy or competence has evolved over the last decades, from more focused aspects with access to technology, visual or multimedia information. The transformation that has occurred in recent years with regard to literacy or digital competence and access to technology is very important. Digital literacy is the awareness, attitude and ability of people to use digital tools properly to identify, access, manage, integrate, evaluate, analyse and synthesize digital resources, build new knowledge, express themselves through multimedia resources and communicate with others in any specific context of life (Esteve, 2013, Gisbert, Espuny and González, 2011).

At present the vertiginous changes that are happening make an improvement in training necessary with access to it throughout life so that a series of abilities and skills that enable the individual to adapt to a society of changes; the relationship of the individual to information has changed, so the education sector proposes new ways of fostering a good development for students within the Knowledge Society (Chávez, Cantú and Rodríguez, 2016, González, Espuny and Gisbert, 2012).

Digital competence is understood as the conjunction of what many authors consider ICT competence and informational competence. In the knowledge society it does not make sense to speak only of tools for the storage,

access and retrieval of information, but we must also work with the necessary skills and abilities to properly use this information and then transform it into knowledge, with the objective of sharing it. That ultimately is what will help young and old to be skillful and socially competent at any time and in any environment.

2.1. Digital Competence In Young And Old

Changes in society have forced people to carry out a compulsory and necessary process of lifelong learning, as stated in the document on Recommendations of the European Parliament. There is therefore a real need to train both young and old in digital competence throughout life and work. According to Gisbert, Espuny y González (2011, p.76)

digital competence, we say that involves the acquisition of knowledge, skills and attitudes that have to do with the elementary use of computer hardware, their operating systems as hardware managers, software as a work tool, off-line communication and of online communication.

At this moment everything is changing, digital competence has become something indispensable to face the challenges of the citizens' daily life, *competence management or treatment of information* (Jaramillo, Hennig and Rincón 2011) is fundamental to advance in today's society as well as being fundamental for the academic and professional development of any student (Gisbert, 2011). The idea of 'digital natives', a generation of young tech-savvy users immersed in digital technologies who have spent their entire lives surrounded by and using video games, digital music players, video cameras, telephones, i-pods, Internet, instant messaging, text messages, multimedia and other tools of the digital era that are an integral part of their lives has gained widespread popularity (Bennett and Maton, 2010; Gallardo, 2012). Recent research has shown flaws in the argument that there is an identifiable generation, or even a single type of highly skilled technology user. Bullen, Morgan and Qayyum (2011) suggest the term digital learners should not be used because today's students do not conform to the stereotype represented in the discourse on digital natives. For the authors it is a social and not a generational issue, and its implications for education still need further in-depth study.

It is necessary to train university students to prepare them for an increasingly complex and globalized world, where the amount of information they will have to manage each day is ever greater and where they must use technological tools that advance and change at a dizzying pace (Gisbert, Espuny and González 2012).

As reported by Abad (2014), the data included in the Indicators of the Digital Agenda 2011 dedicated to digital competence show that while 90% of people between 16 and 24 years old are habitual users of Internet, only 46% of people between 55 and 64 years old are and this proportion decreases to 25% among people between 65 and 74 years old. This segment falls to 20% when it comes to people between 55 and 74 years old with low levels of education. (p.175). This verifies the existence of a generational digital divide, understood as the differences in access and use of ICT in different social environments.

Currently, how this 'digital divide' affects older people in their day to day life has not been analysed in depth. Digital competence 'is not acquired by technological immersion', and it is necessary to learn to learn, but this capacity is socially unequal and, among other aspects, is linked to age. The 'digital divide' in addition to being related to socioeconomic differences is also and considerably linked to age, especially in age groups far removed from digital generations such as people over 60.' (Hernand and Phillippi, 2013, p.14). Therefore, working with older people on digital competences must be a priority and an objective to achieve as a fundamental axis in life-long education.

In order to shed light on the situation described and to provide some suggestions on the need to include older people in technology, this study has marked out as its main objective to compare digital competence in knowledge and use of ICT in communication; social and collaborative learning, useful skills for the search and treatment of information, as well as interpersonal skills among university students and active seniors enrolled in university programmes for the elderly of the Open Classroom of Open Training of the University of Granada.

Method

The main objective of this research is to compare descriptively the digital competence in knowledge and use of ICT in social communication and collaborative learning, for the search and treatment of information, as well as useful interpersonal competences among young and seniors of the University of Granada.

To achieve the proposed objectives, a quantitative methodology was used to quantify and analyse the information to establish later comparisons among students aged between 18-22 years and those between 80-85 years (hereinafter senior students). Through quantitative research, fundamental knowledge is acquired, collecting, analysing and describing the data or phenomena studied through variables and concepts (López-Roldán and Fachelli, 2015).

The research was developed in the 2017-2018 academic year. The participating samples of our study were formed by students of the third year of the Degree in Social Education of the Faculty of Education Sciences of the University of Granada and senior students of the Open Classroom of Open Learning also belonging to the University of Granada. A random and stratified sampling was followed. The total population was composed of

200 people, 100 of the third year of Social Education and 100 of the Open Classroom. In this way, a final sample of $n = 200$ subjects was obtained (119 women and 81 men in total), of whom 61 are women and 39 men of the third year of the Degree in Social Education and 58 women and 42 men of the Open Classroom of Open Learning. We worked with a significant sample exceeding the necessary subjects of the sample calculated through a confidence interval of 95% and whose results required the participation of at least 81 Students. The choice of this population was mainly because we wanted experienced younger students who after completing three years in the Faculty of Educational Sciences possessed a terminological maturity and a critical attitude to help us solve our research problem. This was the knowledge of the existing differences before digital competence in knowledge and use of ITC in social communication and collaborative learning, competence in using it for the search and treatment of information, as well as the interpersonal competences among young and older people in the University in order to be able to reduce the existing digital gap in senior students. For the collection of information we used a questionnaire of basic digital competences adapting the questionnaire "Digital 2.0 core competencies of university students" COBADI 2013 (Registered trademark: 2970648) on a Likert scale (1 completely ineffective, 2 ineffective, 3 effective, and 4 completely effective) validated by means of expert opinions, where the students and senior students will value, on the one hand, the digital competence in knowledge and use of ICT in social communication and collaborative learning, the use of competences for the search and treatment of information, as well as interpersonal skills.

The validation of the questionnaire was carried out based on the following guidelines:

1. Definition of the objective of the experts' opinions to validate the "Basic Digital Competences" questionnaire.
2. Selection of five relevant experts taking into account the criteria defined above, considering their academic training and professional experience.
3. Evaluation of the experts attending to the relevance, clarity and adequacy of the questionnaire indicators using a spreadsheet.
4. Once the results were obtained, the concordance between judges was calculated and finally some conclusions were drawn up according to the psychometric description of the test.

Once the expert judgment had been made, the questionnaire collected corresponding aspects of the digital basic competences. In a more detailed way, we collected this information in the following table, showing the items that correspond to each sector of ICT knowledge.

Table 1: Digital Basic Competency Questionnaire

	ITEMS
Consumption of technology	1-5
Digital competence in Knowledge and use of ICT in social communication and collaborative learning	6-17
Competences for the search and treatment of information	18-29
Interpersonal Competences	30-35

Subsequently, a reliability test was carried out using Cronbach's alpha, obtaining an index of $\alpha = 0.986$, which gives it a high degree of coherence (98.6%) due to its proximity to the unit (Rodríguez and Valldeoriola, 2009).

Results

Next we present the results obtained according to each of the dimensions of the questionnaire, taking into account the distinction between students and senior students. First, referring to the consumption of technology, young people obtained a total consumption of 100%, so that young Student have a computer and tablet and have internet both at home and in the faculty, usually connecting both at home and in the university. However, the same thing does not happen with senior students, 30% have technological means and the internet mostly at home, leaving 70% without regular Internet connection and without having a tablet or computer. In Figure 1 we can see the distinction between young and old.

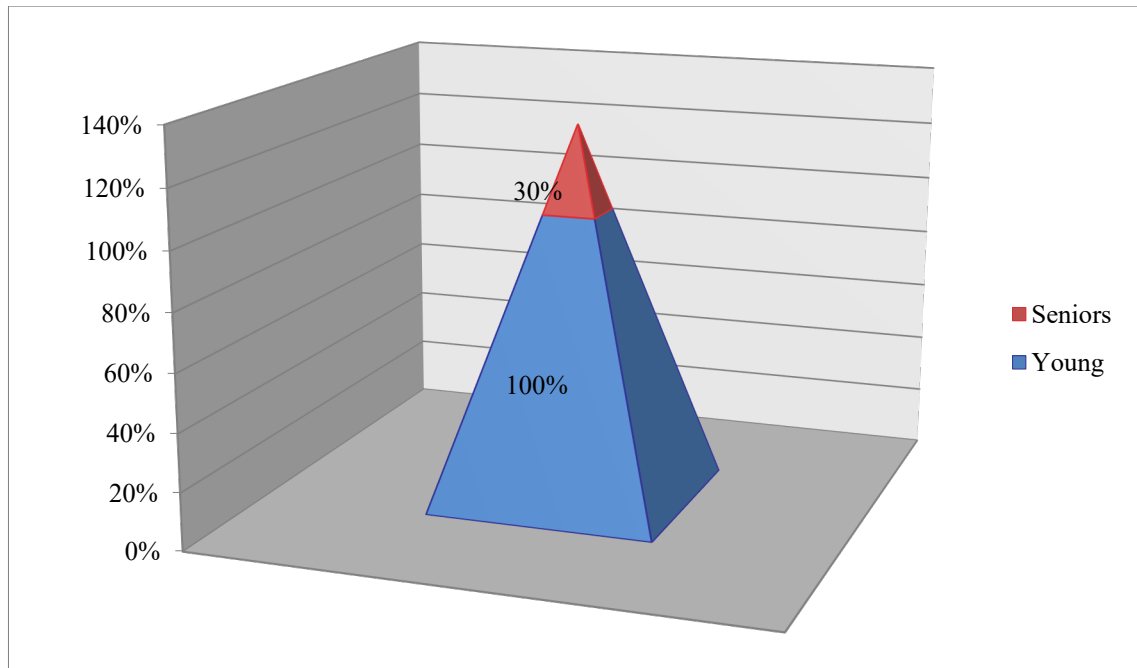


Figure 1: Consumption of technology in young Student-teachers vs. Consumption of technology in senior Student-teachers.

Secondly, in response to digital competence in knowledge and use of ICT in social communication and collaborative learning we have found a total average of 3.66 out of 4 in primary school student and 1.50 out of 4 in senior students, being item 7 (use of instant messaging as the main communication tool with other people) to which a high score is awarded in both studies. However, young people gave a lower score to item 16, referring to the use of social markers while senior students gave a lower score to item 8 (I can communicate through social networks) and to 17 (ability to use education platforms). So we can say that young people have a quite high digital competence in the use and knowledge of ICT, and senior students have it to a lesser extent.

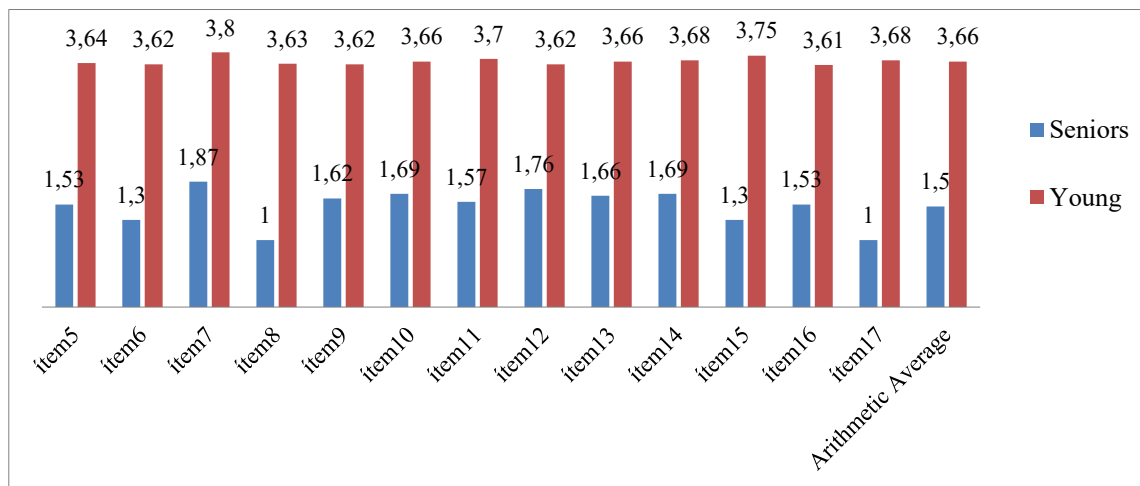


Figure 2: Digital competence in knowledge and use of ICT in social communication and collaborative learning. Senior students compared with Younger students.

In third place, referring to the competences for the search and treatment of the information, there is a total average of 3.52 out of 4 for the Students of Primary Education and 2.66 out of 4 for older senior students. In both groups, item 18 (surfing the internet with different navigators) is the one that scored the most points. However, they give a lower score to item 22 referring to the use of images through social software applications. So we can say that both groups have an adequate competence, although in the case of senior students they should work harder.

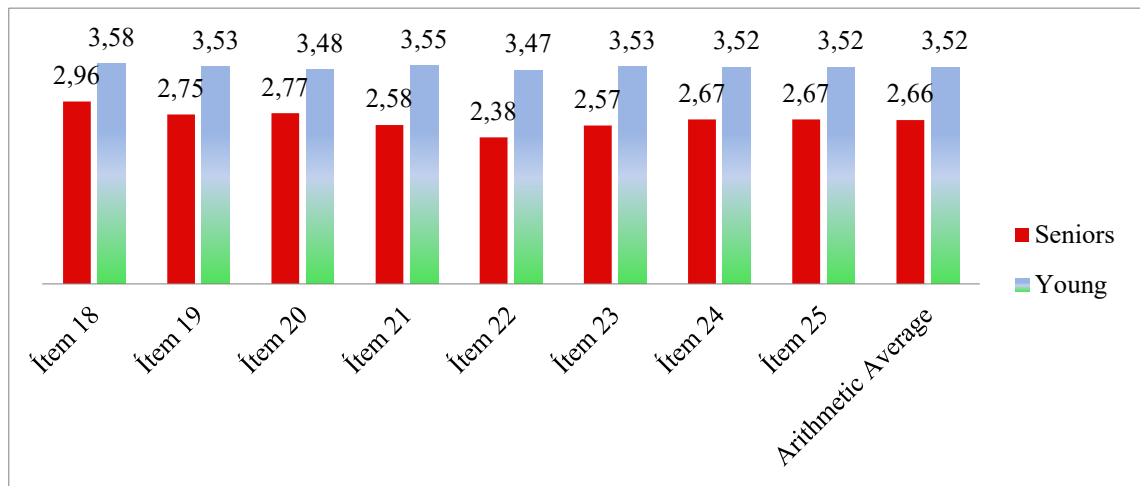


Figure 3: Competence in the search and treatment of information. Seniors compared to young

Fourth, based on interpersonal competences, we obtained a total average of 3.64 out of 4 for Primary Education Students and 2.62 out of 4 for senior students, we obtained a total average of 3.64 out of 4 for Primary Education Students and 2.62 out of 4 for senior students, In young Students, item 31 (talking with a partner to solve the problem together) is the one that scored the most points, the lowest score being given to item 27 (exposing doubts in different platforms). On the other hand, senior students gave their highest score to item 29, which refers to reflecting on the doubts they have before discussing them with others. However, they give their lowest score to item 26, consulting about their doubts through institutional mail. So while both young and seniors have adequate interpersonal competence, seniors need to work even harder. These statistics are shown in Figure 4.

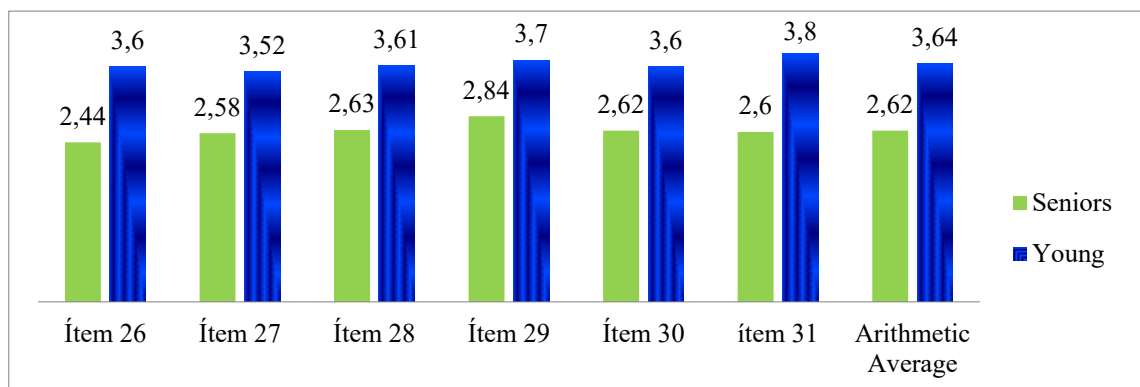


Figure 4: Interpersonal competences. Seniors compared to Young.

Discussion And Conclusions

The development of this work shows the importance of knowing the differences between digital competence in knowledge and use of ICT in social communication and collaborative learning, skills useful for the search and treatment of information, as well as interpersonal competences among young and old at the University of Granada. Digital literacy in senior students enables them to be included in today's society and should be promoted to improve their quality of life during the aging process, helping them to have a more active and participative social life (Culver and Jacobson, 2012).

The preceding pages show how essential it is to reduce the digital divide for senior students, being the essence that has characterized this research. In this sense we will proceed to draw some conclusions, which follow the lines of this study.

Referring to the use of technology, young people have a total consumption of 100%, so young students have internet both at home and in the faculty, usually connecting in both spaces. However, senior students do not do the same with only 30% availability and with much less habitual use of the Internet connection.

Digital competence in knowledge and use of ICT in social communication and collaborative learning obtains a total average of 3.66 out of 4 in primary school student-teachers and 1.50 out of 4 in seniors; thus young people have quite a high digital competence in the use and knowledge of ICT, while seniors possess it to a much lesser extent.

Regarding the competences for the search and treatment of information, there was a total average of 3.52 out of 4 in Primary Education Student-teachers and 2.66 out of 4 in seniors. Both groups have adequate skills, although, again, seniors should work even harder.

Finally, considering interpersonal competences, primary school students have a total average of 3.64 out of 4 and senior students 2.62 out of 4, so both younger and older people have adequate interpersonal skills, although in the case of older people, more work must be done.

In response to the four broad categories of analysis, in general we perceive greater digital competence in young people than in older ones, so we must still work for the inclusion of older people in the use of Information and Communication Technologies within and outside the university. To do this, we can implement intergenerational educational projects, so that young people can transmit this knowledge to senior students, creating an educational link between different generations. Ferrés, Aguaded and García (2012) state that the divide between young and old in university studies is extreme, so it seems that neither the level of education nor age guarantees digital competence.

As members of society, we have a shared responsibility to promote senior students to use the Internet, making the most of the network and extending the functions and areas for those who use it. For those who do not use it yet, society should provide them with the necessary training and enough motivation to start using it (Martínez, Cabecinhas, and Loscertales, 2011).

The current education system should contribute to the elimination of the generational level between young and old in terms of digital competence. Promoting lifelong learning and facilitating access to technology for the elderly to be able to use it better and to give them greater access should be the goal.

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Comparison Of Healthy Life Behavior Forms Of Undergraduate And Associate Students

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Abstract

Health is one of the most frequently cited concepts to prolong the life of humanity and to live a better life. Determining the life style behaviors of individuals is important for enabling individuals to gain healthy lifestyle behaviors. Thus, the existing lifestyle behaviors of the individuals can be determined. More rational solutions to reach a healthy life can be created.

The aim of the study is to compare the undergraduate and the associate students in terms of healthy lifestyle behaviors and to examine whether there is a difference. In addition, the trends towards healthy life of these students are determined.

Health Promoting Life Style Profile II was applied to 100 female undergraduate students (mean of ages: 20.8 ± 3.07) and 100 female associate students (mean of ages: 20.6 ± 1.26).

There was no significant difference between total scores of undergraduate and associate students ($p > 0.05$). When examined questions one-by-one, on "Eat 6-11 servings of bread, cereal, rice and pasta each day" ($p < 0.05$), "Pace myself to prevent tiredness" ($p < 0.05$), "Eat 2-3 servings of milk, yogurt or cheese each day" ($p < 0.05$) questions, associate students answered more positively. On "Get support from people with same problems" ($p < 0.05$), "Effort to get close friends" ($p < 0.05$), "Eat 2-4 servings of fruit each day." ($P < 0.05$) questions undergraduate students answered more positively. As for these results, it can be said that undergraduate students prefer fruits and they are more sociable than the associate students. It can be stated that associate students prefer dairy products and carbohydrate-rich foods such as rice, cereals more than undergraduate students.

Adequate and balanced nutrition, stress management, regular exercise, spiritual development, interpersonal relationships and taking responsibility for health promotion and development are issues that are considered as healthy lifestyle behaviors. All individuals in society need to prolong their life and develop their own healthy lifestyles by

gaining the necessary health behaviors to live a better life. In this context, it will be useful to acknowledge the healthy lifestyle behaviors of people at every level of education.

Keywords: *Health promoting lifestyle, undergraduate, associate, student.*

Introduction

The World Health Organization (WHO) has defined the concept of health as "a state of total well-being, not only in the absence of illness or disability, but also in physical, mental and social aspects" (World Health Organization, 1985). Health is one of the most frequently cited concepts to prolong the life of humanity and to live a better life.

Healthy individuals are needed for a healthy society. Therefore, today's understanding of health aims to protect, sustain and improve the health of the community. In order to achieve this goal, it is necessary to help individuals to acquire positive behaviors in protecting, managing and developing their own health and well-being and to take the right decisions about their own health (Oyur Çelik et al., 2009, Ayaz et al., 2005, Karadeniz et al., 2008, Şen et al., 2017). Determining the life style behaviors of individuals is important for enabling individuals to gain healthy lifestyle behaviors. Thus, more rational solutions can be created to achieve healthy life.

Infectious diseases causing mass mortality in the past have left their place to diseases such as coronary heart diseases, hypertension, type 2 diabetes and obesity. To contribute to community health by reducing the incidence of these diseases, healthy lifestyle behaviors should be acquired. (İlhan et al., 2007)

Having a healthy body, soul and psychology is the right of every individual. The maintenance of this kind of well being is not only the purpose of the health staff but also the responsibility of the person ownself. For this, acquiring the healthy lifestyle behaviors and desiring to gain these behaviors are required. Healthy lifestyle behaviors must be acquired and maintained to protect and improve health. Therefore, examining the healthy lifestyle behaviors of college youth and increasing their awareness in this regard is very important for the general health of the society. (İlhan et al., 2010)

The youth period is a period in which both the spiritual and the physical changes occur. This period has also specific problems and forms of behavior. (Aykut et al. 1995, Ünalın 2007) While trying to adapt to the changes in social environment on the one hand, young people are trying to perceive health related concepts (Dirican & Bilgen 1993, Ünalın 2007). University years are important for the youngs' life. Because both healthy life behavior changes and personal life changes occur in these years (Tambağ & Turan 2012). Change and awareness in the health field has a very important place in terms of both current and future life effects. In addition, health-related behaviors may affect the family and society as well as ownself. The level of health in the community is measured by the number of healthy people. (Ayaz et al. 2005; Batı et al. 2003; İlhan et al.2010) It is estimated that more than 15% of all deaths are caused by environmental risks, 22% by dietary risks, 3% by low physical activity levels (WHO 2017 report). These percentages may change by lifestyle changes.

The aim of the study is to compare the undergraduate and the associate students in terms of healthy lifestyle behaviors. In addition, the trends towards healthy life of these students are determined.

Material-Method

Health Promoting Lifestyle Profile II:

In 1989, Walker et al. (1987) created the HPLP scale firstly. Then it was updated by Walker & Hill-Polerecky (1996) Bahar et al. (2008) performed validity and reliability study of this scale which was translated into Turkish. HPLP-II is a 52-item and likert type survey. The scale consists of six subscales under the headings of "health responsibility", "physical activity", "nutrition", "spiritual development", "interpersonal relationships" and "stress management.". "Routinely", "often", "sometimes", "never" answers are equal to 4,3,2,1 points respectively. The lowest total score of the scale is 52 and the highest total score is 208. As the total score increases, it is assumed that the person has more healthy lifestyle behaviors (Bahar et al., 2008).

The ethical approval for the study was obtained from Regional Ethics Committee at Medical Sciences in Karabuk University in 04/07/2018 with number 7/14.

Health Promoting Lifestyle Profile II questionnaire was applied to 100 girl undergraduate students and 100 female associate students. Descriptive statistics, Chi-square analysis and Mann-Whitney U test were used in the study. SPSS software package (SPSS for Windows v20.0, Chicago, IL, USA) was used for all of the statistical analyses.

Results

	Associate Students	Undergraduate Students
Age	20.6 ± 1.26	20.8 ± 3.07
N	100 female	100 female

Table – 1 Descriptive Statistics of the participants

	Question Number
Health Responsibility	3, 9, 15, 21, 27, 33, 39, 45, 51
Physical Activity	4, 10, 16, 22, 28, 34, 40, 46
Nutrition	2, 8, 14, 20, 26, 32, 38, 44, 50
Spiritual Growth	6, 12, 18, 24, 30, 36, 42, 48, 52
Interpersonal Relations	1, 7, 13, 19, 25, 31, 37, 43, 49
Stress Management	5, 11, 17, 23, 29, 35, 41, 47
Total	1 to 52

Table – 2 Distribution of the questions in the survey

There was no significant difference between total scores and subgroup scores of undergraduate and associate students ($p > 0.05$) (Table – 3). When examined questions one-by-one, on "Eat 6-11 servings of bread, cereal, rice and pasta each day" ($p < 0.05$), "Pace myself to prevent tiredness" ($p < 0.05$), "Eat 2-3 servings of milk, yogurt or cheese each day" ($p < 0.05$) questions, associate students answered more positively. On "Get support from people with same problems" ($p < 0.05$), "Effort to get close friends" ($p < 0.05$), "Eat only 2-3 servings from the meat, poultry, fish, dried beans, eggs, and nuts group each day." ($p < 0.05$), " Eat 2-4 servings of fruit each day." ($P < 0.05$) questions undergraduate students answered more positively. As for these results, it can be said that undergraduate students prefer protein-rich foods and they are more sociable than the associate students. It can be stated that associate students prefer dairy products and carbohydrate-rich foods such as rice, cereals more than undergraduate students.

Health-Promoting Lifestyle Profile II	Associate Students Mean ± Sd	Undergraduate Students Mean ± Sd	p value
Health Responsibility	21.49 ± 3.31	22.42 ± 4.2	$p > 0.05$
Physical Activity	16.91 ± 3.9	17.19 ± 4.81	$p > 0.05$
Nutrition	19.25 ± 3.25	18.67 ± 4.13	$p > 0.05$

Spiritual Growth	27.04 ± 3.09	26.96 ± 3.94	p>0.05
Interpersonal Relations	26.64 ± 3.97	27.19 ± 3.74	p>0.05
Stress Management	19.79 ± 3.42	19.5 ± 3.86	p>0.05
Total Score	131.12 ± 13.704	131.93 ± 18.70	p>0.05

Table – 3 Total Scores and Subgroup scores of associate and undergraduate students

Question	Associate Students		Undergraduate Students		p value
	Never	Other Options	Never	Other Options	
Eat 6-11 servings of bread, cereal, rice and pasta each day.	33 (%33)	67 (%67)	54(%54)	46 (%46)	p<0.001
Eat 2-4 servings of fruit each day.	26 (%26)	74 (%74)	11 (%11)	89 (%89)	p<0.05
Eat 2-3 servings of milk, yogurt or cheese each day	5 (%5)	95 (%95)	17 (%17)	83(%83)	p<0.05
Effort to get close friends	34 (%34)	66 (%66)	14 (%14)	86 (%86)	p<0.05
Get support from people with same problems	16 (%16)	84 (%84)	4 (%4)	96 (%96)	p<0.05

Table – 4 Comparison of some responses to the questions of students by education level

Discussion

Health Promoting Life Profile (HPLP) II scores and subgroups of HPLP scores can be effected by many factors such as age, gender, location, socioeconomic level, educational level. For example, stress management and physical activity scores of visually impaired or blind massage therapists had significant difference as for gender. (Hung et al., 2007) İlhan et al. (2010) found the health responsibility scores of nursing students were significantly higher than that of the other students who are in different departments such as computer engineering, architecture, faculty of science and letters. In this study, effects of education level on HPLP-II score have been expressed.

Firstly, when total scores of 200 students are examined we found $131,53 \pm 16,56$ averagely. There isn't any difference in total scores between undergraduate and associate students. Soylar et al. (2017) performed a study on 134 pregnant women whose scores were found averagely 130.0 ± 20.9 . Şen et al. (2017) found $118,01 \pm 21.0$ on 251 students. Erzincanlı et al. (2015) found 129.61 ± 18.04 on 501 nursing faculty students, İlhan et al. (2010) found 126.44 ± 18.49 on 268 students. Our total score is a bit higher than other studies. This difference may occur from gender, location, income level, socio-economic and cultural differences etc.

There isn't significant difference in any subgroup scores between the two groups. In addition, the highest means of scores in both groups are in spiritual growth subgroup. The lowest means of scores of both groups are in physical activity subgroup. (Table– 3) Şen et al. (2017) made a study on 251 students who are the 1st year students in Vocational School of Health Services. Erzincanlı et al. (2015) performed a study on 501 nursing faculty students. Soylar et al. (2017) also performed a study on 134 pregnant women. They all found physical activity as the lowest subgroup. These results are parallel to our results. The fact that majority of young people do not have serious health problems may have caused them to not start physical activities yet.

Spiritual growth and interpersonal relations subgroup scores are the first and the second highest scores in other studies. (Şen et.al., 2017; Erzincanlı et al.,2015) The reason why university students have high scores in spiritual growth and

interpersonal relations may be that life of university brings new experiences, new friendships, new freedoms and enthusiasm and hopes in professional terms.

Conclusion

Adequate and balanced nutrition, stress management, regular exercise, spiritual development, interpersonal relationships and taking responsibility for health promotion and development are issues that are considered as healthy lifestyle behaviors. All individuals in society need to prolong their life and develop their own healthy lifestyles by gaining the necessary health behaviors to live a better life. In this context, it will be useful to acknowledge the healthy lifestyle behaviors of people at every level of education.

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Comparison Of Two Different Tests Used In Determining Aerobic Capacity In Young Athletes

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Abstract

The aim of this study is to compare two different test methods used to determine aerobic capacity, in other words, maximal oxygen consumption in young athletes.

A total of 69 athletes consisting of 33 young boys with an average of age of 13.75 ± 0.20 years, an average height of 155.99 ± 0.66 cm, an average weight of 51.45 ± 11.88 kg and a body mass index (BMI) of 20.98 ± 0.57 kg/cm², and 36 young girls with an average of age of 13.70 ± 0.36 years, an average height of 154.78 ± 0.81 cm, an average weight of 52.64 ± 11.86 kg, and a body mass index (BMI) of 21.88 ± 0.26 kg/cm² participated in the study.

The anthropometric measurements applied for determining body fat percentage were performed according to the Anthropometric Standardization Reference Manual. Height measurements were performed with stadiometer and recorded in cm. Weight measurements were recorded in kg using a weighing machine with 0.01 kg precision. Skinfold measurements were performed with Holtain brand caliper as recommended by Lohman. Circumference measurements were performed using a measuring tape as recommended by Behnke and Wilmore. The shuttle run test, one of field methods, and the Bruce test, one of laboratory measurements, were used to determine maximal oxygen. The same test protocols were applied to all subjects. As a result of the measurements performed, estimated oxygen consumption and measured oxygen consumption values were compared. As a result of the statistics, in was seen in gender-specific comparison that the difference between the oxygen consumptions obtained with the shuttle run test result was significant ($p < 0.05$) but the difference between direct measurement values performed in the laboratory environment was not significant ($p > 0.05$). In the comparison of oxygen consumption values obtained from two separate tests both in girls and boys, the difference between them was found to be statistically significant ($p < 0.05$). In conclusion, different results can be obtained in the determination of aerobic capacity by direct and indirect methods. However, more different results can be obtained in the studies to be carried out by using a mobile oxygen analyzer during the measurement of field tests.

Keywords: *Anthropometric, maxvo2, 20 meter shuttle run*

Introduction

Aerobic power is the ability to produce aerobic energy in high intensity exercise and is defined by maximum oxygen consumption (VO_{2max}). Aerobic capacity is used synonymously with durability and is defined as the ability to sustain an exercise for a long time (Reilly et al., 2000). There are many studies using both laboratory and field tests to determine VO_{2max} in elite and young athletes. (Reilly et al., 2000; Köklü, Y., 2012; Bekic et al. 2017; Drust et al., 2000; Hoff et al., 2002). The most accurate way for the assessment of aerobic capacity is the determination of maximal oxygen consumption with gas analyzers, which can measure respiratory gases during incremental loading and multi-stage maximal exercise (Wilmore and Costill, 2012). 20 meter shuttle run endurance test is one of the most popular field tests used in determining the cardiorespiratory endurance in the young and children (Olds et al. 2006). Although laboratory tests give real values, there is a need for trained staff in the implementation phase, and the cost is quite high. At the same time, it is not preferred by practitioners because of the long test period allocated for an individual. For this reason, field tests, which are indirect measurement methods, are preferred to determine maximum oxygen consumption.

In our study carried out to compare laboratory and field tests which are used to determine the measured and estimated maximal oxygen consumption, in other words, aerobic capacity in young athletes, Bruce test, one of the most common tests used to determine maximum oxygen consumption, and 20 meter shuttle test were used.

The Study

Participants

A total of 69 athletes consisting of 33 young boys with an average of age of 13.75 ± 0.20 years, an average height of 155.99 ± 0.66 cm, an average weight of 51.45 ± 11.88 kg and a body mass index (BMI) of 20.98 ± 0.57 kg/cm², and 36 young girls with an average of age of 13.70 ± 0.36 years, an average height of 154.78 ± 0.81 cm, an average weight of 52.64 ± 11.86 kg, and a body mass index (BMI) of 21.88 ± 0.26 kg/cm² participated in the study. All participants are the athletes playing in team sports in the school team and also in sports clubs.

Measuring Instruments

All anthropometric measurements were performed according to the Anthropometric Standardization Reference Manual (Lohman et al., 1988). Height measurements were performed using a digital height measuring device (heels together, in upright position and barefoot) and were recorded in cm. Weight measurements were performed (barefoot, t-shirt and shorts) using a weighing machine with 0.01 kg precision (TANITA TBF-300), and the results were recorded in kg. Skinfold measurements (skinfold thickness) were performed by measuring twice on the right side of the body with Holtain brand caliper (Holtain United, Dyfed, UK) as recommended by Lohman, and a third measurement was performed when the difference between the two measurements was greater than 0.4. The obtained values were recorded in millimeter by taking the average of the two closest measurements. Measurements were taken from 5 regions including biceps, triceps, subscapular, suprailiac and calf. Circumference measurements were taken from a total of 4 regions including thigh, knee, calf and forearm as recommended by Behnke and Wilmore. In diameter measurements, humerus and femur diameters were measured with anthropometric caliper. 20 meter shuttle run test was applied for the estimated oxygen consumption. The test consists of 23 sections in total, in an increasing intensity with an average speed increase of 0.5 km/h per minute, in the area designated with 20-meter lines and with signs. The test is applied with continuous running between 20 meters. For speed control, the subject is allowed to run at the right speed with audio signals from tempo generator or shuttle tape. Participants should have covered 20 meters in each signal tone and should step on the 20 meter line. If the participant has completed the 20-meter distance before the signal, he should continue to run by waiting for the signal tone. If the 20-meter distance cannot be completed in three consecutive signal tones, the test is terminated and the level and the number of shuttles are recorded (Leger et al., 1982; Leger et al., 1988;). The test protocol was applied in the same way for all participants. Maximal oxygen consumption was estimated by equation (Leger et al., 1988). For the measured oxygen consumption, the Bruce protocol was applied on the treadmill in the laboratory environment. This test was performed using an oxygen analyzer in the laboratory environment (Vmax SPECTRA 229LV, Sensormedics Corporations 22705 Savi Ranch Parkway, Yorba Linda, California 92687). The application of this test consists of 7 stages, each of which lasts for 3 minutes. The test starts at a speed of 1.7 mil/second (2.74km/h) and at a slope of 10% and continues until the individual gets tired by increasing both the slope and speed at 3 minute intervals. It is a commonly used treadmill-based protocol which is routinely used in both athletic and clinical populations (Bruce et al., 1973; Bruce 1971). All participants were asked not to perform intense physical activity, change their dietary habits and consume alcohol and caffeine 48 hours before measurements and between the measurements.

Findings

The mean, standard deviation, minimum and maximum values of physical characteristics of the participants of age, height, weight, body mass index (BMI) and body fat percentage values, and their gender-specific comparison are presented in table 1.

Table 1. Physical Characteristics of Participants and Gender-Specific Comparison

Young Girls (n=36)		Young Boys (n=33)		p Value
Mean ± S.D.		Mean ± S.D.	t Value	
13.70±00.36	Age (years)	13.75±00.20	0.639	0.525
154.78±05.81	Height (cm)	155.99±08.66	0.618	0.539
52.64±11.86	Weight (kg)	51.45±11.88	-0.382	0.704
21.88±04.26	BMI (kg/cm ²)	20.98±03.57	-0.879	0.383
23.65±01.59	Body Fat (%)	21.23±02.61	-4.293	0.017*

*p<0.05

According to calculations, the average age of the young boy athletes participating in the study was 13.75±00.20 years, their height average was 155.99±08.66 cm, weight average was 51.45±11.88 kg, body mass index (BMI) was 20.98±03.57 kg/cm², and body fat percentage was 21.23±02.61 percent.

The average age of the young girl athletes was 13.70±00.36 years, their height average was 154.78±05.81 cm, weight average was 52.64±11.86 kg, body mass index (BMI) was 21.88±04.26 kg/cm², and body fat percentage was 23.65±01.59 percent.

As a result of the statistics, it was seen that the difference between age, height, weight and body mass index values of young girls and boys participating in the study was not statistically significant (p>0.05), but in terms of body fat percentages, girl athletes had more body fat percentage than boys. The difference was found to be statistically significant (p<0.05).

The comparison of the values obtained by the Bruce test and 20-meter shuttle run tests of young boy athletes participating in the study is presented in table 2.

Table 2. Comparison of the Measured and Estimated maxVO₂ Values of Boy Participants

Shuttle Run-maxVO ₂ (ml.kg ⁻¹ .min ⁻¹)	Bruce Test- maxVO ₂ (ml.kg ⁻¹ .min ⁻¹)	Mean ± S.D.	t Value	p Value
37.18±0.36	49.613±2.42	-12.430±5.605	-12.146	0.000*

*p<0.001

In the comparison of the values obtained by the Bruce test and 20-meter shuttle run tests of young boy athletes, the difference was found to be statistically significant (p<0.001).

The comparison of the values obtained by the Bruce test and 20-meter shuttle run tests of young girl athletes participating in the study is presented in table 2.

Table 3. Comparison of the Measured and Estimated maxVO₂ Values of Young Girl Participants

Shuttle Run-maxVO ₂ (ml.kg ⁻¹ .min ⁻¹)	Bruce Test- maxVO ₂ (ml.kg ⁻¹ .min ⁻¹)	Mean ± S.D.	t Value	p Value
37.086±2.42	49.489±03.32	-12.402±3.911	-16.778	0.000*

*p<0.05

In the comparison of the values obtained by the Bruce test and 20-meter shuttle run tests of young girl athletes, the difference was found to be statistically significant (p<0.001).

The gender-specific comparison of the values obtained by the Bruce test and 20-meter shuttle run tests of all participants is presented in table 4.

Table 4. Gender-Specific Comparison of the Measured and Estimated maxVO₂ Values of Young Girl and Boy Participants

Young Girls (n=36)		Boys (n=33)		t Value	p Value
Mean ± S.D.		Mean ± S.D.			
37.09±02.43	Shuttle Run-maxVO ₂ (ml.kg ⁻¹ .min ⁻¹)	37.18±0.36		0.215	0.830
49.48±03.32	Bruce Test- maxVO ₂ (ml.kg ⁻¹ .min ⁻¹)	49.61±2.42		0.103	0.918

p>0.05

In gender-specific comparison of the values obtained by the Bruce test and 20-meter shuttle run tests of all participants, it was seen that the difference was not statistically significant (p>0.05).

Conclusions

In our study carried out to compare laboratory and field (area) tests which are used to determine the measured and estimated maximal oxygen consumption, in other words, aerobic capacity in young athletes, participants' age, height, weight, body mass index (BMI), 20-meter shuttle run for estimated maximal oxygen consumption, and Bruce test results for measured maximal oxygen consumption were examined, and the following results were obtained.

It was seen that the difference between age, height, weight and BMI values between the groups was not statistically significant (p>0.05). This also removes the idea that chronological age or a physical characteristic with height and weight values could be effective, in the evaluation of both genders in the same age group in our study. However, in terms of body fat percentage values, it was seen that young girl athletes had a higher body fat percentage and that the difference was significant.

It was determined that young girl athletes' average age was 13.70±00.36 years, height average was 154.78±05.81 cm, weight average was 52.64±11.86 kg, body mass index (BMI) was 21.88±04.26 kg/cm², and body fat percentage was 23.65±01.59 percent while young boy athletes' average age was 13.75±00.20 years, height average was 155.99±08.66 cm, weight average was 51.45±11.88 kg, body mass index (BMI) was 20.98±03.57 kg/cm², and body fat percentage was 21.23±02.61 percent. In gender-specific comparison, it was seen that the difference between age, height, weight and body mass indexes was not significant (p>0.05), but young girl athletes had a

higher value than boys in terms of body fat percentage, and the difference between the averages was statistically significant ($p < 0.05$).

As a result of the study, in the comparison of maximal oxygen consumption measured by Bruce test and the estimated maximal oxygen consumption values as a result of a 20-meter shuttle run test of both young girl and boy athletes, the difference was found to be statistically significant ($p < 0.001$). However, in gender-specific comparison, it was seen that the difference between the estimated and measured VO_{2max} values was not significant ($p > 0.05$). Stickland et al. (Stickland et al., 2003) reported that the VO_{2max} value obtained through estimation was lower than the value they obtained through measurement. In their study carried out with 60 male participants with an average age of 25.1 years and 62 female participants with an average age of 25.1 years, Stickland et al. (Stickland et al., 2003) used the equation which was developed by Leger et al. (Leger et al., 1988) and also developed by Leger and Gadoury (Leger and Gadoury, 1989) to determine the estimated VO_{2max} values. In the comparison of the estimated VO_{2max} values they obtained from equations and the measured VO_{2max} value, they reported that the difference between the averages in both males and females was significant ($p < 0.05$). In their study carried out with individuals aged between 18 and 50 years, Leger et al. (Leger et al., 1988) found a high correlation of $r = 0.90$ between the two values. In their study, Svensson and Drust (Svensson and Drust, 2005) reported that the estimated VO_{2max} value in shuttle test was averagely 3.5 ml/kg/min higher or lower than the measured VO_{2max} value. It is remarkable that the difference between the estimated and measured VO_{2max} values of both young girl and boy athletes significant in our study, and that there are studies in which similar results were obtained. On the other hand, in the study carried out with college students whose average age was 21.09 ± 2.52 years, Spackman et al. (Spackman et al., 2001) reported that the difference between the VO_{2max} value measured by Bruce test and the estimated VO_{2max} values was not significant.

There are many studies in which the field and area tests which are used to determine aerobic capacity are compared with each other. Furthermore, in the literature, there are also studies in which these tests are compared with the estimated VO_{2max} values obtained by equations and the measured VO_{2max} values. In this study, in the comparison of the measured VO_{2max} values obtained from the 20-meter shuttle run test, which is one of the most common tests used to determine aerobic capacity through equation, and the Bruce test which is performed using an oxygen analyzer; in the comparison of maximal oxygen consumption measured by Bruce test and the estimated maximal oxygen consumption values as a result of a 20-meter shuttle run test of both young girl and boy athletes, the difference was found to be statistically significant. In conclusion, different results can be obtained in the determination of aerobic capacity by direct and indirect methods. The reason is that it should be taken into consideration that the intra-group dynamics during collective field measurements may affect the environmental conditions (air, temperature, humidity, etc.). Nevertheless, in the tests in which indirect method is used, the equations used while estimating may not comply with the feature of the group. However, more different results can be obtained in the studies to be carried out by using the direct measurement method with a mobile oxygen analyzer during the measurement of field tests.

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Completion Rate In Informatics – Czech Republic

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Abstract

The demographic trend in Czech society, which results in a decrease in the number of applicants for a university education, makes it important to analyze the completion rate of students. In this article, we analyzed the data of full-time students of informatics at the Faculty of Informatics and Statistics of the University of Economics in Prague (UEP) from 2010 to 2012, using MS Excel, SPSS statistics software and R software. The results of our analysis show that the overall completion rate of the analyzed students is over 80%. The completion rate considerably differs depending on the study program (e.g. the study program “Knowledge and Web Technologies” has a completion rate of between 50 % - 100 %). Smaller study programs have an uneven completion rate because of the small number of students and thus a higher predisposition to a significant impact of incidental factors.

Keywords: *Ordinary study, Higher education, completion rate, ICT study programmes, distance study.*

Introduction

The drop in the number of teenagers in the Czech population during the past years became evident first in the secondary education and then in the university education (Doucek & Maryska, 2016). This drop is typical mainly for the past seven years; the number of Czech applicants is expected to slowly go up starting in 2020. The decrease in applicants is currently compensated by students from Slovakia and the states of the former Soviet Union. This fact allows more than 70 Higher Education Institutions (HEIs) to exist in the Czech Republic that has ten million inhabitants (Maryska & Doucek, 2011). The European Union’s strategy is aimed at a considerable increase in the number of people with a university education.

In the perspective of the Europe 2020 Strategy, including the ambition to have at least 40% of the 30-34 years olds holding a tertiary education qualification by 2020, the issue of increasing education attainment is gaining importance in the national and international debates in higher education. Reducing dropout and increasing completion are regarded prime strategies to achieve higher attainment levels. A key concern is that too many students in Europe drop out before obtaining a higher education diploma or degree (Quinn, 2013).

In consideration of this strategy as well as purposeful investments into public education, it is important to motivate students who have already started their university studies (Doucek, Maryska & Novotny, 2013 & 2014). With regards to the completion rate, it is important to monitor certain select indicators at a microeconomic and macroeconomic level. National governments and HEIs use different orientations to guide their policy-making with respect to study success:

- **Completion:** to have students successfully complete their study programme with a degree.
- **Time to Degree:** to have students complete their study programme within a reasonable time period.
- **Retention or Dropout:** the aim to have students re-enroll in a study programme until they complete their degree and to reduce the likelihood they drop out before completing their programme.

The 2011 Modernization Agenda rightfully states that it takes a joint effort of all member states, HISS (Higher Education Institutions) and the European Commission to take a pro-active approach in working towards the objectives and increasing participation and attainment in higher education (Vossenteyn, 2015).

Problem Formulation

This article analyzes the trend in the completion rate of full-time students in informatics study programs at the Faculty of Informatics and Statistics of the University of Economics in Prague taught in the Czech language during the years of 2010 – 2012. Our article compares the completion rate of full-time students in different informatics study programs as well as the completion rate of full-time students with that of students in distance learning programs taught in the Czech language (Maryska et al, 2013). For the purpose of our research, we formulated the following research question.

RQ: What is the completion rate of full-time students in informatics graduate programs taught in the Czech language?

Material And Methods (Data Collection)

The central data systems of the UEP are our basic source of data. These systems contain data about all applicants as well as about the study results of all accepted students.

In this article, we analyze in detail only a data group showing information about students of Applied Informatics specialization.

Methodology

The key data source for our article was the UEP Information System that was put into a productive environment during 2009. Due to this fact, we could not use data prior to the year 2010 since they would not be complete.

In this context, complete data mean data about entrance exam results, including all relevant attributes concerning the characteristics of both the applicant and the study program to which the applicant applied.

The data are updated in our data warehouse once a year, always at the beginning of November when we already have information about all entrance exam results, the study results of already studying students as well as the very important information about whether or not the students who were accepted actually entered the university.

In view of the aforesaid, we eliminate the results of the applicants who entered the university in the academic year 2017/2018, as well as the results of the applicants who were accepted but did not enter the university or entered the university but did not receive any grade before the data file was processed. Currently, we have data about 169,911 applications to the UEP, which include full-time and distance learning programs at all levels (bachelor, master, and doctorate). Lately, between 13,000 and 15,000 applicants have applied, but their number keeps dropping (in 2011, there were over 23,000 applicants).

We have over 1,485,000 study results that we can link to the individual applicants who were accepted. We should point out that all data in our data warehouse are anonymized in compliance with Act No. 101/2000 of Coll., on the protection of personal data.

The processing is as follows:

- The data are exported from the UEP Information System into differential text files (files that only contain so-far non-exported data) once a year.
- The data is downloaded to the data warehouse, using big data processing tools. In our case, the data warehouse is built on Microsoft SQL Server 2008 and we use native ETL (Extract, Transform, and Load) tools of the system MS SQL Server 2008.
- The data are processed using such analytical tools as Microsoft Analysis Services, Microsoft Excel, and SPSS statistics software and, in some cases, R statistics software.

GENERAL DATA CHARACTERISTICS

The data file with entrance exams currently includes approximately 1.500.000 records that we have been collecting since the year 2010. Each record provides information about the admission procedure result of one student. If an applicant took the entrance exam in several years or full filled several applications for the UEP study, she/he is then included in the data files several times. The most key attributes in the data file include gender, field of study, faculty, and type of study, entrance exam result and information about whether or not a student passed the entrance procedure and if she/he was accepted. Files also content information about each examination and the result of it.

RESULTS AND DISCUSSION

RQ: What is the completion rate of full-time students in informatics graduate programs taught in the Czech language?

The completion rate shows the overall completion rate of students in informatics graduate programs at the Faculty of Informatics and Statistics that are taught in the Czech language. The completion rate for all informatics study programs is shown in [Table 1].

Table 1: "Completion Rate" for ICT Oriented Master Studies Programmes at FIS UEP

Year	Failed	Completion Rate	Still Study	Sum
2010	16.38%	82.18%	1.44%	100.00%
2011	13.66%	82.38%	3.96%	100.00%
2012	10.69%	87.42%	1.89%	100.00%
2013	9.41%	73.33%	17.25%	100.00%
2014	10.44%	26.27%	63.29%	100.00%

Year	Failed	Completion Rate	Still Study	Sum
2015	6.14%	9.65%	84.21%	100.00%
2016	2.74%	0.00%	97.26%	100.00%

[Table 1] clearly shows that the completion rate of students in all informatics graduate programs taught in the Czech language during the years 2010 - 2012 was between 82.18 % and 87.42 %. The completion rate increased over time. The data after 2013 are not yet fully relevant since more than 10.00% of accepted students are still studying. Partial views of individual study programs are provided in the following tables. The study program "Information Technology and Information Systems" is the biggest informatics program at the Faculty of Informatics and Statistics. The trend in the completion rate for this study program is provided in [Table 2].

Table 2: Completion Rate for Master Study Programme "Information Technology and Information Systems"

Year	Failed	Completion Rate	Still Study	Sum
2010	13.22%	85.12%	1.65%	100.00%
2011	9.60%	88.00%	2.40%	100.00%
2012	8.42%	89.47%	2.11%	100.00%
2013	9.03%	73.55%	17.42%	100.00%
2014	10.36%	26.42%	63.21%	100.00%
2015	5.88%	9.80%	84.31%	100.00%
2016	1.23%	0.00%	98.77%	100.00%

When analyzing [Table 2], we can see a considerably better completion rate in this study program during the years of 2010 – 2012. The completion rate was between 85.12 % and 89.47 %. In this case, the statistical sample is not very sensitive to incidental fluctuations since there are approximately 200 students per academic year. "Information Management" is the second biggest graduate program. The trend in the completion rate is provided in [Table 3].

Table 3: Completion Rate for Master Study Programme "Information Management"

Year	Failed	Completion Rate	Still Study	Sum
2010	22.22%	76.39%	1.39%	100.00%
2011	4.92%	88.52%	6.56%	100.00%
2012	12.82%	84.62%	2.56%	100.00%
2013	8.22%	76.71%	15.07%	100.00%
2014	9.68%	29.03%	61.29%	100.00%
2015	6.25%	9.82%	83.93%	100.00%
2016	6.52%	0.00%	93.48%	100.00%

We can see that the completion rate during the researched time period oscillates. It was the highest in 2011 (88.52%) and the lowest in the first year of available time series (76.39%). These conclusions are somewhat limited since the number of accepted students for this study program is between 40 and 75 per academic year. Therefore, this result is already slightly sensitive to incidental factors.

"Knowledge and Web Technologies" is another analyzed study program. The completion rate for this study program is provided in [Table 4].

Table 4: Completion Rate for Master Study Programme "Knowledge and Web Technologies"

Year	Failed	Completion Rate	Still Study	Sum
2010	42.86%	57.14%	0.00%	100.00%
2011	43.48%	52.17%	4.35%	100.00%

Year	Failed	Completion Rate	Still Study	Sum
2012	0.00%	100.00%	0.00%	100.00%
2013	18.18%	63.64%	18.18%	100.00%
2014	14.29%	7.14%	78.57%	100.00%
2015	0.00%	25.00%	75.00%	100.00%
2016	0.00%	0.00%	100.00%	100.00%

This study program is very sensitive to incidental fluctuations since the number of accepted students is even lower - about 20 students per academic year. However, the completion rate kept going up, all the way to 100.00% of accepted students in 2012. On the other hand, the lowest completion rate was in 2010 - only 52.17% of accepted students.

“Cognitive Informatics” is another small study program. Approximately 20 students are accepted in each academic year. The completion rate for this study program is provided in [Table 5].

Table 5: Completion Rate for Master Study Programme “Cognitive Informatics”

Year	Failed	Completion Rate	Still Study	Sum
2010	15.00%	85.00%	0.00%	100.00%
2011	33.33%	61.11%	5.56%	100.00%
2012	25.00%	75.00%	0.00%	100.00%
2013	12.50%	62.50%	25.00%	100.00%
2014	12.50%	25.00%	62.50%	100.00%
2015	18.18%	0.00%	81.82%	100.00%
2016	0.00%	0.00%	100.00%	100.00%

Since the number of students is small, incidental factors (illness, family or work reasons, etc.) are very significant and have a considerable impact on the completion rate variability. The completion rate during the years of 2010 - 2012 fluctuated from 85.00% in 2010 to 75.0 % in 2012. There was a fluctuation in 2011 and the „Completion Rate“ was only 61.11%. Regardless of what the completion rate is for full-time study programs, we can say that it is considerably higher than that for the distance learning program “Business Informatics.” The completion rate for this study program was 58.2% in 2011 and only 52.1% in 2012. This is a very bad completion rate in comparison with the completion rate for full-time study programs. However, it is still acceptable if we compare it with the completion rate for the same type of study program e.g. Parr (2013) or Simpson (2010) in the United Kingdom – 22%.

Conclusion

We analyzed the data series of the completion rate of UEP students in the full-time graduate study program “Applied Informatics.” Overall, we can say that the average completion rate for all analyzed study programs during the years of 2010 - 2012 was between 82.18 % and 87.42 % and going up. A detailed trend in the completion rate is provided in [Table 6].

Table 6: Completion Rate for Individual Master Study Programmes

Study program	Completion Rate in %
Information Technology and Information Systems	85.12 – 87.42
Information Management	76.39 – 88.89
Knowledge and Web Technologies	52.14 – 100.00
Cognitive Informatics	61.11 – 85.00

The completion rate for the two biggest study programs is very similar; their highest completion rate is over 85% of accepted applicants. The other two study programs are very small (approximately 20 students per academic year) and thus their completion rate is very sensitive to incidental fluctuations and it is hard to identify trends.

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Constructing The Measurement Of Efl Students' Core Competencies Practices In Learning Activities

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Abstract

The study aims to develop an instrument of English students' core competencies practices in learning process. The development used qualitative and quantitative method in deferent steps and analysis. Sixth steps were applied in the instrument constructions; they were literature studies; defining constructs and sub-constructs; constructing indicators; assessing and judging indicators; defining face validity, confirming content validity, consistency testing and confirming constructs validity. The result came out with three main constructs; soft skills, hard skills and academic character. Soft skills classified into six sub-constructs with 45 indicators. Hard skill was classified into 10 indicators with no classification into sub-construct. While academic character classified into seven sub-constructs with 41 indicators. The instrument suggested to be used to monitor students' practices of Core Competencies in learning activities at Universities. Furthermore, the instrument were developed by refereeing to current literature from local and others countries, it is expected that the instruments and the method of its' development contribute to area of students' and graduates' core competencies studies.

Key Words: *21st century skills, soft skills, hard skills, academic character, KKNi, skills measurement, learning strategy.*

Introduction

Indonesian Qualification Framework (KKNi) emphasized on core competencies Outcomes of graduate. Thought the Indonesian HE curriculum based on KKNi had been established since 2013, however the implementation of core competencies development in teaching and learning process at English Department of University of Jambi, has not been observed and evaluated. This caused by there is no yet instrument of how the core competencies be practiced in the classroom. Ristekdikti (2015; 2016) suggested core competencies development must be embedded in the teaching and learning process in undergraduate program. Every program needs to design and formulate how to embed core competencies development in the teaching and learning process as well as the instrument for evaluating the development of core competencies itself (Tim Kurikulum dan Pembelajaran Direktorat Pembelajaran dan Kemahasiswaan, 2014).

Helena & Thomas (2016) argue that those developing students' hard skills (technical skills) and soft skills should be blended in teaching and learning process. The strategies of learning should able to provide the students to acquire core competencies. Dikti (2011) stated that students' center Learning (SCL) should be applied in teaching and learning process at University. Some strategies of SCL such as group work, ICT usage, PBL, exploratory learning, e.tc are supposed to engage students to practice their core competencies through learning process. Furthermore, the students' practices of core competencies through their learning activities should be observed, measured and evaluated in order that to come to better quality output of students' core competencies.

Much research on students' core competencies including generic skills, life skills or interpersonal skills at university had been done and discussed broadly and hugely published since 1990 until today. Most of the research was conducted in field settings where the most commonly used method of data collection is the survey questionnaire. Unfortunately, the instrument developed and used often has lacked reliability and Validity which has led to difficulties in interpreting research results This is because of the procedure and the process of the instrument development was unexplained and unjustifiable (Esposito, 2002).

In relation to the issue, this study had developed instrument to describe the implementation of students' core competencies development in the teaching and learning process at English Department of University of Jambi. The instruments practices of core competencies will be used to search the implementation of core competencies in the classroom practices based on English Education lecturers and students' self-evaluation. This article reports and discusses the development process and outcomes of self-evaluation questionnaire of core competencies in each dimension and its indicators. Validity and reliability of the instruments are also reported in detail and clear. It is expected that the study contribute to the practices of core competencies, key skills or others equivalence and related area of research.

Defining Core Competencies

Core Competencies are generally defined the set of skills or abilities essential to fulfilling the three potential outcomes of higher education, namely, the needs and requirements of employers in the marketplace, lifelong learning, and good citizenship It consists of seven skills: communication, numeracy, IT, learning how to learn, problem solving, working with others, and subject-specific competencies (Hadiyanto & Mohammed Sani, 2013; Hadiyanto, 2010; and Zalizan., et. al 2006). In this study, the definition of core competencies update and redefine as skills developed during teaching and learning process at University in order to provide students with three major competencies; Soft Skills, English Hard Skills and Academic Character. The update definition and dimensions of core competencies were extracted and synthesised from following resources; Hadiyanto, et. al (2017a), Hadiyanto, et. al (2017b), Ristekdikti (2016), Laura., et. al. (2016), The Ontario Public Services, (2016), Hadiyanto & Suratno, (2015), Bialik, et., al. (2015), Hassan., et. al. (2013), Hadiyanto & Mohammed Sani (2013), Person, Ann ., et. al. (2009) and Washer (2007), Farkas (2007), Zalizan., et. al. (2006) and Vezzuto (2004).

Soft Skills

Commonly Soft skills are referred to interpersonal skills, leadership, communication, working in team, critical thinking problem-solving, decision-making etc. Hadiyanto, (2017a), ILO,2014; Partnership for 21st century skills. 2008). redefined soft skills as the ability of generating communication skills, IT Skills, numeracy skills, learning how to learn skills, problem solving skills and working with others in completing task and work (Hadiyanto, 2017a). Each soft skill is defined in the following.

Communication skills are defined as the ability of using English to express and exchange ideas by using feelings of thought a variety of verbal and non-verbal media, including speech and written text as also to synthesise information gained from relevant resources (Hadiyanto, 2017b).

IT Skills, that is the competence of using technology of computers as well as its' device and programme which is integrated with the computer itself, such as using Microsoft office, internet, website, email, messenger, downloading and uploading, applications, online conference etc. to access, gain, create, manage and expose information (Hadiyanto, 2017b).

Numeracy skills refer to the ability of using basic mathematic calculation, interpreting graphical information, timing, prioritizing tasks and sequencing of job or activities (Hadiyanto, 2017b).

Learning skills is defined as the ability of using strategies as well as doing evaluation on self-learning strategy, seeking for the weakness and coming to better way and output of learning goal, it includes gaining general and detailed information, knowledge, and skills in order to achieve the goal of learning (Hadiyanto, 2017b).

Problem solving skills, which is the ability to tackle problem systematically in appropriate manner and situation in order come out with an appropriate solution (Hadiyanto, 2017b).

Working with others refer to a capacity to interact effectively with other people both on a one to one basis and in groups, including understanding and responding to the needs of a client and working effectively as a member of a team to achieve a goal. (Hadiyanto, 2017b).

Hard skills

Hard skills relate to major and minor knowledge skills. Specifically in this study, it is defined the ability of students using and generating four major English skills and specific English skills in real context as blended with soft skills (Hadiyanto, 2017b; Dikti 2011).

Academic Character

Academic Character is defined as the practical values which are automatically embed in the students learning activities to support their soft and hard skills performance. Academic character consists of honesty, appreciation, tolerance, disciplines, patience, confidence, and responsibility (Ristekdikti, 2016; Ristekdikti, 2015; Smith, 2103; Bialik, et. al 2015; Kamarudin, 2012; Dikti, 2011; Vezzuto, 2004). Each component of academic character is defined as follows;

Honesty refers to student's automatic action and expression in confessing and reporting a truth, facts, his/her shortcomings, friends' strengths as well as learning from authentic resources (Ristekdikti, 2016; Person, et. al 2009; Vezzuto, 2004).

Appreciation is about how the students show their positive attitudes, words and actions in appreciating their friends' ideas, contributions and works, and do not condescend or blame their friend (Bialik, et.al 2015; Dikti, 2011; Person, et.al 2009).

Tolerance refer to students' reflection and action to accept the differences of personality, abilities, attitudes, gender, social status and change the differences to be more useful for achieving maximum learning objectives (Ristekdikti, 2015; Person, et.al 2009).

Discipline is students' consistency in a good time and work management, following the rules of academics, class attendance, completing and submitting task on time, and achieving learning goals and assignment standard output (Person, et.al 2009; Vezzuto, 2004).

Patience is about maintaining spirit of learning, and emotions sustainability in doing assignment and tasks, exchanging ideas in a discussion, facing and resolving learning problems until learning goals achieved. (Person, et.al 2009; Vezzuto, 2004).

Confidence is the student's ability to present him-self such as ability, ideas, skills, etc., and ability to relieve nervous, anxious, depressed and tense in learning activities, it includes giving writing and oral presentation (Ristekdikti, 2016, 2015; Person, et.al 2009).

Responsibility is defined as the action of students in completing assignments, tasks and learning outcomes by his own effort as well as taking and completing a part and as a group member, a group leader and a moderator in a discussion (Kamaruddin, 2012; Person, et.al 2009; Vezzuto, 2004).

Core Competencies Practices In Teaching And Learning

The literature stresses the importance of both theory and practice as necessary elements in the process of learning (and the development of core competencies through real practice, yet many writers assert that students have to learn transferring knowledge acquired in the classroom to practical applications in the workplace in areas as varied as aviation, all disciplines knowledge. For answering the issues some expert suggested that important opportunities for the development of core competencies must occur in the selection of delivery methods. Teaching contexts can provide an explicit focus on the development of core competencies, thus providing students with opportunities to develop them. The students' core competencies will be highly promoted if the large opportunity given to the students to practice these attributes within learning activities and otherwise (Hadiyanto & Suratno, 2015, Hassan., et. al. 2013, Hadiyanto, 2010).

Students learn most effectively when they have the opportunity to interact with other students. Interaction among students typically leads to group problem solving. When students are unable to meet together, appropriate interactive technology for learning such as E-mail, E-learning, Online learning, Online course some current ICT application, should be provided to encourage their IT skills as well encourage their small group and individual communication. Assignments in which students work together and then report back or present to the class as a whole, encourage student-to-student interaction. Ensure clear directions and realistic goals for group assignments. Distant students need to reflect on what they are learning. They need to examine the existing knowledge frameworks in their heads and how these are being added to or changed by incoming information (Hadiyanto, 2010).

In short there are many ways of achieving the goals and learning outcomes or program objectives that have been set by each institution. Nevertheless the approaches used in designing the curriculum and the selection of the teaching-learning activities must be based on sound learning principles. Students learning activities should be designed with a view of encouraging students to actively participate in their process of learning. Priority is placed on lecturer setting goals and objectives for the students' engagement and activities related to the promotion of core competencies (Hadiyanto, 2013; Washer 2007; .Zalizan Mohammad Jelas & NorzainiAzman 2005)

Self-Assessment Of Core Competencies Practices

In relation to measuring instrument of core competencies practices in the process of learning was discussed in literature study at previous stage. Some theories were retrieved and characterized into practical statements of core competencies. In daily teaching, hard skills are typically easy to observe, quantify and measure. The evaluation formally designs for this type of skills for every subject. However the hard skills in term practices in real contact were rarely measured by educator. Soft skills are typically hard to observe, quantify and measure by a test. Self-evaluation questionnaire model were developed to measure students' experience, learning activities, learning strategies and how they cope with E-learning, online learning and ICT based learning. Academic Character qualities are defined as distinct from soft skills, which represent the ability to feel, know, express and practice of humanism values in learning activities context. As elaborated and stated above, academic character encompasses into seven characters, honesty, appreciating, tolerance, discipline, patient, confidence and responsible (Ristekdikti, 2015; Bialik, et., al 2015; British Council, 2015; Tim Kurikulum dan Pembelajaran Direktorat Pembelajaran dan Kemahasiswaan, 2014; Lowden, et. al. 2011; Hadiyanto, 2010; Hadiyanto, 2011; Hadiyanto, 2013; Zalizan 2006; and Vezzuto, 2004)

Students' capacity to assess themselves on practices of core competencies through learning activities must be measured with specific indicators. Individual students can monitor the relationship between the learning activities with core competencies achievement and goal of learning as whole. That is why that self-assessment of core competencies practices through learning activities is become an important part of evaluation toward learning goal, quality and process (Cajender, et al. 2011; Office of educational technology, 2014; Ramaligela 2013). Students will be able to judge the learning activities through specific core competencies indicators stated in the constructed questionnaire. Model self-assessment questionnaire help the students to assess their self and learning goal, how and what are the goal had been practiced and achieved.

Furthermore in line with Office of Educational Technology (2014) the students' self-assessment on practices core competencies enabling the teachers to:

- Align professional teaching and learning strategies to student learning and improvement core competencies.
- Use the evidence-based characteristics, described through core competencies components in the instrument, to determine the degree to which your current professional teaching and learning strategy or set of strategies is of high quality and aligned with standards of core competencies acquiring.
- Determine how teacher might refine and better integrate strategy or set of strategies to achieve your goal.
- Use the students' Self-Assessment core competencies practices again to rate how well teachers' refined strategy or set of strategies, connected between strategies and blended learning strategies

The students' Self-Assessment core competencies practices is not only use to assess the student practices of core competencies but also useful to assess students' learning strategies, teachers' current professional teaching learning strategies and refine them. Keep in mind that, even if a strategy or set of strategies does not address every indicator of core competencies, the use of strategy can be worth pursuing and refining over time.

Method

The development used qualitative and quantitative method and analysis was used in the construction of the instrument. Qualitative method was used at first step until the fourth steps of instrument construction. While quantitative method applied at fifth step and sixth steps of the construction or in try-out for consistency testing and confirmatory factor analysis (CFA) for testing constructs validity (Pallant, 2011 and Hair, et. al 2005). The study was conducted at English education department, Universitas Jambi with total students' population 488. Out of 488, 50 third year students were selected for pilot study, and 208 students were randomly selected as the samples of the research.

The procedures of instrument development as follows; first were analysis of HE curriculum, literature, and previous existing instrument. The second step was defining construct and sub-constructs based on literature review analysis. The third step was indicators development, assessment and judgment of researchers to see the appropriateness of each item under the belonging construct. The fourth step was holding a workshop to reach face validity and confirm content validity as well as check the language of the instrument. Twelve lecturers and 20 alumnus of English education participated in the workshop.

The fifth step was trying out the questionnaires and consistency testing with 50 respondents. Pallant (2011) and Hair, et. al (2009) suggested that Cronbach alpha coefficient .60 for a construct consists of 10 items and below, while coefficient .70 is recommended for a construct that consists of more than 10 items. And corrected item-total correlation at 0.30 is acceptable. And last step was investigating construct validity through confirmatory factor analysis (CFA). . Pallant, (2011) states that sample size at 150 and above are sufficient to conduct confirmatory analysis, while Myers at, al. (2011) suggests that sample size at 200 and above. The CFA in this study was conducted at sample size 206 and above.

Result Of Students' Core Competencies Practices Instrument

The six steps of self-evaluation questionnaire development had been conducted successfully and the questionnaire come out with three main construct measuring instrument of core competencies practices, they are soft skills, hard skills and academic character. In the reliability process and validating of the instrument, some indicators had been revised by considering participants' suggestion, and as the result all indicators toward each sub-construct can be understood and agreed by the seminar participants. The number of indicator had been deleted based on sub-construct were one indicator of communication skills, four indicators of numeracy, three indicators of problem solving skills, and one indicator of working in team. While there was no indicator of hard skills deleted. In term of academic character, two indicators of honesty, three indicators of patient, three indicators of confidence and three indicators responsible were deleted. Total indicators of core competencies reduced from 103 to 96 indicators after the whole process. The result is reported specifically as follow.

First Round: Reliability and Validity Result

The result of consistency analysis found that 10 indicators of Core Competencies yielded corrected item total correlation below recommended values .30 (Pallant, 2011, Hair, et. al 2009). However, seven of the 10 indicators obtained close to corrected item correlation value at .30, the indicators were not deleted but they had been revised in term of content and phrases. Three other indicators were deleted, one indicator of communication and two indicators of numeracy due to very low the Corrected Item-Total Correlation obtained. Then the content and indicators of questionnaire had been revised.

Revised questionnaire were distributed to 250 respondents and 206 returned. As Pallant, (2011) and Hair, et. al (2009) suggested that sample size at 200 and bigger is good to run CFA in order to confirm construct validity. The criterion for the construct validity was considered as acceptable if the items in each construct yielded loading factor at 0.50 or higher, in others way to say the statement used in the construct is measured what supposed to measure (Hair et al. 2009 & Pallant 2011). The first round of CFA conducted and found that three indicators did not meet loading factors at .500, one indicator of learning, one indicator of PBL and one indicator of honesty. The three indicators were deleted, the second round of reliability and CFA conducted.

Second Round: Reliability and Validity Result (Final)

Second round of reliability analysis was conducted to the revised questionnaire with 206 samples. Overall core competencies Cronbach's alpha is .962>.70. Overall soft skills yielded $\alpha = .928 > .70$, hard skills $\alpha = .845 > .70$ and academic character $\alpha = .942 > .70$. And all sub construct of soft skills and academic character obtained α more than .60 (Pallant, 2011). All indicators of hard skills, sub-contracts of soft skills and academic character obtained higher item corrected total correlation value .30 as suggested by As Pallant, (2011) and Hair, et. al (2009). This findings imply that high reliability and consistency were obtained by the instrument. The instrument is reliable to be used for measuring students' core competencies practices in the classroom. Table 3 shows the result of the reliability analysis:

Table 1. Corrected Item-Total Correlation and Cronbach's Alpha if Item Deleted

Construct	Number of Indicator	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
CORE COMPETENCIES	96	-	.962
I. Soft Skill	45	-	.928
a. Communication	8	.362 - .458	.738
b. It Skills	6	.325 - .524	.678
c. Numeracy	6	.501 - .661	.774
d. Learning	10	.355 -.608	.838
e. Prob. Solving Skills	7	.530 - .672	.830
f. Working with others	8	.386 - .573	.797
II. Hard Skill	10	.367 - .612	.845
III. Academic Character	41	-	.942
a. Honesty	7	.305 - .498	.704
b. Appreciating	7	.401 - .610	.753
c. Tolerance	5	.543 - .631	.797
d. Discipline	8	.371 - .607	.793
e. Patient	8	.441 - .637	.842
f. Confidence	6	.487 - .645	.778
g. Responsible	7	.410 - .555	.761

Result of Validity

Face and content validity had been discussed above. Face validity and content validity obtained through workshop among English education lecturers and face validity obtained by workshop among alumni of English education. To obtain construct validity, second round of CFA had been conducted. Pallant (2011) that assumption prior to rotated component matrix value of KMO smaller then .05 should be obtained. In this study all of tested constructs yielded KMO and Bartlett's Test at sig. $0.000 < .05$.

Table 3 confirms that all of the items were related strongly with its construct. All indicators yielded loading factor more than .500. The indicators in communication skills yielded loading factor in the range .516 to .638, IT in the range .503 to .747, numeracy in the range .580 to .719, learning how to learn in the range .521 to .691, and problem

solving in the range .640 to .794 and working with others within .504 to .700. Hard skills yielded loading factor .588 to .724. The loading factor of each indicator in its construct confirms that the indicators explain and measure what supposed to measure.

Table 2. Loading factor (L.F) of item upon component of core competencies

Soft Skills												Hard Skills	
Com.		IT		Num.		LHTL		PBS		WT			
No.	L.F	No.	L.F	No.	L.F	No.	L.F	No.	L.F	No.	L.F		
A1	,569	B1	,503	C1	,653	D1	,614	E1	,673	F1	,693	G1	,702
A2	,516	B2	,607	C2	,668	D2	,718	E2	,766	F2	,504	G2	,699
A3	,624	B3	,664	C3	,805	D3	,691	E3	,658	F3	,699	G3	,724
A4	,638	B4	,523	C4	,691	D4	,651	E4	,648	F4	,687	G4	,635
A5	,547	B5	,670	C5	,580	D5	,521	E5	,794	F5	,649	G5	,589
A6	,605	B6	,747	C6	,719	D6	,723	E6	,746	F6	,706	G7	,709
A7	,621					D7	,617	E7	,640	F7	,515	G8	,686
A8	,627					D8	,668			F8	,700	G9	,588
						D9	,527					G10	,716
						D10	,635						

Com. = Communication Skills; IT = Information Technology; Num. = Numeracy; LHTL = Learning How to Learn; PBS = Problem Based Learning; WT= Working in Team

Table 4 confirms that all of the indicators of academic characters were related strongly toward its construct. On other hand, the statements used to measure academic character are valid to measure its construct. The loading factors yielded are .517 to .668 for honesty, .547 to .765 for appreciation, .508 to .741 for discipline, .553 to .793 for patient, .670 to .801 for confidence and .558 to .715 for responsibility.

Table 3. Loading factor (L.F) of item upon component of core competencies

Academic Character													
Honesty		Appreciation		Tolerance		Discipline		Patient		Confidence		Responsibility	
No.	L.F	No.	L.F	No.	L.F	No.	L.F	No.	L.F	No.	L.F	No.	L.F
H1	,654	I1	,671	J1	,742	K1	,741	L1	,665	M1	,730	N1	,713
H2	,579	I2	,573	J2	,716	K2	,531	L2	,634	M2	,801	N2	,715
H3	,569	I3	,683	J3	,789	K3	,508	L3	,553	M3	,749	N3	,634
H4	,517	I4	,655	J4	,785	K4	,661	L4	,778	M4	,694	N4	,680
H5	,668	I5	,547	J5	,687	K5	,687	L5	,793	M5	,670	N5	,575
H6	,608	I6	,551			K6	,580	L6	,663			N6	,623
H7	,583	I7	,765			K7	,711	L7	,755			N7	,558
						K8	,718	L8	,667				

Final result of Core Competencies Components and Indicators

Indicators of Softs Skills

In this study soft skills were classified into communication, IT Skills, numeracy, learning how to learn, problem solving skills, and working with others. As shown in Table 4 soft skills were coming with 49 indicators and categorized into six sub-soft skills. Eight indicators indicate communication skills, six indicators refer to IT skills, eight indicators are for numeracy, eleven indicators indicate learning how to learn, six indicators are for problem solving skills and eight indicators refer to working with others.

Table 4. Results of Sub-constructs and Indicators Development of Core Competencies

Soft Skills	Indicators
A. Communication	1. Doing presentation, 2. Using Different formats, 3. Using Vocabularies, expressions and body language, 4. Summarizing key issues (Oral), 5. Giving feedback, 6. Communicating some ideas in writing, 7. Writing a report, 8. Summarizing key issues.
B. It Skills	1. Selecting relevant information, 2. Sharing references, resources and information, 3. Developing assignment in the form of text, image, chart, etc, 4. Presenting using some illustrations in power point, 5. Using software or application features, 6. Developing the structure of presentation.
C. Numeracy	1. Reading tables, charts, graphs and numbers, 2. Measuring learning activities and outcome, 3. Presenting based on points but calculable, 4. Labeling tables, charts and graphs, 5. Managing time for working on assignment, 6. Identifying the relevant information sources.
D. Learning how to learn	1. Improving academic performance, 2. Assessing the effectiveness and efficiency, 3. Identifying factors impacted on learning outcomes, 4. Setting realistic targets and plan, 5. Learning independently and be responsible, 6. Identifying ways my work best, 7. Reviewing what and how to learn, 8. Consulting with lecturers, 9. Adapting learning strategy, 10. Comparing information from various resources.
E. Problem Solving Skills	1. Identifying a problem, 2. Solving problems with several ways, 3. Using different methods to analyses a problem, 4. Accommodating diverse perspectives, 5. Solving problems by resources provided 6. Presenting an approach to solve a problem.
F. Working with others	1. Learning activities in a group, 2. Having conversations with different races in learning, 3. Working in team, 4. Resolving conflicts in team work, 5. Giving feedback to improve team work, 6. Keeping yourself and others motivated, 7. Respecting diverse perspectives, 8. Thinking and offering ideas to a group work.

Indicators of Hard Skills

Core competencies in term of hard skills are indicated by 10 indicators. Hard Skill was not divided into sub-construct or sub-skills, due to hard skills practices had been embedded into soft skills practices. Moreover based on Indonesian Qualification Framework-KKNI (Dikti 2011) states that hard skills only 20% of total skills needed. In this case hard skills cover the general content subject practices. The indicators were presented in in Table 5.

Table 5. Result of Indicators of Hard Skills

Hard Skills	1. Applying specific knowledge and skills, 2. Discussing ideas specific knowledge of a course, 3. Connecting prior knowledge with topic of discussion, 4. Transferring knowledge based on into practices, 5. Interpreting subject-content into technical practices, 6. Practicing your subject-content knowledge, 7. Answering technical questions proposed, 8. Enhancing your technical skills, 9. Developing specific competence, 10. Representing specific competencies.
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Indicators of Academic Character

The academic character comes out with seventh sub constructs and 49 indicators. The seventh academic character sub-construct is honesty, appreciating, tolerance, discipline, patient, confidence and responsible. As presented in Table 6, Honesty have eight indicators, appreciating seventh indicators, tolerance five indicators, discipline eight indicators, patient five indicators, confidence six indicators and responsible seventh indicators.

Table 6. Results of Sub-construct and Indicators Academic Character

Academic Character	
A. Honesty	1. Telling what I can do and cannot, 2. Admit friends' strength, 3. Confessing my weakness, 4. Telling true resources, 5. Not to present and report a fictive data, 6. Not copying and pasting for assignment, 7. Not pretending to understand, 8. Giving a lie appraisal.
B. Appreciating	1. Honoring friends' improvement, 2. Listening to friend, 3. Paying attention to a friends' presentation, 4. Respecting friends equally, 5. Encouraging less active friend, 6. Prioritizing harmony in giving different ideas, 7. Giving appraisal to friends' effort and work .
C. Tolerance	1. Appreciating differences of ideas, 2. Appreciating the attitude of others, 3. Accepting the ways offriends in presenting, 4. Appreciating ways of a friend in completing assignment, 5. Accepting diversity in a group.
D. Discipline	1. Following academic rules, 2. Coming to a class earlier, 3. Submitting assignment by the deadline, 4. Organizing learning activities daily, 5. Scheduling, timing and prioritizing activities, 6. Targeting learning output to be obtained, 7. Following rules set by classroom agreement, 8. Following a style in completing assignment.
E. Patient	1. Self-Devoting, 2. Hearing long explanation, 3. Accepting the result, 4. Controlling emotion, 5. Staying motivated, 6. Working on assignment even under pressure
F. Confidence	1. Pushing downnervousness, 2. Encouraging to present, 3. Being confident, 4. Encouraging to participate, 5. Encouraging to be more confident to perform, 6. Assuring own ability.
G. Responsible	1. Completing my own part as group, 2. Own involving in group discussion, 3. Taking a part as moderator, 4. Own Checking for some errors and mistakes, 5. Own revising of report, 6. Taking a role of group leader, 7. Completing assignment.

Discussion

A set of questionnaire was developed to acquire information of the practices of core competencies through the students' engagement and activities. Questionnaire academically is able to measure the students' core competencies practices in teaching and learning process. The instrument core competencies consist of three main scales soft skills and, hard skills and academic character. Soft skills and academic character was developed in multiple measures each of which consists of multiple items, while hard skills were developed on a single scale which consists of multiple items. The instrument was design in questionnaire form with 5 likert scale alternative answers. The number 1 to 5 was used to describe respondent core competencies practices. We should note that there are many different types of measures, but the vast majority of scales used by behavioral scientists in survey questionnaires are Likert scales that utilize an interval level of measurement.

It might be there is some similar instrument in measuring soft skills, generics skills, interpersonal professional skills, and character however it is not found yet the instrumentations developed in measuring core competencies practices in the process of teaching in learning. While many researchers may not be interested in measurement development per se, they just looking at and use an existing Instrument without knowing how the instrumentation developed as the result they often used inadequate, inappropriate or unreliable and could not measure what expected to measure. Some available questionnaire developed aims to measure graduates' soft skills, generic skills or interpersonal skills performance at work place, however this instrument developed to investigate the development of core competencies applied in the classroom setting, embedded between soft skills, hard skills and academic character.

The instrument development are following research ethic, logic, scientific and using both qualitative and quantitative data, in term of theory and practice. The procedure and steps applied in the development processed are very clear, academically responsibility and normally used and accepted and commonly understood by social scientist. In addition, it is true that this instrument developed to measure core competencies practices teaching and learning process for EFL students at English Department of Jambi University, however it is academically adaptable and usable for any field of courses in term of investigating core competencies practices in teaching and learning activities.

Conclusion

Sixth steps of developmental process had been applied in the instrument constructions; they were literature studies; defining constructs and sub-constructs; constructing indicators; assessing and judging indicators; defining face validity, confirming content validity, consistency testing; and confirming constructs validity. The result of the development comes out with three main components of core competencies practices instrument, they are soft skills, hard skills and academic character. Soft skills is coming with 45 indicators and categorized into six sub-constructs; hard skills coming with 10 indicators, while Academic Character was coming with seventh sub-constructs with 41 indicators. Totally, core competencies practices have 96 indicators. It is concluded that the process of the instrument development had produced valid and reliable measurement of the students' practices of core competencies during their study at Universities. It is also expected that the instruments and the method of its' development contribute to area of students' and graduates' core competencies.

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Contribution Of Translation Courses To Cultural Awareness, Cognitive Skills And Text Knowledge

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Abstract

This Study Attempts To Find Out The Contribution Of The Translation Courses The Students Of Fourth Grade English Literature Department At Bülent Ecevit University Took During Their Education On Their Academic Studies And Their Attitudes Towards These Translation Courses. The Research Especially Focuses On Their Cognitive Skills, Cultural Awareness And Text Knowledge By Giving Samples Of Related Studies. Throughout The Study It Was Hypothesized That The Translation Courses Offered At The English Language And Literature Department May Provide Students With Useful Insights On The Differences Between Cultures, And Gain Cognitive Competence On The Use Of Language, And Become Aware Of Language Variety Of Various Genres And Text Types. A Quantitative Research Was Carried Out To Confirm Or Reject This Hypothesis. A Student Perception Questionnaire Consisting 25 Items With Five Point Likert Scale Answers Varying From “Completely Agree” To Completely Disagree Was Used To Gather The Necessary Data. However, The Questionnaire Was Piloted With Third Year English Language And Literature Students To Check Its Validity And Reliability In The Spring Term Of 2016-2017 Academic Year. The Real Questionnaire Was Performed With The Fourth Grade Students Three Weeks After The Piloting. The Results Obtained From And The Students' Answers To The Questionnaires Indicated That The Fourth Grade Literature Students' At Bülent Ecevit University Have A Positive Attitude Towards The Translation Courses Offered In Their University And That They Believe These Courses Contribute To Their Academic Studies And Success.

Key Words: *Translation, Translation Studies, Literature, Cultural Awareness, Cognitive Skills, Text Knowledge.*

Introduction

Language Is The Source Of The Disciplines; Literature And Translation. In The First Of These Fields; Literature, Through The Characters Of A Literary Work, The Reader Can Understand How People In The Other Countries Live. They Can Discover Their Thoughts, Feelings, Beliefs And Customs Overall A Different Culture.

Translation Is A Way Of Transmitting Messages In One Language By Rendering Them In Another Language. Thus, Translation Courses Take Place In Disciplines Of Studies Such As English Language Teaching Or English Language And Literature.

Hence Translation In Foreign Language Classes Is A Form Of “Pedagogical Translation” That Enriches Learners' Competence. Likewise, Translation Can Be Successfully Utilized At Any Level Of Proficiency. Therefore, It Can Be A Valuable And Creative Teaching Aid To Strengthen The Four Traditional Language Skills Of The Literature Students.

While Students Are Contrasting Languages They Discuss And Correct Common Mistakes. By Working On These Difficulties Students Are Able To See The Link Between The Language Usage. Besides The Structural Differences, They Also May Spot The Cultural Components Like Idioms By Cognitive Processes Which In Turn Led Them Improve Not Only Their Cognitive Competence But Also Cultural Awareness Including The Acquisition Of Being Able To Differentiate Various Genres, Literary And Nonliterary Texts Which Is An Asset For Literature Students.

The First Of These Assets Cultural Awareness Includes Two Important Features; The Significant Influence Of Culture On Human Behavior And The Importance Of Recognizing Differences Among Them. It Denotes To An Increase In Understanding Of Our Own And Other People's Cultures In Our Brain. As Students Compare And Contrast The Cultures, They May Acquire Some Knowledge Out Of Similarities And Differences Among Those Cultures. Thus Courses With Syllabus That Include Cultural Features In The Curriculum Of Literature Courses Give A General Understanding Of Cultural Awareness. One Way Of Raising Awareness In Learners Might Be Using Literary Texts As They Are The Products Of Both Language And The Culture. As Literature Includes Information About The History, Customs, Values, And Language Of A Particular Cultural Group; Students, Especially Literature Students, When Exposed To The Differences And Similarities Among Cultures Extend Their Knowledge By Comparing And

Contrasting Them. By Details Of Their Own Culture They May Also Learn More. They Might Also Notice How Their Culture And Other Cultures Interact And Gain Cultural Insight.

Besides Literature, Translation Is Also Regarded As An Intercultural Activity As To Do Translation One Has To Master Both The Language, And The Rich And Generous Knowledge Of Different Cultural Background. Therefore, There Is A Great Deal That Literature Language And Translation Can Teach When Blended Together. Literature Students When Given The Opportunity To Study And Translate In Two Different Languages May Find Similarities And Differences Between Two Different Cultures And Gain Intercultural Awareness. They Gain Cultural Awareness Especially While They Are Dealing With Cultural Expressions They Were Not Familiar With These Cultural Based Expressions Which Are Not Easy To Translate.

Indeed, Cultural Untranslatability Is One Of The Problems Of Doing Translation. Cultural Untranslatability Occurs When A Certain Feature In The Source Language Does Not Exist In The Target Language Culture Where, Such Features May Include Religion And Social Background Elements.

Another Group Of Cultural Components That Causes Cultural Untranslatability Are Metaphors Cultural Metaphors Enable Students To Understand The Second Language As It Creates New Meanings. Therefore, It Is Very Beneficial For Language Learners To Know Cultural Metaphors Which, In Turn, Help Them To Know The Deep Meaning Of Expressions.

Like In Metaphors, The Interference Of The Translator's Native Language Can Lead To Misinterpretation Of A Collocation. Baker (1998) States The Same Collocations Are Direct Reflections Of The Society In Which They Occur Hatim And Mason (1987) Defines Another Problematic Cultural Element; Irony As "Saying One Thing Literally And Meaning The Opposite Figuratively". The Translation Of Irony Depends On The Way In Which The Target Language Reader Perceives The Irony. The Problem Occurs When The Irony Is Translated Literally.

As It Can Be Understood From Above; Cultural Terms Cause Many Difficulties In Translation But This Does Not Mean That They Cannot Be Translated. Despite The Difficulties, The Learners Dealing With Translation Like Literature Students May Translate These Cultural Elements Easily If They May Become Aware Of The Cultural Differences And Learn Various Procedures, Techniques Or Strategies To Deal With Such Cultural Problems In Their Translation Courses.

Dealing With Such Cultural Components Require Not Only Cultural Knowledge But Also Cognitive Skills Which Includes Basic Language Skills Like Writing And Reading. During The Process Of First Of These Skills Namely Writing, The Writer Tries To Fit Language Into His Or Her Own Thoughts And Feelings. Therefore, The Process Of Writing Becomes More Complex Which Requires Implementation Of Some Strategies. Indeed, A Skillful Writer Is The One Who Can Solve Problems That Occur During These Stages Like How To Organize Ideas; Make Grammatically Correct Sentences Or Use Correct Punctuation And Spelling.

Hayes And Flower (1980), In The Writing Model They Developed, Have Attempted To Classify The Various Activities That Occur During The Process. According To Their Model, The Learners Start The Writing Process By Generating Ideas. Then They Make Up The Plan For The Document By Organizing These Ideas. After This Organization, They Produce The Text As The Output. The Process Proceeds With Monitoring In Which The Students Read And Check What They Have Written And Then Revise It.

Planning, Revising, Editing And Revising Need Significant Cognitive Effort Hence They May Improve The Ability Of Problem Solving. However, To Be Able To Conduct These Processes Effectively, The Learners Should Do Critical Reading. Indeed, Reading Narratives Impact Students' Cognitive Development And Critical Thinking, Both Of Which Are Vital For Academic Success. Stories, For Example; Help The Students Develop Their Analysis Skills Since Reading Narratives Requires A Different Mode Of Thinking From What May Be Called As Reasoning.

The Study Of Cognitive Development Namely; Cognitive Science Regards Translation As A Problem-Solving And A Decision Making Activity Which Are Complicated Mental Processes. In The Light Of This Field, Theorists Of Translation Such As Bell (1991), Kiraly (1995) Have Studied Translation From The Cognitive Perspective And Tried To Figure Out The Processing Of Information Which Consists Of Three Important Steps. First One Is The Input Of

Information Which Makes Up The Beginning Of The Process; The Second One Is The Processing Of The Information In The Brain Which Is Building Up The Mental Presentation. The Final Step On The Other Hand Is Changing The Input Into Output Which Results In The Product. These Stages Do Not Happen Step By Step But Occur Simultaneously During The Process Of Translation.

Cognitive Approaches Focus On Different Processes Involved In Translation, So Different Cognitive Scientific Approaches Propose Different Answers To The Question Of How The Brain Works During Translation. Moreover, Several Researches Have Proposed Several Theoretical Models On The Mental Processes That Occur During This Cognitive Process.

The Common Issue The Literature Students Deal With During The Cognitive Phrase Of Translation Is The Figurative Language Which Strengthens Or Makes What Is Being Described More Compelling And Effective. Among These Figurative Language Devices Metaphor Is Especially Important For Literature Students As Metaphors Allow The Reader Greater Understanding Of The Concept, Object, Or Character Being Described Which Can Be Done Either By Comparing It To An Item That May Be More Familiar To The Reader Or To Give Them A Picture In Their Minds Of What Is Being Discussed. Metaphors Can Also Be Used To Simply Make The Writing More Interesting. Coming Up With Original Metaphors May Turn Boring And Dry Texts Into More Interesting And Aesthetic Ones. Literature Students Specifically While Doing Translation May Make Use Of Metaphors Which Is Quite A Cognitive Process.

The Cognitive Theories Of Metaphor Have Shown That Metaphors Are Not Only Cultural Symbols But Also A Cognitive Phenomenon. Thus, This Linguistic, Cultural And Cognitive Phenomenon Should Be Understood, Interpreted And Translated Adequately To Be Understood In The Target Language. Therefore, To Translate A Metaphor It Is Necessary To Understand The Function And The Meaning Of The Metaphor In The Source Language To Find The Equivalent And Be Able To Convey It In The Target Language.

In General, Cognitive Theorists Identify Metaphor As A Process Of Mapping Between Two Different Conceptual Domains: The Target Domain (The Concept To Be Described By The Metaphor), And The Source Domain (The Concept Drawn Upon, Or Used To Create The Metaphorical Construction). In Metaphors Having Similar Mapping Conditions The Metaphorical Phrase Appearing With The Same Meaning Become The Substitute. On The Other Hand, Metaphors With Different Mapping Condition With Culture-Bound SI Metaphors Are Translated Into Sense.

Having Studied Metaphor Translation Form The Cognitive Linguistics Aspect, The Literature Students May Also Study The Issue From The Perspective Of Modern Translation Studies. Such A Study Would Aim To Describe Translations (Both As Products And Processes), Explain Why Translators Act In Certain Ways And Produce Target Texts And To Assess Effects Of Translations. By Describing The Strategies Chosen To Deal With Metaphors, And Offering Specific Solutions, The Discipline Of Translation Studies Together With The Practice Of Translation May Provide A Valuable Contribution To The Academic Studies Of Literature Students.

Literature Students Who Are The Main Concern Of This Study Also To Hold The Knowledge About Genre And Different Types Of Texts. Thus, There Are Researches And Approaches On How Students Learn A Genre And They Have Focused On The Effect Of Instruction On The Genre.

Genre Awareness Is An Approach Proposed By Devitt (2004; 2009). This Approach Highlights The Process Of Learning New Genres Rather Than The Acquisition Of Particular Features Of Genres. It Aims To Make Students "Apply Strategies To "Contexts In Which They Encounter Genres-In Other Words, In Any Context In Which They Encounter Language" (2004; P. 198). In Other Words, The Process Of Revising Genres Which Is Usually Performed After Drafting The Texts Involves Detecting The Problems And Fixes Them In Accordance With The Genre Knowledge They Learnt. Finally, They Produce Their Final Text To Present It. As It Can Be Gathered From The Processes Above When Students Learn About New Genres Those Can Help As Resources To Make Up A Link Between Genre Knowledge And Genre Performance. Therefore, The Framework Of The Genre Of A Story Or A Narrative May Be A Good Guide For Literature Students As They Become The Familiar With Various Structures Of Narrative The Students May Reflect What They Read Into Their Writing.

Translation May Also Have Pedagogical Effect On Students In Acquiring Text Knowledge As Genres, Literary And Nonliterary Texts Bear Important Differences And Literature Students Can Figure Them Out While Doing Translation. The First Of These Differences Is That Vocabulary Of Non-Literary Texts Is Standardized Making The Language

Formal Whereas Literary Texts Have Aesthetic Language Embroidered With Metaphors, Similes, Personifications And Other Poetic Devices Which In A Way Make The Language Of Literature Special.

Moving Onwards, Contrasting Non-Literary And Literary Texts From A Translational Point Of View, Another Difference Is That Rendering Non-Literary Text Requires Complete Faithfulness To The St As Its Language Is Governed By Norms. The Terminology Is Precise Therefore It Does Not Allow Any Creativity Which Makes It More Scientific. On The Other Hand, Translation Of Literary Text Is Freer And More Creative That Changes It Into Art (Bednárová-Gibová, K. (2012; Pp.100).

To Sum Up, Gaining The Competence And Being Aware Of The Differences Through Translation Could Help The Literature Students Apply The Knowledge And Produce Similar Texts Which In Turn Lead Them To Success In Their Academic Life.

Since The Aim Of The Study Is To Find Out The Attitudes Of Fourth Grade Students In English Language And Literature Department Towards The Translation Courses They Receive During Their Four-Year- University Education At Bulent Ecevit University. Hence, English Language And Literature Department At Bülent Ecevit University Was Chosen As The Setting. Another Reason For Choosing Bülent Ecevit University As The Setting Is That The Researcher Has Been Working At This University And Giving Translation Courses In The English Language And Literature Department.

The Participants Are The Fourth Grade Students In English Language And Literature Department Since These Students Have Taken All The Translation Courses Offered Hence; They Have Acquired Enough Ideas About Translation Studies To Establish An Attitude. A Questionnaire Including Twenty-Five Questions In Total Was Conducted In Order To Find Out The Thoughts And Attitudes Of These Students Towards The Translation Courses.

The Questionnaire Was Designed In A Likert Scale Method Which Has A Five Level Format As In *Strongly Agree, Agree, Neutral, Disagree, And Strongly Disagree*. The Scoring Format Of The Scale Is In Strongly Agree = 5, Agree = 4, Neutral = 3, Disagree = 2 And Strongly Disagree = 1. The Participants Of The Questionnaire Were Given Statements That Reveal Their Attitudes Towards Translation And Its Effect On Their Academic Studies Considering The Following Aspects; Language Awareness, Reading Skills, Writing Skills, Vocabulary Acquisition.

It Was First Piloted With Third Grade Students At Bülent Ecevit University To Check Its Validity And The Reliability. Then The Final Questionnaire Was Conducted To Fourth Grade Students Three Weeks After The Piloting. The Questionnaires Were Analyzed The Answers Given By The Participants Were Compared And The Results Were Obtained In Alpha Values And Percentages Through Graphics Using Spss, Frequency Tests. On The Other Hand, The Cronbach Alpha Coefficient Of The Questionnaire Was Administered To 4th Year Students, And Is .499.

When The Results Of This Questionnaire Is Observed, It Can Be Seen That In Terms Of Cultural Awareness % 79 Of The Learners At Bulent Ecevit University Believes That Translation Helps Them Improve Their Cultural Knowledge. Likewise, 89% Of Them Agree That Translation Is An Important Factor In Understanding Cultural Elements Like Idioms And Metaphors. Supporting These Numbers 76% Of The Participants Disagree That Translation Doesn't Help Them Learn Cultural Elements Like Idioms And Metaphors.

Acquiring Critical Thinking Skills Are Especially Important For Literature Students, Who Have To Read Different Kinds Of Texts And Literary Genres, Analyze, Compare, Contrast, Criticize And Discuss Them All Of Which Are Cognitive Processes. Cognitive Models Made Up Of Such Cognitive Processes Have Effect On Not Only Literature But Also Translation. This Scientific Field Analyzes Translation As An Information Processing, A Problem-Solving And A Decision Making Activity Which Are All Complex Mental Processes.

The Common Issue The Literature Students Deal With During Translation Is The Figurative Language Which Strengthens Or Makes What Is Being Described More Compelling And Effective. Among These Figurative Language Devices Metaphor Is Especially Important For Literature Students As Metaphors Help Them Comprehend The Concept, Object, Or Character Being Described. The Learners Compare The Metaphor To A More Familiar Item Or Picture The Item In The Metaphor Before Their Eyes. Metaphors Can Also Be Used To Simply Make The Writing More Interesting. Coming Up With Original Metaphors May Turn Boring And Dry Texts Into More Interesting And Aesthetic Ones. Literature Students Specifically While Doing Translation May Make Use Of Metaphors Which Is

Quite A Cognitive Process. Since Translation, As A Process Includes Analysis Of Texts And Sentences In These Texts And Rendering Them From One Language Into Another Like Solving A Problem. Hence 58% Of The Literature Students Who Received The Translation Courses In Their Departments At Bulent Ecevit University Feel The Effect Of Translation On Their Cognitive Development. 48% Of Them Disagree With The Idea That Translation Does Not Help Them Develop Their Critical Thinking, Analysis And Problem Solving Skills.

Genre Learning Activities Are Also Important For Literature Students As The Identification Of Recursive Features In Such Genres Help Students Acquire Awareness Which In Turn Make Them Able To Produce Their Own Examples Of The Same Genre. Research Into How Literature Students Learn A Genre Have Focused On The Effect Of Instruction On Their Genre. These Studies Have Shown That Detailed Analysis Of Prototypical Texts Of A Target Genre Have Extensively Contributed To Raising Students' Consciousness Which In Turn Develops Their Ability To Contextualize The Genre Of Their Own Writing Better.

In Translation, The Genre Knowledge Helps Students Find The Purpose Of Interaction Between The Reader And The Writer. Moreover, It Assists Them In Making Up The Relation Between The Source And The Target Text Which In Turn Leads To The Thorough Understanding Of The Context. Going Into Depths Of Text, The Learner Recognizes The Cultural And Intercultural Values Of The Other Culture.

Hence The Students Who Received The Translation Courses In Their Departments At Bulent Ecevit University Being Literature Majors Acquire Deep Knowledge About Different Genres And Literary Texts And Being Aware Of Differences Between Literary And Nonliterary Texts. To The Item Referring To The Contribution Of Translation On Differentiating Between The Literary Texts And Genres, Nearly Almost All Of The Participants (96 %) Give Positive Response. Likewise, % 84 States That Translation Aids Them In Comprehending Literary Texts And 86% Of Them Disagree With The Belief Stating Translation Does Not Enhance Their Knowledge About Literary Texts And Genres. Moreover % 45 Rejects That Translation Does Not Help Them Improve Their Text Knowledge (Coherence, Cohesion And Different Genres.) Hence, 80 % Of These Literature Students Think Translation Helps Them Understand The Relationship Between Form And Content.

Consequently, The Starting Point Of This Study Was The Hypothesis That The Translation Courses Offered To The Literature Students In The English Language And Literature Department At Bulent Ecevit University Could Provide Students With Useful Insights On The Differences Between Cultures, And Gain Cognitive Skills On The Use Of Language, And Become Aware Of Language Variety Of Various Genres And Text Types. The Results Of The Questionnaire Conducted And The Research Reviewed Throughout This Study Demonstrate That Translation Does Help Acquire And Enhance The Knowledge And The Skills Discussed In The Research. Hence, The Findings Of The Study Reveal That The Fourth Grade Literature Students' At Bülent Ecevit University Has A Positive Attitude Towards The Translation Courses Their University Offered And That These Courses Play A Constructive Role In Their Academic Studies And Success.

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“Corruptio Optimi Pessima Est”^{*} Unpredictable Consequences Of Severe Secularism

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Abstract

This paper, is an introductory study that suggests a contrasting perspective for social scientists who study the sociology of religion - particularly for those who engage in the study of secularisation. In regards to this topic, most evidently in our country, we may notice two different opinions emerging. One of these two standpoints suggests that by using examples from social life, we may say that our country is rapidly secularising. Despite using similar illustrations from social life however, the second viewpoint claims the opposite, saying that our country is growing in piety than secularity. When these discussions are taking place, a valid point may be overlooked. The main purpose of this paper is to bring light to this detail in order for it be argued too. For every social event that takes place, the idea that every effect causes a reaction is an undisputed truth. It raises the question, is there a reaction against secularism in the society? If there is, is this reaction going to be able to cause a social change and transformation? Or is it just a minority reaction? These are the kind of questions that should be answered. It is highly important for universalized secularisation theory defendants to study about anti-secularist groups and test the theory. It is essential to look at the propositions we will make in the final part of our paper from this perspective.

Keywords: *Severe Secularism, Ertit, secularization, universalizing classical secularization theory, religion.*

This study aims to draw attention to a point where the universalized secularization theory (Ertit, 2014; Ertit, 2016, p. 42) overlooks. Volkan Ertit, who is in the claim of universalizing classical secularization theory and tests his universalized theory on the samples from Turkey (Ertit, 2016), expresses that secularization concept has two different definitions (religion-based, and metaphysic-based) (Ertit, 2017) and argues that metaphysic-based definition is applicable to sociology by saying "Secularization is not atheism or un-islamic, secularization does not mean laicisation, secularization requires comparison with the past" (Ertit, 2017, p.300).

In our study, we aim to question why it has not been discussed whether it is an anti-thesis to the severe secularization, and why any research has not been conducted in this direction. Whether the modernization, which is seen as the trigger of secularization, constitutes its opponents as in the case of Afghanistan (Arslan, 2015, p. 309), whether the secularization that emerged with the modernization constitutes an opponent desecular group, and whether that desecular attitude affects the constitution of the organizations such as Taliban are among the realities of the universalized secular paradigm that should be investigated. We suggest that it has to be investigated whether the fact that an establishment such as ISIS suddenly found basis in many Muslim countries including European countries is a reaction to the severe secularization or not, while saying in our study that many studies to be conducted with new and different methods will give different results and by accepting the presence of many political factors in the constitution.

Likewise, the presence of various groups (Furkan Foundation, Cubbeli Ahmet Community, IFAM, etc.) that react to severe secularization in our country is an undeniable fact. By making comparisons, it is possible to say that these exist in the past, however there is no scientific data on how these groups have a potential compared to the past. When we use the method of comparison with the past, which is the greatest research argument of the universalized secular theory, has it been investigated whether the young people in these groups, especially those who are popular among the university students stay away from many behaviors that their father could not do due to impossibility (financial possibilities, distance from social pressure etc.) due to religious reasons? These examples are remarkable since they are from civil society, unlike the applications such as the opening of religious institutions or multiplication of numbers of them by the government, which are shown as desecular examples in other studies (Karaslan, 2015; Sagir, 2015). At the same time, the applications by the government as examples of desecularization have been criticized by aforementioned groups (especially the Faculties of Theology and the Directorate of Religious Affairs have been severely criticized by these groups). These groups see themselves as empowered to speak in the name of religion and do not hesitate from using an exclusionary style.

What we offer here can be summarized as follows:

- It should be argued whether severe secularism has constituted opponent groups.

^{*} The corruption of what is the best into the worst of all.

- It is an important requirement to conduct field research on the mentioned example and groups by especially religious sociologists.
- It should be investigated whether these groups carry marginalization risk or, more clearly, the risk of Talibanization. Whether this case is an example of "corruptio optimi pessima est" may arise as a result of this research.
- The question of "Is it an exception that the participation to these groups has been increased with severe secularization?", as Bruce says (Bruce 2002, p. 40-41), is another issue that must be discussed. Because, the reason for these groups to look like exceptions may be the fact that they keep themselves away from social places where sociological observations will be conducted (cafes, cinemas, university canteens, etc.) for religious reasons.
- The answer to be sought for the question of "Is there any shift in society towards deism due to the words and actions of these groups (such as child marriage, discourses about young mother-in-law, shrouds which do not burn and prayer book sales etc.), who believe that they have the authority to speak on behalf of religion?" is particularly important to lighten up the recent discussions on deism.

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Curriculum Development Competencies of Form Teacher Candidates

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Abstract

It can be stated that education plays a critical role at shaping the future of the nation. Designed curriculum and teachers as a developers and practitioners of the curriculum are accepted as a major drivers to increase the quality of the education. From this perspective, classroom teachers should have necessary competencies to develop curriculum. The current study aims to examine 222 participants in context of curriculum development competencies in the third and fourth forms who are studying in form teacher program at Cyprus International University (CIU), Near East University (NEU), European University of Lefke (EUL) and lastly Eastern Mediterranean University (EMU). The current study employed the scale which proposed by Duman (2006) to investigate curriculum development skills of the participants. The data which collected from participants was analyzed through SPSS. Moreover, it could be expressed that curriculum development competencies of the participants was tested by appointing arithmetic mean analysis and Independent Samples T test and One Way Anova Analysis were employed to investigate statistical differences among participants in context of curriculum development competencies with the light of ($p < 0,05$). Study revealed that gender, class and university in which participants are studying were found statistically significant in context of curriculum development competencies. Moreover study recommended to revize the related courses which would increase the competencies of participants thus would be helpful to overcome their incompetencies particularly on preparing the course plans with the light of multi-course theory, capability to use different methods and techniques to increase the capacities of the students at the highest level, diversifying the teaching-learning process by considering individual differences of the students, capability of organizing learning sphere by considering different preliminary experiences. Study also advised to increase sample size and conduct TUKEY analysis for obtaining more accurate results.

Key Words: *Education, form teacher candidates, curriculum development competencies*

Introduction

Nowadays, educational institutions are considered as one of the key ingredients of education process. However, it could be stressed that education does not only existing in educational institutions. To be more precise, In addition to educational institutions, there are also various institutions that transmit vocational knowledge to the learners.

No doubt that, education might take place within the family, workplace and in social groups. It could be stated that education is one of the vital tools used to perform “enculturation” within the community. It can be argued that enculturation is shaped through the characteristics of the individuals and the culture in which they are born and grown. Moreover, communities convey the culture in which they possess to the new generations. In that sense, community influences individuals with cultural values which is called as enculturation. Therefore, it could be indicated that education is the deliberate way of enculturation (Fidan, 2012).

The term of education is identified by various authors in different ways. Tyler, who is considered as one of the pioneers of educational scholars, described education as a process of changing the behaviors of the individuals (Senemoğlu, 2012). Moreover, Çilenti, (1984) defined the term of education as a process of shaping behaviors of individuals which is desired by society. Education in a broader sense; is described as a process that boosts self-development by improving skills, knowledge, moral values, decision making of the individuals (Öztürk, 2005). Furthermore, Tezcan (1985) expressed the term of education as a process which prepares individuals to adult life and injects them necessary talents and perspectives for the future life.

Besides of these, educators have stressed that education takes place through formal and informal education. Formal education could be indicated that providing education to the learners with the light of the education plan which shaped by the certain purpose. In formal education system, teaching and learning facilities are designed by the teachers from the beginning to the end of the education. It can be mentioned that education which provided to the learners through educational institutions is named as formal education. Informal education, could be indicated as the education which shaped by daily routines. Moreover, in contrast to formal education, informal education is not planned. In informal education context learners learn from their experiences (Fidan, 2012).

Şişman (2007) discussed that education is consisting from various disciplines. These disciplines can be stated as social theories, social strata, ranks, roles and responsibilities, culture and law. Malthus (1820) mentioned that education is one the vital elements for the individuals to live well. Furthermore, Kruguer and Lindahl (2001) have stated that education has a prominent role at declining crime rate and maintaining stability both in political and economic fields.

Baykul (1992) had stressed that education is a system which shaped by certain elements. These elements could be indicated as input, process, output and lastly evaluation. To be more exact, financial resources, educational tools and equipment, qualifications of the learners, educational programs which are designed to inject desired behaviors to the learners, laws and procedures which are appointed for educational purposes, social values and structure of culture which are related with education are constituting the inputs of education whereas; courses which are formed to inject desired behaviors to the learners and educational activities which planned for the learners are constituting process of education. Output consists from the outcomes of the process. Lastly, decisions about students and activities to explore deficiencies and root of these deficiencies could be referred as evaluation.

It could be emphasized that transmitting necessary knowledge and skills to the individuals are considered as one of the key ingredients to form qualified community which in turn would trigger social development. Moreover, it might be argued that one of the prerequisites of formulating qualified community is to plan an education system which is favoring creative and competitive motives and injecting the importance continuous life learning to the individuals. No doubt that, teachers are one of the most crucial elements of the education. From this framework, degree of success of educations system is closely associated with the skills and competencies of the teachers (Gül, 2004). Moreover, it is believed that skills and competencies of the teachers play important role for achieving educational goals. To be more precise, teachers should have adequate knowledge at designing learning sphere, planning teaching and learning activities to inject desired behaviors to the learners and lastly evaluating the impact of all these facilities on learners (Kuzgun, 1991). Schreglmann (2016) also dictated that form teachers competencies on curriculum development are critical for stimulating the effectiveness of education.

Aim of the Study

It could be lamented that primary education is considered as one of the cornerstones of life and education as it plays a prominent role at shaping the character of the individuals. In that sense, form teachers should have necessary skills and competencies. In other words, the inadequacy of form teachers in educational sphere will negatively influence students which in turn it would be quite difficult to compensate this negativity during the ongoing education process. Moreover, it could be stressed that curriculum development is one of the vital mechanisms for building effective education. Therefore, to trigger influential education for the students, form teacher candidates and form teachers should be trained through pre-service and in-service training programs to advance their competencies towards to the curriculum development. The main objective of the current study is to explore curriculum development competencies of form teacher candidates who will serve as form teachers in the Turkish Republic of Northern Cyprus (TRNC)

Significance of the Study

The current study can be considered significant in several ways. First, since the present literature fails to provide sufficient research on the curriculum development competencies of form teacher candidates, the findings of the study are expected to help to recognize the level of curriculum development skills of form teacher candidates in the third and fourth forms who are studying in form teacher program at Cyprus International University (CIU), Near East University (NEU), European University of Lefke (EUL) and lastly Eastern Mediterranean University (EMU). Secondly, it may be considered as one of the initial research regarding in North Cyprus in this context. Therefore, the current study is expected to add to the scholarly research and literature about curriculum development competencies of form teacher candidates as well as deepen understanding towards to the efficiency of pre-service training programs.

Methodology

Research Model (pek gerekmebilir makalelerde)

Descriptive scanning method was employed for the current study. Descriptive scanning is the preferred method for determining the current situation. However, quantitative data collection tools are appointed in descriptive scanning methods. In this context, the descriptive screening method was accepted as the most appropriate research method for the current study as it aimed to discover the curriculum development competencies of the form teacher candidates in the 3rd and 4th grade during the 2017-2018 education periods

Research Questions of the Study

The research questions of the current study could be expressed as follows;

- What is the level of curriculum development competency of form teacher candidates?
- Is there any statistical significance among gender of form teacher candidates and their curriculum development competencies?
- Is there any statistical significance among the grade of form teacher candidates (3rd and 4th form) and their curriculum development competencies?
- Is there any statistical significance among university which of form teachers are educated and their curriculum development competencies?

Sample of the Study

The sample of the study was constituted from 222 form teacher candidates who are educated in the 3rd and 4th classes of the form teacher department in CIU, NEU, EMU and EUL during 2017-2018 education year. Moreover, sampling method of the study could be stressed as convenience sampling.

Data Collection Tools

It can be discussed that data which is associated with the study would be gathered by executing the Personal Information Form and Curriculum Development Competency Scale

Personal Information Form: The form attempts to collect information about the socio-demographic profile of the participants such as gender, grade and lastly university which form teacher candidates are educated.

Curriculum Development Competency Scale: The current study employed the scale which proposed by Duman (2006) to investigate curriculum development skills of the participants.

It could be mentioned that while Duman (2006) was proposing the scale, expert opinions were obtained from the academicians working in the faculty of education. Furthermore, reliability analysis of the developed scale relies within accepted limits ($\alpha = 0,91$). In that sense, it could be stressed that there is no obstacle for the use of the scale used in the study in academic researches

In addition to that, sample statements which the curriculum development scale outlines could be stated as "knowledge and the skill required for the curriculum development", "understanding the importance knowledge and skill which are required for developing a curriculum, "ability to determine content of the courses by considering the competencies and learning styles of the students" "having a knowledge on the basic characteristics of teaching methods", "having a knowledge to perform assessment and evaluation for the education" etc

Moreover, it could be mentioned that 4-point scale was appointed for the current study. 1 = "Weak"; 2 = "Medium", 3 = "Good", 4 = "Very Good". The weight range which appointed for the present study was computed as 0.75. The Rating scale and their expressions could be indicated by the following table.

Table 1. Ranges and competency of curriculum development

Ranges	Competency of Curriculum Development
1.00-1.74	Poor
1.75-2.49	Moderate
2.50-3.24	Good
3.24-4.00	Very Good

Data Analysis

SPSS (Statistical Package for Social Sciences 24,0 software program was used to analyze the data. Moreover, frequency, cornbach alpha, descriptive, Independent Samples t test, and lastly One-Way Anova analysis were conducted to interpret findings of the study.

Conclusion and Discussion

It could be mentioned that education is one of the most critical driving force to accelerate economic growth. Therefore, education plays an important role to inject qualified individuals to the workforce. In that sense, it is believed that teachers have a great responsibility at creating qualified communities.

Furthermore, it might be stressed that from their birth to a certain age individuals are educated by their parents then they attend to the educational institutions to learn social values. Form teachers could be identified as an educators who are inoculating the basis of teaching and learning to the students. Therefore, their competency to transmit information to their students plays critical role at educational context.

In addition to these, form teachers should have competency to develop a curriculum for effective education. In other words, form teachers should have necessary skills to formulate curriculum by considering the needs and area of interests of their students while shaping the contents and assessing the curriculum. Besides of these, form teachers are expected to have competency to evaluate and revise the curriculum in case of necessity.

As previously indicated, the current research has been conducted with 222 form teacher candidates. The most remarkable findings of the research are listed below

- Findings of the study revealed that curriculum development competency of form teacher candidates were poor at "preparing course plans which are parallel to the multi-course theory", "determining course contents by considering the students", "special education needs", "using various approaches to accelerate capacities of the students", "diversifying the teaching and learning process by considering individual differences", "being able to arrange learning sphere by considering various previous experiences".
- Apart from these, result of the study also showed that form teacher candidates had a moderate competency on "having a knowledge to develop a curriculum", "having a knowledge of measurement and evaluation in educational context", "having a knowledge on social-historical-philosophical foundations of curriculum development for education", "having a knowledge to evaluate curriculum development process", "having a knowledge on learning and teaching by considering - collaborative learning and constructivist learning philosophies etc.) and lastly "preparing a unitized annual plan". From this framework, it could be mentioned that the findings of the study was partially compatible with the findings of Duman (2006). Duman (2006) found that form teacher candidates determined the having a knowledge to develop curriculum is weak.
- Beside of these current study also signified that, participants were good at "determining the content of the courses by considering the skills and learning styles of the students", "formulating a measurement tool by relying contemporary approaches", "Adapting teaching strategies for the students with specific learning difficulties", "having a knowledge on the basic features of teaching methods" "to be able to identify appropriate measuring instruments for purpose"; "designing the course contents by relying readiness of the students"; "having a knowledge on instructional strategies", "arranging the course objectives with the light of the level of students.", "rearranging teaching-learning process by considering the outcomes of measurement and evaluation", "determining the limits of content of courses by considering regional characteristics", "preparing learning centered course plans", "formulating goals for the educational program", "matching the content of the courses with the features of the course, "content order, analysis knowledge" "can match the level of the education program with the needs of the students; "critically evaluating educational programs"; "Having an adequate knowledge and skill to develop curriculum" and lastly "having an ability to prepare table of specifications". They were found to be at a good level in curriculum development issues such as "preparing table of specifications". This finding of the current study was partially parallel with the study of Duman (2006). In other words, Duman (2006) also found particularly on methodological issues, competency of form teacher candidates were at good level.
- Results of the study also signaled that participants' curriculum development competencies were very good on "establishing relationship among educational program items (purpose, content, teaching process, evaluation)", "formulating goals at different levels during curriculum development process" (Cognitive, Affective, Psychomotor), "understanding of the importance of knowledge and skill which required for curriculum development", "using technology (overhead, data show etc.) which is necessary for learning-teaching process".
- Independent samples T test were employed to discover statistical significances among curriculum development competencies of form teacher candidates and their gender. Gender and curriculum development competencies were found statistically significant on "understanding the importance of skills and knowledge which is required curriculum development", "matching the level of the curriculum with the needs of the students", "determining the contents of the curriculum by relying the talents and learning styles of the student", "capability of organizing learning sphere by considering different preliminary experiences". To create better understanding, results revealed curriculum development competencies of male form teacher candidates were very good at "understanding the importance of skills and knowledge which is required curriculum development", "matching the level of the curriculum with the needs of the students" whereas female form teachers candidates' curriculum development competencies were found

moderate at “capability of organizing learning sphere by considering different preliminary experiences” This finding of the current study is parallel with the findings of several scholarly researches on relevant field (Yıldız and Baycan, 2012; Baş, 2016).

- As previously mentioned independent samples t test was employed to determine statistical significance among grade of form teacher candidate and their curriculum development competencies. Results revealed that statistical significance was existed on “having knowledge on social-historical-philosophical foundations of curriculum development in educational context”, “having knowledge on teaching-learning approaches”, “identifying the most appropriate measurement tools for objectives”, “re-arranging teaching and learning process with the light of the outcomes of measurement and evaluation”. To be more precise, it was found that form teacher candidates in the last grade had a good level of competence, whereas grade 3 form teacher candidates had moderate competency. This finding of the current study is consistent with the Duman (2006) study. One of the reasons for this result may be indicated as that form teacher candidates who are studying in the 4th grade are having chance to deepen their understanding about curriculum development through courses and have opportunities to have internship.
- One Way Anova test was conducted to investigate statistical significances among university of participants’ and their curriculum development competency. It was found that participants were statistically significant particularly on “having knowledge and skill which are required for curriculum development”, “understanding the importance of knowledge and skill which are required for curriculum development”, “knowledge on the main philosophies which are closely related with curriculum development”, “having a knowledge on social-historical-philosophical foundations of curriculum development in educational context”, “having ability to match the level of curriculum with the needs of the students”, “establishing relationship among educational program items (purpose, content, teaching process, evaluation”, “organizing learning sphere by considering different preliminary experiences”, “having sufficient information on the features of teaching approaches”, preparing learning centered course plans”, “having a knowledge to evaluate critically the education programs”. The findings of the present study are consistent with the findings of Duman (2006). One of the reasons behind of this finding could be signified as a depth of knowledge and experience that academicians obtained through attending various symposiums / seminars or having publications on the related field effects the way of transmitting necessary information to the form teacher candidates to promote their curriculum development competencies.

Recommendations

The fundamental aim of this part of the study is to provide recommendations with the light of the findings.

Recommendations To Departments Of Participants

With the light of the findings it could be stressed that participants of the study are poor below-mentioned curriculum development competencies;

- Preparing course plans which are parallel to the multi-course theory,
- Determining course contents by considering the students’ special education needs,
- Using various approaches to accelerate capacities of the students,
- Diversifying the teaching and learning process by considering individual differences.
- Being able to arrange learning sphere by considering various previous experiences

Therefore, courses that related with curriculum development should be revised in a way to mitigate with the shortcomings which were mentioned above.

Moreover, it is necessary to diversify curriculum development sources that are taught so that the form teacher candidates could be equipped on the following competencies

- Knowledge of measuring and evaluating the quality of education
- Knowledge of social-historical and philosophical foundations of curriculum development in educational context.
- Knowledge to evaluate curriculum which had been developed.
- Knowledge to prepare united annual plan
- Knowledge to design learning and teaching approaches by considering collaborative learning and constructivist philosophies.

Recommendations For The Future- Related Studies

Future related studies could be designed as comparative basis to create better understanding in terms of similarities and differences among curriculum development competencies of form teacher candidates in different nations. Moreover, comparative studies could also generate opportunities to present different perspectives on curriculum development courses and activities thus will add the different insights to the relevant literature besides of these, increasing the sample size and employing post hoc. tests such as TUKEY could generate chances to obtain more reliable findings.

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Determination Of Awareness Levels Of Physical Education And Sports Teacher Candidates About Negative Acts

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Abstract

The aim of this research is to reveal the awareness levels of Physical Education and Sport teacher candidates about negative acts. When we look at the average responses given to the negative acts scale, we can say that the teacher candidates who participated in the research did not encounter the situations stated in the negative act scale in general. While most of the physical education and sports teacher candidates included in the research were doing sports regularly, about 10% of them stated that they were not doing sports. Female teacher candidates read books more than male candidates. And yet, they also pointed out that, they sometimes encountered the following negative acts; "Someone withholds information that will affect your success", "You are asked to do works that are below your qualifications", "Gossip and rumor spread about you", "Your mistakes are repeatedly uttered", "Your work is always criticized", "Your ideas and opinions are not taken into consideration", "People make jokes you do not like"..

Keywords: *Physical Education and Sports, Teacher Candidates, Negative Acts (Mobbing)*

Introduction

When it comes to negative acts, we face concepts such as bullying, mobbing, emotional harassment, intimidation, conflict or violence (Aras, 2012). Bullying results in the emergence of tendency for brute force and aggressive acts as a behavior disorder after emotional harassment (Tinaz, 2008). Conflict is a social phenomenon that arises from differences in the interests of people or groups, resulting in negative acts such as unrest, trouble, stress, hostility and fighting that cause one party to win and the other to lose (Cornille et al., 1999). Violence is the use of physical force to hurt and abuse (Hayward et al., 2011). The French origin word 'violence' means; by applying pressure or force, doing people things they do not like, or forcing them to do things they do not like; or applying brute force, attacking, causing physical or emotional pain; in other words, that means torturing, injuring and causing physical pain (Unsal, 1996; Gozum and Karacor 2017). Sexual harassment means all verbal or written sexual assaults that cause discomfort. Proposals with sexual content, implications of sexual intercourse by writing a letter or oral proposals or movements in the body language are included in the concept of sexual violence (Sarmasik, 2009). Mobbing can be described as slow-progressing systematic, persistent and intentional psychological terrorizing and intimidation actions observed in organizations (Einarsen and Skogstand, 1996). Leymann (1990), who brought up the concept of mobbing, has not found a regular relationship between personality and exposure to mobbing. However, a number of studies conducted to reveal the personality profiles of mobbing targets have shown that employees exposed to mobbing have specific personality profiles that significantly differs from the normal population (Leymann, 1996a). The studies revealed that; individuals exposed to mobbing in organization psychological had a wide-range of physical, psychosomatic and psychological symptoms (Hansen et al., 2006; O'Brien, 1997; Zapf et al., 1996), their psychological well-being was disrupted (Neidl, 1996) and they had a persistent state of anxiety (Cassitto and Giordano, 2003). It was found that; people exposed to mobbing were those who had working principles and ethical values and who were more positive, beloved, honest, trustworthy, independent, creative and generally superior to the mobbing person or group (Girardi et al., 2007). The distinctive feature of mobbing is the need to focus on how long and how often it occurs rather than a specific act involving physical or psychological aggression, and how the act is conducted (Leymann, 1996b). When individuals are exposed to emotional violence, it will not be easy for them to get rid of the effects, and occasionally, permanent emotional disorders may also occur (Tinaz, 2008; Gozum, 2017). Kudielka and Kern (2004) are the first researchers to prove that there is a significant relationship between exposure to mobbing and the level of stress hormone cortisol. According to the statistics, at least one third of the people exposed to mobbing seek for therapeutic help.

The Study

Research design and analysis

The data obtained in the research were evaluated using the statistical methods included in the SPSS 14.0 package program. In the research findings and evaluation section, the frequency distributions related to the demographic characteristics of the research participants, the mean and standard deviation values of the questions related to negative act perceptions, and also the reliability analyses were taken into consideration in order to determine whether the data were appropriate for statistical analysis. Normality test was performed to determine whether the questionnaire data presented a normal distribution and as the data showed a normal distribution, parametric tests were applied to determine significant differences based on the independent variables. The Independent Samples

T test was performed to see whether there was a significant difference between the two groups in the independent variables of 'gender' and 'doing sports', and the One Way Anova test was performed to see whether there was a significant difference among more than two groups.

Sample and Sampling

The research is a diagnostic research carried out upon 225 Physical Education and Sport Teacher Candidates consisting of 85 females and 140 males studying in Burdur at Mehmet Akif Ersoy University School of Physical Education and Sports and Department of Physical Education and Sports Teaching in 2015-2016 Academic year, by applying questionnaires through the Random method.

Data Collection and Data Analysis

Negative Acts Questionnaire (NAQ) was developed by Einarsen (1996) to identify those who are exposed to mobbing. The original Norwegian version of the scale consists of 21 items. All items include behavioral terms and the concepts of intimidation or mobbing is stated nowhere in the scale. The internal consistency of the scale was measured as .87 to .93 Cronbach's Alpha. The job satisfaction correlation value of the scale, was found $r = -.44$ from $r = -.24$ (Einarsen and Skogstad, 1996; Einarsen and Raknes, 1997; Hoel, Cooper and Faragher, 2001; Mikkelsen and Einarsen, 2001, 2002a, 2002b). In order to measure the negative acts (mobbing), the research made use of Cemaloglu (2007)'s Negative act Scale (NAQ), which was translated into Turkish as a 21-question scale with the help of three linguists. The scale was obtained from the Berge Bullying Institutions in Norway by the researcher with the permission of Cemaloglu. As a result of factor analysis, Cemaloglu found that the total variance of the scale was 0.71, the Cronbach's alpha coefficient of the items was .94 and the factor loads were between 0.59 and 0.87 (Cemaloglu, 2007a: 80-81).

Reliability Analysis

Cronbach's Alpha value was found to be 0.91 as a result of the reliability analysis of the negative acts scale consisting of 21 questions. Since the lowest reliability value is deemed to be 0.70 in the researchers conducted in social sciences, it can be said that; 0.916 Cronbach's Alpha value is a good result for this research in terms of the internal consistency of the scale. *Reliability Statistics; Cronbach's Alpha 0.916, Cronbach's Alpha Based on Standardized Items 0.917, N of Items 21.*

Findings

Table 1: Findings regarding the demographic features of the Physical Education Teacher Candidates

Variable	Level	N	%
Age	18-19	84	37.3
	20-21	79	35.1
	22-23	41	18.2
	24-25	14	6.2
	26 and above	7	3.1
	Total	225	100.0
Gender	Female	85	37.8
	Male	140	62.2
	Total	225	100.0
Doing sports?	Yes	198	88.0
	No	27	12.0
	Total	225	100.0
Time spent for weekly sports activities	1-2 hours	48	21.3
	3-4 hours	65	28.9
	5-8 hours	55	24.4
	9 hours and more	57	25.3
	Total	225	100.0
The way of spending free time?	Read book	68	30.2
	Go to cinema	32	14.2
	Visit historical places	10	4.4
	Go to leisure venues	115	51.1
	Total	225	100.0
Frequency of reading books	Once a week	52	23.1
	Once every two weeks	28	12.4

Variable	Level	N	%
Self-description	Rarely	119	52.9
	Never	26	11.6
	Total	225	100.0
	Silent and calm	66	29.3
	Social and outgoing	75	33.3
	Hyperactive energetic	61	27.1
	Angry- Quick tempered	23	10.2
	Total	225	100.0

When we look at the general demographic characteristics of the participants, we see that 72.4% was under 21 years old. While 37.8% of the participants were female, 62.2% were male. While 88.0% of the teacher candidates were doing sports, 12.0% of them said that they were not doing sports. The distributions of the teacher candidates regarding the time they spared for their weekly sports activities were similar. Approximately half (51.1%) of the participant group preferred to go to leisure venues as a way to spend their free time whereas 30.2 % of them preferred to read books. 35.5% of the participants stated that they read a book a week or every two weeks. 52.9% rarely read books. 33,3% of the participants described themselves as being social outsiders, 29,3% as calm and silent and 27,1% as energetic. Cross-charts of the gender variables were made from demographics in the data analysis and the following findings were obtained:

- 84.7% of women do sports while 90.0% of the men do sports.
- 44.7% of women read books, 35.3% go to venues of leisure, 21.4% of men read books, 60.7% go to venues of leisure.
- 29.4% of women read a book a week, 19.3% of men read a book a week.

31.8% of women described themselves as being silent and calm, while 27.9% of men described themselves as being silent and calm. While 23.5% of women described themselves as being energetic, 29.3% of the men identified themselves as being energetic [Table 1].

Table 2: Mean values regarding the level of awareness of Physical Education and Sports Teacher Candidates about Negative Acts

	N	MEAN	SS
1. Someone withholds information that will affect your success	225	1.83	0.86
2. You are humiliated as you are asked to do works that are below your qualifications.	225	1.45	0.77
3. You are asked to do works that are below your skills/qualifications.	225	1.88	0.90
4. Your responsibilities in important areas are cancelled or replaced with less trivial or undesirable duties.	225	1.78	0.89
5. Gossip and rumor spread about you.	225	1.93	1.08
6. You are ignored, excluded, not taken into consideration.	225	1.61	0.92
7. You are humiliated or mocked about your personality (for ex; habits and customs), attitudes or your private life.	225	1.53	0.85
8. You are shouted at or you become a target of instant fury (or greed).	225	1.91	1.04
9. You are pointed at, your privacy is disrupted, you are pushed, waylaid and other threatening acts.	225	1.57	0.88
10. Indirect acts of people to have you leave job.	225	1.62	0.89
11. Your mistakes and errors are repeatedly uttered / reminded.	225	1.96	0.95
12. Your opinions are not taken into consideration/ ignored or are responded with hostility.	225	1.72	0.94
13. Your work is always criticized.	225	1.87	1.00
14. Your ideas and opinions are not taken into consideration.	225	1.81	0.96
15. People you don't like make jokes you do not like (pranks).	225	1.97	1.06
16. You are assigned unreasonable tasks or tasks that are impossible to complete within due time.	225	1.80	0.93
17. You are accused and blamed.	225	1.56	0.79
18. You are strictly supervised.	225	1.72	0.97
19. You are forced not to ask for certain things you have right in (for example; sick leave, vacation right, travel allowance).	225	1.48	0.83
20. You are excessively mocked and teased.	225	1.54	0.81

	N	MEAN	SS
21. You are assigned work load that is too much to deal with.	225	1.67	0.93
MEAN		1.72	0.92

The mean value of the answers to the 21 questions regarding the evaluation of the perceptions of the physical education and sports teacher candidates about the negative acts is in the range of "Never" of the scale of five Likert with $x = 1,72$. According to this, we can say in general that; the teacher candidates who participated in the research generally never encounter the situations stated in the negative acts scale. The acts which the participants encountered "sometimes" are "Someone withholds the information that will affect your success" with $x = 1.83$ mean value; "You are asked to do works that are below your qualifications", with $x=1.88$ mean value; "Gossip and rumor spread about you" with $x=1.93$ mean value; "Your mistakes are repeatedly uttered" with $x=1.96$ mean value; "Your work is always criticized" with $x=1.97$ mean value; "Your ideas and opinions are not taken into consideration" with $x=1.81$ mean value; "People you don't like make jokes you do not like (pranks)" with $x=1.97$ mean value [Table 2].

Table 3: Results of the one-way Anova test showing whether the awareness levels of Physical Education and Sports Teacher candidates about negative acts differed based on the age variable

Results of the one-way Anova test showing whether the awareness levels of groups differed based on the age variable				
	Squares Total	Squares Mean	F	P
19. You are forced not to ask for certain things you have right in (for example; sick leave, vacation right, travel allowance)	8.639	2.160	3.265	0.013

$P < 0.05$ means a significant difference.

When we assessed the awareness levels of physical education and sports teacher candidates about negative acts based on the age group of the students, we observed a significant difference regarding item 19 "You are forced not to ask for certain things you have right in (for example; sick leave, vacation right, travel allowance)" [Table 3].

Table 4: Results of the Turkey test showing whether the awareness levels of Physical Education and Sports Teacher candidates about negative acts differed based on the age variable

Results of the Turkey Hsd test showing the difference between the groups based on the age variable				
Variables	Variables	Variables	Variables	Variables
	18-19	20-21	-0.109	0.913
		22-23	-0.483	0.017
		24-25	-0.536	0.155
		26 and above	-0.107	0.997
19. You are forced not to ask for certain things you have right in (for example; sick leave, vacation right, travel allowance)		20-21	-0.002	1.000
		22-23	-0.376	0.790
		24-25	-0.429	0.786

$P < 0.05$ means a significant difference

There was a significant difference between 18-19 age group and 22-23 age group teacher candidates regarding the item "You are forced not to ask for certain things you have right in (for example; sick leave, vacation right, travel allowance)". According to this, we can say that; 22-23 age group teacher candidates encounter the negative act stated in this item more than the 18-19 age group. ($p < 0,05$) [Table 4].

Table 5: Results of the T test showing whether the awareness levels of Physical Education and Sports Teacher candidates about negative acts differed based on the gender variable

	Gender	N	Mean	SS	P
1. Someone withholds information that will affect your success	Women	85	1.765	0.947	0.402
	Men	140	1.864	0.807	
2. You are humiliated as you are asked to do works that are below your qualifications.	Women	85	1.259	0.601	0.004
	Men	140	1.564	0.841	
3. You are asked to do works that are below your skills/qualifications.	Women	85	1.788	0.888	0.259
	Men	140	1.929	0.911	
4. Your responsibilities in important areas are cancelled or replaced with less trivial or undesirable duties.	Women	85	1.647	0.827	0.075
	Men	140	1.864	0.915	
5. Gossip and rumor spread about you.	Women	85	1.788	1.013	0.117
	Men	140	2.021	1.115	
6. You are ignored, excluded, not taken into consideration.	Women	85	1.506	0.854	0.175
	Men	140	1.679	0.962	
7. You are humiliated or mocked about your personality (for ex; habits and customs), attitudes or your private life.	Women	85	1.424	0.777	0.129
	Men	140	1.600	0.880	
8. You are shouted at or you become a target of instant fury (or greed).	Women	85	1.682	0.876	0.010
	Men	140	2.050	1.108	
9. You are pointed at, your privacy is disrupted, you are pushed, waylaid and other threatening acts.	Women	85	1.435	0.823	0.076
	Men	140	1.650	0.905	
10. Indirect acts of people to have you leave job.	Women	85	1.518	0.825	0.191
	Men	140	1.679	0.931	
11. Your mistakes and errors are repeatedly uttered / reminded.	Women	85	1.741	0.875	0.008
	Men	140	2.086	0.978	
12. Your opinions are not taken into consideration/ ignored or are responded with hostility.	Women	85	1.553	0.866	0.038
	Men	140	1.821	0.976	
13. Your work is always criticized.	Women	85	1.718	0.971	0.082
	Men	140	1.957	1.010	
14. Your ideas and opinions are not taken into consideration.	Women	85	1.706	0.870	0.209
	Men	140	1.871	1.002	
15. People you don't like make jokes you do not like (pranks).	Women	85	1.812	0.994	0.075
	Men	140	2.071	1.090	
16. You are assigned unreasonable tasks or tasks that are impossible to complete within due time.	Women	85	1.565	0.808	0.004
	Men	140	1.936	0.976	
17. You are accused and blamed.	Women	85	1.424	0.730	0.044
	Men	140	1.643	0.823	
18. You are strictly supervised.	Women	85	1.471	0.796	0.003
	Men	140	1.871	1.038	
19. You are forced not to ask for certain things you have right in (for example; sick leave, vacation right, travel allowance).	Women	85	1.376	0.740	0.129
	Men	140	1.550	0.876	
20. You are excessively mocked and teased.	Women	85	1.306	0.557	0.001
	Men	140	1.686	0.906	
21. You are assigned work load that is too much to deal with.	Women	85	1.471	0.781	0.011
	Gender	140	1.793	0.985	

P<0.05 means a significant difference.

A significant difference was observed between groups according to the results of the T test analysis where we compared the gender-based awareness level of physical education and sports teacher candidates with the 9 items included in the scale. In the item "You are humiliated as you are asked to do works that are below your qualifications", the level of men ($x=1.564$) is significantly higher than women ($x=1.259$). As for the item "You are shouted at and you become a target of instant fury (or greed)", the level of men is "Sometimes" with a mean

value of $x=2.050$ whereas the level of women is "Never" with a mean value of $x=1.682$. As for the item "You are repeatedly uttered your errors and mistakes" the level of men is "Sometimes" with a mean value of $x=2.086$ whereas the level of women is "Never" with a mean value of $x=1.741$. As for the item "Your opinions are ignored/not taken into consideration or you face hostile reactions" the level of men is "Sometimes" with a mean value of $x=1.821$ whereas the level of women is "Never" with a mean value of $x=1.553$. As for the item "You are assigned unreasonable tasks or tasks that are impossible to complete within due time" the level of men is "Sometimes" with a mean value of $x=1.936$ whereas the level of women is "Never" with a mean value of $x=1.565$. As for the item "You are accused and blamed" the mean value for men is $x=1.643$ whereas the mean value for women is $x=1.424$. As for the item "You are strictly supervised" the level of men is "Sometimes" with a mean value of $x=1.871$ whereas the level of women is "Never" with a mean value of $x=1.471$. As for the item "You are excessively mocked and teased" the mean value for men is $x=1.686$ whereas the mean value for women is $x=1.306$. As for the item "You are assigned work load that is too much to deal with" the mean value for men is $x=1.793$ whereas the mean value for women is $x=1.471$ [Table 5].

Discussion

When we assessed the awareness levels of physical education and sports teacher candidates about negative acts based on the age group of the students, we observed a significant difference regarding item 19 "You are forced not to ask for certain things you have right in (for example; sick leave, vacation right, travel allowance)". Cam (2013) carried out a research to determine whether the teacher candidates presented a significant difference based on their age and he found at the end of the one-way analysis of variance (ANOVA) that; the age of the teachers and administrators presented a significant difference in their perception of the values of the question "Mobbing / violence acts according to you".

Aktop (2006) concluded in his research that; "It was found that; academicians younger than 25 had higher mean values for mobbing at work place but this difference was not statistically significant". In of the researches conducted on workers in different fields, it was found that the 21 to 41-year-old people were more exposed to mobbing at workplace, but this difference was not statistically significant (Leymann, 1996). In a research where mobbing in two public hospitals was studied, it was found that, workers aged 18-30 years were significantly more exposed to mobbing compared to workers aged 31-45 and above 46 (Yilmaz et al., 2008). According to the results of the T test and one-way Anova test carried out to evaluate the awareness of physical education and sports teacher candidates about negative acts in demographic terms; no significant difference was found between the groups depending on the variables "doing sports, the time spent for doing sports, way of spending free time, the frequency of reading book and self-description". The differences obtained depending on the age and gender of the participants, are given below.

Conclusion

Most of the physical education and sports teacher candidates participating in the research stated that they did sports regularly whereas about 10% of them stated not doing sports. Women teacher candidates were more likely to read books than men. Men were more likely to go to leisure venues in their free time than women. When we look at the mean values of the responses given to the negative acts scale, we can say that; the teacher candidates who participated in the research did not encounter the situations stated in the negative acts scale in general. However, they stated that they sometimes encountered the following situations; "Someone withholds information that will affect your success", "You are asked to do works that are below your qualifications", "Gossip and rumor spread about you", "Your mistakes are repeatedly uttered", "Your work is always criticized", "Your ideas and opinions are not taken into consideration", "People make jokes you do not like". When we evaluate their awareness about negative acts according to gender, we can say that male participants encountered the situations stated in the 9 items on the scale more than women. When the differences between the groups regarding the age variable were examined, there was difference only in one item and no significant difference was found in the other items. There were no differences between the groups regarding other independent variables included in the questionnaire.

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Determination Of Knowledge Levels On Traditional And Complementary Medical Applications Of Medical Students

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Abstract

The use of traditional and complementary medical practices is becoming increasingly widespread throughout the world. The attitude of physicians towards these methods has become a matter of debate. In our study, we aim to determine the level of knowledge and attitudes of medical students about Traditional and Complementary Medicine (TCM)

The number of the participants was 125 male and 115 female (age: $19,68 \pm 1,61$) in the first 3 classes of Kocaeli University Faculty of Medicine. We conducted a questionnaire that consist questions about demographics and socioeconomic characteristics of participants, levels of knowledge about TCM practices, how they learned about this information, attitudes towards TCM practices and participants also was asked to answer an integrative medical attitude questionnaire (IMAQ).

The IMAQ score was found as $120,18 \pm 12,91$. There was no statistically significant difference between IMAQ score and gender, family economic status, educational status of mother and father, longest living place, health status of the person ($p > 0,05$). When "Do you have knowledge about TCM." is asked; 28 people (11,7%) answered yes, 165 people (68,8%) slightly, 47 people (19,6%) answered no. The most information is obtained from social media with 27.9%. The most common method is hajamat / cupping followed by acupuncture, leech and hypnosis applications respectively. Among participants ,the usage rate of TCM applications was determined as 17.4% for females and 8.8% for males. 149 participants (62.1%) stated that the disease could be healed with TCM applications and 145 participants (60.4%) wanted to apply TCM methods to their patients as well as modern medicine and 182 participants (75.8%) wanted to train about TCM applications.

Medical Students are not well informed about TCM applications. In addition, they have a positive attitude and want to train about TCM. Demographic and socioeconomic characteristics do not affect the attitudes of medical students towards TCM applications.

Keywords: *Traditional and Complementary Medicine , Medical Education , Questionnaire*

Introduction

Despite the developments in the modern medicine, traditional and complementary medicine is emerging as an economically growing and popular health system throughout the world (Frenkel et al., 2008). There are many definitions of traditional medicine, complementary medicine, alternative medicine, and they are often used interchangeably. However, the use of the term alternative medicine is not considered appropriate because its not actually an alternative to the medicine (Mollahaliloglu et al., 2015).

According to the World Health Organization (WHO), "traditional medicine" is the whole of the knowledge, skills and practices that can or can not be explained based on theories, beliefs and experiences specific to different cultures, which are used to maintain, diagnose, cure or treat physical and mental illnesses as well as to maintain health . The application of traditional medicine outside its own cultural environment is defined as complementary medicine (Tanriverdi et al., 2013).

TCM methods are used widely in Turkey as it is also used all over the world. TCM practice rates of 40% in the US, 70% in Europe, 78% in South Korea, and 90% in developing countries are found in some studies (Oral et al., 2016). This rate is found between the range of 25,2% - 86,3 % in the studies that has been done in Turkey (Dogan et al., 2012).

According to the regulation issued by the Ministry of Health in 2014, Acupuncture, Apitherapy, Phytotherapy, Hypnosis, Leech therapy, Homeopathy, Chiropractic, Cupping therapy, Larval therapy, Mesotherapy, Prolotherapy, Osteopathy, Ozone therapy, Reflexology and Music therapy has been accepted as TCM practices. The authority to apply these methods has only been given to medical doctor ,dentists and pharmacists with the condition of being in their field of work (Regulation on Traditional and Complementary Medical Practicesi, 2014).

The widespread use of TCM methods brings some problems. with it. Patients can use these methods unconsciously and can receive this service on conditions that are not suitable for health and from non professionals. This would cause damage instead of improving health. Use of TCM is more frequent in life-threatening diseases such as cancer and HIV and also TCM use is more frequent in children than adults (Barnes et al., 2002; Kim et al., 2011; Ceyhan & Yigit, 2016). For this reason, in many countries, TCM methods have been integrated with modern medical methods, and these treatments have been tried to reach patients in a controlled manner by physicians.

Many countries have started to integrate TCM with modern medicine and medical education. In Germany, in 2003 TCM methods were included in modern medical education ((Dogan et al., 2012). In a survey study involving 125 medical faculties in the United States, 64% of schools reportedly had courses on TCM or related subjects. In Japan, elective or mandatory TCM classes taught in 18 modern medical schools. In China, 95% of hospitals serve modern medicine and TCM together (Karahancı et al., 2015). There are 12906 TCM clinics in Korea as of 2012 (Son, 2015, p. 84).

In recent years, positive developments in GTT have been experienced in our country. In 2014, the Ministry of Health published the regulation of the use of TCM, the Traditional and Complementary Medicine Dept. was established within the Health Sciences University and the International Congress of Traditional and Complementary Medicine was held in Istanbul within the presidency in 2018. As of 2017 there are TCM units in 40 hospitals within the provision Ministry of Health (GETAT, 2018). There is no TCM in the modern medical education curriculum.

The use of traditional and complementary medical practices is becoming increasingly widespread throughout the world. The attitude of physicians towards these methods has become a matter of debate. The attitudes of doctors and medical students who will become doctors of the future will play an important role for integration of TCM and modern medicine. In our study, we aim to determine the level of knowledge and attitudes of medical students about Traditional and Complementary Medicine (TCM)

Matherial-Method

The number of the participants was 125 male and 115 female (age: $19,68 \pm 1,61$) in the first 3 classes of Kocaeli University Faculty of Medicine. We conducted a questionnaire that consist questions about demographics and socioeconomic characteristics of participants, levels of knowledge about TCM practices, how they learned about this information, attitudes towards TCM practices and participants also was asked to answer an integrative medical attitude questionnaire (IMAQ).

The IMAQ (Integrative Medicine Attitude Questionnaire) was created in 2003 by Schneider et al. It consists of 29 questions. The questions were evaluated with likert type scale expressions scored 1-7. Questions 1, 2, 4, 6, 7, 8, 10, 11, 13, 17, 18, 25, 27 were reverse encoded. The higher the score, the higher the traditional and complementary attitude of the physician (9).

SPSS v20 package program was used for statistical analysis. (SPSS for Windows v. 20.0, SPSS, Chicago, IL, USA). Descriptive statistics are presented with mean, standard deviation for continuous data, and presented with numbers and percentages for categorical data. Normal distribution of continuous data was evaluated by Kolmogorov-Smirnov and Shapiro-Wilk tests. Mann-Whitney U test was used for comparison between two groups in the case of normal distribution non-compliance. $p < 0.05$ was considered statistically significant.

Results

115 female (47.9%) ,125 male (52,1) total of 240 students from first 3 years of faculty of medicine (age: $19,68 \pm 1,61$) participated in the study. When education status of students' families is taken in to consideration 27.1% of mothers were highschool graduates and 45,4% of fathers were university graduates. 87.5% of the participants did not have any chronic diseases. Economic status of 65.8% of the families was found middle level. The most common place to live is found as city with 82.1% (Table 1).

When question " Do you have any knowledge about TCM methods" asked, 28 (11.7%) answered 'Yes' 47 (19.6%) answered 'No' 165 (68.8%) answered 'Some' (Table 2). The most common response to the question about where did you achive the knowledge was social media with 67 people (27.9%). This is followed by internet (% 16.3), university (%11.3), friends and relatives respectively (%7.5) (Table 3).The most known method in our study was hajamat/cupping with 43 (30.4%). This was followed by acupuncture with 36 (25.4%), leech therapy with 31 (21.9%), hypnosis with 17 (12.0%) and herbal treatment with 6 (4.2%) (Table 4). The rate of use of TCM methods in our study was 17.4% in females, 8.8% in males, and 12.9% in total.62.1% of the participants stated that the diseases could be treated with TCM methods, 54.2% would suggest TCM for their patients, 60.4% could want to apply TCM to their patients, and 75.8% want to study TCM (Table 5).

The IMAQ score was found as 120.18 ± 12.91 (Table 6). There was no statistically significant difference between IMAQ score and gender, family economic status, educational status of parents , the longes living place, health status of the person.(all $p > 0,05$) (Table 7).

Table 1: Demographic and socioeconomic characteristics.

Variable	n	%
Sex		
Female	115	47.9
Male	125	52.1
Total	240	
Educational status of mother		
Not literate	7	2.9
Literate	11	4.6
Primary school	64	26.7
Middle School	35	14.6
Highschool	65	27.1
University	58	24.2
Educational status of father		

Not literate	2	0.8
Literate	12	5.0
Primary school	43	17.9
Middle School	26	10.8
Highschool	48	20.0
University	109	45.4
Do you have any illnesses?		
Yes	30	12.5
No	210	87.5
Economical status of the family		
Good	69	28.8
Average	158	65,8
Bad	13	5.4
Mostly lived in		
Village	13	5.4
Small town	30	12.5
City	197	82.1

Table 2 : Do you have knowledge about TCM applications?

Variable	n	%
Yes	28	11.7
No	47	19.6
Some	165	68.8

Table 3: Where did you achive this knowledges

Variable	n	%
Social Media	67	27.9
Univesity	27	11.3
Internet	39	16.3
Television	20	8.3
Friends and Family	18	7.5
Books/Magazines	8	3.3
Other	61	25.4

Table 4 : What are the TCM methods you know of?

Variable	n	%
Hajamat /Cupping	43	30.4
Acupuncture	36	25.4
Leech	31	21.9
Hypnosis	17	12.0
Herbal medicine / phytotherapy	6	4.2
Meditation	5	3.5
Other	3	2.1

Table 5: Questions about TCM applications.

Questions	YES (%)	NO(%)
Have you ever recieved any TCM applications.		
Female	20(17.4)	95(82.6)
Male	11(8.8)	114(91.2)
Total	31(12.9)	209(87.1)
Do you think diseases can be cured with TCM pratices?	149(62.1)	86(35.8)
Would you suggest TCM to your patients?	130(54.2)	107(44.6)
Would you use TCM methods in cooperation with modern medicine?	145(60.4)	92(38.3)
Would you like taking lessons about TCM practices?	182(75.8)	55(22.9)

Table 6 : IMAQ Score

Sex	IMAQ Score Mean \pm Standart Deviation
Female	119.52 \pm 11.42
Male	120.78 \pm 14.18
Total	120.18 \pm 12.91

Table 7: Relations between IMAQ Score and Variables.

Variables	IMAQ Score
Sex	P:0.159
Economical status of family	p:0.075
Educational status of mother	p:0.415
Educational status of father	p:0.441
Longest living place	p:0.889
Health status of person	p:0.364

Discussion

In a study conducted by Abbott et al, medical students' knowledge of GTT was found to be low in the USA. According to a research conducted by DeSylvia et al, medical faculty students have a lower knowledge level than other health disciplines in Canada. In our study, similarly, medical school students' knowledge level about GTT seems to be low.

Families, friends and relatives is the most common way to achieve knowledge about TCM on the previous studies conducted in Turkey (Oral et al., 2016). Social media was found as the most common way in our study, reason might be wide use of social media in recent years.

The most commonly known method in the general population is the use of herbal medicines in studies in both our country and different countries (Oral et al., 2016; Dogan et al., 2012; Kav et al., 2008; Elolimy & Albedah, 2012). The most known method in our study was hajamat/cupping and this was followed by acupuncture. The reason of the hajamat/cupping practice being the most known method in our study may be its increasing popularity in recent years and the debate by many medical doctors.

The rate of TCM use in the general population varies between 25.2-86.3% in our country (Dogan et al., 2012). In our study, the use of TCM was found to be lower than the general population. The reason why rate is low in our study is that the average age is young and the participants of our study have easy access to modern medicine. The use of TCM in women is found higher in our study parallel with in similar studies (Bulbul et al., 2009; Ceylan et al., 2002; Gozum et al., 2003).

In a study conducted by Abbott et al, it is stated that medical students in USA want to be educated about TCM methods as well as modern medical education. In our study, most of the medical faculty students stated that they wanted to study GTT. Students have also stated that GTT can be used in diseases, they might advice their patients to use TCM and they want to apply TCM to their own patients.

In a study conducted by Ergin et al in 2011 on 5 and 6 year medical students, mean for attitude score of the GTT method was found to be 118.3 ± 14.5 . There was no significant difference between the attitude scores, according to sex, age, education and working status of the parents, family type, number of siblings and socioeconomic status (all $p > 0.05$). The only mean, that is found significantly different statistically, is the longest living place ($p < 0.05$) (12). In our study, the IMAQ score was found as 120.18 ± 12.91 . There was no statistically significant difference between IMAQ score and gender, family economic status, educational status of parents, the longest living place, health status of the person. (all $p > 0.05$).

Conclusion

TCM is widely used and its popularity is increasing. Although there are not enough studies about physicians' attitudes towards TCM in our country, many physicians might have negative attitudes about this issue. This can cause patients to take unhealthy treatment on unprofessional conditions. In our study, the preclinical students in the first 3 classes of medical faculty show a positive attitude towards the TCM methods and the majority of the students want to receive training on this subject. The most known TCM method by medical students is hajamat/cupping. The most of this knowledge is learnt from social media. The use of TCM in medical students is lower than that of the normal population, while it is higher in women than in men. Gender, health status of the person, economic status of the family, educational status of the parents and the longest living place do not affect the attitude towards TCM methods.

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Determination Of Maturity Level Of Human Resource Capability Based On The Pattern Of

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Abstract

Nowadays a lot of organization try to gain more maturity for their development in process. A large percentage of these organizations tend to the expansion model. People resource capability model is one of these models which concentrate on expanding organization human skills. People capability maturity model is a process-driven framework which carries out people resources step by step in an organization .The motive of this model is to guide the organizations in improving their people resources .This model contains five maturity levels and twenty two process area. Each of these maturity levels has different qualities from one another. In fact, each of these levels a unique way in changing the organizations culture by equipping it with more effective actions for attracting expansion organizing, provocation and keep in its human resources. The present research has been performed with propose of studding process areas connected to each of maturity levels in human resources maturity model that determines the maturity in Islamic Azad University of Bushehr. Methodology research design is a non-experimental and from description-collection, that researcher with the Cochran community statistical formula to determine the statistical sample size 410 people that the result was 199, and researcher distributed Carnegie Mellon questionnaire about 210 pcs between Islamic Azad University of blusher's staffs, and identified the first and second levels of maturity requirements on base of PCMM model in 2016. The objectives of the research with using SPSS software were analyzed and with use descriptive statistics according to the research questions. Results from this study showed that Processes of: The recruiter, Communication and Coordination, Workplace, Training and Development, Compensation system, Analysis of competency, Workforce Planning System, Rising of competency system was more attention from the society of the Islamic Azad University of Bushehr, however, this organization not completely covered the level 2 of mature PCMM model.

Keywords: *MaturityLevel, Performance evaluation, Human Resource. PCMM. Capability*

1. Introduction

In the 1980s the use of performance measurement systems primarily focused on economy and efficiency because cost saving and operational control purposes was unable to support organizational objectives (Pollitt, 1986; Ghobadian and Ashworth, 1994; Guthrie and English, 1997) and this infirmity was the main reason of BSC appearance. The BSC was developed by Robert Kaplan and David Norton after an extensive research project in 1990 and their first refereed paper published in 1992 (Kaplan and Norton, 1992). Kaplan and Norton's (1992) Balanced Scorecard (BSC) has become a widely used framework for performance measurement, although the authors originally intended the framework to be used as a tool for communicating strategy (Meyer, 2005). In general, at least three different explanations of the stages of the evolution of BSC exist in the literature (Morisawa, 2002; Miyake, 2002; Lawrie and Cobbold, 2004; Speckbacher et al., 2003) which are called as generations of BSC. All authors agree that the first generation of BSC combines financial and non- financial Indicators with the four perspectives (financial, customer, internal business process and learning and growth). At this stage, measurement systems without cause-and-effect logic may also qualify as Balanced Scorecards (Malmi, 2001, p.216). In fact, this generation of BSC was a set of indicators arranged by perspectives derived from mission and vision of organization. Speckbacher et al. (2003)

and Lawrie and Cobbold (2004) argue that the second generation BSC emphasized the cause-and-effect relationships between measures and strategic objectives. It became a strategic management tool, usually utilizing a strategy map to illustrate the linkage between measures and strategies. In contrast there is a view in the literature (Morisawa, 2002; Miyake, 2002) that the key contribution of second generation BSC was the formal linkage of strategic management with performance management.

Concept of the strategy-focused organization (Kaplan and Norton, 2001) reflected the third-generation application of the BSC.

Two basic concepts in all generations of BSC are perspectives and indicators. Kaplan and Norton (2001) have argued that organizations should develop the best set of perspectives that reflect their strategy. The earliest BSC papers (Kaplan and Norton, 1992) advocated the use of the four perspectives – financial, customer, internal business process and learning and growth. Although only four perspectives defined in original BSC, but Kaplan and Norton (1996) describes where it's required, organization can add other perspectives to own scorecard.

Another basic concept of BSC is indicator (or measure). One goal of balanced scorecard is to identify a core set of indicators that can be used to summarize an organization's performance (Chan and Ho, 2000) and also to provide a clear set of metrics to evaluate the organization's strategy (Kaplan and Norton, 2001). Therefore, the aim of a well-structured BSC is to establish a balanced set of indicators, which consist of both financial and non-financial measures that control all activities and operations of organization.

2. Literary

Meenchavan (2009) has done a research entitled "BSC, new challenge" the researcher has concluded that this model, as a culture change and development to accept new suggestions and members, is a suitable model.

Deem (2009) also has done a research entitled "studying the relationship of organizational culture and BSC effectiveness". The results of this research have shown that each of the four organizational features, partnership, solidarity, adaptability and mission have significant and positive- relationship with BSC effectiveness.

Another research has been done by Soleimani (2011) and entitled "studying the relationship of organizational culture and BSC effectiveness". By analyzing the questionnaire with Pierson correlation method and regression analysis, a direct relationship between organizational culture and each of its components, partnership, sohdrarity, adaptability, assignment and BSC effectiveness, was concluded.

In addition, Asaadi has done a research entitled "performance appraisal of Yazd province public hospital using a combination of BSC, data envelope analysis. The researcher concluded that mean relative efficiency of the hospital was 0.945, 9 out of 13 were on the efficiency frontier and the efficiency of 4 hospitals was less than one.

3. Research Hypothesis

The following research Hypothesis is established based on the above literature review. The research hypotheses are:

1. Using the Balance Scorecard, improve the performance of managers in keeping financial indicators of organization.
2. Using the Balance Scorecard, improve the performance of managers in customer retention.
3. Using the Balance Scorecard, improve the performance of managers in processes within the organization.
4. Using the Balance Scorecard, improve the performance of managers in growth of the organization learning process.

3.1. Participants and procedure

The population of this study consists university presidents and heads of departments in three higher education institutes in Bushehr. Since the population was small (136 people), sampling is not done and all members are chosen as samples.

This research is descriptive – survey and library resource and internet are used for the research literature.

3.1.1. Measure

The questionnaire data collection tools are researcher-made which the reliability of it is confirmed by the supervisor professor.

To calculate the validity of questionnaire, Cronbach's Alfa is used. (Alfa=0.88). Questionnaire consists of 20 questions: 4 questions for the financial indicators variable, 3 questions for the customer retention variable, 7 questions for the processes within the organization variable and 5 questions for the growth process and organization learning variable.

Likret 5 point scale is used in this questionnaire and to analyze the research hypothesis, the average test is used.

Table 1: The result of comparison between hypotheses mean

Dependent Variable	Statistic Value t	Significant Level (sig)	Degree of freedom (df)	Confidence Interval		Result
				High limit	Low limit	
The performance of managers in keeping financial indicators	6.227	0.000	114	0.3926	0.2031	Accept
performance of managers in customer retention	5.481	0.000	114	0.4972	0.2332	Accept
The performance of managers in processes within the organization	3.204	0.002	114	0.2171	0.0512	Accept
The performance of managers in growth of the organization learning process	0.764	0.429	114	0.1543	-0.0661	Failed

Figures:



Shape 1:
scorecard's perspective

4. Conclusion

The purpose of

studying the role of BSC in appraisal of higher education institutes performance.

According to the results of test and test results interpretation table, using BSC, in population's opinion, leads up to development of managers' performance in keeping financial indicators of organization, customer retention and within the organization processes, which were similar to Chen (2008), Umashankar& Dutta (2007), and Gullen (2003), researches. However it doesn't lead up learning process growth in organization, which differs from result of Amaratunga&BaldAry (2000) and Einstein (2006) researches.

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Determination Of Writing Components In Writing Courses Held With Hearing Impairments¹

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Abstract

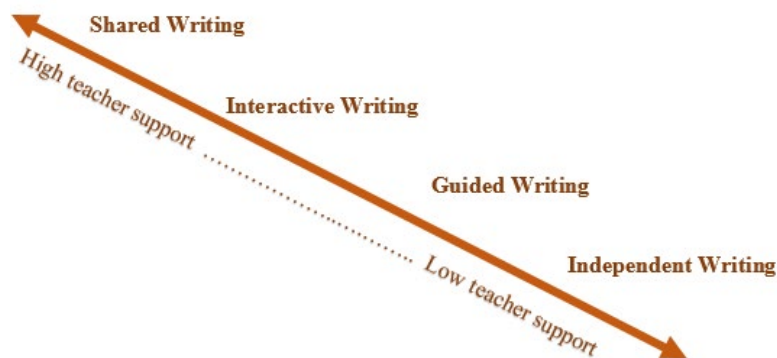
Various approaches are used to improve the writing skills of students with hearing impairments who has difficulties during the writing process. One of these approaches is Balanced Literacy Instruction Approach (BLIA) and it is determined that students benefit from the courses which are organized according to BLIA's principles and components. In this study, the courses were carried out with BLIA's components examined according to the determination of the writing components and pattern. The research, which is conducted by using Action Research method, was carried out with hearing impaired students who were studying in School for the Handicapped (SfH) of Anadolu University during 2015-2016 fall semester. As a result of this study, it is determined that the language levels of the students affected their component of writing and ongoing evaluations played an important role in the emergence of writing pattern.

Key Words: *Balanced Literacy Instruction Approach (BLIA), college students with hearing impairments, identification of the writing components, action research, teacher research.*

Introduction

Various approaches are used during the development of writing skills of hearing and hearing-impaired students. Today, many teachers and researchers agree that a single approach cannot be enough to fulfill the needs of all students in the class (Tompkins, 2007). Balanced Literacy Instruction Approach (BLIA), which is based on the combination of the Skilled Based Approach and the Whole Language Approach is widely used in literacy teaching (Fountas and Pinel, 1996; Pressley, Roehrig and Bogner, 2002; Schirmer, 2000; Tompkins, 2007). The BLIA advocates equal and sufficient time for language skills consisting of reading, writing, speaking and listening, and that students need to be supported as much as needed according to their needs (Asselin, 1999; Fountas and Pinel, 1996; Pearson, Raphael, Vicki and Madda, 2007; Pressley et al 2002). BLIA advocates various principles and has various reading/writing components. The principles of BLIA are: the reading / writing topics being appropriate to the interests and needs of the students; allowing students to make decisions on specific topics and choosing texts to read or write; giving importance to the process as well as the end product; being a model for new learners or inadequate readers; organizing educational environments which provides metacognitive awareness; interdisciplinary study; and defends the principles of teaching directly or indirectly the strategies and skills according to the language levels of students (Fountas and Pinnell, 1996; Schirmer, 2000; Tompkins, 2007).

BLIA's writing components are shared writing, interactive writing, guided writing and independent writing. As seen on Figure 1 the responsibility goes from "shared writing" to "independent writing" and gradually passes from teacher to the student. After the written evaluations are made, the component that matches the level of the skills of the students will be selected as the starting component. As the student progresses the process continues with the next writing component. Even if the next steps are taken during the acquisition of skills according to the ongoing evaluations repetitions of previous writing components can be made if needed (Richards and Reynandya, 2008; Wolbers, 2008; Karasu and Uzuner, 2018).



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Figure 1: According to BLIA, the responsibilities are gradually passed from teacher to student
(Adapted from Tompkins, 2000)

The teacher and the students decide together the sentence to be written in the shared and interactive writing. One common text is written. In interactive writing, the student is more independent and from time to time he/she occasionally contributes to the writing. Interactive writing is a transition phase to guided writing. The level of development of the students' writing skills is continuously assessed by the teacher. Thus, the teacher determines the amount of support to give to the student (Tompkins, 2000). If the students are ready, the process continues with the next writing component.

In guided writing, the students themselves write the texts, the teacher checks the texts while writing and provides the necessary support. And teaches the strategy, skill, concept and way which is followed during writing. As the students become more independent and as the development progresses in guided writing, the transition to the next phase can be made. Which is independent writing. At this phase, students often write their texts independently about the topic of their choice. Research shows that students with hearing impairment benefit from lessons with the principles and components of BLIA (Karasu et al, 2012; Pressley et al, 2002; Kaya, 2012; Schirmer, 2000; Uzuner, 2007; Uzuner et al, 2011).

When examining the research on writing skills of hearing impaired students, some researches about the linguistic information, the syntax and the limitations of writing (Albertini and Schely, 2003; Krestchmer and Kretschmer, 1978), student teacher interactions during writing (Graves, 1983; Truax, 1985) story structure and the effectiveness of the writing approaches (Campra, 1994; Mayer, 2010; Yoshinaga-Itano and Downey, 1996; Yuknis, 2014) are drawing attention. In our country there are researches about the focus of the students on the strengths and weaknesses of their writing, the comparison of written expression skills of hearing and hearing impaired students, the types and effectiveness of activities that can be carried out before writing (Erdiken, 1989, Erdiken, 1996; Girgin and Karasu; , 2014, Karasu and Girgin, 2007; Tuncay, 1980). There are two studies on the development of writing skills for hearing-impaired students about how the stages of the writing process are carried out and, on the activities and strategies applied. (Karasu and Uzuner, 2018; Karasu, Uzuner and Beral 2018) However, qualitative research on the writing process is needed (Karasu, 2014; Yuknis, 2014).

The purpose of this study was to determine the writing components and examine the writing patterns in the writing lessons conducted with BLIA with hearing-impaired university students. The research questions were as follows:

- a) What were the writing components that were used?
- b) How were the writing components determined?

Methods

The research method is an action research. Action researches are conducted to define what are the problems that occur during the application process in schools, institutions, etc., or to understand and solve a problem and to collect and analyze the data in a systematic way (Gay and Airasian, 2003; Johnson, 2002). The collection of the research data, the analysis, the decisions taken by the trustworthiness committee and the implementation of the action plans are carried out cyclically as shown in Figure 2.



Figure 2. Action Research Dialectic Cycle

This research is a 'teacher research'. In this type of research, the action research is conducted by teachers and increases students' learning, while also contributing to the teacher's professional development (Creswell, 2005).

Setting

The research was carried out in School for the Handicapped which is the only institution that provides university education to hearing-impaired college students in Turkey. The researches data was collected in the colleges class 214 which is the language classroom. The physical properties of the class has the necessary equipment for the education of hearing impaired students (Girgin, 2003)

Students. Research data collected out of seven students who were second grade in the "Computer Operator" program during the fall semester of the 2015-2016 academic year. Before the research, students were informed about the purpose and process of the research. Written permissions has been obtained. 'Whole Communication' was used to contact with the students. All students have a sense-nervous hearing impairment and students have hearing loss in both ears. Other features that determine the language levels of the students are given below. (Table 1)

Table 1: Student features

Students	Age / Gender	Degree of hearing loss (better hearing ear)	Age of onset of hearing impairment	Age of diagnosis	Age of onset of hearing aid	Secondary education environment
1	23/M	113 dB HL	Congenital	1	2	Vocational High School
2	22/F	101 dB HL	0.10	0.10	2	
3	25/F	96 dB HL	Congenital	1	14	
4	19/F	110 dB HL	Congenital	2	19	Vocational High School for Hearing Impairments
5	22/M	118 dB HL	Congenital	6	-	
6	25/M	83 dB HL	Congenital	5	12	
7	23/M	70 dB HL	Congenital	11	16	

When the texts written by the students participating in the pretest were examined, it was seen that the information about the text structure of the five students was very limited, and they did not include parts of the title and the text. When the contents of student writings are examined; it was determined that the contents of the three of the students did not conform to the directive, that a student needed limited support, and that the contents of the texts written by the three students were appropriate. It has been determined that all of the students have limitations on vocabulary, syntax and marking punctuation and that they needed intensive support.

Researchers. The research team consists of two researchers and a consultant. The research data were collected by the author of the article. The research team has over 21 years of experience in the education of hearing impaired students. They have graduate and doctoral grades in their fields. The research team participated in conferences related to qualitative researches and worked as a consultant, executive and researcher in the projects and their researches were published in national and international refereed journals.

Data Collection Techniques and Analysis

Qualitative and quantitative data collection methods and techniques were utilized in the research process. Data collection and analysis were performed simultaneously. The research data includes: video recording of the actual classroom interactions (33 hours and 4 minutes), writing lesson plans and reflections, reflective journal entries, students' artifacts, archival data (audiograms, the official records of the students) and criterion referenced tests' results. The collected data were reported by correlating the results obtained with each other and the field text. The quality of the research process, data and implementation was checked by the trustworthiness committee and studies for validity were carried out (Creswell, 2005). Ten meetings were held between 18.09.2015/09.02.2016.

In the study, pretest and posttest data were collected from the students on 05.10.2015 and 12.01.2016 with criterion referenced test. In different contents, five written expression data were taken, three of which were newspaper news and two of which were expository texts. A validation study was conducted to determine the appropriateness of the prepared questions to the age, level and interests of the students. In determining the types of texts, the vocational training and needs of the students were determined.

Written texts were evaluated by 'Evaluation Tool of Writing Skills' developed by Erdiken (1998). Texts were scored according to; structure (from 0 to 30 points), content (from 0 to 20 points), vocabulary (from 0 to 20 points),

grammar (from 0 to 25 points) and marking rules / punctuation (from 0 to 5 points). About the evaluations carried out, the interrater reliability was calculated by the formula of 'Agreement / Agreement + Disagreement x 100'. A consensus was provided by 84.8% in the pre-test and 71.9% in the final test. The application reliability coefficient of the courses performed according to the principles and components of the "BLIA" approach is calculated by the formula "Observed Teacher Behavior / Planned Teacher Behavior x 100". As a result of the application reliability studies, a consensus of 94.5% was provided.

Results And Discussion

In this section, research questions will be answered after the research process is explained.

The Research Process

This study has been carried out in two phases, pilot study and implementation process. In this article, the analysis of data collected during the implementation process is given. The data was collected during the implementation process in Speaking Skills for Computer Operate Training III (WSSCOT III) and Individual Computer Operator Language Support Courses III (ICOLSC III) lectures between October 2015/January 2016. All studies to improve students' writing skills have been carried out in the course "WSSCOT III". In the "ICOLSC III" course, other vocational courses of the vocational school program were supported, pre-test and post-test data of the research were collected, and individual writing correction studies were included.

Writing Components

Totally nine texts were written in three different types in lessons that were held with "BLIA" principles and components: Writing a Facebook message, newspaper news and expository text. Four of the texts are interactive, three are guided, and two are written in independent writing. In Table 2, the writing components, the topics and the dates of the written texts are transmitted.

Table 2: Writing components of text, topics and dates

BLIA Writing Component	Subject and Date of the Text
Interactive Writing	Writing a Facebook message (6 October 2015)
Interactive Writing	Content analysis of the school newspaper (27 October 2015)
Guided Writing	Y. Buyukersen Wax Museum Trip (6 October 17-18 November 2015)
Independent Writing	Writing a text with the topic of choice (3-10 November 2015)
Interactive Writing	Yılmaz Buyukersen's life (24 November 2015)
Guided Writing	Technology news (1-22 December 2015)
Interactive Writing	Comparing the features of websites (15 December 2015)
Independent Writing	Writing news with the topic of choice (1 December 2015-5 January 2016)
Guided Writing	Thoughts and feelings about Facebook (5 January 2016)

Determining the Writing Components

In the study, language levels of students were determining while assigning the writing component of texts written by university students with hearing impairments (Creswell, 2005; Schirmer, 2000; Tompkins, 2007). A variety of data were gathered in order to determine the language levels of the students and before and during the research. The diversity of the collected data helped to plan the lessons according to the level and needs of the students and supported the development of the students (Antia, Reed and Kreimeyer, 2005; Creswell, 2005; Schirmer, 2000). In addition, the evaluations made in the process overlap with the principle that giving importance to the process as well as the product, which is one of the principles of BLIA (Asselin, 1999; Fountas and Pinell, 1996; Pressley et al, 2002).

As a result of the evaluations, it was decided to start with Interactive Writing in the first writing lesson, where the students needed more support, where the teacher was more modeling and was able to give instant feedback. (II. Trustworthiness Committee Report- September 30, 2015) After the first two texts were written with Interactive Writing, the writing of the third text was done by Guided Writing, where the text was written individually by the student. (IV. Trustworthiness Committee - November 15, 2015) In this first text, which is performed with Guided Writing, there was a detailed preparation process before the writing, including screening of sources, examination of written and visual sources in class, and trips. Each student then wrote his or her own text individually with support from the researcher.

It has been decided to make an Independent Writing training with the students because all of the students included sections of the article and provided limited but appropriate content in all of their writings. (Writing Lesson Plan and Reflections and VII. Trustworthiness Committee Report- November 18, 2015) Independent Writing practice was given as homework. Students were required to write on a topic they wish to write, and in the text they write the direction of the students to pay attention to the sections and features of the text was given in writing.

In order to reinforce the observed development in the students, the writing of the fifth text was also carried out by Interactive Writing. (VII. Trustworthiness Committee Report – November 18, 2015) The following texts were written according to the decisions taken at the 12th and 16th of Decembers VII. and IX. trustworthiness committee meetings. With these decisions texts were written in turn: Guided Writing, Interactive Writing, Independent Writing and Guided Writing.

In the research process, a 'writing component pattern' emerged in Figure 3, consisting of Interactive Writing, Guided Writing, and Independent Writing, considering students' development. When language skills of hearing impaired students are examined, there are differences in language levels of students of similar age group (Paul, 1998; Schirmer, 2000). It is almost impossible to create a group of hearing-impaired students with a uniform level of language skills. For this reason, different writing component patterns should be expected in writing studies with different student groups.



Figure 3: Writing components pattern

When the pattern is examined, it seems that the teacher and the student have begun with interactive writing where they write a common text, which requires more support for the student in the writing instruction (Dostal and Gabriel, 2015). Later, it appears that the student is given more responsibility by the less supported, more independent, guided writing and independent writing (Asselin, 1999; Pressley et al, 2005; Tompkins, 2007). In subsequent written expressions, it was determined that there was a return to text writing with components to make more reinforcement and repetition (Richards and Reynandya, 2008). This finding of the research coincides with the other researches in the literature that the hearing-impaired students need intensive repetition and support due

to the limitation of language skills (Luckner and Cooke, 2010; Paul, 1998; Rupley, Blair and Nichols, 2009; Schirmer, 2000).

When the level of writing skills of students in pre-test and post-test was examined, it was determined that the writing skills of all students except for one student were improved limitedly. (Figure 4) It is thought that the first student's development is due to the personal characteristics of this student. This student was disciplined, willing to learn and self-repeating. It is believed that the reason for limited development in other students is that they need longer time to develop their writing skills and that the limitations of the language of hearing impaired students require longer periods of intensive repetition in lessons than their normally hearing peers (Dostal and Wolbars, 2014; Paul, 1998; Rupley, Blair and Nichols, 2009; Schirmer, 2000).

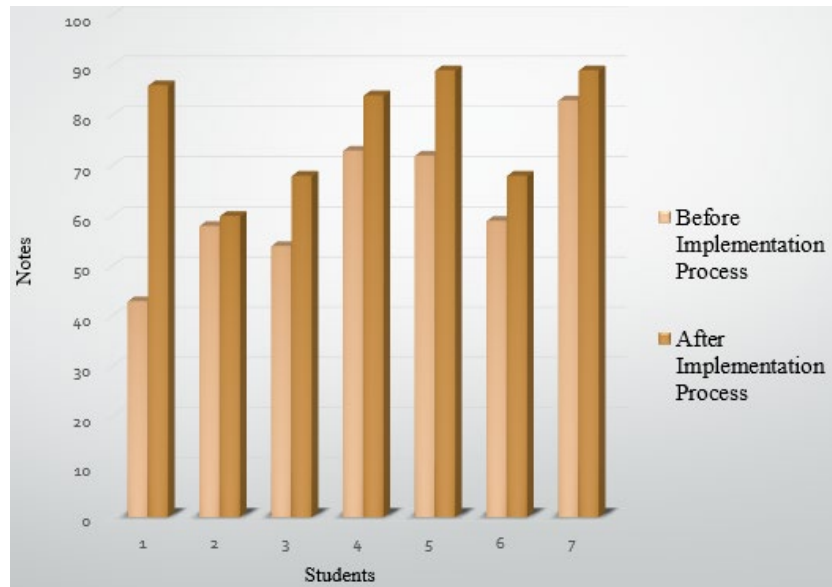


Figure 4: Students' written expression pretest and posttest results

This study, in which written expressions of hearing-impaired university students were examined in terms of determining the writing components to be used, was carried out through an action research because it aims to answer the question 'How?' (Johnson, 2002). Moreover, in the field of special education, there are problems in the analysis of the data with the reasons of the problems such as the number of subjects in experimental researches. This is another reason for organizing the study as an action research.

In this study, the trustworthiness committee reports, which are required by the action investigation, have a separate significance. In this research that aims to improve the writing skills, the researcher has made decisions and made action plans by interviewing field experts to solve the problems experienced during the applications. Decisions taken by the trustworthiness committee have contributed to the enhancement of the quality of implementation and have increased its validity (Baumfield, Hall and Wall, 2008, Creswell, 2005, Henning, Stone and Kelly, 2009). It is thought that this study, which is a teacher research, can be an example of different researches for the development of different skills by field teachers and researchers.

Results

In the study conducted with the hearing-impaired university students, the evaluation of the writing components of the texts and the preparation of the lesson plans, the pre- and in-process evaluations played an important role. The researcher repeatedly included the use of writing components during writing lessons. The reason for this is the need for intensive repetition in the education and training of hearing-impaired individuals. The repetitions achieved and the lessons that are tailored to the needs and levels of the students are positively affecting the development of writing.

Lessons were carried out according to the principles of "BLIA" in the research process. For this purpose; to ensure that the writing is appropriate to the interests and needs of the students; students were authorized to make decisions on specific topics and choose texts to read or write. By giving importance to how the working process is carried out as much as the resulting product, the lessons are designed with the evaluations made.

In order to ensure that the strategies and skills to be taught are appropriate to the level of the students, opinions were obtained from the instructors and experienced practitioners who are experts in their fields. This is also the case for action research. The implementation of the decisions taken by the trustworthiness committee increased the validity of the data. This is a sign of the importance of collaboration among field specialists in the field of general and special education.

The data of this research is limited by seven students who is studying in School for the Handicapped which is the only institution that provides university education to hearing-impaired college students in Turkey. The writing pattern that emerged in the research reflects the characteristics and needs of the students participating in this research. The same research as the purpose of generalizing the findings obtained from this research can be repeated in different educational environments, spreading by different participants and researchers for a longer period of time. In addition, in the development of writing skills, semi-experimental, experimental, and single-subject investigations can be conducted to determine the cause-effect relationships between variables. It is thought that this study, which is a teacher research, can be an example of different researches for the development of different skills by field teachers and researchers.

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Development Of Entrepreneurial Leadership Indicators For Private Educational Administrators

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Abstract

The objectives of this research were: to development and test the congruence of entrepreneurial leadership indicators for private educational administrators, the multi-stage random sampling was applied for 940 administrators. Collected data were analyzed by programs computer.

The research findings were: 1) the entrepreneurial leadership indicators for private educational administrators consists of 5 main components, 18 subcomponents and 77 indicators. Confirmatory factor analysis of Model for measuring the entrepreneurial leadership indicators for private educational administrators, the Model was congruent with empirical data, the Chi-square(χ^2) = 105, and Degree of Freedom(df) = 98, P-value = 0.27, GFI = 0.99, AGFT = 0.99, and RMSEA = 0.014, and the major factor had factor loading was higher than 0.70 in every factor. The minor factor and indicators had factor loading in higher than the criterion level as 0.30 in every factor and indicator.

Keywords: *Entrepreneurial leadership, indicators, private administrators*

Background and significance of the problem

The development of the country contributes the prosperity in the future. It must focus on strengthening existing capital of the country and enough power to impel "Human development". To be prepared with the 21st Century Education Development Plan the Ministry of Education Development Plan No. 12 (BE 2560 - 2564) has set strategic goals and targets that can meet the major development needs of the country. (Ministry of Education, 2560)

The Education Management in Thailand, Schultz (1982) The private sector has played an important role in providing education services to alleviate the burden of the state. Economists have said that encouraging the private sector participate in education will increase the efficiency of government education as it is competitive. According to the intent of the National Education Act, 1999 to provide people with the opportunity to receive quality education and participation in private education. It is an important strategy to drive educational reform to achieve government policy. The quality and standards of education are monitored by the quality and standards of education similar to Section 5, Part 3, Section 43 (Office of the Secretary of the Education Council, 2009). Consequently, private schools need to develop quality education according to educational standards.

The school administrator is a person who will be responsible for school personnel within the school. (James & Connolly, 2000), an important person to point out the success and failure of the organization in education reform and Key to Open a New Dimension of Educational Reform. Act as supervisor supervising school administration. Be able to convince the co-workers to work together. Leadership is a leader. (Ministry of Education, 2009). That said, school administrators are key personnel of the school and be a professional leader, have knowledge, innovate learning and expand the learning potential of the members. Including professional ethics (Teeran Charoen, 2557) Leadership for school administrators is important and highly motivated because Change of the humanities, quality inspection, teacher development and governance in the organization. Schumpeter (1965 Cited in McNeill, 2012) Describe the concept of entrepreneurial leadership, Entrepreneurship as a form of management and transforming the management style into an organization is an innovative enterprise. Focus on learning and developing organizations together. The success of the organization will be sustainable that need a quality person same as Palmer (1971), Miller & Droge (1986), Robinson (1991), Koh (1996), Hatem (1997), Coglisier (2004), Chen (2007), Surie & Ashley (2007), Strubler (2010), Leonard (2013), Goossen & Stevens (2013) that give the concept of entrepreneurial leadership. To show how to be a business startup, operation plan and business all aspects by themselves by accepting the potential risks. To look to the profit from the performance of the business. Make sure that the person will be lead the establishment is enthusiasm, integrated with management principles in organization management by finding fault then make improvements. Be the person who sees the business opportunity, can find a channel to build their own business, and ready to take risks.

If the model developed by the researcher is consistent with the empirical data. The model structural relationships entrepreneurial leadership for private educational administrators can be use in guidelines for planning or establishing criteria for evaluating school administrators in basic education commission. To develop of basic school administrators in accordance with the theory and research. This will enhance the performance of private school administrators. Effect to the management of education and development of quality education. In addition, the model structural relationships entrepreneurial leadership for private educational administrators to make the decision and evaluate the performance. Nonglak Wiratchai (2002) Tested models have the ability to data reduction.

It is easy to use, reduce the duplication of data, and manage data concisely. It can be used effectively in the operation of the organization.

Research objectives

1. Development of entrepreneurial leadership indicators for private. educational administrators
2. Test the model congruence of entrepreneurial leadership indicators for private educational administrators.

Research Definition

1. Entrepreneurial leadership are behavioral expression of private school administrators show visionary, risky, innovativeness, creative thinking, and proactive approach. Measure from 5 factors 1) Visionary 2) Risk Taker 3) Innovativeness 4) Creativity Thinking and 5) Proactive
2. Creating and Developing indicators are the process to obtain information indicate to entrepreneurial leadership of private school administrators by combining factors 1) Visionary 2) Risk Taker 3) Innovativeness 4) Creativity Thinking 5) Proactive

Method of the research

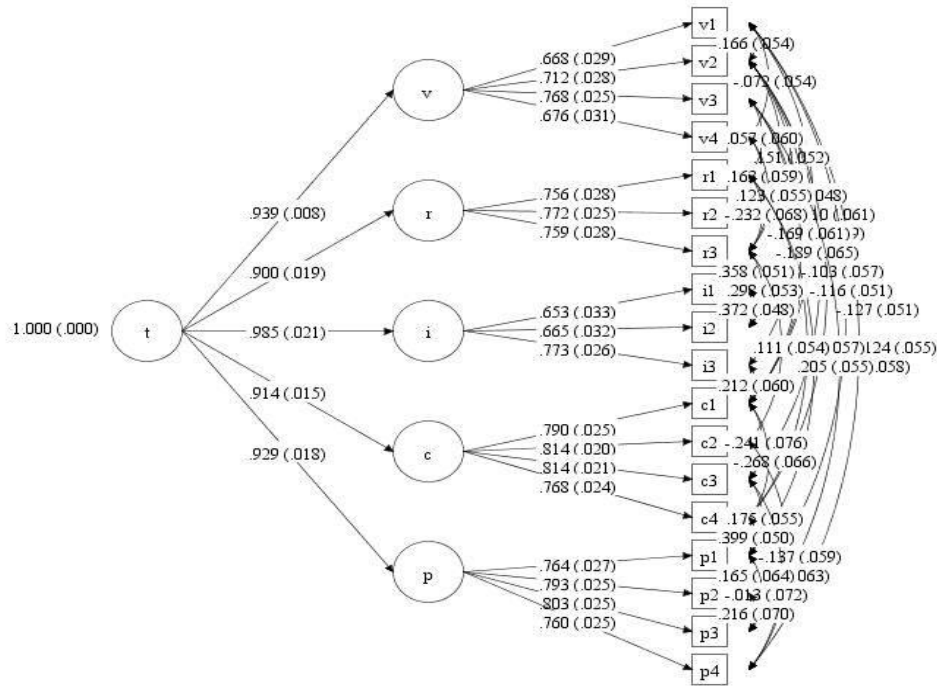
This research method has 3 stages

1. Study and analyze for define the indicators entrepreneurial leadership of private school administrators. Researcher Researchers study and analyze documents from theories, documents, academic texts, journals, academic articles and related research for create a semi-structured interview. Bring to the 5 experts for examine the quality of the interviews in terms of content validity. Coverage of questions with objectives and the clarity of the language for In-depth interviewing with 9 experts by semi-structured interviews. It consists of professors from various universities, management in the Office of Private Education Commission, school administrators from both public and private. Use purposive Sampling methods.
2. Development of entrepreneurial leadership indicators for private. educational administrators. Reacher found that, the entrepreneurial leadership indicators for private. educational administrators by focus group discussion. Target group was 9 experts by Using purposive Sampling. Consist of academic executive education, university lecturers' directors of area office, and administrators by analyzing the content of the focus group discussion.
3. Test the congruence of Model for measuring entrepreneurial leadership indicators for private. educational administrators. People were private school administrators under the office of the secondary education office in office of the basic education commission in year 2560, 3901 people. Size of the sample was analyzed by model; advanced statistics require a large sample size. (Lindeman, Merenda & Gold, 1980, cited in Nonglak Wiratchai, 1999). The maximum ligature parameter estimation was used. (Maximum Likelihood) Sampling Group of informants consisted of 278 people. The multi-stage random sampling was use. The research instrument was a 5-rating scale (Rating Scale). Target group was 7 experts and analyze Content Validity. Concerning the consistency of the questions with the definition of action and the clarity of the language. Index of item objective congruence (IOC) was between 0.80-1.00. Reliability and Cronbach's alpha coefficient was 0.98. The Confirmatory Factor Analysis: CFA by consider from Chi-Square, degree of freedom (df), Goodness-of-fit-index (GFI), Adjusted Goodness-of-fit-index (AGFI), Root mean square error of approximation (RMSEA) and P-Value by using computer programs.

Summarize and discussion

Research Result

1. Entrepreneurial leadership indicators for private. educational administrators have 5 main-factors, 18 sub-factors and 77 indicators include 1) Innovativeness include 3 sub-factors, 10 indicators. 2) Visionary include 4 sub-factors, 21 indicators. 3) Proactive include 4 sub-factors, 15 indicators. 4) Creativity Thinking include 4 sub-factors, 20 indicators. 5) Risk Taker include 3 sub-factors, 11 indicators.
2. Confirmatory factor analysis of Model for measuring the entrepreneurial leadership indicators for private educational administrators found that, the Model was congruent with empirical data, the Chi-square ($\chi^2=105$), degree of freedom (df=98), Goodness-of-fit-index (GFI = 0.99), Adjusted Goodness-of-fit-index (AGFI=0.99), Root mean square error of approximation (RMSEA=0.014), and (P-Value = 0.27). Accept the hypothesis that the Model was congruent with empirical data.



Harmony index of measurement model entrepreneurial leadership indicators for private educational administrators

Index of harmony	measurement	Analytical results	result
χ^2 - Test	Insignificant P> 0.05	$\chi^2 = 105$ Df= 98 P-Value = 0.27	pass
χ^2 / Df	< 2.00	1.1	pass
RMSEA	≤ 0.05	0.014	pass
SRMR	≤ 0.08	0.026	pass
CFI	≥ 0.95	0.99	pass
TLI	≥ 0.95	0.99	pass

Research Discussion

1. The study and analysis determine entrepreneurial leadership indicators for private educational administrators have 5 factors in private educational administrators. There are very important for private educational administrators and all leadership educators must have leadership in this manner, consistent with Robert & Jeffrey (2000) said that entrepreneurial leadership is to increased efficiency in management by recognizing change, opportunities and limitations are created. Successful entrepreneurs are often remembered for their environment. He will look for obstacles, disturbances, or innovations that can create opportunities. School administrators need to pay attention to the surrounding environment, control creative potential and in every change, we get new ideas. Administrators must learn outcomes and solutions using various strategies. Administrators with entrepreneurial leadership will find advantages and opportunities for change. Applying the skills with strategic concept, has developed the results of the practice. Entrepreneurs must be aware of the good organizational structure of the organization. This will lead to further development.
2. Development of entrepreneurial leadership indicators for private educational administrators have 5 main-factors, 18 sub-factors and 77 indicators. Factors and indicators suitable for private schools. Because the context of private education institutions is both similar and different from the state educational institutions. In particular, the difference in management that can be carried out with the approval and needs of stakeholders is very high and management flexibility. The individual development in the

development can be leap forward. It can make benefit and maximize efficiency. This is consistent with Schumpeter's (1965 Cited in McNeill, 2012) said that entrepreneurial leadership and society of entrepreneurs are entrepreneurship as a form of management. Transforming the management style into an organization is an innovative enterprise focus on learning and developing organizations together. The success of organizations that are sustainable can depend on the motivational group of successful entrepreneurs.

3. Consistency results found that model entrepreneurial leadership indicators for private educational administrators that was develop consistent with empirical data and statistical significance was statistically significant. Confirmation factor analysis of entrepreneurial leadership indicators for private educational administrators have 5 factors. It is an important factor of the entrepreneurial leadership indicator for private school administrators because It is a factor of structural integrity. Innovativeness has maximum weight value, the school administrators must have the skills in explore and collect information, create ideas and bring ideas to practice according to Surie & Ashley (2007). Conclusion of the innovativeness from reviewing relevant documents and research. Innovativeness is exploration, creation, reflection & implementation and evaluation & act.

Suggestion

The results of this study suggest that the following research results and suggestions for further research will be used.

- 1) Suggestions for the use of research results.
 - 1.1 Educational, people involved and all private education institutions can bring the results of research as a guideline to evaluate for the development of school administration under the jurisdiction by leading indicators needed some indicators used to determine the rate in the early stages and development in the next phase.
 - 1.2 The studying factors of entrepreneurial leadership indicators for private educational administrators have 5 factors, consistent with empirical data and statistical significance was statistically significant. Confirmation factor analysis of entrepreneurial leadership indicators for private educational administrators. Therefor, School will lead to the application in the institution can be selected to remove some factors, some indicators or all for use by based on the context of each school.

Suggestions for further research

1. There should research the structural equation modeling of entrepreneurial leadership for private educational administrators in other rating.
2. There should do the workshop for administrator development affecting School Performance in 5 ways consist of 1) Visionary 2) Visionary 3) Innovativeness 4) Creativity Thinking 5) Proactive, to create a variety of knowledge. Research and development may be undertaken and participatory action research.
3. There should be a study of factors that affect to the entrepreneurial leadership of future school administrators and in different contexts.
4. It should be studied and developed a guideline or method for the implementation of entrepreneurial leadership for school administrators to be used effectively.

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Developing Digital Competence Through The Project Based Learning Methodology In A Sample Of Future Teachers

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Abstract

Digital competence is a key skill that every person must develop in the current times. This article presents a research work that aims to analyze the potential of the Project based learning (PBL) methodology for the development of digital competence. It is carried out through a quantitative study by applying a Likert Scale questionnaire to a group of future primary school teachers. The main results show the effectiveness of this methodology for the development of the five areas of digital competence: information and information literacy, communication and collaboration, creation of digital content, security and problem solving. In addition, the use of this methodology in the classroom has encouraged the development of skills such as: analysis and synthesis, problem solving, organization and planning, teamwork, ability to learn, adapt to new situations, among others. In conclusion, students claim to have improved their digital skills thanks to the methodology used ,as well as other skills necessary for lifelong learning.

Introduction

Project Based Learning (PBL) is a teaching-learning methodology that can be adapted to multiple subjects and educational ages (Trujillo, 2015). Abducted by a society that demands ever more competent citizens in multiple fields, this methodology becomes an effective teaching-learning strategy for the development of competences in students (REFERENCE). The democracy of access to knowledge, being possible thanks to the advances of the technology

Nothing

Something

Fairly

Much

ical revolution, facilitates the introduction of new methodologies that bet on an active learning of the students, in which this is the main protagonist of their knowledge. This methodology offers a framework for transforming current educational practices, since it is part of connecting with our students' own interests.

According to Vergara Ramírez (2016) the students who follows a PBL methodology say that "they learn because they want". For this, it is important that the teacher establish a connection with their students, asking their interests, concerns, among others. In addition, a feeling of commitment must be generated between the teacher and the students, having, in turn, to motivate them, guide them, etc. The PBL aims to empower the protagonism and implication of students in their teaching-learning process (Castillo-Sagasta, 2017, Fernandez-Samaca, Scarpetta, Rodriguez, & Mejia, 2017, Terrón-López et al., 2017). The students mark their learning pace and progress towards the acquisition of new knowledge and skills (Rodríguez-García, Hinojo-Lucena & Ágreda-Montoro, 2017). Moreover, this methodology promotes a style of learning by discovery (Trujillo, 2015). For that reason, the student must develop research skills, organization, planning, writing and restructuring to progress in their own learning. Also, they should develop interpersonal skills, teamwork, critical and self-critical ability, ability to learn to learn, ability to adapt to new situations, information management skills from various sources, communication and written in one's own language, etc.

In this context, digital competence has been defined in the EC Recommendation on Key Competences (European Commission, 2006) as a key competence for employment, learning, self-development and full participation in society. Being digital competent is necessary nowadays for working, living and learning in the knowledge society (Ala-Mutka, Punie & Redecker, 2008). It involves five work areas: information literacy, communication and

collaboration, creation of digital content, security and problem solving (INTEF, 2017).

In this paper we present a work carried out through a research-action with a sample of future teachers who are studying at the University of Granada (Spain). With this sample we work digital competence as the central axis of the problem to be solved through PBL methodology.

The Study

We present a research financed with public funds of the Ministry of Education, Culture and Sports of the Government of Spain (Reference: FPU14 / 04626). The objective of this research is to analyze the perception of future teachers of Primary Education about the effectiveness of the ABP methodology for the development of instrumental (analysis and synthesis competence; problem solving; organization and planning; information management; learning about the field of knowledge or specific topic; oral and written communication) and digital competences for their personal and professional future. For that, we carry out a investigation-action, applying a quantitative, descriptive and cross-sectional methodology for the study (Hernández Sampieri, Fernández Collado, & Baptista Lucio, 2016).

The experience was carried out during the course of the subject Teaching and Technological Resources applied to Primary Education in the 2017-2018 academic year with a group composed of 41 students from the second year of the Master's Degree in Primary Education. We conducted a convenience sampling because it is an experience carried out with our students. In the following tables (1 and 2) we obtain more information about the participating sample.

Table 1: Sex of the sample

Sex	Frequency	%
Men	13	31,7%
Women	28	68,3%

Table 2: Age of the sample

Age	Frequency	%
18-21	35	85,4 %
22-25	3	7,3 %
26-30	1	2,4 %
>30	2	4,9 %

To collect the information, a questionnaire constructed ad hoc was elaborated in order to know the usefulness of the ABP methodology for the development of instrumental, personal and systemic generic competences and also the digital competence. For the purpose of this investigation, we will focus on the items related to the analysis of instrumental competences. The questionnaire was structured in two parts: the first asked about the sex and age of the student and the second questioned the effectiveness of the ABP methodology for the development of instrumental competences, such as: analysis and synthesis capacity, resolution of problems, capacity of organization and planning, abilities of management of the information coming from diverse sources, basic knowledge on the area of study and oral and written communication in the own language. To know this, four response possibilities were offered: Nothing (1), Something (2), Fairly (3) and Much (4), for which a Likert Scale was followed. Throwing more data on the instrument, not published until now, once all the relevant processes for its validation have been carried out, its reliability index was calculated through the Cronbach's Alpha obtaining as result $\alpha = 0,966$.

Findings

The Table 3 presents the descriptive analysis performed on each of the items according to their minimum, maximum, average and standard deviation values and gives us a general view about the usefulness of the ABP effectiveness for the development of instrumental general skills.

Table 3: Instrumental skills developed by the students

	Minimum	Maximum	X	Standard desviation
Analysis and synthesis competence	2	4	3,29	,642
Problem solving	2	4	2,98	,651
Organization and planning	2	4	3,41	,741
Information management	2	4	3,22	,690
Learning about the topic	2	4	3,39	,628
Oral and written communication	2	4	3,29	,642

As we can see, the students have indicated that this methodology has benefited them to improve their competence in organization and planning above all others. In second place are the competences related to analysis and synthesis, basic general knowledge about the area of study and improvement of oral and written communication in the language itself. As a lesser developed competence you would find the improvement of your ability to solve problems.

The results show that 56.1% of the students affirm that the development of the work through the PBL methodology has meant a very considerable improvement with respect to their capacity to organize and planning. The 46.4% of the students think that the development of this experience has benefited their general knowledge about the area. In addition, 39% of the students think that this methodology has favored them totally to improve their ability to analyze and synthesize and to communicate orally and written in Spanish. The 36.4% of students say that this methodology has greatly benefited them to improve their ability to manage information from various sources. Finally, 19.5% of the students have effectively developed their ability to solve problems. All of this we can see below (Figure 1):

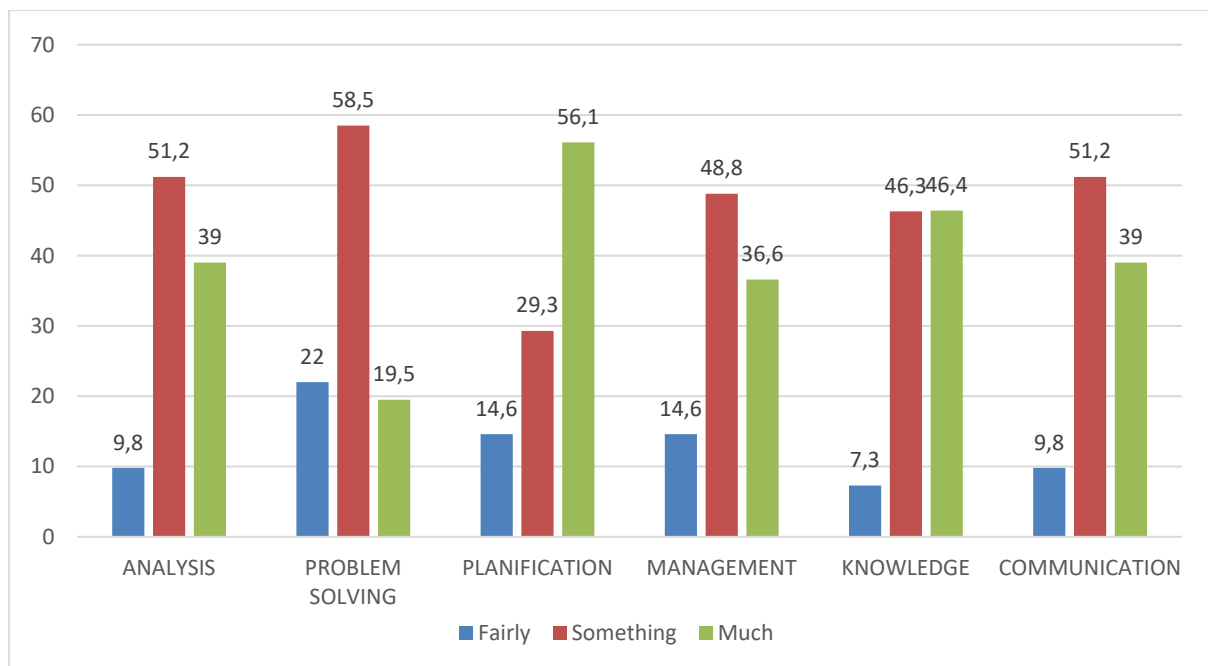


Figure 1. Key competences development

The second part of the research refers to the improvement of digital competence as the key competence to be developed through the PBL methodology. Regarding to the improvement of the first area of digital competence (information literacy), 59.72% of the students consider that this methodology has helped them to improve their competence in this dimension. On the other hand, 27.78% said it was helpful, and finally, 12.5% said that this methodology has helped them to develop such skills (Figure 2).

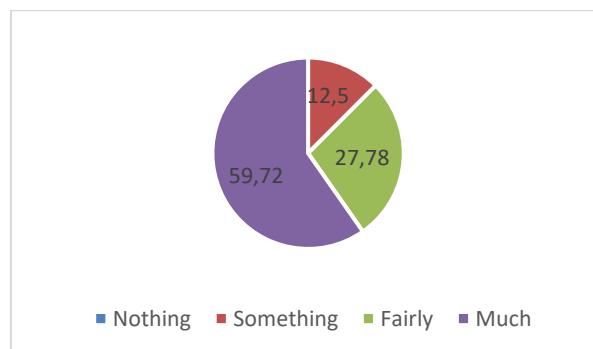


Figure 2. Utility of the PBL methodology to improve information and information literacy skills

Going into the second dimension, 47,22% of the students says that this methodology has contributed to a better

development of communication and collaboration skills. 36,11% of the sample think that this methodology has been helpful to improve their competence in this area. Finally, 16,67% says that this methodology has been useful for the training in this area (Figure 3).

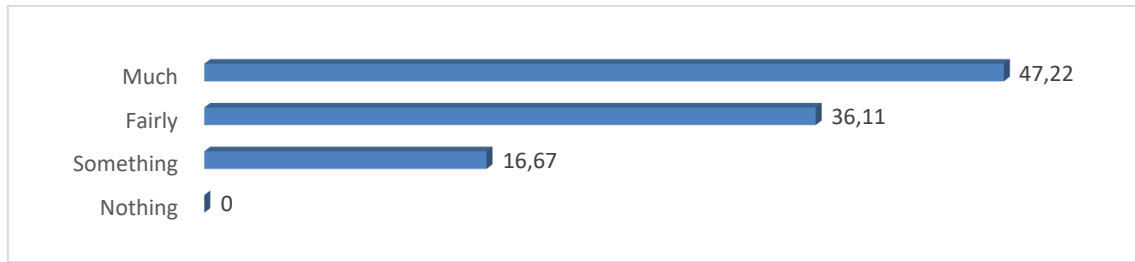


Figure 3. Utility of the PBL methodology to improve communication and collaboration skills

The third dimension refers to creation of digital content. Most students think that this methodology has been very useful for the effective development of these skills (47,22%). Moreover, we highlight a 44,25% and 8,33% of the students who support the potential of this methodology as we can see in the following figure.

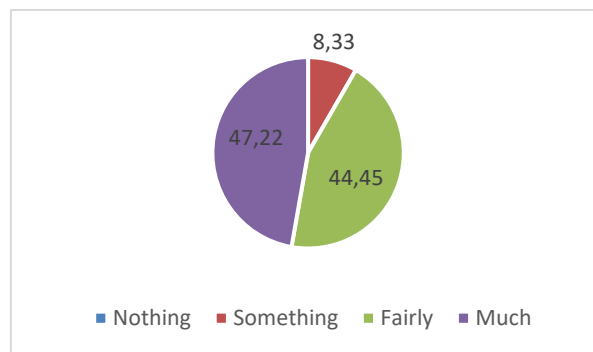


Figure 4. Utility of the PBL methodology to improve creating digital content skills.

Regarding to the security dimension of the digital competence, on the one hand, most of students (43.06%) indicate that this methodology has been very helpful in improving their security skills, followed by 33.33% of students who say that it has been very useful and 22, 22% that has been something useful (Figure 5). On the other hand, we only found 1.39% of the subjects who affirm that this methodology has not helped them to improve their digital security skills.

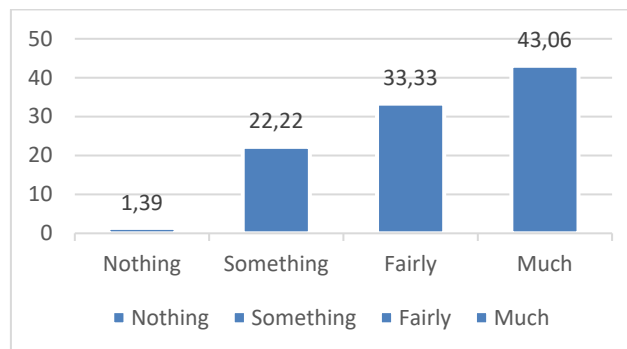


Figure 5. Utility of the PBL methodology to improve security skills in interaction with digital media.

Finally, concerning the last dimension of digital competence: problem solving, we come back to find a majority of students who think that this methodology has been quite helpful with 45.83%, followed by those students who say that it has been quite useful with 31.94%. We found, at the same time, 19.44% of the students who affirm that this methodology has been useful for them and 2.78% who say that that PBL methodology has not helped them to improve their skills in the problem solving area (Figure 6).

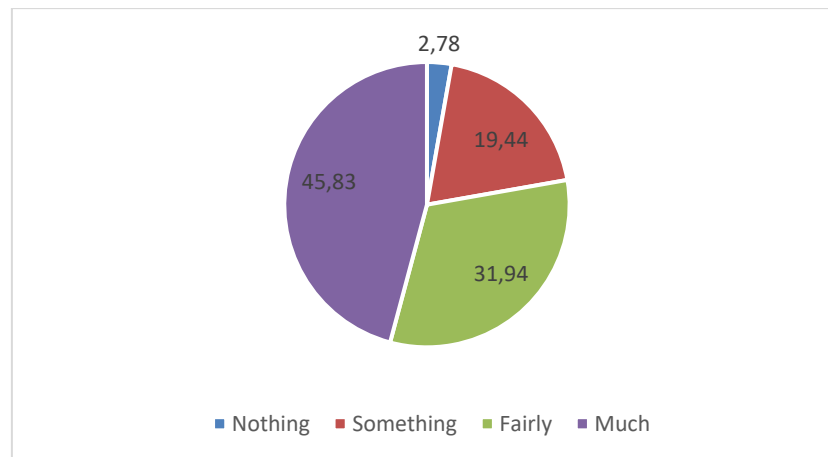


Figure 6. Utility of the PBL methodology to improve problem solving skills.

Conclusions

Project-based learning (PBL) is a teaching methodology that can be applied in any field of knowledge. In this way, we find application studies in the field of engineering (Terrón-López et al., 2017), physics, computer science (Benjumeda & Romero, 2017), education (Lee, Kim, & Byun, 2017), the company (Ye, Van, Chapman, & Jacobson, 2017), among many others.

As a result of the results found, we can define the PBL as an effective methodology for the development of instrumental competences in our university students, as reflected in various investigations (Arbelaitz, Martín, & Muguerza, 2015; Arroyo-García, 2017; Castillo-Sagasta, 2017; Grande Martín, 2015; Lee et al., 2017). This methodology helps to create and develop habits of reflection, criticism, analysis, synthesis or evaluation of contents in the different stages of the process. In turn, learning with and from others provides diverse opportunities to exchange learning experiences with others. In spite of being experiences in which, according to the students (Trujillo, 2015) they have more work compared to traditional methodologies, they end up preferring this type of strategies in contrast to those that are limited to following a textbook and reproducing the information learned without questioning and reflection.

With regard to the planning of teaching through an ABP methodology involves a deliberate and reliable preparation of a series of actions and guidelines related to the project to be developed so that it responds to the consideration of learning with a learning perspective in which the competences of the person are put into practice (Trujillo, 2015; Vergara Ramírez, 2016).

In this sense, if one of the purposes of university education is to provide highly competent citizens to successfully develop in the Information and Knowledge Society, it is our obligation to carry out innovative learning experiences to promote an optimal development of the same. To do this, students must be aware and participate in the whole process and in the steps they have to take throughout the course of their learning, developing values, strategies, skills, etc.

As a summary of the work presented, we can affirm that the methodology based on project-based learning contributes effectively to the competence development of university students and, more specifically, to the future teacher of higher education, as has been demonstrated in this investigation. Despite being a research-action experience carried out in a particular subject, various investigations have revealed the potential of this methodology for the comprehensive development of students and the necessary competencies according to current society to function effectively in the same.

Finally, Ala-Mutka, Punnie & Redecker (2008) says that:

“Lifelong learning strategies need to answer to the growing need for advanced digital competence for all jobs and for all learners. Learning digital skills not only needs to be addressed as a separate subject but also embedded within teaching in all subjects. Building digital competence by embedding and learning ICT should start as early as possible, i.e. in primary education, by learning to use digital tools critically, confidently and creatively, with attention paid to security, safety, and privacy. Teachers need to be equipped with the digital competence themselves, in order to support this process” (p.5).

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Development Of An Instructional Supervision Model To Enhance Learning Management Competencies In Primary School

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Abstract

This research was designed to develop an instructional supervision for enhancing learning management competencies in primary schools. Researchers utilized qualitative method including in-depth interview, documentary analysis, and observation approaches to collect data. Researchers began their research by reviewing the related past research literatures as a method of documentary data collection. Findings from the first phase indicated that there are four components of instructional supervision model to enhance learning management competencies namely interactions, organizational climate, action, and assessment for development. The second phase of this research was conducting focus group interviews to seven experts to verify the suitability of the four components and also the related indicators. Findings of the second phase revealed for remaining the four components but adding 24 behavioral indicators while the third phase of finding adding to 33 indicators. Researchers then developed a tentative instructional supervision model to enhance learning management competencies based on the findings from second and third phases. In the final phase, researchers would like to obtain the feedback on the effectiveness of the developed instructional supervision model by conducting classroom observation and in-depth interviews to nine school administrators and teachers who have used the developed instructional supervision. Findings from the final phase were used to refine and modify thus propose the instructional supervision model to enhance learning management competencies in primary schools of Thailand.

Keywords: *Instructional supervision model; learning management competencies, primary schools.*

Introduction

Learning management in this research is defined as the capacity to design pedagogic strategies that achieve learning outcomes for learners. Smith and Lynch (2010) highlighted that learning management is an emphasis on the design and implementation of pedagogical strategies that achieve learning outcomes. Underpinning the learning management premise is a new set of knowledge and skills, collectively referred to as a futures orientation and which attempt to prepare the mindsets and skills sets of teachers for conditions of social change that pervade local and global societies in 20th century (Lynch, 2012).

Supervision provides an opportunity to promote teacher efficiency, abstract thought, and a reflection on teacher's own instructional methods. If the school administrator lacks adequate knowledge of supervision and does not know how to meet the needs of the teacher, then an unproductive working relationship may be established. So teacher could spend time being upset with the school administrator and might not devote sufficient effort toward teaching learners. More importantly, learners' desire, ability, and levels of learning may be affected. When the school administrator cannot meet the teacher's needs, the entire teaching experience may not be as effective as it could have been (Fritz & Miller, 2003)

In recent years, instructional supervisions have been the subject of much criticism. Tubsuli, Julsuwan, and Tesaputa (2017) clarified several supervision preparation and operational problems such as lacking of supervision plan, lacking of holistic and systematic learning management plan, lacking of supervision cooperation, supervisors are lacking of knowledge and skills in Thailand. In response to this inefficiency, Ministry of Education, Thailand has to make an effort to reform their supervisory process is not simply a procedure but be innovative and make their impact significantly on quality of schools.

Chansirisira (2008) emphasized that teachers' competencies and performance are important factors to affect the achievement of work goal. Therefore, those who hold the positions must have the knowledge, attitudes, skills, experiences, abilities, and competencies to accomplish the tasks at the minimal acceptance standards. Consequently, supervision can be considered as unique competencies and skills that allow the supervisor helps the

supervisee. In other words, supervision model exists can provide a framework for the process. In addition, supervisors incorporate various modes and interventions to facilitate supervisee development (Chansirisira, 2008). On the other hand, awareness of these supervision models, modes, and interventions will help the supervisee to understand the underlying supervision processes and therefore, be a more active participant in the supervision process. The interactions and relationships between supervisor and supervisee are vital because a dialogue can develop a means of sharing personal styles and preferences between supervisor and supervisee for supervision model to be used in supervision (Chansirisira, 2017).

Research Objectives

This research was designed to propose an instructional supervision model to enhance learning management competencies in primary schools of Thailand. To achieve this main aim the following specific aims were formulated to guide the research:

- i. To identify the components and indicators of instructional supervision model to enhance learning management competencies in primary schools.
- ii. To propose the instructional supervision model to enhance learning management competencies in primary schools.

Method

Researchers employed qualitative design as it is a systematic subjective approach to gain insight, explore the depth, richness, and complexity inherent in the phenomenon. Researchers began the research using document analysis to investigate the components and their indicators by analyzing the related documents both printed and electronic materials. This document analysis requires that data be examined and interpreted in order to elicit meaning, gain understanding, and develop empirical knowledge (Bowen, 2009). This is followed by focus group interviews to a group of seven experts to validate the identified components and indicators from the first phase. The seven experts were required to give suggestions for improvements. The focus group and in-depth interviews were found appropriate in this case because the seven experts were needed to have an open discussion and the nine practitioners have to discuss deeply on the identified components and indicators. Researchers acted as a moderator to aid the discussion by using probes to collect desirable data to develop the instructional supervision model. This process is recorded and transcripts were used to interpret and analyze given information using thematic analysis.

The final phase of this research was directed to refine and modify the developed instructional supervision model from nine practitioners who are school administrators and experienced Thai language teachers from three best practice schools, three participants from each respective school. Classroom observation followed by in-depth interviews were carried out to capture rich, descriptive data about the suitability of identified components and indicators as methods to measure the effectiveness of develop the instructional supervision model for refinement and modification.

Purposeful sampling technique was employed to select the seven experts and nine school administrators and teachers in this research. This sampling technique is useful in this situation because researchers need to reach a targeted sample quickly, and where sampling for proportionality is not the main concern. This involves identifying and selecting individuals that are especially knowledgeable or experienced with this phenomenon of interest (Cresswell & Plano Clark, 2011).

Findings

The initial findings were derived from the checklist of documentary analysis on literatures and related documents to identify the components and their indicators of the instructional supervision model to enhance learning management competencies. This is followed by qualitative results from focus group interviews about the verification of components and indicators. Finally, the modified instructional supervision model tried out by nine practitioners including school administrators and experienced Thai language teachers. Adjustments were made based on respondents' feedback before the proposed instructional supervision model.

Qualitative findings from documentary analysis

Initial findings derived from document analysis checklists concluded that there are four components as follow:

- Interactions (Relationship)
- Organizational climate
- Action, and
- Assessment for Development

These four components could be formed an acronym as ROAD.

Qualitative results from focus group interviews of seven experts

The second phase findings indicated that all the seven experts accepted the four identified components of the first phase. However, majority of them suggested that the identified components should include behavioural indicators. As a result, findings from the second phase revealed that there are four components and 24 indicators.

Qualitative results from classroom observation and in-depth interviews of nine practitioners

Non-participation observation to the three selected best practice schools showed that school administrators and teachers are working together to achieve the desired supervision goals. They are committed to develop their schools and encourage the community's participation in school operations. The impact of utilizing this instructional supervision to enhance learning management model (ROAD) indicated that quality level was at good level.

Findings from classroom observation showed that teachers are able to achieve their learning outcomes effectively in Thai language. In addition, they also had planning before teaching and created media of teaching and learning continuously. Findings also showed that instructions in the classroom are using learner centred approach. Learning activities are interesting and can attract learners' attentions.

Findings from the in-depth interviews with the nine practitioners found that interactions are able to create trust and cooperation in order to develop learners' quality. Guidance and mentoring helps to support, promote, and develop learning management with a pleasant organizational atmosphere. At this phase, there were some changes have to made on the number of indicators, that is from 24 indicators from the second phase to 33 indicators. The detail findings were shown in Table 1 below. Those added indicators are highlighted with bold.

Table 1: Components and indicators of the instructional supervision model

Component	Indicators
Interaction (R)	1.1 Trust
	1.2 Help
	1.3 Support and promotion
	1.4 Encouraging
	1.5 Solving problems together
	1.6 Open effective communication
	1.7 Understanding individual difference
	1.8 Accept other people's opinions
	1.9 Focus on participation.
	1.10 Have good relationship with others.
Organizational climate (O)	2.1 The demand of the personnel in the organization
	2.2 Action planning
	2.3 Learning together
	2.4 Promoting & supporting
	2.5 Encourage expressions of opinion.
	2.6 Provide an environment conducive to operations.
	2.7 Support the media, innovation and technology.
	2.8 Allocate resources
	2.9 Positive organizational climate on work motivation.
Action (A)	3.1 Teamwork
	3.2 Study the sequence data prior to operation
	3.3 Work motivation
	3.4 Following standard procedure
	3.5 Have discipline in work
	3.6 Believe in the ability of others.
Assessment for development (D)	4.1 Clarify purpose of measurement and evaluation.
	4.2 Measurement and evaluation covering behaviours, abilities and feature.
	4.3 Continuous measurement and evaluation in real situation.
	4.4 Various tools
	4.5 Quality assurance tools
	4.6 All parties are involved in evaluation

	4.7 Analyse data correctly
	4.8 Presenting the results of data analysis with real data.
	4.9 Collecting information to improve and develop.

Development of ROAD supervision model

The end product of this research was the development of ROAD supervision model to learning management competencies in primary schools of Thailand. The main principle of ROAD is to create trust and collaboration in the quality of learner development through interactions. The main objective of the ROAD supervision model is to strengthen teachers' competencies in teaching. The components and indicators that included in the ROAD model are four components and 33 indicators.

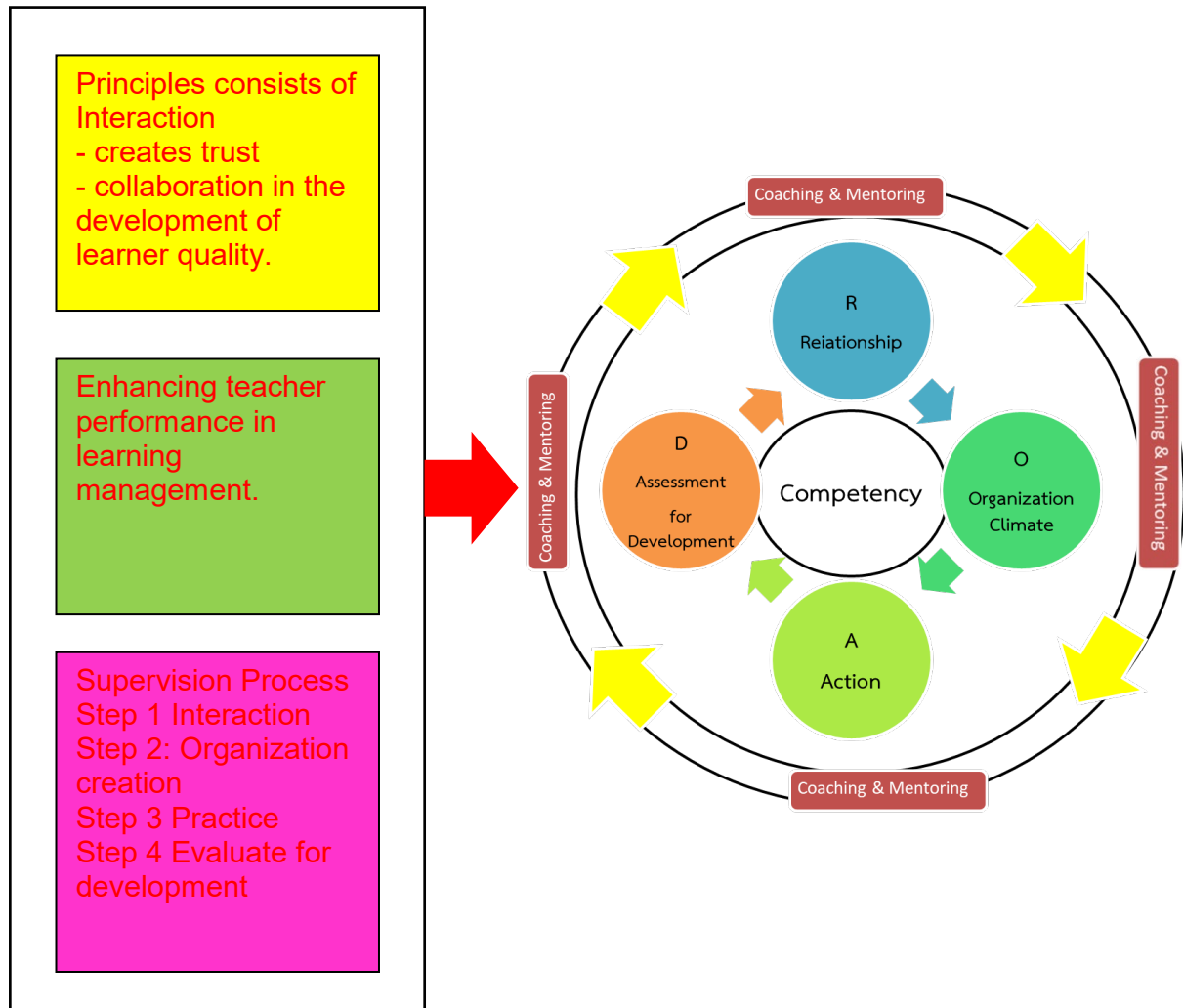


Figure 1: ROAD Instructional Supervision Model

Discussion And Conclusion

The developed instructional supervision model to enhance learning management competencies in primary schools consisted of four components. The first component was interaction (relationship) means interaction between school administrators, supervisors, and teachers in the instructional supervising process which aimed to solve instructional problems and developing a systematic teaching and learning technique. This finding is corresponding to Pakphoom's (2013) study. Pakphoom found that knowledge and understanding of human relationships are the key factors to promote cooperation, teachers' willingness to participate in school operation, and teachers' successful work performance.

The second component of ROAD model was organizational climate. Organizational climate refers to the physical environment within the organization, social behavior of school personnel, communication and cooperation would lead to achieve school goals. As Laoreandee (2013) stated that organizational change is an attempt to improve

systematically within organizations, which may allow the organization to respond to changes from internal and external environments. The third component is action which means the effective operations would help the personnel such as school administrators and teachers work happily, have the courage and power to work. This finding is in line with Joyce, Weil and Calhoun's (2013) study. Joyce et al. emphasized that the principle of quality work is to set clear goals and action oriented model.

The final component of ROAD model was assessment for development that is a process producing information for learning by assessing learner and learning. Information from the learning assessment reflects learners' learning performance and instructions. It leads to the adaption of teaching and learning change so that learner can learn to the full potential. This is in parallel with Somprach's (2016) statement. Somprach mentioned that assessment of learning process must include learning outcomes, learning management plan, and learning assessments.

One of the essential roles of the school administrators is to coach the teachers to do their best. With this developed ROAD supervision model, school administrator, supervisor or senior teachers can help them to make better decisions, solve their instructional problems that are holding them back, provide opportunities for them to learn new skills, and otherwise their teaching career is expected to progress. Some teachers are fortunate enough to get formal training in coaching and supervising. However, many teachers have to develop the learning management competencies by themselves. Therefore, this ROAD supervision model may help school administrators. Supervisors, and teachers with the proven techniques, practice so that teachers are able to enhance their competencies in learning management. Although the ROAD model looks like a simple supervision model yet it is a powerful framework for structuring your supervision.

The ROAD model has been verified by the seven experts and nine practitioners about the suitability of the components and turned up to be most appropriate components to be included. The result was in accordance with the study by Kanjanawasee (2002) who described the four standards for evaluation namely utilization, possibility, appropriateness, and accuracy. Since the nine practitioners also satisfied with the practicality of the ROAD supervision model, researchers would like to suggest to Educational Service Area Offices and all primary schools in Thailand to implement a systematic development for teachers by utilizing this supervision model. Finally, implication of this research is encouraging the policy level agencies to focus on supervision through managing a motivation system for supervisors, school administrators, and senior primary school teachers who can conduct effective supervision.

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Development Of Interactive Particulate-Level Visualization In Chemistry By Using Augmented Reality Technology: Collision Theory And Chemical Reaction Rate

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Abstract

Visualization is known as one of the keys to understanding chemistry concepts, while Augmented Reality (AR) technology is gaining popularity as one of technology-enhanced interactive learning tools. The main propose of this study was to develop an interactive particulate-level visualization in the topic of collision theory and chemical reaction rate, also known as chemical kinetics, by using AR technology for smart devices with android system. This multi-marker AR visualization was developed by using Unity 3D 5.6.0, Autodesk Maya 2017, Vuforia 6.5 and Photoshop CC 2017 software. It was validated by four experts, two chemistry experts and two computer science experts. The average scores from the experts for the content quality, design and presentation, usability, and total scores were 4.70, 4.55, 4.60 and 4.62 out of 5.00, respectively (all were in the 'very satisfied' level). The visualization tool then was implemented in a chemistry classroom of 29 Grade-11 students (semester 2/2017) from a large-size high school in Ubon Ratchathani Province of Thailand. The data collecting tools included the achievement test on chemical reaction rate (pre- and post-test, 15 items) and the survey of students' satisfaction towards the visualization tool. It was found that students' average score for the pre-test was 5.72 (S.D. 1.49, 38.16%). After spending four hours for studying this topic by using the pre-installed AR application on their android smart devices together with corresponding printed markers, their average score for the post-test was 10.93 (S.D. 1.41, 72.87%), which was increased by 34.67%. The paired-samples t-test analysis indicated that the post-test score was statistically higher than the pre-test score at the significant level of 0.05. In addition, they were very satisfied (4.53 out of 5.00) with the visualization tool. Therefore, the developed AR visualization was effective to enhance students' achievement of reaction rate and to make learning chemistry visualizable and enjoyable.

Introduction

The term 'reaction rate' is not a property of the chemical species themselves but rather can only be defined as a property of the extent of a reaction (Schmitz, 2005). In this study, the author considered 'collision theory' as one of the sub-topics in the 'reaction rate'. It is also called chemical kinetics which has been reported as one of the most difficult chemistry topics for high school students in many countries around the world such as Thailand (Chairam, Somsook and Coll, 2009; Supasorn and Promarak, 2015), Turkey (Çalik and Kolomuc, 2012; Çalik, Kolomuc and Karagolge, 2010; Kolomuc and Tekin, 2011), and the Netherlands (Van Driel, 2002). This learning difficulty has been arisen because there are many factors influencing the reaction rate (Justi, 2003) and some of them involve particulate or sub-microscopic explanation. Many visualization tools such as simulations (University of Colorado Boulder, 2018), animations (Supasorn and Amatongchai, 2016), and Augmented Reality or AR applications (Ditcharoen et al., 2014), have been developed to introduce students to the sub-microscopic world and to diminish the above learning limitation. One of the most popular simulations is called PhET Interactive Simulation developed by University of Colorado Boulder (2018).

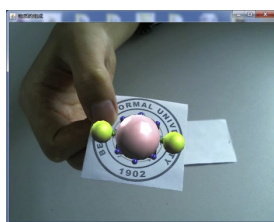
Chemical Reaction Rate:

Several Research studies reported that many students exhibit difficulty in learning this topic. For example, Supasorn and Promarak (2015) attempted to develop Thai high school students' concepts of chemical reaction rate by using inquiry-based experiment together with corresponding analogies. They concluded that inquiry activities may be effective means to enhance and retain students' conceptual understanding, but may not be very effective for helping them recognize their alternative- or mis-conceptions. They suggested that chemistry instructors should implement inquiry activities in conjunction with the corresponding analogies since it is one of the effective way to support students in changing from the less correct conceptions to the more correct conceptions. More examples from Turkey, Çalik, Kolomuc and Karagolge (2010) attempted to identify some limitations encountered in learning the concept of chemical reaction rate of Turkish high school students. They found some of these limitations including (1) incapacity to define the rate of reaction, (2) mis-conceptions of the relationship between the rate of reaction and its influencing factors, and (3) absent of understanding of how activation energy and enthalpy relate the rate of reaction. They also studied effects of conceptual change pedagogy on grade 11 students' conceptions and found that the conceptual change pedagogy intervention helped the students to realized and improve their mis-conceptions. They suggested that the integrated use of various conceptual change techniques is more effective to

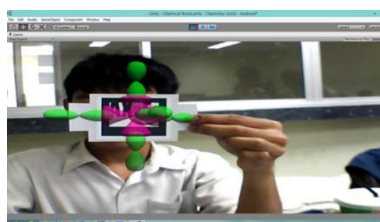
diminish student mis-conceptions. In addition, Cakmakci (2010) tried to identify alternative conceptions of chemical kinetics among secondary school and undergraduate students in Turkey. Some similar alternative conceptions among them included (1) defining reaction rate as reaction time, (2) difficulties explaining how reaction rate changes as the reaction progresses, (3) exothermic reactions occur faster than endothermic reactions, (4) activation energy is the (total) amount of energy released in a reaction, (5) a catalyst does not affect or does not change the mechanisms of a reaction, and (6) an increase in the initial concentration of reactants would increase/decrease the rate of a zero-order reaction. There are more research studies involving student conceptions of chemical reaction rate, however, they are not reviewed in this article.

Augmented Reality (AR) in Chemistry:

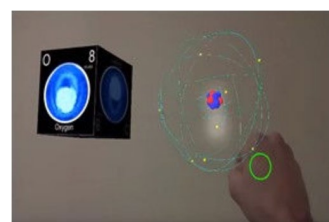
Augmented Reality (AR) Technology has been gaining popularity in learning science courses including chemistry. It allows students to visualize what they cannot observe with their direct perception, such as phenomena at the sub-microscopic or particulate level. In other word, AR technology not only makes it possible to change some abstract or intangible chemistry concepts to be more concrete, but also stimulates students in learning chemistry even in the difficult topics or concepts (Cai, Wang and Chiang, 2014). AR is often used in two main situations: (1) when the phenomenon cannot be simulated in reality such as all sub-microscopic world, and (2) when real experiments have conspicuous shortcomings, such as some experiments involving very toxic, rare or expensive chemicals or equipment (Cai, Wang and Chiang, 2014). Some examples of AR technology in chemistry courses are reviewed in this article. For example, Cai, Wang and Chiang (2014) developed the set of AR Tools containing four specific substance composition applications including water molecules (oxygen and hydrogen atoms, see Figure 1a), diamond crystals (carbon atoms), graphite crystals (carbon atoms), and NaCl (sodium and chloride ion). They implemented the AR tool for Grade 8 students in China and reported that the AR tool is beneficial in improving middle school students' cognitive test performance on corresponding concept, and it has larger influence on low- than on high-achieving students. Additionally, students generally hold a positive attitude toward the AR tool since they enjoyed the exploration experience. Next example is form Thailand studied by Ditcharoen et al. (2014). They developed a learning media in topics of atomic structure and chemical bond with AR technology (Figure 1b). The learning media contains 34 models of chemical structures simulated in form of 3D animations which were able to run on both personal computers and android tablets. This AR learning media was developed by using Autodesk Maya, Photoshop, and Unity 3D. For the quality evaluation of the AR learning media, the item-objective congruence (IOC) from five experts in chemistry field were 0.81, while the satisfaction towards the AR media from 60 undergraduate students from Faculty of Science at Ubon Ratchathani University was 4.36 out of 5.00 (satisfied level). They concluded that this learning media could help students gain a better understanding of chemistry comparing with the traditional method. The last example is form Turkey studied by Taçgin, Uluçay and Özüağ (2016). They developed student-centered AR environment to teach periodic table, atomic structure, molecular structure, and VSEPR Model (Figure 1c). The environment was designed to provide students an active role by using fingers and hands to interact with virtual objects instead of AR markers. In addition, instructional design methods and principles were considered in designing process to get reach of more effective and productive learning material. This AR application will be applied and evaluated experimentally in order to determine effectiveness of this learning method in their further study. From these examples of AR applications, it can be said that AR technology is not only one of the effective means in developing students' learning capability, but also is enjoyable and interesting approach in chemistry learning around the world (Taçgin, Uluçay and Özüağ, 2016).



a) Substance composition applications
(Cai, Wang and Chiang, 2014)



b) Chemical bond (Ditcharoen et al., 2014)



c) Atomic Structure (Taçgin, Uluçay and
Özüağ, 2016)

Figure 1: Screen-captured of some AR applications in chemistry learning

Based on the literature review above, the implementation of AR visualization is expected to be enjoyable and effective to enhance conceptual understanding of the corresponding concepts, especially concepts involving sub-microscopic level or intangible phenomenon, for secondary school students in Thailand who shared the same problems about alternative conceptions and difficulty in understanding 'chemical reaction rate' as students in other countries. As a result, the authors attempted to develop AR visualization tool or application with particulate level features in the topic of collision theory and chemical reaction rate to diminish some learning limitations and to enhance students' understanding at all levels of representations including the sub-microscopic level. This AR

application is called AR interactive Particulate-level Visualization or *ARiPV* of chemical reaction rate.

Research Questions

This research question was posed when the prototype of *ARiPV* was developed: (1) What are the experts' satisfaction when validated the *ARiPV* in terms of content quality, design and presentation, and usability?, and the other two questions were posed when it was implemented for grade-11 students: 2) How do students' scores on the achievement test of chemical reaction rate change before and after performed the corresponding interactive particulate-level visualization?, and 3) What are students' satisfaction towards the *ARiPV*?

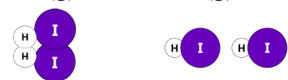







Methodology

There were two phases of methodology in this study including (1) development and expert validation and (2) intervention of the *ARiPV* of chemical reaction rate.

Phase 1 Development and Expert Validation of the *ARiPV*:








The *ARiPV* was developed by using Augmented Reality (AR) Technology for smart devices with android system. This project was developed by our senior undergraduate student majoring in information technology under the authors' supervision. For the collision models, both successful and unsuccessful collisions, for four reactions were firstly designed by an expert in chemistry field (see also Table 1). There were two successful and two unsuccessful collision models for the first three reactions, while there were one successful and two unsuccessful collision models for the last reaction (totally 15 models).

Table 1: Examples of successful and unsuccessful collision models in designing the *ARiPV*

No.	Successful collision	Unsuccessful collision
1	$\text{H}_2(\text{g}) + \text{I}_2(\text{g}) \rightarrow 2\text{HI}(\text{g})$ 	$\text{H}_2(\text{g}) + \text{I}_2(\text{g}) \rightarrow \text{H}_2(\text{g}) + \text{I}_2(\text{g})$ 
2	$\text{H}_2(\text{g}) + \text{Br}_2(\text{g}) \rightarrow 2\text{HBr}(\text{g})$ 	$\text{H}_2(\text{g}) + \text{Br}_2(\text{g}) \rightarrow \text{H}_2(\text{g}) + \text{Br}_2(\text{g})$ 
3	$\text{CO}(\text{g}) + \text{NO}_2(\text{g}) \rightarrow \text{CO}_2(\text{g}) + \text{NO}(\text{g})$ 	$\text{CO}(\text{g}) + \text{NO}_2(\text{g}) \rightarrow \text{CO}(\text{g}) + \text{NO}_2(\text{g})$ 
4	$2\text{NO}_2\text{F}(\text{g}) \rightarrow 2\text{NO}_2(\text{g}) + \text{F}_2(\text{g})$ 	$2\text{NO}_2\text{F}(\text{g}) \rightarrow 2\text{NO}_2\text{F}(\text{g})$ 

For the factors influencing reaction rate, the first reaction ($\text{H}_2 + \text{I}_2$) was chosen to represent the effects of the following factors: normal condition, concentration ($+\text{I}_2/+\text{H}_2$), temperature ($+/-$), and catalyst (+) or retarder (-) effects (totally 7 models, see Table 2).

Table 2: Examples of models for illustrating factors influencing chemical reaction rate of $\text{H}_2(\text{g}) + \text{I}_2(\text{g})$

No.	Factors/Condition	Animation models
1	Normal	
2	+ Temperature	
3	- Temperature	
4	+ Catalyst	
5	+ Retarder	
6	+ I_2 conc.	
7	+ H_2 conc.	

Then, these collision models were transformed to be the multi-marker AR visualization involving some computer programs. The markers used for manipulating the models were QR code images generated from the free QR code generator website and then modified by using Photoshop. Each of all collision models was built in form of 3D animation models using Autodesk Maya. Then the AR-based mobile application for these animations was developed by using Unity 3D and Vuforia. It consisted of narrative sounds and buttons for increasing or decreasing temperature and concentration, and to choose catalyst and retarder. To perform the visualization, the AR application must be installed into an Android smart device. Once the application is enable, move the smartphone camera over any developed marker, the 3D molecular model will appear. To enable two molecular models, two markers must be placed under the camera. Once the two markers are moved close to each other the collision animation will appear in which the two molecular models will move closely and collide each other, and then producing successful or unsuccessful results of collision according to the direction of collision shown in Table 1 (see Figure 2). The direction of collision can be changed by moving one marker to each of the four sides of the other marker. Finally, this *ARiPV* was validated and evaluated by four experts, two chemistry and two computer science professors. Some revisions were made based on expert suggestions.

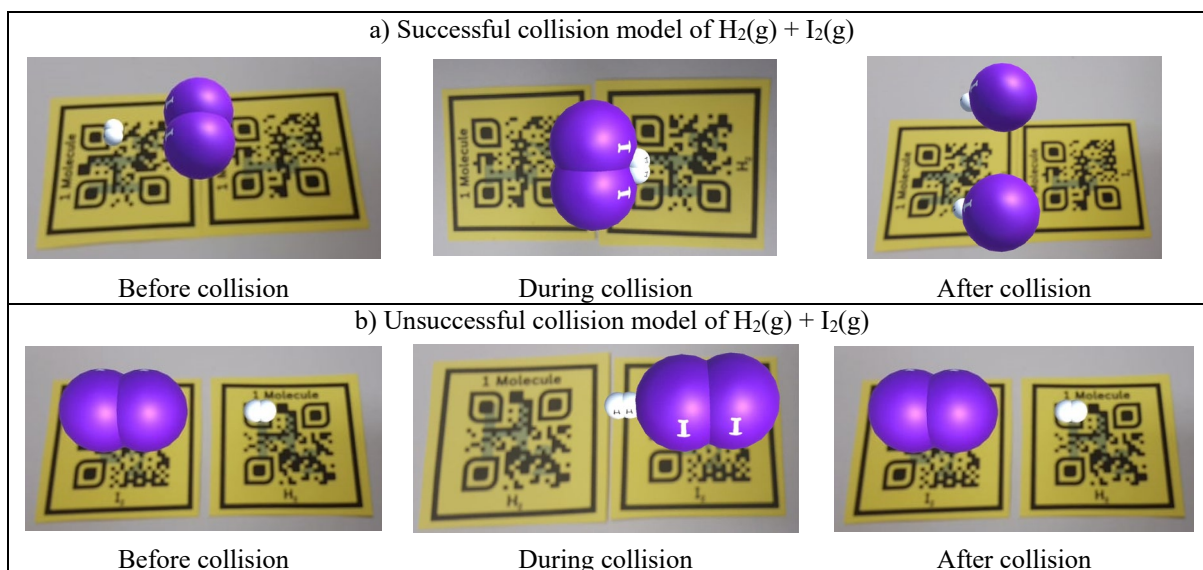


Figure 2: Example of collision models of $\text{H}_2(\text{g}) + \text{I}_2(\text{g})$

Phase 2 Intervention of the *ARiPV* for High School Students:

The implementation phase followed the one group pre-test/post-test study and used a quantitative method in its research paradigm. The details were shown below.

Participants: With prior permission from the school principal and the instructor of the science course during the second semester of academic year 2017, 29 grade-11 students (one classroom) at Det Udom School in Ubon Ratchathani of Thailand who attended all activities in this study were purposively selected as the participants of this study. They were about to start learning the topic ‘chemical reaction rate’ in the chemistry course. Please notice that all research tools (lesson plans and activities, particulate animations, and achievement test) were in Thai in which all examples in this article involved translation into English.

Treatment Tool: The learning activities based-on the *ARiPV* of chemical reaction rate was the only treatment tool in this phase. The prototype of *ARiPV* consisted of AR application or software, markers, and activity form. There were four one-hour visualization learning activities including (1) collision theory (Figure 2-3), (2) chemical reaction rate, (3) effects of concentration and temperature on chemical reaction rate (Figure 4c-d), and (4) effect of catalyst and retarder (Figure 4e-f) on chemical reaction rate. Each of these activities were based on 5E inquiry learning cycle (Bybee et al., 2006; Chau, Samsudin and Yahaya, 2018) in which the students were asked to participate in the following process: (1) Engagement, they were engaged with a scientific question regarding chemical reaction rate of each activity, (2) Exploration, they next explored evidence (or data) to answer the engaged question by interacting with the AR interactive particulate-level visualization focusing on the corresponding feature, (3) Explanation, they formulated explanation from collected evidence (or data) to answer the question, (4) Elaboration, they then elaborated their understanding through group and class discussion concerning their explanation and further concepts as well as applications in their daily life contexts, and (5) Evaluation, they were finally evaluated their understanding by means of class and group discussions together with corresponding assignment or task.

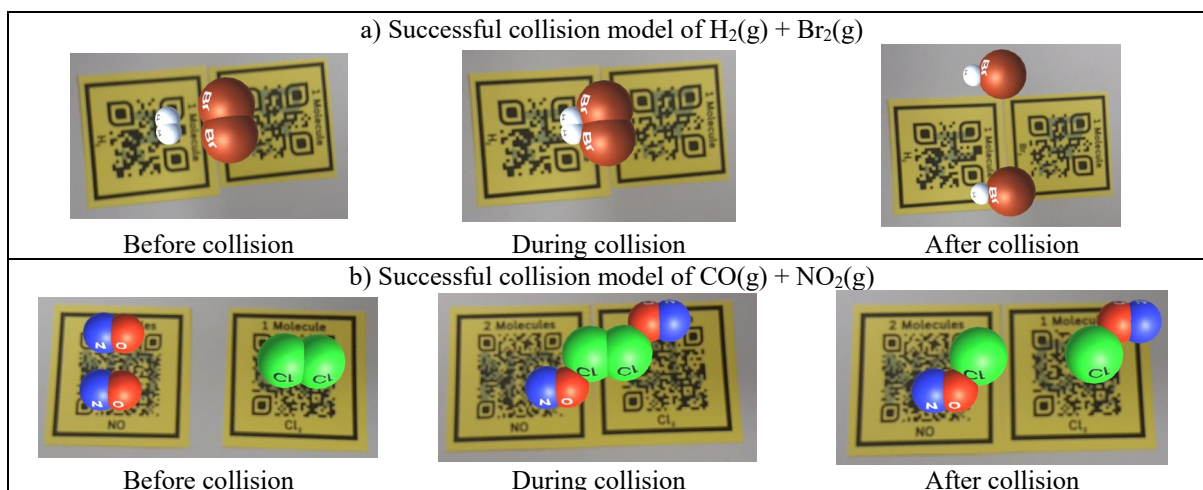


Figure 3: Examples of successful collision models for the rest reactions

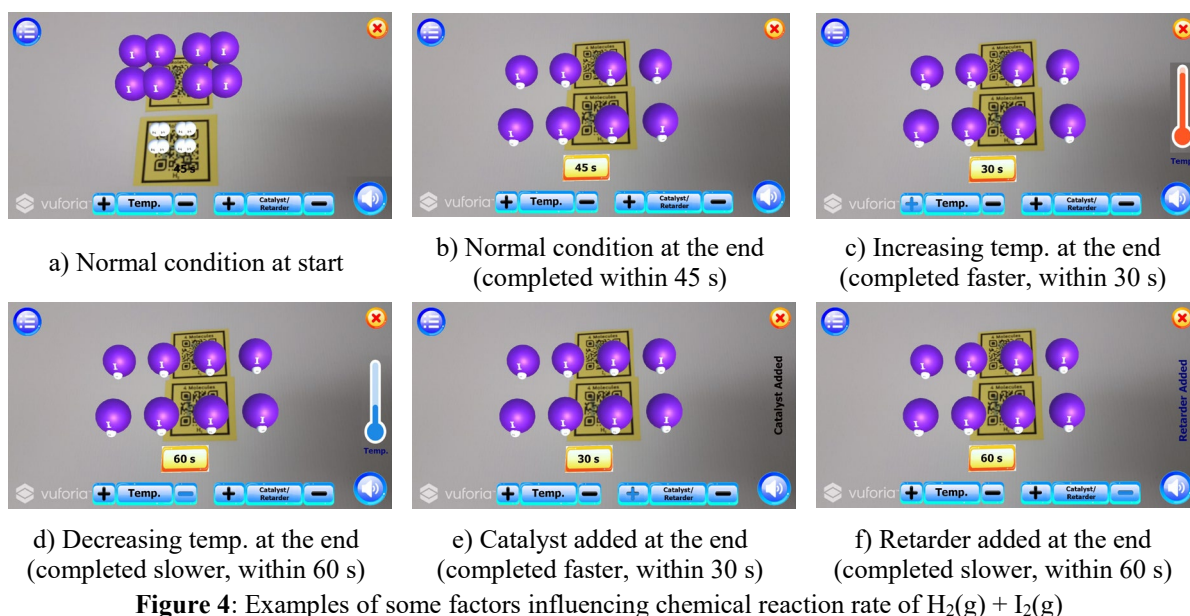


Figure 4: Examples of some factors influencing chemical reaction rate of $\text{H}_2(\text{g}) + \text{I}_2(\text{g})$

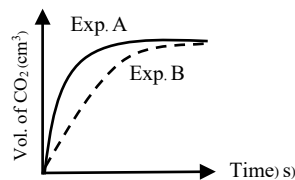
Data Collecting Tool: There were two types of data collection tools in this study. The first tool was the achievement test of chemical reaction containing 15 items, in which each item was credited 1 point. The test consisted of three sub-topics including collision theory (3 items), chemical reaction rate (3 items), and factors influencing chemical reaction rate (9 items). The test was content-validated by two senior chemistry lecturers and one chemistry education professor. The second tool was the survey of students' satisfaction toward the *ARiPV* in which some items were selected and adapted from the survey by Cai, Wang and Chiang (2014).

Q1: Consider the reaction of Mg and HCl shown below.

$$\text{Mg}(\text{s}) + 2\text{HCl}(\text{aq}) \rightarrow \text{MgCl}_2(\text{aq}) + \text{H}_2(\text{g})$$

Which change will give a result as Exp.B?

A. Increase the volume of HCl(aq) with the same concentration.
B. Increase the amount of Mg with the same size.
C. Use larger-size of Mg with the same amount.



Q2: Consider the following reaction: $\text{M}(\text{s}) + 2\text{HA}(\text{aq}) \rightarrow \text{MA}(\text{aq}) + \text{H}_2(\text{g}) + \text{Heat}$

Which experiment will generate $\text{H}_2(\text{g})$ fastest?

A. Zn reacts with 1.0 M HCl B. Mg reacts with 1.0 M HCl C. Mg reacts with 1.0 M CH_3COOH

Figure 5: Example of a test item in the achievement test of chemical reaction rate

Implementation: The four visualization activities were implemented as one of the chemistry course learning activity. All participants participated in the following process. They began the process by completing the pre-achievement test of chemical reaction rate. They then spent 4 hours for learning four activities and interacting with the *ARiPV* of chemical reaction rate through 5E inquiry learning cycle (Figure 6). The AR application was pre-installed on their android smart devices together with corresponding printed markers, two android smart devices and one set of printed markers for each group (4-6 students per group). Finally, they completed the post-achievement test as well as the survey of students' satisfaction towards the *ARiPV*.

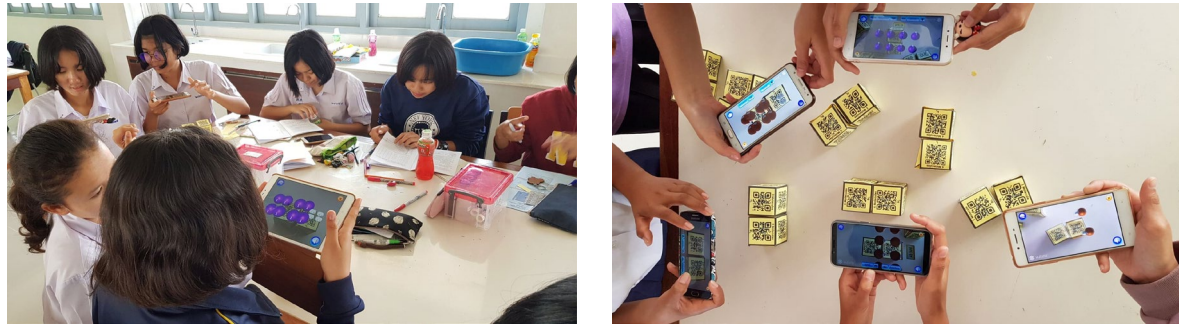


Figure 6: Students interacting with the *ARiPV* of chemical reaction rate

Data Analysis: The data collected in this phase were pre- and post-achievement test scores and student' satisfaction towards the visualization. The paired samples T-test analysis was applied to identify the differences between the means of pre- and post-achievement test scores at the 95% confidence level. Class normalized learning gain or $\langle g \rangle$ was applied to identify the level of learning gain (Hake, 1998; Pentecost and Barbera, 2013). The topics with $\langle g \rangle \leq 0.30$, $0.30 < \langle g \rangle < 0.70$, and $\langle g \rangle \geq 0.70$ were classified into low-, medium-, and high gain categories, respectively.

Research Findings

The results of this study were divided into two phases: (1) expert validation and evaluation of the AR interactive visualization of chemical reaction rate, and (2) students' achievement test score and satisfaction towards the visualization.

Expert Validation and Evaluation of the *ARiPV*:

In the process of the validation and evaluation of the prototype of *ARiPV*, the average satisfaction from all four experts was 4.63 out of 5.00, which was in the 'very satisfied' level. The satisfaction was divided into three aspects including content quality, design and presentation, and usability. The average satisfaction for each aspect was 4.70, 4.55 and 4.60, respectively (all were 'very satisfied' level). Some modifications were made upon expert comments and suggestions. Some of the modifications were to improve the narration sound quality, the presentation form of the markers, and color of the 3D model.

Table 3: Expert validation and evaluation of the *ARiPV* of chemical reaction rate

Item	Mean	S.D.	Satisfaction level
A. Content quality	4.70	0.47	Very satisfied
B. Design and Presentation	4.55	0.60	Very satisfied
C. Usability	4.60	0.49	Very satisfied
Total	4.63	0.52	Very satisfied

Students' Achievement Test Score and Satisfaction towards the *ARiPV* of Chemical Reaction Rate:

The results of this phase were divided into two sub-topics as follow.

Students' Achievement Test Score of Chemical Reaction Rate: Prior to learning the topic of chemical reaction rate, the students' pre-achievement test score was 5.72 (S.D. 1.49, 38.16%), see Table 4. After they spent four hours interacting with the *ARiPV* learning activities, their post-achievement test score was 10.93 (S.D. 1.41, 72.87%). The paired-samples T-test analysis of students' achievement test scores indicated that they obtained post-test score higher than pre-test core at the 95% significant level of confidence, in which the actual gain was 34.71% and the normalized gain was 0.56 (medium gain). the lowest score of the pre-test was in the topic of collision theory. This was arisen because they were unaware of direction and energy of collision. For the post-test scores, they obtained over 70% in all topics and the normalized learning gains or $\langle g \rangle$ were in the medium level in all topics. This occurs due to the fact that the *ARiPV* contains both the macroscopic and the sub-microscopic features

that allow the students to observe what happens at the particulate level and to observe how the rate change when each factor is added. This can effectively support the students to notice and correct their prior mis-conceptions to be the more correct concept of all sub-concepts. However, the chemical reaction rate was the topic with slightly higher gain, while the factors influencing rate was the topic with slightly lower gain than the other topic. This can be explained that there were just 3 test items in the ‘chemical reaction rate’ with only a few sub-concepts, which is about definition of reaction rate and the rate decreases over time. On the other hand, there were 9 test items in the ‘factors influencing rate’ and more factors involving in this topic so the students may get confused about how each factor influences the reaction rate.

Table 4: Students’ pre- and post-achievement test scores of chemical reaction rate

Topic (total score)	Pre-test			Post-test			Learning gain		T (T-test)
	mean	SD	%	mean	SD	%	%	<g>	
1. Collision theory (3)	1.10	0.31	36.78	2.14	0.83	71.26	34.48	0.55	6.438*
2. Chemical reaction rate (3)	1.17	0.47	39.08	2.28	0.65	75.86	36.78	0.60	7.273*
3. Factors influencing rate (9)	3.62	0.94	40.23	6.52	1.12	72.41	32.18	0.54	9.681*
Total (15)	5.72	1.49	38.16	10.93	1.41	72.87	34.71	0.56	15.084*

* Statistically significantly different at the 95% confidence level ($p < 0.05$)

This finding indicated that the intervention was effective to enhance students’ achievement understanding of chemical reaction rate. This finding is aligned with the previous studies that AR technology is one of the effective means in developing students’ learning capability (Taçgin, Uluçay and Özüağ, 2016), supporting them to improve cognitive test performance on corresponding concept (Cai, Wang and Chiang, 2014), and helping them gain a better understanding of chemistry (Ditcharoen et al., 2014). However, some of them tended to hold some previous reported mis-conceptions, such as definition of reaction rate, relationship among factors and their influences on reaction rate (Cakmakci, 2010; Çalik, Kolomuc and Karagolge, 2010), defining reaction rate as reaction time, the rate of a reaction increases with time, and exothermic reactions occur faster than endothermic reactions (Cakmakci, 2010).

Students’ Satisfaction towards the Prototype of *ARiPV*:

From the survey of students’ satisfaction towards the *ARiPV*, the students rated their overall satisfaction at the ‘very satisfied’ level (mean 4.59, S.D. 0.54), see Table 5.

Table 5: Survey of students’ satisfaction toward the prototype of *ARiPV* of chemical reaction rate

Item	Mean	S.D.
1. AR-based learning software is more interesting than previously used learning methods	4.69	0.54
2. Using AR-based software enables me to view chemistry concepts such as the particulate world, atoms, and molecules in a different way	4.59	0.63
3. I like learning chemistry using AR	4.52	0.69
4. I hope that other disciplines such as physics and biology will apply AR tools to learning as well	4.55	0.51
5. I hope to use similar AR tools to learn chemistry in the future if possible	4.62	0.68
6. I will recommend the AR learning tool to other classmates	4.59	0.50
7. I’m interested in using AR-based learning tools	4.52	0.51
8. The content of this software is closely related to the ‘rate of chemical reaction’, which is a very interesting topic to me	4.55	0.51
9. The AR-based learning tool enables me to learn not only on own but also with my friends and classmates	4.55	0.51
10. The design of this software is pleasing and genuine	4.83	0.38
11. The colour of this software is appropriate, as it is attractive and does not distract me	4.52	0.51
12. The narration sound of this software is appropriate, as it is attractive and does not distract me	4.66	0.55
13. I think that learning about the rate of chemical reaction and particulate world using an AR-based learning tool is necessary	4.55	0.51
Total	4.59	0.54

Note: The survey was adapted from Cai, Wang and Chiang (2014)

When consider each survey item, the mean score for each of 13 items was also rated at the ‘very satisfied’ level with mean value greater than 4.50. They rated top three highest satisfactions in terms of ‘pleasant and genuineness of the software’, ‘more interesting than previously used learning methods’ and ‘narration quality’. This implied that when the students were interacting and learning by using the AR visualization application of chemical reaction

rate, they highly agreed that the application can enable them to view chemistry at the particulate world and to learn not only on their own but also with classmates. They also highly agreed that AR based-learning application should be applied to future topics in chemistry and other disciplines. They were interested in using AR based learning tools and would recommend the AR learning tool to other classmates. Finally, they highly satisfied that this application is closely related to the 'rate of chemical reaction' and that learning about the rate of chemical reaction and particulate world using an AR-based learning tool is necessary. This finding is aligned with the previous studies that students generally hold a positive attitude toward the AR tool since they enjoyed the exploration experience (Cai, Wang and Chiang, 2014) and that AR technology is enjoyable and interesting approach in chemistry learning around the world (Taçgin, Uluçay and Özüağ, 2016).

Conclusion

This study showed that the prototype of AR technology can be successfully used in developing a particulate-level visualization since it enables the visualization to be interactive, interesting, accessible, portable, and enjoyable. From the expert validation of this application, it showed that the experts totally agreed that this AR-based visualization is appropriate to be one of the main resources in learning chemical reaction rate which is one of the difficult and intangible concepts in chemistry. From the intervention of this visualization for grade-11 students in a regular school in Thailand, it verified that the intervention of the AR-based interactive particulate-level visualization application or *ARiPV* application through 5E inquiry learning cycle was effective to develop students' leaning achievement of chemical reaction rate as their post- achievement test score was statistically higher than the pre- achievement test score. Their mean of the post-test score was greater than 70% in all topic in which the actual and normalized learning gains were 34.71% and 0.56, respectively. Their satisfaction towards the *ARiPV* was at the 'very satisfied' level (mean 4.59). This indicated that the use of AR-based interactive particulate-level visualization through 5E inquiry learning cycle was effective not only to promote students' conceptual changes from the less to the more correct understanding both at macroscopic and symbolic levels, as well as particulate level, but also to bring students to learn chemistry with more enjoyment, excitement, interest, and attention than traditional learning approach (Cai, Wang and Chiang, 2014; Taçgin, Uluçay and Özüağ, 2016).

This study may have implications for chemistry instructors in that sub-microscopic- or particulate-level visualization tools (such as AR applications, simulations, and animations) play important role in learning chemistry especially for the intangible concepts at the sub-microscopic world. Simply lecturing or implementing chemistry experiment can be effective to enhance students' understanding at the macroscopic and symbolic levels, but not the sub-microscopic level. Corresponding visualization tools at the particulate level should be considered to be in conjunction used with the lecture topic or implemented experiment.

In our future study, this prototype of the *ARiPV* application will be further modified to reach better quality and then published on Google Play. The final version of *ARiPV* application in conjunction with the corresponding small-scale chemistry experiment of chemical reaction rate will be intervened for the new group of students and findings will be reported in our further study.

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Development Of Meditation Program To Enhance Emotional Intelligence For Elder People

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Abstract

This paper was aimed to evaluate the benefits of meditation in regard to emotional intelligence thus develop a meditation program to enhance emotional intelligence for elderly people. Researchers utilized quantitative survey design using questionnaire as an instrument to collect data. After reviewing the related literatures and interviewing seven meditation experts, researchers identified four main factors and 15 secondary factors. The four main factors were concentration, mindfulness, critical thinking, and positive thinking. Concentration factor consisted of attention, focus, and no distraction. Mindfulness factor was comprised of conscious, recall, and control. Critical thinking factor included identify, analysis, synthesis, and problem-solving. Positive thinking covered openness, optimistic, non-judgments, confidence, and courage. A total of 330 samples were selected from a population of 1,635 who are the elderly people who studied and practiced mediation using multi-stage random sampling technique. The location of the study is Khon Kaen province. The quantitative findings showed that mindfulness factor (PNI = 0.61) is the most desirable needed factor. This is followed by critical thinking factor (PNI = 0.59). Finally, positive thinking and concentration factors are found to be the least desirable needed factors which have the same value of PNI that is 0.58.

Keywords: *Concentration; critical thinking; elderly people; emotional intelligence; meditation program; mindfulness; positive thinking*

Introduction

Many previous studies have linked people's negative mental and emotional states to adverse health outcomes (Chu, 2010). Chu studied 351 full-time working adults with different experience in meditation found that those participants with greater meditation experience exhibited higher emotional intelligence. Meditation would seem to be one of the effective coping strategies for enhancing emotional intelligence and promoting mental health simultaneously (Carmody & Baer, 2008). Carmody and Baer found that meditation is not only beneficial to mental health but also the regulation of cognitive and emotional functioning. Other studies have found that practicing meditation can enhance emotional intelligence, sociability, empathy, positive states of mind, positive values, happiness and joy, and positive thinking (Block-Lerner, Adair, Plumb, Rhatigan, & Orsillo, 2007). This is further supported by Lutz, Slagter, Dunne and Davidson (2008). Lutz et al. found that meditation practices potential regulatory functions on attention and emotional processes can cultivate such ends as well-being and emotional balance.

Emotional intelligence is defined as the ability to identify and manage individual own emotions as well as those of other people. It incorporates emotional awareness, emotional application, and emotional management (Ositive Psychology Program, 2016). Chu (2010) revealed that there are three ways meditation can increase individual's emotional intelligence as follow: (i) meditation helps individual to become aware of and detach from negative thoughts; (ii) meditation helps individual to read the emotions of other people, and (iii) meditation melts away layered of anxiety, depression, dysfunctional thought patterns, and years of piled up emotional baggage.

Conceptual Framework

At the preliminary stage, researchers reviewed the related literatures and interviewed seven meditation experts to identify the four main factors, 15 secondary factors and 34 indicators. The four main factors are concentration, mindfulness, critical thinking, and positive thinking.

Concentration factor is defined as focusing on meditation such as maintaining our mind consciously without any

distraction. The concentration factor consists of three secondary factors namely attention, focus, and no distraction. The second factor is mindfulness. Mindfulness factor means looking at the surroundings consciously as they are neutral but naturally they are changeable. Mindfulness factor encompasses three secondary factors that are conscious, recall, and control. The third factor is critical thinking. The critical thinking factor means pondering deliberately and reasonably by wisdom. Each situation is evaluated and concluded based on individual's knowledge, thinking, and experiences by proving evidences. The critical thinking factor is comprised of four secondary factors such as identify, analysis, synthesis, and problem-solving. The final factor of meditation is positive thinking. The positive thinking refers to have positive viewpoints, courage in overcoming any problems and obstacles. The positive thinking factor consists of five secondary factors namely openness, optimistic, non-judgment, confidence, and courage. The proposed conceptual framework is shown in Figure 1 below:

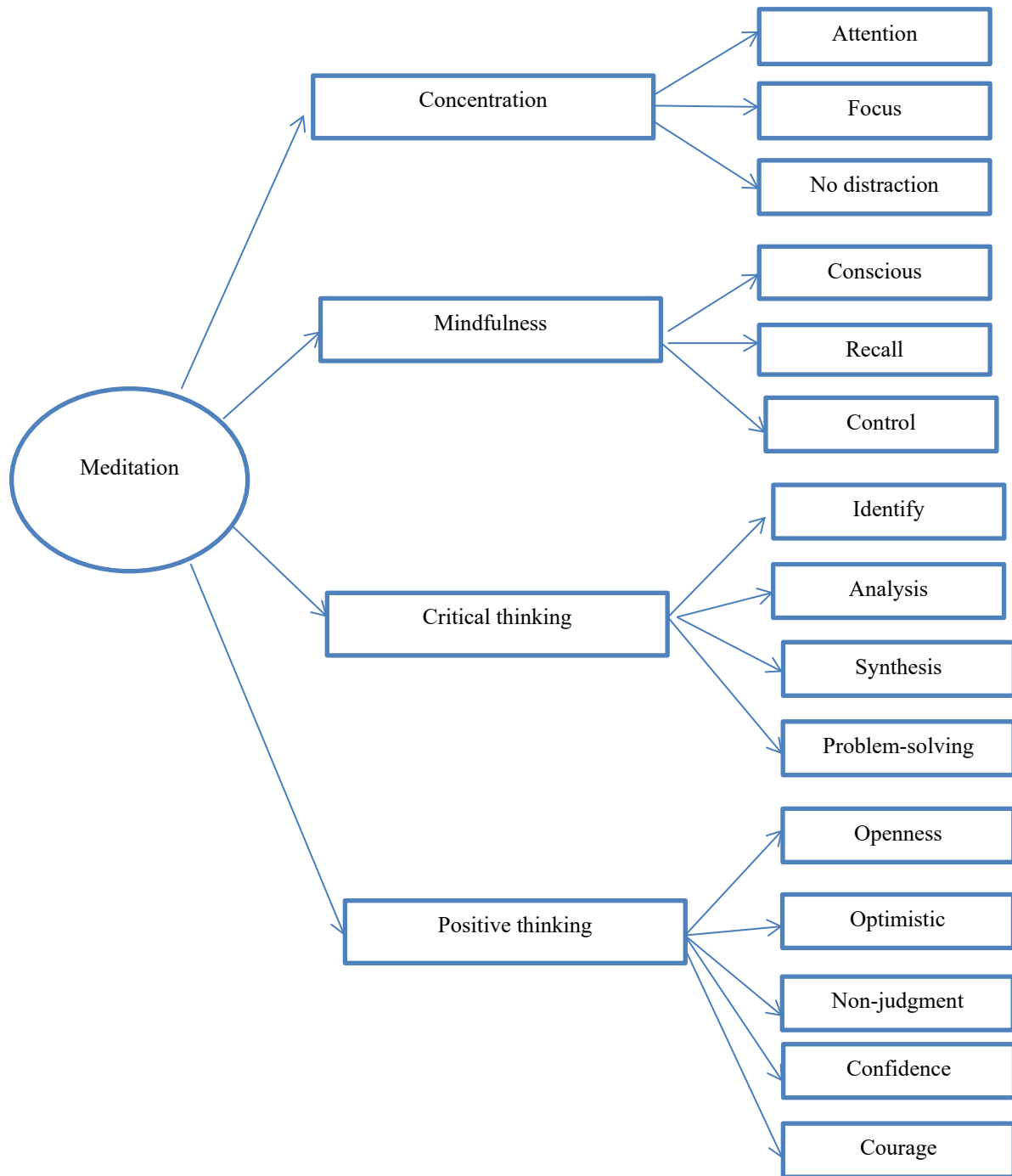


Figure 1: Conceptual Framework

Attention means concentraing mind firmly with continous patience. Focus means setting target of mind by focusing

on emotions. No distraction means thinking only determined topic without any distraction and being able to retrieve thinking to determine one. Conscious means to be aware of own current emotions, thinking, and self-reminding. Recall means to be able to remember and not forget the present data. Control means to be able to control of emotions and understand the essence of emotional control.

Identify means defining problems and setting criteria in specifying features of problems. Analysis means improving data deliberately and reasonably. Synthesis means data processing and data storage. Problem solving means making decision based on values of each feature with reasons, causes, and relationships for actual practice and application. Openness is defined as capability of understanding the process of both self-thinking and self-emotion. Optimistic defines thinking in positive about viewpoints of world and living styles. Non-judgment defines as excluding our thinking into making decision. Confidence is defined as confidence in thinking and do not fear of making mistake, and courage means courage to tell what we are thinking.

Method

A survey design was employed by researchers using questionnaire as a method of quantitative data collection. A total of 1,635 population of this study who are elderly people and they are staying in Khon Kaen province, Thailand. The population was distributed into three groups namely those elderly people aged between 60 to 64 years old, 65 to 69 years old, and more than 69 years old respectively. All the three groups were with a combination of male and female before they were selected. The criteria of selecting samples were the samples who are consciously not to mess up the fuzzy information and willing to participate in the study. Researchers utilized multistage random sampling to determined 330 samples out of the 1,635 population.

Survey questions in the form of questionnaire were distributed to 330 samples for collecting information on their perceptions about meditation practice and their current condition and desirable needs. This methods benefits this study in terms of obtaining data more efficiently as time, energy and costs could be minimized (Sekaran 2006), provides an excellent means of measuring attitudes and orientations in a large population which can, therefore, be generalized to a larger population (Babbie 2002).

The survey questionnaire instrument was administered in Thai language to ensure that the respondents were clear about the statements. The questionnaire was comprised of two sections. Section A was including demographic items which were intended to gather information regarding demographic factors of the respondents. Information pertaining to their personal background such as gender, age, educational level, marital status, annual income, occupation, health problem, mental problem, used to practice meditation, and frequency of meditation practice. Section B was specifically designed by researchers to gauge the perceptions of the elderly respondents about the current condition and desirable needs regarding the main and secondary factors. To measure the respondents' responses towards meditation practice, a five-point Likert scale was used.

The questionnaire was then sent to advisor for comments and feedback. This is followed by sending the questionnaire to seven experts for checking precision linear content (Index of item objective Congruence, IOC). These seven experts were selected based on the criteria as they are meditation experts who have knowledge and skills of meditation. From the feedbacks returned by the seven experts, some modifications were made to the original instrument and the IOC value was higher than 0.80. Reliability testing was carried out to 30 elderly people who have the similar background but they were not the samples of the actual study. It could be concluded that the instrument was reliable and good to use because the Cronbach alpha value is 0.75.

According to Chueachot, Srisa-ard and Srihamongkol's (2013) interpretation of comment, researchers determined its level as shown in Table 1. Data was analyzed using descriptive statistics include percentage, mean score, and standard deviation. This is followed by the analysis and priorities the needs required by the formula of Modified Priority Needs Index (PNI_{Modified})

Table 1: Interpretation of mean range

Mean range	Interpretation
1.00 – 1.50	The least level of comments
1.51 – 2.50	The less level of comments
2.51 – 3.50	The moderate level of comments
3.51 – 4.50	The much level of comments
4.51 – 5.00	The most level of comments

Results

The initial result is the descriptive results related to the backgrounds of the respondents that derived from the Section A of the questionnaire. This is followed by results about the current and the needs required conditions as well as the PNI reading on meditation factors.

Descriptive results

The backgrounds of the respondents showed that majority of them are females, aged between 60 to 64 years old, higher education graduates, and have already retired. The overall samples were quite equally distributed in term of their marital status and health problem. Table 2 shows the backgrounds of the respondents.

Table 2: Backgrounds of the respondents

Demographic factor	Categories	Total number	Percentage
Gender	Male	96	29.10
	Female	234	70.90
Age	60-64	187	56.70
	65-69	117	35.50
	More than 69	26	7.90
Education	Primary	33	10.00
	Secondary	62	18.80
	Higher	235	71.20
Marital status	Single/Divorced/Widowed	138	41.80
	Married	192	58.20
Annual income	10,000 - 29,999 baht	78	23.60
	30,000 - 49,999 baht	54	16.40
	50,000 - 99,999 baht	50	15.20
	More than 100,000 baht	148	44.80
Occupation	Retired/No job	232	70.30
	Part time	58	17.60
	Full time	40	12.10
Health problem	Healthy	181	54.80
	With health problem	149	45.20
Mental health	Used to consult psychologist	1	0.30
	No problem	329	99.70
Used to practice meditation	Ever	330	100
	Never	0	0
Frequency of meditation practice	1-2 times/month	84	25.50
	3 - 4 times/month	38	11.50
	Over 5 times/month	208	63.00

Results about current and the needs required conditions

Results of the study revealed that the overall needs of meditation program was necessary to fix as PNI = 59. Although the current conditions were found to be at moderate level (mean score = 2.90, $SD = 0.29$), but it also needs required condition to increase (mean score = 4.61, $SD = 0.62$). When researchers separated each main factors and secondary factors, results showed that there is a necessary requirement in descending as follows. Table 3 below shows the mean score and standard deviation of the current and the needs required conditions as well as the priorities need index for each meditation factor.

Table 3: Current and the needs required conditions

Meditation factors	The current conditions			Needs required conditions			Priorities needs index
	Mean	SD	Level	Mean	SD	Level	
Concentration	2.91	0.25	Moderate	4.59	0.63	High	0.58
Attention	2.96	0.14	Moderate	4.66	0.59	High	0.57
Focus	2.94	0.23	Moderate	4.53	0.59	High	0.54
No distraction	2.83	0.39	Moderate	4.58	0.67	High	0.62
Mindfulness	2.85	0.37	Moderate	4.60	0.63	High	0.61
Conscious	2.91	0.31	Moderate	4.65	0.58	High	0.60
Recall	2.76	0.49	Moderate	4.52	0.69	High	0.64
Control	2.90	0.31	Moderate	4.62	0.62	High	0.60
Critical thinking	2.86	0.38	Moderate	4.54	0.63	High	0.59

Identify	2.86	0.36	Moderate	4.56	0.65	High	0.59
Analysis	2.81	0.46	Moderate	4.54	0.60	High	0.62
Synthesis	2.86	0.37	Moderate	4.52	0.64	High	0.58
Problem solving	2.89	0.31	Moderate	4.55	0.62	High	0.57
Positive thinking	2.97	0.16	Moderate	4.70	0.58	High	0.58
Openness	2.99	0.10	Moderate	4.66	0.50	High	0.56
Optimistic	2.99	0.10	Moderate	4.68	0.50	High	0.57
Non-judgment	2.99	0.10	Moderate	4.73	0.55	High	0.58
Confidence	2.96	0.19	Moderate	4.66	0.62	High	0.57
Courage	2.94	0.26	Moderate	4.76	0.50	High	0.62
Overall	2.90	0.29	Moderate	4.61	0.62	High	0.59

Discussion And Conclusion

This study has examined the meditation factors to determine whether it helps to improve emotional intelligence. As expected, meditation experience was positively associated with emotional intelligence, which is in parallel with past studies' results that practicing meditation can enhance emotional intelligence (Chu, 2010). Results of this study reflecting the importance of meditation process to be more emphasized in terms of providing knowledge and skills of meditation factors. The meditation learners need to take into consideration on mindfulness factor. This is because the mind condition has to be aware to recall and control one's mind as a priority factor with good understanding before doing meditation and be able to evaluate after meditation.

Secondly, it is also important to be able to apply the critical thinking which consists of identify, analysis, synthesis and problem solving during meditation to understand and improve the state of mind and turn situation and problem to be learner's experiences and skills. This is followed by the positive thinking factor which also play important roles in enhance the ability and skills in mediation. The last important factors to improve and develop the confidence and belief in good benefits of meditation is positive thinking factor which most of the respondents have already had this attribute in Thai culture. Hence, the development model of meditation program must consist of these four factors prioritized as shown in the result of above need assessment. The most desirable result of meditation is happiness found in good understand of one's mind in being concentrated in mindfulness while applying one's critical thinking factors and encourage positive thinking into benefits of oneself and others in society.

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Development Of Studio Model For Enhancing Ict-Use In Education For The 21st Century

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Abstract

The purpose of this study was to develop the studio model for enhancing use of ICT in education for the 21st century. This study was carried out by synthesizing research papers and analyzing focus group data from 10 experts. The result showed that the model has designed to be a place where students are encouraged to use it for (i) a laboratory room for the use and development of ICT in education, (ii) a place for training and exchange of knowledge about using ICT in education, (iii) an innovative and educational technology service, and (iv) a place for sharing knowledge and working with others. It has 2 main components: service and stakeholder. The service components consist of (i) technology & infrastructure, (ii) pedagogical & technical support, and (iii) variety training & activities. The stakeholder components include (i) institutes and partnerships, (ii) undergraduate student and pre-service teacher, and (iii) instructor. There have been many suggestions for the implementation of this model on the management policy, and the establishment of partnerships with external organizations.

Keywords: *ICT in Education, the 21st century, Studio model*

Introduction

The Information and Communication Technology (ICT) has been used as a powerful tool in teaching and learning to help develop 21st century learners who have profound knowledge and efficient skills such as the ability to communicate, brainstorm, solve problems and collaborate (Sitzmann, Bell, Kraiger, and Kanar, 2009; Punya, Chris, and Danah, 2013). Such change has been one of the major causes of Thailand's educational reforms for more than a decade. Thailand's educational reform focuses on the development of the ability to use technology for education and provide sufficient knowledge and skills to use technology to pursue self-knowledge throughout life (Ministry of Education, 2011). Like the National Economic and Social Development Plan, they have planned to a continuous development of people and society to learn throughout life and keep pace with an opportunity of change to access resources and create economic opportunities with knowledge based on Technology and Innovation (Office of the National Economics and Social Development Board, 2010). The "Thailand 4.0" policy of the present day also focuses on innovation in driving the country by ICT. ICT has become an important tool in both manufacturing and working sectors. For this reason, the development of new-age learners must focus on developing the students' ability to use ICT as a tool for planning, designing, managing, solving problems, creating communication and working to develop innovation with others for the changing needs of the country and society (Sinlarat, 2016).

Higher education aims to prepare students for a career in the future. It is important to focus on and set goals for the development of the learners' skills in the use of ICT as a tool to promote their learning and also disseminating knowledge to others. Although today's tertiary learners are familiar with the use of ICT, such as smartphones, in their daily lives, the study of Lei (2009) and Goktas et al. (2009) has found that students in higher education only have the basic skills despite the modern materials provided in class. They lack experience but be skilled in high-level ICT. This may be because they have not yet seen instructors use ICT in teaching since there is a limit use. This resulted in students, especially teachers, not gaining experience to use ICT in their learning and it may affect their teaching career in the future (Pheeraphan, 2016; Lim and Khine, 2006).

Institutions in higher education should focus more on providing a learning environment that encourages learners to have the ability to use innovation and communication technology, and to communicate accurately, to benefit their learning and work with others with ethics. This development cannot be achieved by studying only one course, but it is a continuous learning throughout the study period. It should be learned by the students, who can practice and learn by themselves, from learning resources or organized knowledge. It will meet the needs, attention, readiness and time of each one truly. For this reason, it is recognized that the importance and necessity to find out the role of cooperation of stakeholder for the ability to enhance the use of innovation and ICT effectively in the University is not emphasized only for their sake of learning, or working and learning with others, but also for the sake of their future careers.

The Purpose Of This Study

The purpose of this study was to develop the enhanced use of ICT in the educational studio model (Studio TEACH) for 21st century undergraduate students.

Literature Review

1. Principles of Learning in the 21st century

Principles of the 21st century learning, which is a learner-centered learning, relies on constructivism theory. Learning is a process that occurs within the learner. The learner is the creator of knowledge from the relationship between what is perceived and existing knowledge. This concept of learning is focused on creating new knowledge through the thinking process, social process and group process. Students are encouraged to participate in the class. The instructor is the facilitator to provide learning experience to the learner, which is consistent with the interests, ability and aptitude by integration of teaching methods and variety of learning resources (Techakup and Yindeesuk, 2013). According to Panich (2012), the design of learning is appropriate to the learner-centered learning which the learner is involved in the creation of knowledge and teamwork with others. Moreover Laohajaratsang (2007) said the future learning model is collaborative learning. The learning process is based on interactions between learners and learners, learners and instructors and/or community learning. There are various learning environments such as learning resources, digital and non-digital media sources, including appropriate learning activities. In this learning process, teachers need to have ICT skills to be able to create and utilize resources and digital resources. In addition, they have to use ICT as a tool to organize learning environment for students.

2. ICT is an important skill for all students in the 21st century.

The concept of the 21st century basic skills must be developed. One very important skill is ICT skills. Learning in higher education will encourage students to use ICT as a tool to access, manage, evaluate, create and communicate to work with others efficiently and appropriately in accordance with the moral and relevant laws (Panich, 2012; Dede, 2010; Kim, Jung, & Lee, 2011; Partnership for 21st Century Skills, 2009; California Emerging Technology Fund, 2011).

3. Thai Teacher's Competency

The Teachers' Council of Thailand has set a standard for professional teachers. All teachers must have the standards of knowledge, innovation and information technology education. Teachers need to a) be able to choose, design, build, and innovate so that learners can learn, b) develop technology ad information for learners to learn better, and c) find a variety of learning resources to promote the learning of students. It is compatible with many foreign scholars and organizations such as UNESCO (2007, 2011), Australian Institute for Teaching and Learning Leadership (2011), and International Society for Technology in Education (2005). Identifying ICT is one of the key competencies that teachers in the 21st century need so that teachers will be able to apply ICT as an important tool in learning management that promotes learners' learning.

In this research, the phrase "the use of innovation and information technology in education" means the ability to use ICTs as tools to access, combine, evaluate, create and communicate information to learn, work, and promote the learning of others.

4. Technological Pedagogical Content Knowledge (TPACK Model)

Mishra and Koehler (2008) mentioned the knowledge that teachers must have in teaching with technology are knowledge of the content, knowledge in how to teach, and knowledge in how to choose and use technology. The TPACK Model is very much in line with the 21st century learning, since the role of technology is increasingly becoming important and changing. Teachers in this age must have proper knowledge in all three aspects for effective teaching and learning.

5. Learning Environment

Learner-centered learning is an opportunity for learners to engage in a variety of learning activities. In particular, the concept of environmentally-friendly learning is based on constructivism (Chaicharoen, 2014). It is the environment or the place where the learner is the creator of knowledge. There are areas where students take action, work together and support each other by using tools or learning resources to achieve the goal or mission set. The classroom and the atmosphere in the classroom affects the perception and learning of the learner. Johnson (2014) offered four classroom features that are favorable to student learning: functional, comfortable, welcoming and inspiring.

The seating arrangement should take into account of the four basic elements: sensory details, seating arrangement, supplies and storage, and student information.

a) Sensory details: The sensory perception of the learner, including the eyes, ears, nose and touch are all important; leading to colors, sounds, odors, temperature and lighting in the classroom.

b) Seating arrangement: The classroom should have the flexibility of chair arrangement. This principle is important, too, because it facilitates the learning and interaction of the students. The arrangement of tables in the classroom influences the atmosphere in the classroom, such as classroom arrangement which makes the atmosphere more formal, regulatory focus. Organizing classes using round tables are more independent and the studio layout shows that the classroom is a collaborative room.

c) Supplies and storages: The room should have materials and equipment so that students can access, use and store their own stuff

d) Student information: In the classroom, there should be space for posting to the students. It will be stimulated into an atmosphere of awareness or inspiration to learn.

6. Researcher synthesizes papers on problems, obstacles and factors that promote the development of information technology and communication skills.

20 papers on problems and obstacles as well as the ways and factors that promote the development of ICT skills have been researched and synthesized (Office of the Education Council. Ministry of Education, 2013; Chitrotchanarak, 2013; Suwanrassamee, 2009; Pornsima, 2014; Wongpinpech, Panusjutaboon, Chansakul, and Wannapiroon, 2016; Jongsatiyou and Siridhrungsri, 2014; Pheeraphan, 2016; Singh and Chan, 2014; Lim and Khine, 2006; Drent and Meelissen, 2008; Goktas, Yildirm, and Yildirm, 2009; Brun and Hinostroza, 2014; Tezci, 2011; Lei, 2009; Bingimlas, 2009; Gokts, Gedik, and Baydas, 2013; McGhee and Kozma, 2015; Pelgrum, 2001; Tondeur and et al. 2012; Pheeraphan, 2013).

The problems and obstacles faced by students' lack of knowledge and skills in using innovation and information technology in education are as follows.

- a) There are no number of courses with sufficient ICT and communication integration.
- b) There is a lack of laboratories for innovation and information technology education for students to use in the practice outside of class time.
- c) There are so many students that it is not possible for the instructor to organize activities that allow all students to use ICT in their learning activities.
- d) Teachers lack motivation to use innovation and information technology in education in teaching and learning.
- e) Pre-service teachers lack motivation and lack awareness of using innovative and informative information technology for their future teaching.
- f) Pre-service teachers lack a good example of innovation and information technology education.

The problems and obstacles that make the teachers in higher education institutions unable to integrate innovation and information technology in education teaching and learning in the course of responsibility are as follows.

- a) There is lack of knowledge in the application of innovation and information technology in education in learning management.
- b) There is too much teaching load and there is a lack of time to train and develop themselves in the use of innovation and information technology education.
- c) Higher education institutions do not provide the necessary materials, equipment, programs and infrastructure to support the classroom. Teachers cannot use the media and learning resources to manage their teaching and learning therefore they are still using the traditional method and media.

The problem-solving approaches that researchers synthesized for the literature and research are as follows.

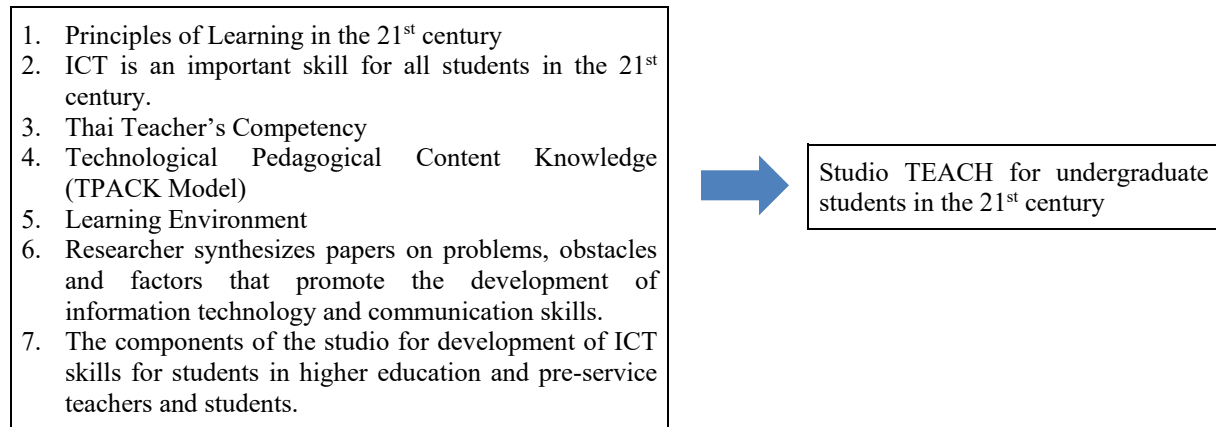
- a) The institution should have a concrete ICT plan.
- b) There should be periodic training sessions for instructors in educational institutes.
- c) The institution should have basic infrastructure equipment and adequate supplies.
- d) There is technical support.
- e) There are models of innovative users and information technology education in teaching and learning.

7. The components of the studio for development of ICT skills for students in higher education and pre-service teachers and students.

The study on the development of ICT skills for pre-service teacher showed that the component of "Studio TECH in TEACH" has four components: 1) Technology & Infrastructure, 2) Various Training Activities, 3) Pedagogical & Technical Support, and 4) Role Model (Pheeraphan, 2016, 2017). The performance of the components was found to the pre-service teachers to be quite satisfied with the four components at a high level. They agreed that access to and services within "Studio TECH in TEACH" promotes their innovation and information technology education.

Moreover, the study on the development of the “TEACH for TECH” model to promote ICT skills of the 21st century students (Pradubwate, 2017) found 3 components to develop students in higher education: 1) Technology and Infrastructure Services, 2) Providing support in the use of appropriate technology, and 3) Multidisciplinary Training. The performance of the three components illustrated that the students in various fields that have access to services and activities within “Studio TECH in TEACH” agrees with the three components at the highest level.

Research Framework



Pic1: Research Framework

Research Method

The development of studio TEACH for undergraduate students in the 21st century has determined documented goals, contributors, variables, research tools, research process, data collection, and analysis in the following orders.

The 10 respondents were selected by experts in areas of curriculum and instruction, Educational Technology, educational administration, supervising education, and teachers in educational institutions at basic education level.

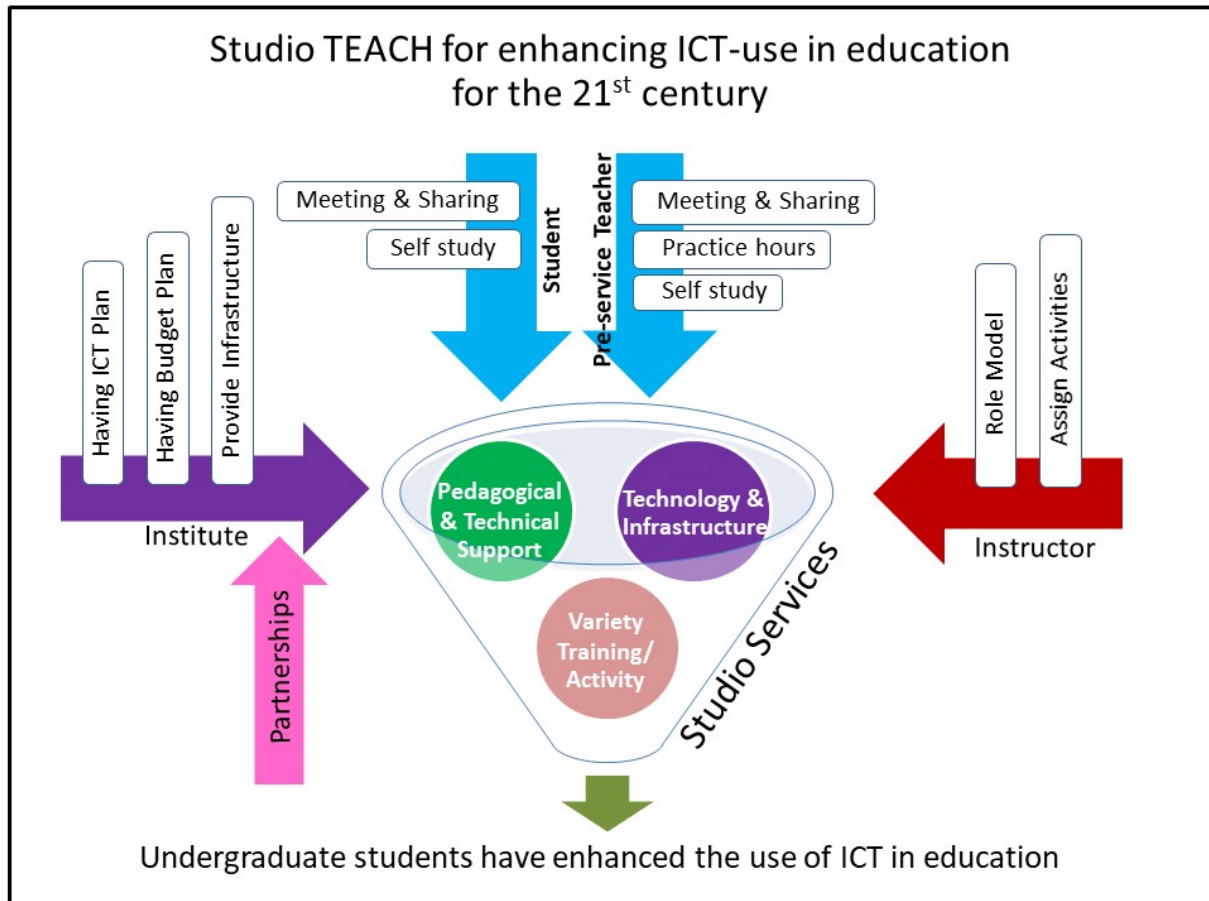
The tools used to collect data are the studio TEACH model for enhancing the use of ICT in education for undergraduate students in the 21st century and recording and discussion topics. Analyzed data by content analysis.

The research process is as follows:

1. Analyzing and synthesizing documents and research related to the principles of learning process and principles of student's growth more importantly. The concept of basic skills that learners of the 21st century comes in many concepts. The concept of the performance of Thai teachers in the 21st century, the concept of learning content for science and technology (Technological Pedagogical Content Knowledge Model: TPACK Model), the concept of environmental learning which may include documents and research related to the problems and obstacles. The guidelines and factors that promote the development of ICT skills, and the results of the study of “Studio TECH in TEACH” to promote the innovation and educational information technology for pre-service teachers, and the research on the development of the “Studio TEACH for TECH” model to promote ICT skills for the 21st century students.
2. Developing a studio TEACH model.
3. Focusing on the topic of the focus group to study the opinions of 10 experts on the areas of the studio TEACH by making a discussion plan which is made up of conversation issues, patterns and processes. The person responsible for the conversation, recording, and collect data and tools such as voice recorders and notes for example, by setting the scope of the group conversation.
 - a) The purpose of the studio TEACH.
 - b) The elements of the studio TEACH.
 - c) The application of the studio TEACH.
 - d) Other suggestions
4. Proceed with group discussion, recording, and collecting data from group conversations.
5. Content analysis, summary, and presentation of the research results.

Research Results

The development of a studio TEACH model by analyzing and synthesizing documents and researches with the comments of the experts in the group discussion showed that the studio model for the enhancing ICT-use in the 21st century has designed to be a place where students are encouraged to use it for a) a laboratory room for the use and development of innovative media and information technology in education, b) a place for training and exchange of knowledge about using innovation and information technology in education, c) an innovative and educational technology service, and d) a place for seeking knowledge and working with others. The studio TEACH aims to provide two target groups: 1) students in the professional field and 2) students in other fields.



Pic2: Studio TEACH Model for enhanced the use of ICT in education for undergraduate students in the 21st century

The studio TEACH consists of two main components:

1. **Service component:** Providing technology and infrastructure such as places, tables, chairs, computers, tablets, and smart boards. The atmosphere is favorable for students to use the service individually and in groups.

a) Providing a technology and infrastructure; It should have ICT equipment and infrastructure that up to date and adequate. Appropriate and flexible technology and space for various activities such as using technology to work together as a team, for creative work, or in professional presentations courses. There are many forms of knowledge activities: individual, subgroups, and workshops for example.

b) Providing pedagogical and technical support; The staff is available to provide technical advice and the use of ICT in teaching and learning. The students can consult both individually and in group.

c) Providing variety training and activity; The exchange of ICT usage from faculty members and outsiders to help participants learn about obstacles and solutions through the experience of others. Providing students with examples of innovative use and information technology education in a variety of situations, which will open up the world widen the horizon and motivate students to use innovative and informative information technology in a useful and creative way.

2. **Stakeholder component:** Stakeholders with the studio TEACH are classified into 3 groups:

a) Undergraduate student should attend meeting and sharing to increase their ICT knowledge and skills on their own and with other learners (self and group study). Also, pre-service teacher should allocate time to practice hours, meeting and sharing, and self and group study.

- b) Instructor should provide out-class activities involved ICT usage and should be a role model.
- c) Institute and Partnership component: Education institutions should have a short-and long-term ICT policy and planning, especially in the budget planning, in terms of procurement and personnel budgets to be able to provide sufficient services and modern ICT infrastructure. Moreover, partnerships both public and private organizations, who come to cooperate in promoting and supporting the production and development of students and teachers in policy or resource support the developed skills and abilities of students and instructors. Compliance with the requirements of the establishment of the 21st century organization or institution and also the sustainable development of the studio TEACH.

Applying the studio TEACH to succeed priority must be given to the management policy. The studio TEACH should bring the vision, mission and goals of producing graduates to the schools, faculties and curricula especially in setting goals and indicators of success. In order to facilitate the planning and budgeting of the agency, it should also study patterns of cooperation or partnerships with external organizations, both public and private. To achieve a concrete cooperation in the development of students in the use of innovation and information technology education is sustainable and in line with the needs of the society.

Discussion

For studio TEACH model, the researcher developed the analysis of the needs, skills needed for learners, principles of learning management for teachers of the 21st century society which includes synthesizing papers on problems and barriers. The guidelines and factors could promote the development of information technology skills in education for students and teachers. To obtain the guidelines and scope of the study, as well as to study the opinions of the experts to study the suitability and the possibility of a concrete action. The results of the study found that the main goal of the studio TEACH is to help two target groups: a) students in the profession field, and b) students in various fields. Considering the individual components, it was found that varied training and activities, and regular staff with technical knowledge and teaching methods are the elements that the students agree at the highest level that could be helps to promote the students' ability to use ICT in education. Students also agree on a high level with the exchange learning experience activities. (Pheeraphan, 2017) Corresponding to the study of Reading and Doyle (2013), it was found that teachers came to learn and live as a learner. They get involved in learning and reflect on what has been learned. These can help students improve their skills in using ICTs as well as the availability of materials and infrastructure. The implementation of the studio TEACH has provide technology and infrastructure services, technical support and teaching methods, and various training and activities. It cloud be help to solve the problems (Lim and Khine, 2006) about: a) no number of courses involved ICT in education, b) lack of ICT laboratory, c) the large classroom, and d) lack of the motivation and awareness to use ICT for their teaching in the future.

The possibility of implementing the Studio TEACH, in terms of the internal components of all three components. All institutions can be deployed to enable students in all fields to enhance the use of ICT in education. Due to the fact that each faculty or department involved in educational technology can develop and implement it, but the elements that will drive the studio TEACH for the enhanced use of ICT in education to be sustainable and effective are a) Management in educational institutions; the internal components of the three elements need to be supported in terms of policy, personnel, budget, location and materials. So, if the executive, especially the executive at the faculty level, establishes a clear policy, such as developing a learning environment for students and teachers and assists the annual budget for educational information technology support. It requires regular staff to provide counseling and technical education and teaching methods. Corresponding to Goktas, Yildirim, and Yildirm (2009) suggested that the institution has a clear ICT policy that promotes the atmosphere and encourages teachers and learners to use ICT in a concrete way. b) Partnership or cooperation network; Institutions often have limited budgets and the criteria for procurement of materials include knowledge about new materials, equipment or technologies. The Studio TEACH will be able to develop the curriculum and to organize learning activities or training to be more effective and to meet the needs of society. Students in various fields can use the Studio TEACH not only for benefit their learning, but also to enhance the learning of others appropriately in line with the needs of a 21st century society.

Suggestion

1. Suggestions for the use of research results.

- a) University level executives and stakeholders at policy level can use the results as a basis for policy and planning and budget allocation to develop the studio TEACH model to take place concretely both in the university and the faculty. To be a source of learning, all students will be encouraged to have the skills in using ICT as a tool for learning and seeking self-knowledge and working with others. This will prepare students to work in the real world of the 21st century.

b) The faculty of Education and related agencies at the policy level can use the results as a basis for policy and planning both budget and man power. There is a learning resource for the use of effective ICT in education. Undergraduate students and pre-service students could be improved the ability to use ICT as a tool to present, develop and create knowledge with group or individually. Furthermore, it can also be used as a learning resource for the development of instructors to be able to use ICT in teaching and learning effectively. This is to encourage instructors and pre-service students to be sufficient in ICT competency, accordance with professional standards as the teacher has conducted in another way.

2. Suggestions for the next research.

a) Study partnerships or hands-on networks should be studied between educational institutions and outside agencies, both public and private, to produce and develop learners in ICT skills.

b) Modular training courses should be developed so that the curriculum is up-to-date with changes in technology and principles of the 21st century learning.

c) The research should be conducted on the professional community to promote and develop teachers to use ICT in education, so that teachers' organizations can use this model as a guideline for establishing partnerships or cooperation networks with educational, supervisory, school and private sectors in order to develop teachers continuously and systematically.

d) Education should be designed to assess the performance of using ICT in education for new students and before their graduation, and to study the effectiveness of this model in the field of management, utilization, and worth to continue.

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Development Of Team-Based Internal Supervision Model For Thai Secondary School

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Abstract

The major aim of this research is to propose a team-based internal supervision model for secondary schools in Thailand. Since supervision is an academic management to control the quality of education, a team-based internal supervision model has to be developed to improve the supervisory process. Researchers employed a mixed mode design using a combination of quantitative and qualitative methods to collect data. After reviewing the related literatures, researchers identified five main components and 17 sub-components. The five identified main components were principles, aim, process, results, and feedback as the foundation to develop the team-based internal supervision model. This is followed by testing the suitability of the model components to seven experts using an evaluation form. The developed supervision model was then tried out in three research schools. A focus group interviews were carried out to the supervisors after using the team-based internal supervision model. Quantitative results revealed that the seven experts evaluated the team-based supervision model as most appropriate levels for all the five components and 17 sub-components. Subsequently, qualitative results from the school supervisors have provided several comments to improve the model.

Keywords: *Internal supervision; secondary schools; supervisor; team-based internal supervision model*

Introduction

Thailand Education Development Plan of Ministry of Education No. 12 (2017 to 2021) focusing on developing quality Thai citizen through education system. This is because quality education system will provide effective learning process for development of potential learner (Ministry of Education, 2017). This is in line with National Education Act of 1999 (Article 6) indicating that an educational organization has to responsible to produce future human capital to be perfect in physical, mental, intellectual aspects. Internal supervision is considered as an academic management to help to control the education quality.

It is an essential working process of school administrator in order to enhance students' learning achievement (Tubsuli, Julsuwan, & Tesaputa, 2017). Tubsuli et al. further commented that there are several problems concerning supervision such as the Office of Educational Service Area failed to support the teaching and learning supervision, supervisors are lacking of knowledge, and school administrators are not aware of the significance of supervision. This may lead to teachers develop a negative attitude towards the supervision and are not prepared to be supervised (Ueawong, 2013).

Teamwork concept can make the supervision operation becomes more effective because team members feel themselves as parts of the organization will make an effort to achieve the supervision's aims. Therefore, a team-based internal supervision model is using the technique to improve and enhance efficiency of the supervision mission as the school internal supervision and teamwork would be supplementary to each other (Senior, 2002). Team members not only have to recognize each other, having good communication but also being cooperative to make a decision under the common aims (McGourty & Demeuse, 2001).

Research Aims

The major aim of this research is to propose a team-based internal supervision model for secondary schools in Thailand. To achieve this aim the following specific objectives were formulated to guide the research:

- i. To identify the main components and sub-components of team-based internal supervision model.
- ii. To evaluate the suitability of components and sub-components of team-based internal supervision model.
- iii. To investigate the developed draft team-based internal supervision model in term of its practicality for improvement and modification purpose.

Method

Researchers employed a mixed mode design to collect the quantitative and qualitative data using multiple ways to evaluate and modify the developed team-based internal supervision model. It is referred as a combination of different modes of collecting data for a single research. Researchers begin to review literatures to identify the components of the team-based internal supervision. After reviewing the related literatures, researchers identified

main components and its sub-components. The identified main components would be the foundation to develop the team-based internal supervision model. This is followed by testing the suitability of the model components to seven experts using an evaluation form. The developed supervision model was then tried out in three research schools. A focus group interviews were carried out to the supervisors after using the team-based internal supervision model.

Purposeful sampling technique was employed to select the seven experts and three groups of supervisors in this study to ensure the identification and selection of information-rich cases for the most effective use of limited resources (Patton, 2002). This involves identifying and selecting individuals that are especially knowledgeable or experienced with this phenomenon of interest (Cresswell & Plano Clark, 2011). In addition to knowledge and experience, Bernard (2002) noted the importance of availability and willingness to participate, and the ability to communicate experiences and opinions in an articulate, expressive, and reflective manner.

The research instruments used were evaluation form and focus group interview guide. Both instruments were administered in Thai language to ensure that the respondents were clear about the statements. The evaluation form was constructed to enquire the appropriate level of the components of the team-based internal supervision model to the seven experts who acted as respondents. Furthermore, respondents' responses towards the appropriate level of the supervision model components, a five-point Likert scale was utilized, ranged from most, very, moderate, low, and lowest appropriate levels. On the other hand, a focus group interview guide included a series of probes and clarification questions to maintain the consistency in questioning across participants.

Researchers refer to Srisa-ard's (2013) interpretation of opinions toward appropriate level of the suitability of the team-based internal supervision components to evaluate the suitability of its components. As a result, researchers determined its appropriate level as shown in Table 1. Data was analyzed using descriptive statistics include mean score and standard deviation.

Table 1: Interpretation of mean range

Mean range	Interpretation
1.00 – 1.50	Lowest level of appropriateness
1.51 – 2.50	Low level of appropriateness
2.51 – 3.50	Moderate level of appropriateness
3.51 – 4.50	Very appropriate level
4.51 – 5.00	Most appropriate level

Focus group interviews were conducted to three groups of supervisor from three selected who have using the developed team-based internal supervision model for the past six months. The selected participants are experienced supervisors who have more than 10 years of supervising experiences. Participation in the research was voluntary. Participants were invited to indicate their willingness to participate in focus group interviews (Dawson, Dimitrov, Meadows, & Olsen, 2013). The duration of the focus group interview was one and a half hours.

The focus group interviews were audio recorded and partially transcribed, then coded using a theme analysis approach (Miles & Huberman, 1994). During coding, key themes related to research questions were identified, such as concrete comments to modify the team-based supervision components and also comments on the supervision procedures. After the first round of coding, similar themes were grouped into larger categories (Strauss & Corbin, 1990). Exact quotes representing each frequently occurring theme were then fully transcribed based on the audio recordings. To ensure participant anonymity, participants' quotes are identified only by symbol G.

Results

The initial result is the descriptive results related to the identification of the main components and their sub-components of the team-based internal supervision model that derived from the evaluation form. This is followed by qualitative results from focus group interviews about the improvement and modification of the team-based internal supervision model in secondary schools. Finally, the modified team-based internal supervision model is presented.

Descriptive results of the components

After reviewing literatures, researchers identified five components and 17 sub-components to develop a team-based internal supervision model. The five main components were principle, aim, process, result, and feedback. The principle component was comprised of four sub-components namely (i) aim of teachers to change their behavior in a better way; (ii) changing the teachers' behavior comes from them; (iii) teachers' change of teaching behavior requires social support, and (iv) teacher is the key of the teaching development. The second component is aim that consisted of three sub-components such as (i) to provide opportunities to the team to apply the principles of linking content to the supervisory process; (ii) to provide the opportunities to the team the approach how to comply to the target, and (iii) to provide opportunities to the team to use the coaches at a positive concept. The third component is the process component which covered six sub-components that are (i) study the current

problems and the need for internal supervision; (ii) creating a team-based internal supervision team; (iii) educating the team about internal supervision; (iv) teaching the internal supervision activities (coaching); (v) reflecting on the team's internal supervision, and (vi) evaluation of internal supervision among the team members.

The fourth component is result component which encompassing three sub-components namely (i) the team understands the process of internal supervision; (ii) the team can be supervised internally by team-based teams, and (iii) the supervisors and supervisee are satisfied with the use of the team-based internal supervision model. The final component is feedback that has only one sub-component that is the obstacles using team-based internal supervision model.

Results of evaluation on suitability of the components

Results of the seven experts' evaluation on the components and its sub-components of the team-based internal supervision model revealed that they evaluated all the five components and 17 sub-components as the most appropriate components to include in the team-based internal supervision model. The details are shown in Table 2.

Table 2: Evaluation results on the suitability of the team-based internal supervision model

Component	Sub-components	\bar{x}	SD	Level
Principle		4.82	0.25	Most
	Aim of teachers to change their behavior in a better way.	5.00	0.00	Most
	Changing the teachers' behavior comes from them.	4.71	0.49	Most
	Teachers' change of teaching behavior requires social support.	4.57	0.53	Most
	Teacher is the key of the teaching development.	5.00	0.00	Most
Aim		4.71	0.46	Most
	To provide opportunities to the team to apply the principles of linking content to the supervisory process.	4.86	0.38	Most
	To provide the opportunities to the team the approach how to comply to the target.	4.57	0.53	Most
	To provide opportunities to the team to use the coaches at a positive concept.	4.71	0.49	Most
Process		5.00	0.00	Most
	Study the current problems and the need for internal supervision.	5.00	0.00	Most
	Creating a team-based internal supervision team.	5.00	0.00	Most
	Educating the team about internal supervision.	5.00	0.00	Most
	Teaching the internal supervision activities (coaching).	5.00	0.00	Most
	Reflecting on the team's internal supervision.	5.00	0.00	Most
	Evaluation of internal supervision among the team members.	5.00	0.00	Most
Result		4.81	0.30	Most
	The team understands the process of internal supervision.	4.86	0.38	Most
	The team can be supervised internally by team-based teams.	4.57	0.53	Most
	The supervisors and supervisee are satisfied with the use of the team-based internal supervision model.	5.00	0.00	Most
Feedback		5.00	0.00	Most
	Obstacles using team-based internal supervision model.	5.00	0.00	Most
Total average		4.86	0.20	Most

Qualitative results of focus group interviews

Results of focus group interviews are presented according to the components of the team-based internal supervision model. The following results are the summary of suggestions derived from the three groups of supervisor.

(i) Principle component

Generally, all the three groups of supervisor suggested that internal supervision must be achieved through cooperation between supervisors and supervisors. It is the development of colleagues to have higher knowledge. Internal supervision aims to develop teachers to change teaching behavior and the performance is even more effective.

(ii) Aim

All the three groups of supervisor stated that supervision helps teachers to develop teaching and learning as well

as their performance. It aims to promote professional advancement. This is a great way to make a difference.

(iii) Process

It can be said that supervision process is a plan between supervisors and supervisees. Generic supervision tools were created and the supervision of learning by subject and how to supervise. Supervise the implementation of the project as set out in the annual action plan. Assessment and reflection are the results of joint supervision.

(iv) Result

Supervisors and supervisees work together. They exchange the learning between each other. Supervision emphasizes harmony and help. It depends on the development of the teaching process.

(v) Feedback

Supervisors and supervisees take the lesson, share knowledge of teaching and learning together. The problem would be detected from the supervision for future improvement. The supervisors and supervisees reflect the performance to find out how to supervise. Let everyone participate and work as a team.

Development of team-based internal supervision model

The end product of this research was the development of team-based internal supervision model as shown in Figure 1.

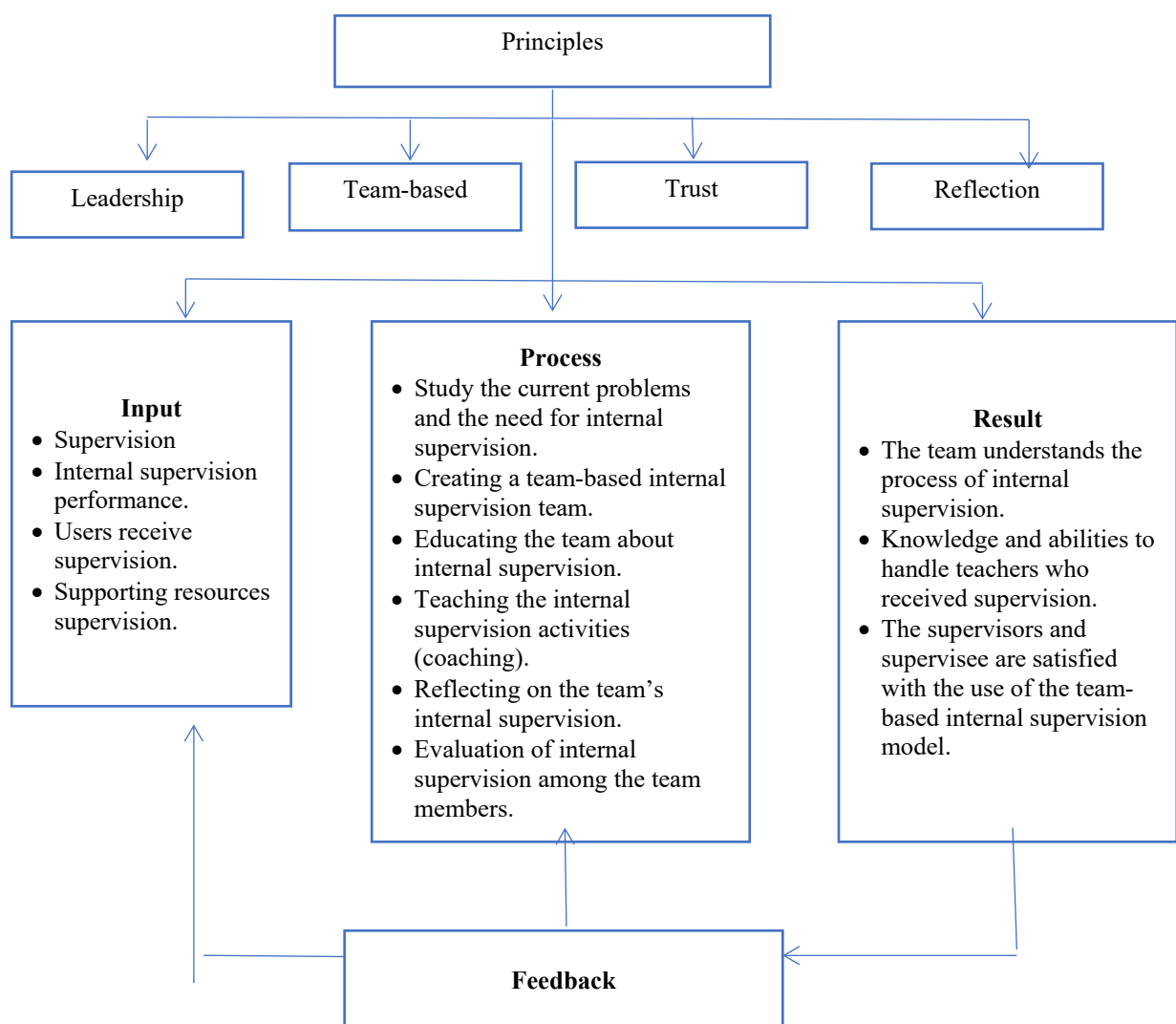


Figure 1: Team-based internal supervision model

Discussion And Conclusion

The components namely principle, aim, process, result, and feedback are found suitable to be included into the team-based internal supervision model according to the seven experts' evaluation reports. The result was in accordance with Richard and James (2006), Sukanan's (2007), and Tubsuli et al.'s (2017) studies. Richard and James emphasized that an effective supervision consisted of growth, support, teamwork, honoring others,

expectation for excellence, responsibility, inspection, possession, and support for relations. In addition, Sukanan found that there were eight important components of internal supervision namely strategic planning, supervision technique, roles and duties, evaluation, network creation, development, supervision media and instrument, and human relation. Tubsuli et al. found that team-based internal supervision has to include components such as internal supervisors and their ability, supervisees, supporting resources, supporting environment, and teamwork management as input of the supervision model.

The team-based internal supervision model was evaluated by the seven experts about the suitability of the components and turned up to be most appropriate components to be included. The result was in accordance with the study by Kanjanawasee (2002) who described the four standards for evaluation namely utilization, possibility, appropriateness, and accuracy. Since the three groups of supervisor also satisfied with the practicality of the team-based internal supervision model, researchers would like to suggest to Educational Service Area Offices and all secondary schools in Thailand to implement a systematic development for teachers by utilizing this supervision model. Finally, implication of this research is encouraging the policy level agencies to focus on supervision through managing a motivation system for supervisors, school administrators, and senior secondary school teachers who can conduct effective supervision.

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Development Of The Empowerment Program For Quality Of Life And Physical Activities Of Daily Living For Elderly People

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Abstract

This paper was aimed to study the elements of empowerment program to improve the quality of life and physical activities of daily living for elderly people. After reviewing the related literatures, researchers identified four main elements and 15 sub-elements. A total of 376 samples aged between 60 to 69 years old who lived at Udonthani province were selected. Researchers utilized the formula Modified Priority Needs Index to measure the priorities of the required needs. Research results indicated that the need assessment of the empowerment elements were as follows: (i) the status quo was at a moderate level ($\bar{x} = 2.84$, $SD = 0.21$); (ii) the necessary conditions was at the 'much' level ($\bar{x} = 4.41$, $SD = 0.59$); (iii) the overall of priority needs index (PNI) = 0.55, with self-efficacy as the highest priority needs, followed by meaning, attitude and competence, and finally determination by critical thinking.

Keywords: Daily living; elderly people; empowerment program; physical activities; quality of life

Introduction

Thailand country report (2007) at the 5th ASEAN & Japan High Level Officials Meeting on Caring Society showed that world population has increased rapidly during this century in the last 30 years and population density has increased more than twofold over 65 years. According to the data of United Nation, Thailand entered into the period of 'the ageing society' in 2005. The number of elderly people in Thailand is expected to rise significantly over the next 25 years. A critical issue for Thailand is very high pace of growth of its ageing population.

The term of elderly people refer to ages nearing or surpassing the life expectancy of human beings, and is thus the end of human life cycle (American Psychological Association, 2009). The distinguishing characteristics of elderly age are both physical and mental. As a society population structure changes, the elderly people are a phenomenon occurring globally throughout the world until it becomes an issue that has received attention because of a widespread impact in the sector. Currently, Thailand is ranked the third most rapidly ageing population in the world (Most Rapidly Ageing: Countries, 2012). This shows that a total of eight million Thai people aged 60 and above, accounting for 13 percent of the population. By 2040, Thailand's aging population is expected to increase to 17 million, accounting for 25 percent of the population. This means that out of every four Thais, one will be a senior citizen (UN Department of Economic and Social Affairs, Population Division, 2001).

According to the World Health Organization, quality of life can be conceptualized as a generic, multidimensional parameter, describing an individual's subjective perception of his or her physical and psychological health, as well as his or her social functioning and environmental and general life status (Figueira, Figueira, & Figueira, 2010). Barcaccia (2013) defined quality of life as the general well-being of elderly people either individuals or societies, outlining positive and negative features of life. It observes life satisfaction, including everything from physical health, family, wealth, safety, security to freedom, religious beliefs, and the environment.

Conceptual Framework

The elderly issue has a direct impact to the changes in the economic and social of the country. Therefore, quality of life was measured by their physical health, psychological, economical, and social environmental aspects and also their abilities to perform daily activities. In this study, daily activities consisted of a routine such as feeding, grooming, transfer, toilet use, mobility, dressing, stairs, bathing, bowels, and bladder. The process of empowerment is considered as the way to help people be able to modify their own behavior, quality of life in a sustainable manner. The proposed conceptual framework is shown in Figure 1 below:

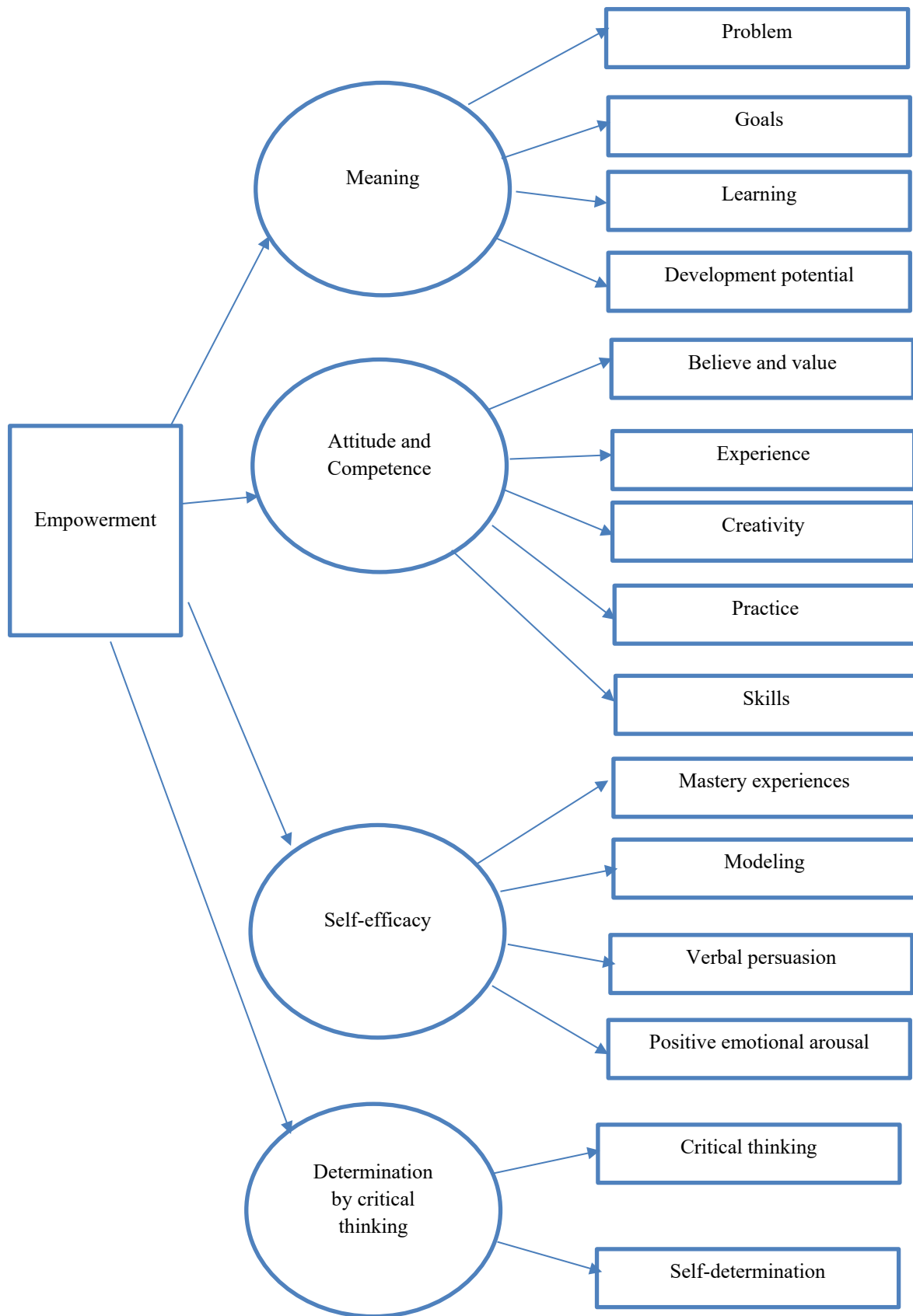


Figure 1: Conceptual Framework

The four main elements were meaning, attitude and competence, self-efficacy, and determination by critical thinking. The meaning element was comprised of four sub-elements namely problem, goals, learning, and development potential. The attitude and competence consisted of five sub-elements such as believe and value, experience, creativity, practice, and skills. The self-efficacy elements covered four sub-elements that were mastery experiences, modeling, verbal persuasion, and positive emotional arousal. The final element was determination by critical thinking including two sub-elements namely critical thinking and self-determination.

Hongthong, Somrongthong, and Ward (2015) aimed to assess level of quality of life and factors influencing quality of life among rural Thai elderly people in Phayao district. A total of 400 elderly people participated in their study. Their findings showed that approximately one-fifth (20.5%) reported current smoking and 31.7% reported ever drinking during previous year. Following univariate analysis, nine factors namely gender, age, education, working, income, present illness, drinking, activity daily life, and participating in elderly club were identified as being significantly related with quality of life at significance level <0.05 . Multivariate analysis revealed that there are four factors predictive of quality of life among elderly people, namely activity daily life, income, alcohol drinking, and present illness at $p<0.01$.

Boonchun, Ucharattana, Punsakd, and Meehardsai (2011) conducted an action research to develop an empowerment program to increase self-care agency in elderly people with uncontrollable hypertension and to examine the effects of the program. A total of 78 elderly people involved in Boonchun et al's study were found to be significantly different in term of their pre- and post-program at $p<0.05$ level. Their content analysis results revealed that elderly people were not aware of high blood pressure, lacked of knowledge, and depended on physicians' orders. After the empowerment program, the elderly people's self-care behavior were positively changed, for example, increased awareness of diet control and daily exercise, increased participation in elder's group activities for reducing stress and consistently self-monitoring in medication use.

On this line of reasoning, empowerment has been conceptualized as a framework for understanding the process and consequences of efforts to exert control and influence over the decisions that affect one's life, including perception of personal control as well as behaviors to realize the control (Shearer, Fleury, Ward, and O'Brien, 2012).

Method

A survey design was employed by researchers using questionnaire as a method of quantitative data collection. A total of 6,270 population of this study who are elderly people whose age between 60 to 69 years old with a combination of male and female were selected as samples of this study. The criteria of selecting samples were the samples are consciously not to mess up the fuzzy information and willing to participate in the study. They live in the six sub-districts from the three main districts of Udonthani province, Thailand. Researchers utilized multistage random sampling to determined 376 samples out of the 6,270 population.

The research instrument used was a questionnaire and administered in Thai language to ensure that the samples were clear about the statements. The instrument consists of two sections. Section 1 of the questionnaire was intended to gather information regarding demographic factors of the samples which included information pertaining to their personal background such as gender, age, income and so on. Section 2 was specifically designed by researchers to gauge the perceptions about the current conditions and the needs required conditions of the empowerment elements. To measure the samples' responses towards the needs of the empowerment elements, a five-point Likert scale was used, ranged from most, much, moderate, less, and least.

According to Chueachot, Srisa-ard and Srihamongkol's (2013) interpretation of comment, researchers determined its level as shown in Table 1. Data was analyzed using descriptive statistics include percentage, mean score, and standard deviation. This is followed by the analysis and priorities the needs required by the formula of Modified Priority Needs Index (PNI_{Modified})

Table 1: Interpretation of mean range

Mean range	Interpretation
1.00 – 1.50	The least level of comments
1.51 – 2.50	The less level of comments
2.51 – 3.50	The moderate level of comments
3.51 – 4.50	The much level of comments
4.51 – 5.00	The most level of comments

Results

The initial result is the descriptive results related to the characteristics or backgrounds of the samples that derived from the Section 1 of the questionnaire. This is followed by results about the current and the needs required conditions as well as the PNI reading on empowerment elements.

Descriptive results

The characteristics of the sample showed that majority of the samples are female. All the samples were almost equally distributed into two age range namely 60 to 64 years old and 65 to 69 years old. More than 90 percent of them graduated at elementary school level. Furthermore, more than 85 percent of them are still staying with their spouse. Majority of them have monthly income from 10,000 to 49,999 baht per year. A total of 57 percent of them are employed as part-time workers, 32 percent of them quitted from their jobs, and 11 percent of them still have full time jobs. Besides, almost 90 percent of them do not have any diseases or critical health problems and only 10 percent of them are having health problems. Among the 10 percent who have health problems, most of them did not or only sometimes do their annual medical checking to monitor their diseases or health problems. Only 12 percent of the samples do regular physical activities and 97 percent of them are taking care for themselves or their spouse for physical activities of daily lives. There are only six percent of them doing exercise regularly and also 10 percent of them are joining community's activities. Majority of them that is 90 percent of them only do at some time basis.

Results about current and the needs required conditions

Results of the study revealed that the overall needs of empowerment program was necessary to fix as PNI = 55. Although the current conditions were found to be at moderate level (mean score = 2.84, $SD = 0.21$), but it also needs required condition to increase (mean score = 4.41, $SD = 0.59$). When researchers separated each main elements and sub-elements, results showed that there is a necessary requirement in descending as follows:

- Self-efficacy element (PNI = 76) was found to be mostly demand that providing confidence of powers, particularly on the sub-elements such as mastery experiences. This is followed by verbal persuasion, positive emotional arousal, and finally modeling.
- Meaning element (PNI = 71) was found to be the second highest empowerment element. It consists of goals problem, development potential, and learning in descending order.
- Competence and attitude element (PNI = 68) was found to be the third highest empowerment element. It contains sub-elements like practice, experience, believe and values, creativity, and skills.
- The least capacity empowerment element was determination by critical thinking (PNI = 21) and its sub-elements such as self-determination and critical thinking do not have the requirements needed to solve.

Table 2 below shows the mean score and standard deviation of the current and the needs required conditions as well as the priorities need index for each empowerment element.

Table 2: Current and the needs required conditions

Empowerment elements	The current conditions			Needs required conditions			Priorities needs index
	Mean	SD	Level	Mean	SD	Level	PNI _{Modified}
Meaning	2.58	0.25	Moderate	4.41	0.60	Much	0.71
Problem	2.55	0.33	Moderate	4.36	0.69	Much	0.71
Goals	2.57	0.32	Moderate	4.47	0.57	Much	0.74
Learning	2.61	0.31	Moderate	4.36	0.61	Much	0.67
Development potential	2.59	0.37	Moderate	4.44	0.63	Much	0.71
Attitude & Competence	2.63	0.36	Moderate	4.41	0.58	Much	0.68
Believe & value	2.62	0.37	Moderate	4.41	0.59	Much	0.68
Experience	2.62	0.48	Moderate	4.43	0.60	Much	0.69
Creativity	2.68	0.36	Moderate	4.43	0.65	Much	0.65
Practice	2.54	0.36	Moderate	4.41	0.59	Much	0.74
Skills	2.69	0.46	Moderate	4.40	0.59	Much	0.64
Self-efficacy	2.51	0.30	Moderate	4.43	0.60	Much	0.76
Mastery experiences	2.39	0.37	Less	4.44	0.71	Much	0.69

Modeling	2.59	0.39	Moderate	4.39	0.62	Much	0.69
Verbal	2.52	0.37	Moderate	4.44	0.70	Much	0.76
persuasion							
Positive	2.55	0.37	Moderate	4.45	0.60	Much	0.75
emotional							
arousal							
Determination	3.64	0.41	Much	4.40	0.61	Much	0.21
by critical							
thinking							
Critical	3.64	0.46	Much	4.37	0.59	Much	0.20
thinking							
Self-	3.64	0.49	Much	4.42	0.65	Much	0.21
determination							
Overall	2.84	0.21	Moderate	4.41	0.59	Much	0.55

Discussion And Conclusion

Quality of life is an important concept in the field of international development particularly to Thailand elderly society since it allows development to be analyzed on a measure broader than standard of living. Results of this study revealed that empowerment elements are urgently to build their confidence which resulting in their attitudes and ability to solve problems with their self-efficacy. Within development theory, however there are varying ideas concerning what constitutes desirable change for a particular society, and the different ways that quality of life is defined by elderly people therefore shapes how the Thai society and community work for its improvement as a whole. The results of this study correspond to Boonchun et al.'s (2011) and Hongthong et al's (2015) studies. Boonchun et al.'s study indicated that there are positive improvements after the 78 elderly people attended the empowerment program. Hongthong found that over two-third of elderly people had quality of life in Phayao province where is one of the top ten provinces with the highest index of Thai aging. The vast majority (96%) had high scores for activity daily living.

In conclusion, physical function, health status and financial were the predictor of quality of life among the elderly people in Thailand. Hence, healthy life style should be considered as key areas in attempts to promote quality of life among elderly people in Thailand. In addition, the use of empowerment program by considering the main elements and sub-elements can increase quality life and physical activities of daily living for elderly people. Therefore, the empowerment program should be applied in primary health care setting to empower the elderly people to have quality life and physical activities in their daily living.

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Development Of The Performance Assessment Instrument Based On Science Process Skills For Elasticity Material At Senior High School

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Abstract

This research aims to develop the science skills assessment instrument performance skill on elasticity in 11th grade Senior High School, the which is useful as a valuation instrument in accordance with the 2013 curriculum. This research method is a Research and Development with ADDIE development model that consists of five stages: analysis, design, development, implementation, and evaluation. This research was conducted at State University of Jakarta, Indonesia, and instrument test at Islam PB Sudirman Senior High School Jakarta with 32 respondents on September until December 2017. Validity test use product moment, 38 items tested to students and Obtained 30 valid items and 8 invalid items. Student performance assessment instrument developed has a 100% eligibility rate to the level of content based on the validation of the instrument construction 87%, 88% elastic material, and the language of 88% with a very good interpretation. In terms of construct validity, student performance assessment instruments developed have 38 points are valid with the level of reliability of the instrument at the 5% significance level of 0.860 or very high category. Based on these results, the performance assessment instrument developed on elasticity materials feasible to be used to measure students' science process skills.

Keywords: *Assessment instruments, science process skills, Elasticity*

Introduction

The aim in 2013 is to prepare the curriculum of Indonesian people to have live ability as individual and citizens who believe, productive, creative, innovative, and affective and able to contribute to society, nation, state, and world civilization.

Assessment is an integral part of the learning process and determine the quality of learning. The assessment also should be used to determine the strengths and weaknesses in the learning process. A meaningful learning process requires a good assessment system, planned and sustainable. Assessment of physics learning consists of three important aspects. They are cognitive, psychomotor, and affective. The assessment principles of learning outcomes set out in the Regulation of the Minister of Education and Culture No. 23, 2016 are valid, objective, equitable, integrated, open, holistic and continuous, systematic, accountable, and educative.

The assessment process requires a good instrument to match the valuation principles. Assessment instrument that designed properly and in accordance with the level of thinking skills and improve science process skills. Practical activity is one of the integral part in learning physics. Learners not only learn the theory and calculations using various formulas in the classroom but also carry out practical work to deepen or find a physics concepts. This activity aims to familiarize students in finding their own knowledge, in the process of finding a concept required a process skills.

Science process skills as the skills needed to acquire, develop and apply the concepts, principles, laws and theories of science, whether it be mental skills, physical skills, and social skills. These skills must be trained in the learning process at school. These skills also support the achievement of the curriculum in 2013 is the science process skills.

Some teachers have difficulty in making instruments on student performance assessment. Assessment more widely used on cognitive aspects. Students more accustomed to count about but rarely applied into cases relating to the environment and technology (Pertiwi, Muliwati, & Serevina, 2016). In addition, students are also accustomed to working on the problems in accordance with the example given by their teachers. Based on the received answers from high school teachers, one of the factors that lead teachers have difficulty in making student assessment instrument is the time of making a relatively long assessment instruments.

Instruments that already used have not been able to describe the ability of students science process skills are perfect. Therefore, according to Akinbobola, it is due to the approach of science process skills, then learning will be more meaningful in everyday life (Akinbobola, 2010). From the results of questionnaires that have been in had about the need for teachers to assessment of performance assessment instrument based on science process skills for elasticity material in senior high school, obtained the following results and showed in this diagram.

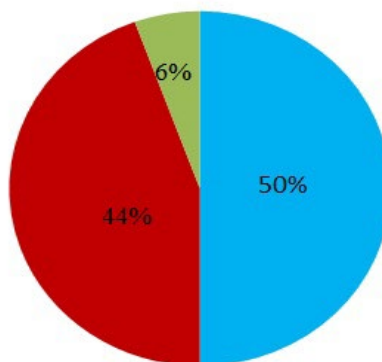


Diagram 1: The result of questionnaires

The diagram above can be explained by the following statements:

1. From the population of questionnaires, 50% said that the there are no appraisal instrument of the science process skill performance on the Elasticity and students do not need performance appraisal skills process science.
2. From the population of questionnaires, 44% said that the assessment instrument of the science process skill in the material can be used an alternative to the existing psychomotor assessment.
3. And then, 6% said that appraisal instrument of the science process skill performance is more needed for harmonic vibration in Physics for Senior High School.
4. The appraisal instrument of the science process skill performance is more suitable for other materials.

Based on the above background described, it is necessary to conduct research on the development of performance appraisal instruments based on the skills of science processes on the elasticity of 11th grade Senior High School.

Literature Review

Performance Assessment

Instrument is something that can be used to facilitate a person in performing the task or achieve goals more effectively and efficiently (Arikunto S. , 2006, p. 40). Scientific skills assessment tool instrument is one type of cognitive assessment that can be measured through tests. (Arikunto S. , 2006, p. 53). Instrument development steps include (a) reviewing the curriculum and textbooks, both extensively and profoundly, (b) formulating specific instructional objectives; (c) making a grid of assessment tools; (d) composing and writing lattice-based questions -the grid has been created, (e) create and determine the key answer questions.

Several advantages and disadvantages of this performance assessment hown in the table below.

Table 1. Advantages and Disadvantages

Advantages	Disadvantages
Assess competencies in the form of skills.	Not all subject matter can be done this assessment
Used to match the appropriateness between knowledge of the theory and skills in practice, so that the assessment information becomes complete.	Value depends on work performance results
In the implementation there is no chance of learners to cheat	If the number of learners of many lecturers difficulties to perform this assessment.
Lecturers can know more about the characteristics of each learner	Limited time to assess all learners

Motivate learners to be active	Underprivileged learners will feel inferior
The ability of learners can be optimized	Requires complete facilities and infrastructure. It should be full and complete
Train the courage of learners in facilitating the excavation of ideas.	It takes a long time, it costs a lot, and is boring.

(Kunandar, 2013, p. 265)

Performance assessment is an alternative assessment method for assessing students in advance and providing important information to teachers so as not to "lose data" as they make daily lessons (Ainsworth, 2016, p. 57). Performance-based assessment describes one or more approaches to measure student development, skills and achievement (Cohen, 2013, p. 165). Performance assessment are a type of assessment that requires students to show what they have, master skills, and special competencies by doing activities to reveal what they can do (Arhin, 2015, p. 109).

Fastre and van Merriënboer (2009) suggest that students need more practice to improve their skills assessment. Teachers usually focus on preparing presentation materials such as lesson plans and student portfolios to evaluate their performance appraisals. Most teachers focus their performance appraisal on teaching manual presentations rather than actual process and teaching outcomes (Tungkitwanich, 2012).

Assessment has an important role in managing problems in educational administration (Uttaramart, 2015, pp. 228-238). Performance-based assessment and criteria are a necessity to guide the learning process of students (Fastré G. M., 2010, pp. 517-532).

Based on expert opinion, it can be synthesized instrument performance assessment is a set of assessment is needed to measure the skills and abilities of students.

Science Process Skills

In the performance appraisal students should make answers, produce products, or perform an activity (Darling&Adamson, 2010, p. 83). When students perform an activity, then the activity will look special skills that students have. One skill that can be observed is the skill of the science process. Zeidan and Majdi (2015) argue that science process skills are a necessary tool for generating and using scientific information, to conduct scientific research, and solve problems. Scientific process skills are a very important skill in teaching how to achieve knowledge (Farsakoğlu, 2012).

According to Sevilay Karamustafaoğlu (2011, p. 26), the skill of the process of science is an inseparable skill in the practice of conceptual understanding that is involved in the learning and application of science. Feyzioglu, Demirdag, Akyildiz and Altun (2012) suggest that science process skills consist of sub-dimensions such as, observing, classifying, measuring, communicating, summarizing, predicting, formulating hypotheses, identifying variables, organizing data, and interpreting, designing investigations, data. Ozgelen (2012, pp. 283-292) suggests that students' science process skills exist within the framework of the cognitive domain.

Scientific process skills are primarily classified as basic skills and integrated process skills, which first involve observing, quantifying, classifying, using relationship numbers, predicting, drawing inferences, communicating and the latter involves identifying and controlling variables, formulating and testing hypotheses, describing operational, experimenting, and commenting on the variables (Kanlı, 2008).

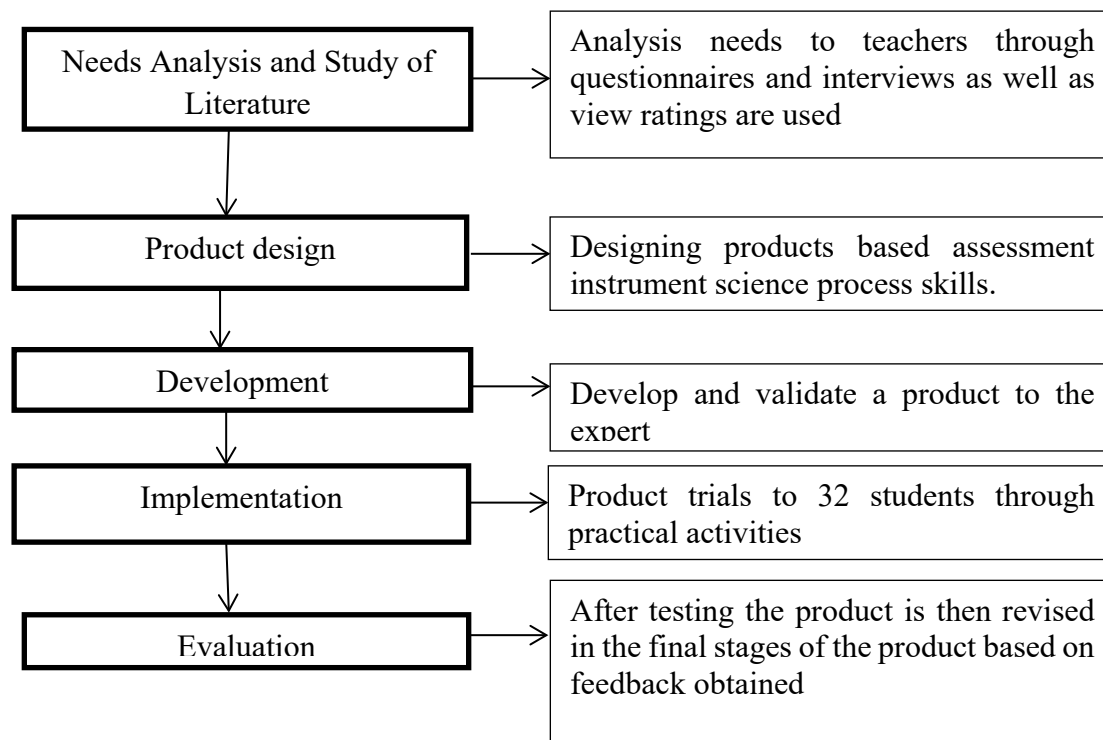
Scientific process skills are the basic skills of facilitating learning in science, enabling students to be active, developing a sense of responsibility, improving learning sustainability and providing research methods (Gürses, 2014, p. 645). Scientific process skills enable students to experience direct involvement with science materials when solving problems using a practical approach (Abungu, 2014, p. 359).

From the above explanation, it can be synthesized that the science process skill approach is a knowledge-processing skill to discover, develop facts and concepts in learning.

Methodology

This study developed a performance assessment instrument based on material science process skills elasticity with practical methods. Research conducted in UNJ and SMA Islam PB Sudirman Jakarta. The research was carried out development of September until November 2017.

This type of research is research and development. Research and development (Research & Development) is designed to obtain a product of physics performance assessment instruments in the material elasticity as an instrument to measure students' science process skills. The study design development to adapt the physics instrument on the model of research and development ADDIE (Analyze, Design, Develop, Implementation and Evaluation). The steps of ADDIE showed by picture 1 research design.



Picture 1 Research design

Before making instruments material science process skills, the lattice must be arranged first. Below there was the table that showed Instruments lattice material science process skills Elasticity.

Table 1 Instruments lattice material science process skills Elasticity

Scientific stages	Indicator	Item number	Item No.
Observe	Preparing tools	3 problems	1,2,3
	Using the senses of sight to observe the movement of oscillation in the spring	1 question	4
	Using the senses of sight to observe the vibration oscillation movement springs in series	1 question	5
	Using the senses of sight to observe the vibration oscillation movement springs are arranged parallel	1 question	6
Hypothesize	Asking questions related to the knowledge level of the experiment	2 questions	7,8
	Asking Questions Rate Application / Analysis related experiments conducted	2 questions	9,10
Plan your experiment	Designing tools and materials to be used carefully Hooke's Law	3 problems	11,12,13
	Determine what would be observed in experiments Hooke's law	3 problems	14,15,16
	Determining the Working Procedures	1 question	17
Experimenting	Carry out trial work procedures Hooke's law	4 questions	18,19,20,21
	Hooke law collecting experimental data with the appropriate procedure	3 problems	22,23,24
Analyzing Data	Bentuh display data in tables, charts or graphs	2 questions	25,26

Interpret	Determining patterns in experiments Hooke's law	4 questions	27,28,29,30
	make conclusions	3 problems	31,32,33
Applying the concept of	Applying the concept of the new situation	1 question	34
Communicate	Reported the results of experiments with the appropriate procedures	2 questions	35,36
	Mempresantasikan results of the experiment with interest	2 questions	37,38

There were eight scientific stages with indicator, the problem or question item, and the item numbers. The total of item were 38 numbers.

Results

Products produced in this research is student performance assessment instrument based on material science process skills elasticity. These instruments appraised the 8 indicators of the science process skills to observe, hypothesize, design, experiments, conduct experiments, analyze data, interpret, apply concepts, and communicate.

The first prior of the initial product tested was feasibility of the instrument. The feasibility test carried out using a sheet review to determine the extent of grain developed ratings eligible for use in student performance assessment instruments developed. The results of the validation by experts in the assessment tool in the form was feedback, corrections, and suggestions instrument ratings as shown below.

Table 2 Results Validation with 5 Experts Instrument Rating

No.	Expert	Input Suggestions
1	Expert 1	1. Back view of the shape-betuk or expert validation tables so that students scoring can be done more easily. 2. The materials are in accordance with the experiment for the level of student performance assessment At 3. Use kaedah writing and use good language
2	Expert 2	On science process skills Fourth why not mention Hooke's law in series and parallel.
3	Expert 3	1. Do not use question words in declarative sentences (news) 2. Sentence in point to 20 and 26 repaired
4	Expert 4	Some items are made even more detailed instruments related to what was observed and the student will be obtained from this experiment
5	Expert 5	1. Coupled experimental combinations (series and parallel) 2. The number of springs in series and parallel circuits need to be in specified

As for the assessment was based on self-assessment questionnaire, it was found that a revised assessment instruments have reached an average of 87.73%, so it can be used to carry out tests of learning.

Validation grading scale based on the level of assessment are shown in the table below:

Table 4 : Criteria for scoring

Value	Predicate
> 80	Very good
75-79	Good
60-74	Less
<59	Very less

(Sugiyono, 2012)

Based on the table above, aspect and predicate of performance assessment instrument by questionnaire shown in the table below:

Table 5 Validation Expert Performance Instrument Assessment

No.	Aspects	Average	Predicate
1	Construction Instruments	87	Very good
2	Elasticity Material	88	Very good
3	Language	88.2	Very good
Average		87.73	Very good

And from the table, the validity result can be presented in chart below.

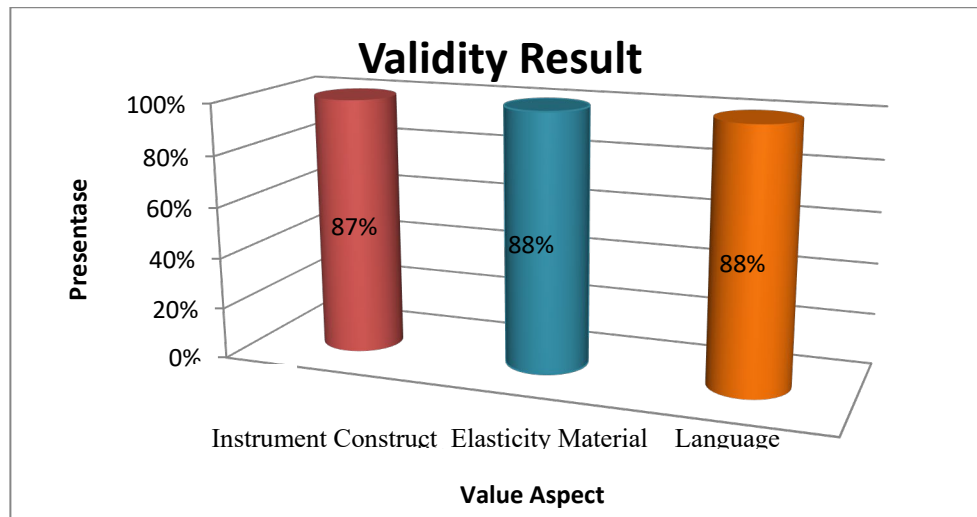


Chart 1. Validity Result

Validation of the expert had be function for the criticisms and suggestions as improvements to the quality of performance assessment based science process skills. Performance assessment instrument can be revised based on comments and suggestions that have been given. The revised assessment instruments, in tested to 32 students at Islam PB Sudirman Senior High School Jakarta when practical work with worksheets and teacher-assisted assess the performance of students with assessment instruments have been developed. The following documentation shown in the three pictures.



Picture 2 Implementation phase



Picture 3 Tested in School



Picture 4 Presented at the State University of Jakarta, December 2017

Based on instruments used in the implementation phase (testing) then did the validation constructs. To determine the validity of the performance assessment instruments developed can used the technique Pearson product moment correlation between grain score and total score, namely:

$$r_{xy} = \frac{n \sum XY - (\sum X)(\sum Y)}{\sqrt{\{n \sum X^2 - (\sum X)^2\} \{n \sum Y^2 - (\sum Y)^2\}}} \dots\dots\dots (1)$$

Information:

r_{xy} = the correlation coefficient between the variables X and Y, two variables were correlated

N = number of respondents

X = Scores are looking validity grain

Y = Total score

The results of the performance assessment instrument validity test compared with r_{tabel} to determine the validity of the item. If $r_{xy} > r_{tabel}$ with a level of 5% signifikansinya gauge declared invalid.

After the instrument tested to 32 students, further analysis will be conducted to test the validity (validity) by using the formula of product moment. Pearson. From the 38 items tested in a large group then obtained 30 valid items and 8 items were declared invalid. Because the value of R-count was greater than R-table, otherwise reliable. The results of calculations every point assessment of construct validity of the test to students can be seen in the table below:

Table 3 Data Test Results Validity Construction of Large Scale Trial Rate

Item number	r-count	r-table	Information	Item number	r-count	r-table	Information
1	0.0154	0.3494	Invalid	20	0.6768	0.3494	Valid
2	0.9400	0.3494	valid	21	0.7731	0.3494	Valid
3	0	0.3494	Invalid	22	0.4480	0.3494	Valid
4	0.3783	0.3494	valid	23	0.5656	0.3494	Valid
5	0.7368	0.3494	valid	24	0.3467	0.3494	Valid

6	0.5885	0.3494	Valid	25	0.3920	0.3494	Valid
7	0.4119	0.3494	Valid	26	0.6226	0.3494	Valid
8	0.6032	0.3494	Valid	27	0.3890	0.3494	Valid
9	0.5699	0.3494	Valid	28	0.5009	0.3494	Valid
10	0.5149	0.3494	Valid	29	0.3727	0.3494	Valid
11	0.3920	0.3494	Valid	30	0.8827	0.3494	Valid
12	0.1962	0.3494	Invalid	31	0.6140	0.3494	Valid
13	0	0.3494	Invalid	32	0	0.3494	Invalid
14	0.3584	0.3494	Valid	33	0.9530	0.3494	Valid
15	0.5655	0.3494	Valid	34	0	0.3494	Invalid
16	0.5110	0.3494	Valid	35	0.1974	0.3494	Invalid
17	0.8830	0.3494	Valid	36	0	0.3494	Invalid
18	0.7077	0.3494	Valid	37	0.3618	0.3494	Valid
19	0.8442	0.3494	Valid	38	0.6768	0.3494	Valid

To measure the level of reliability assessment instruments can be done by using the formula *cronbach alpha*, according to (Sugiyono, 2012) that is:

$$r_{11} = \frac{n}{n-1} \left[1 - \frac{\sum \sigma_i^2}{\sum \sigma_t^2} \right] \dots\dots\dots (2)$$

So that the reliability value of the performance assessment instrument was 0.860 where r_{table} 0.334.

The following is a table of instrument reliability level criteria

Table 4: Criterion level of reliability of the instrument

No.	Interval	Criteria
1	<0.200	Very low
2	0.200 to 0.399	Low
3	0.400 to 0.599	Enough
4	0.600 to 0.799	High
5	0.800 to 1.000	Very high

(Arikunto, 2013)

Thus obtained that whole grains existing assessment in student performance assessment instruments developed declared invalid by the level of reliability of the instrument in the criteria for Very High.

After going through several revisions and evaluation, obtained based performance appraisal science process skills such as in Table 6.

After through validity and reliability, final performance assessment instrument can be seen in table below.

Table 5 Final Performance Assessment Instrument

No.	Item Ratings
1.	Students observe the functioning state of the spring
2.	Students observe oscillations spring with the eye position perpendicular to the point of balance
3.	Students observe oscillations spring in series with the eye position perpendicular to the load on the spring balance point
4.	Students observe oscillations spring are arranged parallel to the eye position perpendicular to the load on the spring balance point
5.	Students asked questions relating to the events / times / places experiments must be done properly and correctly
6.	Students asked questions relating to the work steps in the experimental procedure
7.	Students ask the question relating to the practical process properly

8.	Students write a hypothesis about Hooke's law
9.	Students determine the tools and materials used in the experiments Hooke's law of springs
10.	Students determine the things to be observed in experiments Hooke's law of springs
11.	Students determine the things to be observed in experiments Hooke's law in the spring in series
12.	Students determine the things to be observed in experiments Hooke's law in the spring are arranged parallel
13.	Students arrange work step experiment
14.	Students assemble the tools and materials used in accordance with the experimental procedure Hooke's law
15.	Students assemble the tools and materials used in accordance with the experimental procedure Hooke's law stacking two springs in series
16.	Students assemble the tools and materials used in accordance with the experimental procedure Hooke's law stacking two springs in parallel
17.	Students put the tools and materials used safely and not endanger other students
18.	Students determines the equilibrium point oscillations of the spring before the start of trial
19.	Students measure the length of the initial spring
20.	Students measure the length of a spring after a given load
21.	Students present the experimental results in tabular form
22.	Students present the experimental results in graphical form
23.	Students find the relationship between the mass and the length of spring
24.	Students compare the results of the length between the spring in series and are arranged parallel stacking
25.	Students discover patterns of relationship data obtained from the experimental results
26.	Students calculate the spring constant obtained from experimental results
27.	Students make conclusions based on the graph created
28.	Students mentioning the reasons for differences in the results of the experiment and the spring constant reference
29.	Students present the results of experiments using a language that is easily understood
30.	Students respond to questions with logical and rational

Conclusions

From results of research and discussion, we can conclude that student performance assessment instrument base on science process skills developed already qualified and can be used as an assessment of the performance of Physics for high school students. Student performance assessment instrument developed has a 100% eligibility rate to the level of content based on the validation of the instrument construction 87%, 88% elastic material, and the language of 88% with a very good interpretation. In terms of construct validity, student performance assessment instruments developed have 38 points are valid with the level of reliability of the instrument at the 5% significance level of 0.860 or very high category.

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Digital Technologies And Postgraduate Student Role Transition: Perceptions Held By New Masters Degree Students

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Abstract

This exploratory study draws on data collected at three stages during the first module of a Master of Science (MSc) degree in Human Resource Management (HRM) delivered largely at distance using digital technologies. Noting from the literature that the significance of the transition to the postgraduate student role appears to be generally underplayed, and thus giving voice to those students, the research focuses on the students' described experience at an early point in that transition. Drawing on rich description gathered from interviews and online surveys, data gathered at three points and across two cohorts of students over a 16 month period, the student experience of 'stepping up' to the postgraduate student role is highlighted. This is a role influenced by factors including; the adoption of a postgraduate persona, a requirement for self-responsibility with regard to learning, and the need to challenge the existing mindset by engaging with critical analysis. These are factors which are perceived by the participating postgraduate students to be influenced by the use of digital technologies. Student anxiety is identified to arise from the use of those technologies despite technology enhancing the flexibility of learning around the demands of the students' professional role and of the students knowing, ahead of enrolment, that digital technologies play a significant role in the delivery of the programme.

Keywords: *Digital technologies, Postgraduate, Masters Student, Student voice, Transition, Human Resource Management*

Introduction

Starting a new level or phase of education inevitably presents challenges for the student. This challenge is compounded when the respective individual is trying to juggle other commitments such as a full time work role and family commitments (Mescher et al, 2010). As Tobbell and O'Donnell (2013, p.124) highlight, despite the argument that 'postgraduate students, by definition, have been successful undergraduates and so there is an implicit assumption of competence in negotiating and performing in the HE environment', many postgraduate students are considerably older than their undergraduate colleagues, are actively engaged in their chosen professional discipline - often in senior positions - and have other demands upon their time.

Aided by the ready availability of digital technologies, students are perceived as becoming more discerning in their selection of learning provider and the method of learning provision. In the United Kingdom (UK), this ability to be discerning has been facilitated by the Quality Assurance Agency for Higher Education (QAA), an independent body advising on standards and quality, specifically outlining in the preface to their 'Masters Degree Characteristics' publication (QAA, 2010 p.2) that 'the landscape for master's degrees in the UK is flexible and diverse' and going on to identify that 'there are no nationally agreed definitions of types [of Masters degrees and that] awards with similar titles can vary in nature both between institutions and across disciplines' (QAA, 2010 p.3). This 'flexible landscape' has influenced higher education institutions to revise their offering and the use of digital technologies has played a significant role (Firat et al, 2016). Postgraduate courses are acknowledged to be an appropriate avenue for the development of professional expertise (Macpherson, 2010; Black and Bonner, 2011), with limited evidence identified within the literature that postgraduate studying is undertaken solely for the purpose of self-fulfilment. This raises the question as to how higher education providers may maximise their effectiveness in responding to the needs of potential postgraduate students in the presence of digital technologies.

This paper provides an account of student perceptions relating to their experience of beginning to study for a Master of Science (MSc) degree in Human Resource Management (HRM) delivered largely at distance using digital technologies. The studied group is distinctive in that the management of the organisational human resource (the students' professional role) also embraces consideration of the development of that resource. In short, the students are both called upon to consider the application of transitioning arrangements within their workplace as well as to transition to the role of a postgraduate student. However, despite the potential for professional role and learning to positively influence one other, practitioners are not always seen to model the learning practices with which they encourage others to engage. This is referred to as the 'knowing-doing gap' (Sanders et al, 2008 p.1976).

Literature Review

This section focuses on three sections, firstly the literature relating to transitioning of students to postgraduate study. Secondly, the literature relating to student motivation, observation, and the influence of digital technologies.

Finally, before clarifying the gap in the literature which this paper contributes towards filling, focus is placed on the challenging of existing understanding.

Transitioning to postgraduate study

There is acknowledgement in the literature that limited research has been conducted into the transitioning of students to postgraduate study (Masterman and Shuyska, 2012; Tobbell and O'Donnell, 2013; Spearing, 2014). Indeed, where related research has taken place, this has attracted the claim of having 'broken new ground' (Jespen and Neumann 2010, p. 465). Some argument has been presented that this limited focus is one consequence of the attention that other educational transitions have attracted and, furthermore, that postgraduate study is little more than a natural progression from undergraduate studies (Watson et al, 2005; Tobbell and O'Donnell, 2013; Masterman and Shuyska, 2012). This progression is acknowledged to be one which often entails movement to a different higher education establishment (Spearing, 2014), where 'existing knowledge [i.e. that gained as an undergraduate] may be resituated in the new context' (Tobbell et al, 2010 p.262).

The context of postgraduate study is, however, noted to be different to that encountered as an undergraduate. One base point is that as graduates, postgraduate students 'are expected to have developed the ability to recognise and address their own learning needs and have pre-learned core intellectual skills such as problem-solving, critical thinking and research skills' (Spearing, 2014 p.89); that they might otherwise be termed 'expert students' (Tobbell et al, 2010 p.263). Whilst postgraduate studies offers a mechanism to redress the reduction of the advantage provided by undergraduate degrees - the result, as Wakeling (2005, p.506) terms it, of undergraduate degrees becoming 'ubiquitous' and, as a consequence, providing diminishing advantage in the labour market (Masterman and Shuyska, 2012) - the associated advantage often requires students to have successfully wrestled with a different set of issues. Tobbell and O'Donnell (2013, p.126) provide some examples, including those issues which are a consequence of 'relationships, university imperatives and government policy', although it is the former, specifically the 'form[ing of] family units, buy[ing of] houses and progress in careers' which is carried through from Tobbell et al's (2010, p.265) earlier writing in this area. It is in this context that digital technologies are used to facilitate learning.

Motivation, observation and the influence of digital technologies

There is acknowledgement in the literature of the independence associated with the undertaking of postgraduate studies. Tobbell and O'Donnell (2013, p.124) appear to link this independence to isolation, highlighting the risk that it might 'undermine confidence'. A number of writers (e.g. Littleton and Whitelock, 2005; Masterman and Shuyska, 2012) place emphasis on students comparing their own performance against that which they observe occurring around them; acknowledging the overarching fear of being negatively judged (Johnson, 2012). This offers a contrast to the more supportive undergraduate context where students are often regarded to be part of one or more socially cohesive groups (Menzies and Baron, 2014) and where the expectation of collaborative working may be central to module assessment. Social support theory (House, 1981) presents an argument that social cohesion (such as that cited in the literature as being experienced during undergraduate studies) offers protection against the effect of stress on health. However, there is little evidence in the literature that a similar effect is enjoyed by postgraduate students.

When there are skills to be developed or refined, some pre-existing skills can become redundant. Masterman and Shuyska (2012 p.349) use the example of 'the movement of the lecturer's hand across the blackboard as he or she dynamically constructs an ephemeral representation to explain a new concept', going on to suggest this 'may exercise greater pedagogic power than a 'still' slide in a digital presentation preserved for posterity in the [Virtual Learning Environment] VLE'. The literature details the efforts which have been made to link technology-based learning contexts to historically used skills (Cigdem and Ozturk, 2016). However this literature appears to be silent on what factors might preclude value from being derived.

Whilst not all postgraduate provision is linked to an expectation of progression to doctoral studies, or related to fulfilment of professional development needs (QAA, 2010), provision facilitated by the use of digital technologies is acknowledged to be one mechanism for responding to the time constraints encountered by working professionals. As Tobbell et al (2010) highlight, student lives are not now limited to that which occurs within the university setting and, reflecting that release from geographical constraint, is time-related flexibility. Digital technologies give the student opportunities to plan their studying around their other commitments.

In the light of these flexibilities, perhaps it should not be surprising that the effective use of provision is regarded to have the potential to support higher education institutions to both retain and enhance their 'client' base. Higher education institutions can, for example, use digital technologies to extend their reach. The movement towards active use of those technologies in the higher education context is not, however, seen as having enjoyed a smooth transition. There is, for example, acknowledgement of the need to overcome the influence of reified practices constructed over an extended time period (Tobbell and O'Donnell, 2013) and some reluctance to acknowledge the power of digital technologies in the development of the learning context is argued to remain (Masterman and Shuyska, 2012).

The student's first experience of learning facilitated by the use of digital technologies is acknowledged to provide an additional burden. Specifically, there is an acknowledgement of the need to learn how to embrace the discipline associated with that method of provision (Blount and McNeill, 2011). Engagement is reasoned to hinge upon students perceiving, and identifying with, the value of that mechanism for learning and to move from an initial excitement associated with their new challenge to a state where they are successfully performing within their new context (Menzies and Barson, 2014). It is acknowledged that there are issues associated with this performance task (Kanuka and Garrison, 2004; McCormack, 2004; Zhu, 2006). Even when there is a general familiarity with digital technologies, this has been identified as failing to equate to an immediate ability to transpose those skills to other contexts (Beadle, 2016). Indeed, the overarching process of engagement is acknowledged to be part of a larger framework of interconnected activities, what Tobbell and O'Donnell (2013, p.126) describe using the 'mesosystem connections' terminology.

Challenging of understanding

Whilst it has already been acknowledged that a base point for graduates, and therefore a prerequisite for postgraduate study, is the ability to engage in a process of critical thinking (Spearing, 2014) and there is indication that students wish to understand the expectations of their assessors (O'Donovan et al, 2001), the task of responding is acknowledged to be problematic. In part this is identified to be a consequence of relying on perceptions (Nelson, 2012); what one party to a learning relationship thinks the other requires, for example by way of explanation. The perceptions which are held by students are acknowledged to be subject to multiple influences (Ozgur, 2015). One example is the pressure which emanates from personal relationships and the effect this has on engagement with the studying task. As Tobbell et al (2010, p.270) highlight, 'There is psychological work involved in making shifts between being a student and fulfilling [other roles]'. If there is a difficulty in making the required shift, then this is likely to impact upon the student's understanding of what is expected of them in the role of a postgraduate student.

Critical analysis is a central tenant of academic writing and is noted by Swanwick et al (2014, p.158) to include 'openness to inquiry and adapting practice and a commitment to experimentation as a learning process' as well as the ability to 'creatively synthesise multiple perspectives'. However, this is a task highlighted to require a 'tolerance of uncertainty and unpredictability and preparedness to get it wrong' (Swanwick et al, 2014 p.158). Whilst the literature demonstrates a wealth of material relating to the need to adopt a critiquing approach (e.g. Firth and Martens, 2008; Von Der Heide and Lamberton, 2011), even within the focal subject discipline (e.g. Kamoche et al, 2011; Ackers, 2014), it offers less input with regard to how the required ability to engage in critical analysis might be developed. It is here, however, that there are identified links to communities of learning practice (Brown, 1992; Handley et al, 2006) and the value of collaborative learning (Vance, 2004; Guerin and Green, 2013) albeit that this, in turn, fuels the aforementioned potential for comparison to arise as a result of observation.

In providing an account of postgraduate student perceptions relating to their experiences of beginning to study for a Master of Science (MSc) degree delivered largely at distance using digital technologies, and specifically the issues relating to progression to the Masters Student role, this paper provides a contribution at two levels. Firstly, it responds to what Tobbell and O'Donnell (2013, p.127) refer to as 'the identified paucity of research representing postgraduate experience', specifically within the context of provision facilitated by digital technologies. Secondly, mindful of what Masterman and Shuyska (2012, p.336) identify as the neglect of taught postgraduates in 'learner voice' studies despite 'the burgeoning literature on the learner experience of e-learning' more broadly, the study seeks to give voice to students engaged with one postgraduate programme.

Method

A three stage approach was taken to gathering the data. Firstly, all students participating in the first module of the MSc in HRM during the 2015-2016 academic year were invited to participate in the research interviews. Students received this invitation shortly after they had submitted the first of their three assessment activities, at a point when they had been a participant on the module for approximately two months. The purpose of the enquiry was to explore the student's perceptions of transitioning to postgraduate education delivered using digital technologies with the intention to identify whether additional support was perceived to be necessary and, if so, the nature of that support. The timing of that invitation was purposeful as it is known that some students fail to robustly engage with the course or assessment resources until immediately preceding an assessment deadline (Whitworth and Wright, 2015).

Of a population of 85 module students, 17 students (20%) who identified themselves to have had no previous experience of studying at a postgraduate level responded to the request for participants and ultimately took part in the study. Each of these 17 students was invited to participate in a 1-2-1 interview with a member of the teaching team. The interviews each lasted between 60 and 90 minutes and were undertaken remotely using the online meeting/tutorial portal used as part of the degree programme, Skype and, in three cases, the telephone. Each interview was recorded, transcribed and the resulting qualitative data was subsequently analysed using an inductive open coding approach. The interview questions were designed to focus upon the feelings, emotions, and

experience the student perceived they had encountered, and the understanding that they had acquired, in transitioning to this, their first, postgraduate module.

The interviews took place over a three month period, up to and including the period during which the second of the three assessment activities was submitted, but before those students sat the summative end of module examination. The students did not receive any direct benefit (e.g. course credit) for having participated, but a number of the students identified that they had enjoyed the experience and considered they had benefited from taking this supported reflective opportunity.

Secondly, the same cohort of 85 students was invited to participate in a questionnaire evaluating the module as a whole. This questionnaire was issued when those students reached the end of the module and, whilst taking a broader focus than the first stage study, the data gathered was interrogated for further detail with regard to what the student cohort considered to be the key issues they had encountered during the first module on the programme. 20 students (23.5%) responded to this questionnaire, which provided both qualitative and quantitative data.

The subsequent cohort of students, those participating in the first module of the MSc in HRM during the 2016-2017 academic year, were provided with an optional and newly devised standalone online learning resource which focused on academic writing skills including essay planning, formulating conclusions, critical analysis and referencing practice. This resource had been developed using the feedback from the first stage study and became available approximately one month after the 2016-2017 intake commenced their postgraduate student role. It took the form of description and explanation, illustrative scenarios and associated activities. On average the resource took 90 minutes to complete and students were notified about the availability of the resource through a series of online messages.

The third stage of data collection exercise amounted to interrogation of the reflective comments provided by the 8 students who both engaged with that online teaching resource and subsequently responded to an online evaluative survey which was accessed through a link provided at the end of the teaching resource. This evaluative survey captured both qualitative and quantitative data. Since the online teaching resource did not record the total number of students who engaged with it, it was not possible to identify the percentage of 2016-2017 cohort students who participated, nor the extent to which those who participated chose not to engage with the evaluation. Anecdotal evidence suggests, however, that fewer than one half of the students who used the teaching resource contributed to the subsequent evaluation.

The data for each of the three stages was initially analysed as a self contained unit in response to the desire to maintain student ownership of the perceptions and in order to ensure the meeting of practical/operational objectives. However the framework derived from the inductive approach used for stage 1 was subsequently also applied to both stages 2 and 3 in term in order to maximise the interrogation of the gathered data.

Findings And Discussion

This findings and discussion section highlights the issues which the new postgraduate students who commenced a course delivered largely at distance using digital technologies highlight, through the three stage data collection method, as being the most significant to their transitioning experience. This significance has, in large part, been identified on the basis of the frequency with which the issues were highlighted across the three data collection stages, and thus the two student cohorts. However, consideration has also been given to where there was a body of consensus within any one stage and this is highlighted within the text. The participating students were numbered consecutively across the three stages. The three themes discussed are, in turn, the commencing of the studying task, the postgraduate persona, and the issues surrounding the process of critiquing.

Commencing the studying task

The research identified that commencing the studying task was central to igniting a postgraduate student mindset. This task was reasoned to exhibit the discipline associated with the postgraduate student role. Participant 43 suggested, for example, that they were 'suffering from studying paralysis' and that they had engaged with the standalone online teaching resource in the hope that it would help them 'to get started; to put [them] in the right mindset'. It is unlikely that this student had failed to undertake any studying of the module content by this point, however use of the 'get started' phraseology indicated that they had yet to become accustomed to their new role.

The need, as Participant 14 termed it, 'to knuckle down' to undertake the postgraduate work task was indicated to be, in part, a legacy of the students' experience of undergraduate studying. This legacy was also highlighted to contribute to the difficulties which the students highlighted that they had encountered with regard to producing the assessed work; work which was submitted through an online portal. Some of the participants identified a preoccupation with completion of the assessment tasks as opposed to acknowledging that those tasks marked the end of a period of learning. Many of the students, largely reflecting argument in the literature (e.g. Watson et al, 2005; Tobbell and O'Donnell, 2013; Masterman and Shuyska, 2012) that postgraduate study represents a natural progression from undergraduate studying, described having assumed they would 'naturally' adjust to meet the more encompassing learning expectations.

Contributing to what Participant 8 referred to as the 'magnitude of the studying task', was the influence of other demands upon the student's time. The literature (e.g. Tobbell and O'Donnell, 2013) identifies that postgraduate students are often called upon to wrestle with a different set of life issues to those faced at an undergraduate level. Here there is an assumption that most undergraduate students undertake their first degree shortly after leaving compulsory schooling, whereas postgraduate studies often commence many years later. The influence of other demands was seen to equally apply to the participating students. Indeed, the data revealed the effect of those influences. It also identified the potential for those influences to undermine the assuredness that some of the students expressed having felt at the point when they had enrolled for their postgraduate degree. The Stage 3 participants, who expressed their views a little ahead of their first assignment submission, unanimously highlighted that in advance of engaging with the standalone online learning resource they had awoken to the magnitude of the task with which they were faced and how ill-equipped they had considered themselves to be in order to deliver work of the required standard. Whilst those participants were only part of that year's cohort, a common factor was that in the face of decreasing confidence, each of those students had taken the initiative to engage with the optional learning resource.

The postgraduate persona

The requirement to use digital technologies was identified to compound the issues which the postgraduate students identified they were, using the phraseology of Participant 7, 'wrestling with' in relation to 'commencing the postgraduate studying task' and adopting the 'postgraduate persona'. Providing a contextually applied example of Tobbell et al's (2010) observations regarding the impact of contextual change, the data revealed that some participants drew attention to the extra demands which resulted from endeavouring to learn whilst making use of the digitally facilitated provision. Whether the demands faced by the cohort of students examined exceed those encountered by other postgraduate students can be questioned. Nevertheless, the ability to attribute demand to the use of the digital technologies served to illustrate voice being given to the student perspective. That voice highlighted that the majority of the Stage 1 participants identified how use of the digitally facilitated learning resources contrasted with their previous (face-to-face) educational experiences. Indeed some participants went so far as to indicate that the emphasis on using digital technologies compounded the challenge of what Participant 9 termed the 'stepping up' to meeting the needs of postgraduate work and adoption of the postgraduate persona. This was despite the participants having pre-existing practical experience in the studied discipline.

The data revealed that many of the participants regarded the effort they invested in using the digital resources required direct acknowledgement. The underpinning reasoning might well be attributed to the relationship between isolation and confidence which Tobbell and O'Donnell (2013) highlight. Indeed, echoing the commonly felt perspective, Participant 17 suggested that acknowledgement of the effort deployed should take the form of a positive contribution to the assignment marks. Here historical practices are seen to have the potential to constrain perceptions surrounding the application of digital capabilities.

Indeed, failure to have the efforts that were made in the student role directly acknowledged was noted by some participants to have the potential to generate the desire to take a 'short cut' approach to assessment completion. Participant 6 talked about this in terms of 'achieving compensation'. Whether that desire for compensation was ultimately pursued could not be determined from the data. However, many of the participants did acknowledge their primary focus on completion of the assessment tasks with the intention that this would lead to course credit, as compared with acknowledging the breadth of the learning potential which existed or, indeed, any other benefits which might be derived from engaging with the postgraduate learning programme more broadly. Furthermore, there was indication that for a number of the students the reward offered by the assessment tasks had the potential to fill a motivational void.

The first stage of the research exercise took place shortly after the students had submitted the first of their three summative assessment activities. At this point they had had the opportunity to engage with no less than three online tutorials, as well as a series of asynchronous tasks in an online forum. Some participants suggested that they had not regarded any of this online provision as a valued opportunity for active learning. Participant 15, for example, indicated that they were reluctant to engage with tasks in the presence of their peers. The data revealed that the participants considered themselves to be influenced by how they perceived postgraduate students were expected to behave, regardless of whether any additional encouragement might have been received from those facilitating the online activities and outweighing any learning which might have the potential to result. Specifically, and again drawing from the contribution of Participant 15, there was mention of the feeling that 'postgraduate students ought to always know the answer to questions posed by the tutor facilitating the online activities' and that there was an assumption that where others either did not participate or demonstrated limited participation (for example by finding a reason to avoid speaking in an online discussion group) that this was a consequence 'of those students already possessing the level of understanding which [the student] sought to achieve'. The effect provides a parallel to emphasis within the literature (e.g. Littleton and Whitelock, 2005; Masterman and Shuyska, 2012) of the tendency towards students comparing their own performance to that of

others. Here it was evident that postgraduate provision using digital technologies contributed to a compounding of the 'learning burden' (Blount and McNeill, 2011).

The issues surrounding critique

The data revealed the participants to have noted that the postgraduate role requires evidence of engaging in the process of critical analysis. The data also revealed there to be issues associated with the need to move away from simply recounting material. Participants 22 and 26 both highlighted their developing awareness of perspectives within arguments and the importance of actively 'weighing up' the material presented. The participants were identified as paying focus to the contrast between requirements for critique at a postgraduate level, as compared with the expectations which they had retained from their experience of undertaking undergraduate studies. The accuracy of those recollections was not seen to be questioned. Participant 39, for example, emphasised how postgraduate writing contrasted with the approach to writing that they had learnt in the past, going on to specifically identify that 'critical analysis had not been a particular requirement of [their] undergraduate degree'. Several participants identified that they struggled to manage the feeling that the material which had been published ought to be accepted at face value, with a number of these participants making specific mention of the 'peer review process'. The emphasis conveyed suggested that if a writer's academic colleagues had accepted the material then the postgraduate student ought to defer to their understanding.

Participant 45, who suggested that they had engaged with the standalone teaching resource after commencing writing their first piece of assessed material, acknowledged that that first draft of their assignment had not included any critical analysis. However, as the module progressed, they indicated that they had developed confidence in the requirement to engage with critique, arguably demonstrating the psychological shift to which Tobbell et al (2010) refer. Participant 20 (reflecting the perspective of more than half of the Stage 2 participants who suggested that their engagement with the module had heightened their understanding of how to relate theory to practice) highlighted, for example, how he felt more confident saying what he thought; of potentially challenging the published material.

Despite this suggestion of a development in confidence, some of the participating postgraduate students openly challenged the need to engage with critique; favouring a prescribed approach. There was suggestion that in being forced to derive their own conclusions students were not receiving the input that they desired and which a number of participants either directly highlighted, or alluded to, 'paying' to receive. Participant 35, for example, drew attention to the influence of digital technologies in 'decreasing and removing face-to-face input'. There was clear indication that this student linked the use of digital technologies to a process of 'teaching [them]self'. Appearing to echo Participant 35's comments, Participant 36 questioned how the ability to critique could be developed through education facilitated using digital technologies. This participant highlighted how the 'online format no longer suited [their] needs' and how their experience had left them 'wanting to be in a traditional classroom environment'.

Conclusion

This study has responded to the 'the identified paucity of research representing postgraduate experience' (Tobbell and O'Donnell, 2013, p.127), giving 'voice' to students on one postgraduate programme; a MSc in HRM. The study focused on an early part of the postgraduate experience; the move - or what was spoken about as a 'stepping up' - to the postgraduate student role. That experience has been identified to be influenced by numerous factors including the adoption of a postgraduate persona, a requirement for self-responsibility with regard to learning, and the challenging of the existing mindset by engaging with the process of critical analysis. The study revealed that all of these factors were perceived by the participating postgraduate students to be influenced through the use of digital technologies.

Through the lens of the participating postgraduate students, the study has revealed how those students perceived the postgraduate learning offering where it was facilitated using digital technologies and how this offering contrasts with more traditional mechanisms for delivery. Also revealed is the potential for provision using digital technologies to exacerbate the anxiety of the student when transitioning to a postgraduate student role, although whether this is specific to students within the studied discipline is unknown. Furthermore, whether these anxieties will diminish when digital technologies fulfil a greater role in postgraduate provision - assuming that they will - is also a matter of conjecture. The anxieties were noted despite the merits of a digital approach enhancing, for the student alone, flexibility around their professional role demands and the students knowing, ahead of enrolling for the programme, that digital technologies play a significant role in module delivery. The study revealed that even in the presence of digital technologies, the significance of the transition to the postgraduate student role appears to be generally underplayed and that this, in turn, influences the student perspective. Whether this underplaying has the potential to add value to the learning provider, for example with regard to the identified assumption that individuals will naturally adjust to meeting more encompassing learning expectations, is worthy of further exploration.

Inevitably this research has limitations. The study was exploratory and whilst it purposefully sought the perceptions of the participants and gave voice to their perspectives, not all of the students who were new to

postgraduate studying participated and, furthermore, there was a risk that the more vocal (and not necessarily representative) students will have participated at more than one stage of the data collection exercise. It was intended that data from the second cohort (the third stage of the data collection exercise) would mitigate this effect. However, many students informally revealed that they benefited from the Stage 3-associated online teaching resource without contributing to the respective third stage data collection exercise.

This study does, however, offer insight into what students new to a MSc HRM study undertaken using digital technologies highlight as being issues with regard to that progression, despite this having the potential to not be an exhaustive listing. Furthermore, findings from this study can be used both from a practical perspective, for example with regard to future learning provision, as well as contributing detail to further transitioning research activities.

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Digitization Processes And Training Needs: The Case Of The Supply Chain And The Framelog Project

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Abstract

Organizations are experiencing a process of digital transformation. This is often assessed only from a technological point of view but it should also be considered from a cultural point of view. As a result, today and in the future, personnel are required different skills to the past and, at the same time, it is difficult to identify suitable candidates for digital skills.

This paper aims to show the existence of a cognitive gap between what the world of work and digital transformation requires and the skills possessed by current and future workers. Subsequently, it wants to highlight the need to promote an educational vision able to follow the evolution of the world of work and the process of digital transformation. This through the definition of a concrete plan indicating the skills required to the current or future worker. In particular, this theme is addressed in the Supply Chain. It is a sector where the digital transformation process is very evident and showing as a possible action plan the European research project, Framelog.

Introduction

Today, organizations operate within a process of digital transformation that is involving all sectors.

This means talking about digitalization not only under a technological dimension because it risks neglecting the cultural aspect. In fact, digital transformation is not just technological investments, but it requires personnel with specific knowledge in the digital field. Thus, this knowledge is destined to become important components in every activity (Brynjolfsson et al., 2013).

This implies an evolution of professional profiles in the world of work and it reflects on the skills required by companies also for young people entering the world of work. In this context, the difficulty of finding suitable candidates for knowledge and ability to tackle digital transformation in selection processes is emerging in many companies (Conrad, 2016). This is highlighted by the European Union, it indicates significant deficiencies in the dissemination of digital knowledge in the adult population and it estimates digital knowledge will be required in 90% of occupations in the next decade.

The digital transformation involves:

- many existing professional figures need to adapt their skills through updates and continuing education
- the appearance of new professional figures and new companies linked to the same digitization
- the development of digital knowledge in young people entering the labor market and that they will have to continuously develop and update.

All this makes us reflect on the importance of renewing training paths in a digital perspective at all levels, from secondary schools to universities and professional institutions. In addition to promoting a new educational vision where the school is intended not only as a physical place but as an open space for learning. The goal is to establish the best conditions to allow students to learn the skills required today and in the next future by the world of work. This process faces several challenges: methodological-didactic challenges for teachers and organizational challenges for school leaders. But the challenge also invests all the realities, like companies that intend to build innovative experiences with the world of education.

In this process, it is essential to define the skills that young people need. This means starting from the skills appropriate to current labor market needs and especially from a future point of view. The possible professional skills required in the next future must consider scenarios unimaginable until a few decades ago.

The competition in the international market will rely on the system of relationships and consequently on the ability to meet customers' demand through the coordination of a complex and extensive series of information and streams and searching for both horizontal and vertical collaboration (McKinsey & Company, 2015).

If on one hand, the evolution of digital technologies will allow companies greater interconnection and cooperation along the entire value chain by promoting and improvement in terms of efficiency of their systems and competitiveness, on the other side, the automation of the production process will support in the reduction of the impact of material and physical work of the staff, while increasing the demand for increasingly qualified human capital (Nanry et al., 2015)

So, we highlight that, in a rapidly changing labor market, even the way people work, and skills are bound to evolve.

This means that companies have and will increasingly need collaborators with adequate technical knowledge, professional languages and able to dominate new technologies but, at the same time, adequate soft skills. Soft skills are transversal skills that are a mix of personal skills and qualities determined by the rapid evolution of the

context in which companies operate and who ask people to change how they work and manage relationships. The World Economic Forum (World Economic Forum, 2016) has identified the most requested soft skills by 2020: cognitive flexibility, negotiation skills, judgment and decision making, emotional intelligence (recognizing, understanding and managing emotions), ability to coordinate with others, ability to problem solving, creativity, proactivity, critical thinking, communication and interpersonal skills, ability to work in a team (Monden, 2011). Therefore, in addition to adequate basic training, a young graduate is also required linguistic, computer and digital skills and a mix of the personal characteristics described above necessary to be able to deal with the reality of work.

From all this, there is the need to seek a closer integration between the business world and the academic-educational world. This is essential to counter the appearance of the Digital Mismatch, it is the gap between what is required by companies and the knowledge that young people demonstrate to possess when they enter the world of work.

A more effective dialogue between these two worlds can, on the one hand, improve the preparation of skills that we know today and on the other hand, encourage the development of skills for continuous learning to build skills that are not yet known (Porter & Heppelmann, 2015). The challenge of identifying and developing these skills is the key factor in promoting innovation and competitiveness.

The Digitalization Of The Supply Chain

In our paper we focus on a sector where digital transformation plays a fundamental role and significant evolutionary lines are expected in the future. In the Supply Chain, digitization allows companies to reduce costs and improve their ability to satisfy customers. This solution, in fact, allows companies to optimize logistics solutions in terms of speed, effectiveness and efficiency. In this perspective, the exploitation of the opportunities offered by digitalization promotes the activation of a significant process of sharing information along the entire supply chain (Reeve, 2017).

If technologies are indispensable tools, even the digitalization of the Supply Chain requires a coherent professional preparation of the workers concerned. In fact, change is not just technological, but it passes through people who need skills that are able to face the challenge of digitization in companies. The use of increasingly digitized systems requires professional figures, both at managerial level and operational level, with specific knowledge and adequately trained to be able to transform technological opportunities into new business opportunities (Khan et al., 2016).

This leads us to assess the need for professional skills, trying to adapt the relative training programs for people are working in the company and for young people who are approaching the labor market in the sector.

In these terms, it is possible to evaluate the necessary professional skills, distinguishing the professional figures in two groups: operational workers and managers.

The first table (Table 1) represents the first group and we essentially find figures with operational responsibility for managing the execution of activities in SCM processes.

[Table 1]

In the second table (Table 2), we find the managers who play a leading and controlling role within a well-defined functional area of the company's supply chain. For this second group we identified a basket of necessary skills.

[Table 2]

The changes in the role of logistics necessarily imply changes in the skill required.

This emerges from the experience of some European countries where the evolution of logistics required the design of training programs to increase the technical and managerial preparation of professional resources already exist and those to be included in the different organizations.

With reference to the latter aspect, it is necessary to reflect on the content and methods of basic training for young people, in order to give them the tools necessary to positively enter the world of work.

From business reality emerges the profile of a person with appropriate professional training and a range of personal qualities. We can speak of a set of knowledge: technical, legal (ex. contracting, European regulations, etc.), business administration (ex. budgeting, cost analysis, etc.), organizational, industrial economic (ex. analysis of the sector, etc.), statistics (ex. forecasting techniques, etc.), international economics, language, etc.

The Framelog Project

In this context the Framelog Project appears, a project co-funded by the European Union. It started from the analysis of:

- the experience of some European countries where the evolution of the logistics required the design of the training programs to increase the technical and managerial
- the existence of several gaps in terms of skills to effectively operate in the different industrial and

management areas in the logistics sector

- the difficulty of defining, as I said previously, in such a complex context the most effective skills and knowledge in the future labor market.

From this project, we support the importance of cooperation between all the actors involved, in what we define the triangle of knowledge. In fact, this project has objectives:

- Enhance the cooperation between high education, research and companies (the "knowledge triangle") in the logistics sector following the European recommendations
- Evaluate the existence of a qualification / certification system of the professional figures in the logistics area with the important contribution of the trade associations
- Provide tools and guidelines to harmonize the training offer and professional qualification requirements
- Contribute to improving the quality of university education by reviewing academic programs
- Develop an analytical approach linked to the actual needs emerging from the labour market to encourage an increase in the employment opportunities of young graduates in this sector
- Defining a European reference framework in the development of skills in the sector in order to outline, at a European level, training policies and operational methodologies able to support the important role that logistics and supply chain management can play.

In this way, the project is meant to contribute in enhancing the quality of educational offer in the Supply chain and Logistics area.

Conclusion

It has been clear that the activation of synergies, in particular for the digitalization process, between education, academic training, research and business is a real need for the Supply chain and Logistic area. That is why working on developing the right competences, with the most correct and effective educational contents, methods and instruments, will be the right foundation for the stimulation of conjoint activities between all the key players of this strategic area, in order to evolve with the changing world, the development of technologies in the workplace and build a self-maintaining competitiveness.

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Job/Figure	Competences
Inventory Control Administrator	Administer inventory, supply and capacity data
Warehouse Administrator	Ensure correct follow up of warehouse/logistics administrative matters
Traffic Administrator	Administer the shipping of goods within defined guidelines
Buyer/Purchaser	Timely placement of purchase orders and delivery of materials to meet customer order requirements and maintain stock inventory levels within approved guidelines
Customer Service Representative	Provide customer service support by obtaining and executing the order information in a timely manner
Supply Chain Analyst	Analyse product delivery, logistics or supply chain processes to identify and recommend improvement actions
Supply Chain Systems Analyst	Support the systems that form the foundation for the execution of the supply chain business process
Planner (alternative role: Inventory Controller)	Evaluate current inventory and ensure appropriate allocation of free and obsolete inventory
Warehouse Supervisor	Oversee warehouse operations
Transport Specialist/Transport Supervisor	Ensure the shipping of goods, respecting quality, legal and cost parameters
Senior Buyer	Develop, negotiate and administer contracts and agreements. Negotiate specifications and statement of works
Customer Service Supervisor	Provide effective management and leadership of a team of customer service representatives, ensuring service and efficiency targets are achieved and maintained
Supply Chain Re-Engineering Manager (alternative roles: Supply Chain Project Manager, Continuous Improvement Manager)	Design logistics processes, technology and/or infrastructure to support the efficient and cost-effective management of the supply chain

Table 1: The professional skills required for operational workers on the SCM processes. In the first column identifies the professional roles, while in the second column describes a basket of essential skills assigned to each job.

Job/Figure	Competencies
Supply Chain Project Manager	Develop and deliver projects to provide business benefits: sales growth, margin improvement, supply cost reduction and inventory optimization
Planning Manager (alternative roles: S&OP Manager, Demand Planning Manager, Inventory Manager)	Ensure the development of the master material plan and the production plan to meet the agreed delivery requirements, optimizing asset utilization
Warehouse Manager	Develop and manage warehouse operations to control effectively the receipt, storage, picking and dispatch of products, systems and services to customers
Transportation Manager	Develop and manage logistics operations to control effectively inbound and outbound shipping of products, systems and services to customers
Sourcing Manager (alternative roles: Purchasing Manager, Procurement Manager, Sourcing Manager)	Develop, negotiate and administer contracts and agreements to meet agreed improvements in cost and quality
Customer Service Manager	Develop and implement order management activities to control effectively order taking, order allocation and invoicing of products, systems and services to customers
Supply Chain Re-Engineering Lead/Supply Chain Project Director	Design logistics processes, technology and/or infrastructure to support the efficient and cost-effective management of the supply chain
Supply Chain Change Management Lead	Initiate and manage the supply chain transformation programme
Planning Director (alternative roles: Director of Supply Chain Planning, Head of Logistics, Head of Supply Chain)	Develop strategic and operating plans to ensure that the company has the appropriate resources to support current forecasted and projected growth
Head of Logistics	Manage and ensure the correct logistics process flow of information and products in order to achieve defined targets for the customer service level, operational costs and inventory levels
Director of Sourcing (alternative roles: Head of Procurement, Procurement Director)	Provide a complete procurement function for all the company expenditures, with external suppliers at the forefront regarding implementation and the development of procurement strategies
Director of Customer Service	Establish the customer service strategy for the company, setting the agenda for how the company interacts with customers

Table 2: The professional skills required for managers on the SCM processes. In the first column identifies the professional roles, while in the second column describes a basket of essential skills assigned to each job.

Educated Human Figure In School Mottos Of Korean High School

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Abstract

This study intends to derive the figure of the educated human beings embedded in Korean high school mottos. School mottos could be the educational policy of the school which intends to raise human who acquired the key virtues. Therefore, school mottos contain educational policy, idea and philosophy of the school. And it can be understood that school mottos reflect the virtues required by society and the future human figures acquired. In this study, collection of school mottos and conducting frequency analysis on 124 high schools located in Incheon Metropolitan City are done with the research question of what are the educated human figures implied in the school mottos of Korean high school. As a result, we found that school mottos consist of 1 to 4 words. And school mottos change from word to sentence. The most frequently used school motto was 'sincerity', regardless of whether it was a boys' or girls' school, or school establishment period. This suggests that the human figure shown in school mottos of Korean high school can be said to be a true, reliable human being who endeavors to realize humanity. If the purpose of education is to aim for a human being, then school mottos in terms of personality formation are still important today. It is also important to make sure that school mottos are settled in the course of practical education.

Introduction

In Korean schools, stone or wooden boards engraved with the school mottos are located the place where everyone can see. Students who spend a long time in school every day are exposed to the school mottos consciously or unconsciously. And the school mottos are reflected in school songs which sing in chorus at school events such as graduation ceremony and entrance ceremony. Placing the school mottos in a well-visible place and singing the school song in chorus are educational efforts to make the students to be aware of and practice the school mottos as lifelong guides. According to the Korean glossary of educational terms, the definition of school motto is "a motto that concisely expresses key virtues for the purpose of educating all the students in school to learn main behavior patterns, attitudes and values necessary for their daily lives". School mottos could be educational policy of the school which intends to raise human who acquired the key virtues. Therefore, school mottos contain educational policy, idea and philosophy of the school, which can be understood in relation with social-historical-cultural context. Therefore it can be understood that school mottos reflect the virtues required by society and the future human figures acquired. It is no wonder because schools are considered to be the main institution of socialization.

The Study

Does school motto really work as an educational policy in Korean schools? It seems that it does not. Nowadays, teachers and students seem to be indifferent to school mottos compared to previous generations. One of the reasons is the educational reality of school dominated by the competitive education centered on the university entrance examination. At this atmosphere, school mottos emphasizing human virtues but lacking the relevance to the academic achievement, for example test score, are getting out of concerns. This phenomenon means that the educational philosophy of the school and the process of educational practice are not organic and the educational philosophy exists only formally. In other words, it means that various teaching-learning activities in school are being performed functionally without sharing the ideas which lie in the essential meaning of education.

From these problems, this study intends to derive the figure of the educated human beings embedded in Korean high school mottos. The educated human figures implied in the school mottos set the ideal human figure from the experience of the Korean life. So it can be a criterion to diagnose the present school education reality.

Research question of this study is, what are the educated human figures implied in the school mottos of Korean high school?

In this study, collection of school mottos and conducting frequency analysis on 124 high schools located in Incheon Metropolitan City are done. It is found that according to the founding body, there are 1 national, 90 public, and 33 private schools. And depending on student's gender, there are 47 coeducational, 41 boys', and 36 girls' schools. Collection of school mottos is done through the school homepage. And hermeneutical methods are used to inductively derive educational idea from educational reality.

Findings

1. Number of words in the school mottos

As a result of analyzing the number of words in school mottos, we found that school mottos consist of 1 to 4 words. There were 66 schools with one-word school motto, 19 schools with two-word school motto, 38 schools with three-word school motto, and 2 schools with four-word school motto. Also, schools established in the late 1990s and early 2000s show a tendency to use sentence-based school mottos compared with existing word-based school mottos. About 50% schools which are established between 2000 and 2010 were taking sentence-based school mottos. This tendency seems to consider the generation of students who are unfamiliar with Chinese characters, unlike previous generations.

2. Frequency of the school mottos

The analysis of the frequency of high school mottos shows that 'sincerity' was the most common with 53 schools (43%). Then, followed by creativity with 23 schools (19%), cooperation with 12 schools (10%), (voluntary) service with 9 schools (7%), diligence and thrift with 8 schools (6%) in order. Three schools established since 2000 included the expression "world", which had never existed before, in school motto. This seems to reflect the tendency of globalization and internationalization in education. We can verify through the frequency of school mottos that school mottos are distributed to the intellectual area (e.g. wits, wisdom, intelligence), the emotional area (love, beauty, bright mind, etc.), the volitional or will area (autonomy, diligence, cooperation, training, healthy mind and body, etc.), the physical area (health, mind and body training, physical and mental health, etc.). School mottos contains at least one of the four areas, and some schools include more than one. There is a difference in the frequency among areas that the school mottos contain. In high schools, there were relatively more school mottos related to will area than school mottos related to intellectual and physical area. In elementary and middle schools, it is easy to find school mottos related to the physical area, which is not easy to find in high school. It seems to reflect the characteristics of the development stage of high school student ages or the recognition of the characteristics of high school curriculum. The frequency of the school mottos is shown in **Table 1.** as below.

Table 1: Frequency of the school mottos

Rank	Coeducational schools	Boy's schools	Girl's schools	Total
1st	Sincerity (20)	Sincerity (16)	Sincerity (17)	Sincerity (53)
2nd	Creativity (8)	Creativity (13)	Voluntary service (4)	Creativity(23)
3rd	Love (3), Challenge (3), Honesty (3)	Cooperation, Collaboration (3)	Diligence (3), Love (3), Intelligence (3), Cooperation (3), Beauty (3),	Cooperation, Collaboration, Unity(12)
4th	Autonomy (3), Diligence, Thrift, Frugality (3)	Volunteer (4)	Wits, Wisdom (3)	volunteer (9)
5th	Justice (2), Devotion (2), Cooperation (2), Passion (2)	Diligence (2), Practice (2), Truth (2), Faith (2), Unity (2), Passion (2), Challenge (2), Quest (2), Will (2)	Truth (2), Kindness (2), Religion (2), Passion (2), Creativity (2)	Diligence, Thrift, Frugality (8)

Others	Self-realization, Local patriotism, Nature, Peace, Coexistence, Volunteer, Correct, Trust, Truth, Goodness, Beauty, Hope, Consideration, Self-virtue, Virtue, Dream, True and wit. New every day. Dreams are high, hearts are wide, actions are beautiful. Best effort, best future. A competent mature human being. Mind is big, thought is deep, action is right. Myself, together, and truly. Cherish the great vision, challenge the Future. Self-love, and passion. Wise and enterprising person. The world with the heart and the future with the intelligence.	Honor, Patience, Health, Intelligence, Leap, Love, Self-help, Mind and body training, Conscience, Ability, Rightly and wisely, Blue dream and bright heart. Right thinking, honest behavior, leading skills. Intelligence for action, conscience for action. Life is honest, dream is great, mind and body is healthy. Let us be wise. Let's learn and act rightly by myself. Open up the world with intelligence and creativity. Let's fly high with dream, passion and challenge. Knowledge is the lantern of society, conscience is the salt of the people.	Quiet, Frugality, True heart, Autonomy, Integrity, Act rightly, Respect mind, Practice, Rewarding, Loyalty, Unity, Belief, Pride, Freedom, Fraternity, Rectitude, Unity, Integration, Dignity, Learning, Challenging, Stand by yourself, live together. Nurturing healthy person with wise and considerable. New and right. Global person, cultured person and creative person.	Love (7), Honesty, Truth (7), Passion (6), Challenge (5), Autonomy (5), Intelligence (4), Wits, Wisdom (3), Devotion (2), Quest (2), Mind and body training (1), Justice (2), Faith (2), Kindness (2), Beauty (2), Religion (2)
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3. Comparison of school mottos between boys' and girls' school

There is a subtle difference in the school mottos between boys' and girls' schools. In boys' schools, school mottos related to the virtues necessary for social and organizational life are ranked high. On the other hand, in girls' schools, school mottos show that, except for sincerity, the words such as service, diligence, love, intelligence, cooperation, beauty, wisdom, and faith are evenly distributed.

This phenomenon seems to reflect the perception of traditional roles between men and women in Korean society until a certain period of high school establishment.

4. School mottos according to school establishment period

Even when considering the period of school establishment, 'sincerity' is an overwhelming school motto. Other virtues seem to reflect the demands of the times. For example, virtues such as cooperation, diligence, and frugality found in the school mottos of schools established before the 1980s seem to reflect historical trajectory of economic development to escape poverty in Korea. **Table 2.** shows the schools mottos of high school by establishment period.

Table 2: School mottos according to school establishment period

Period	1st	2nd	3rd	Notes
~ 1945	Sincerity (5)	Cooperation (2)	Creativity (2)	8 schools
1946~1960	Sincerity (3)	Thrift (3)	Diligence (2)	8 schools
1961~1970	Sincerity (2)	Religion (2)	-	5 schools
1971~1980	Sincerity (9)	Cooperation (4)	Creativity (3)	20 schools

1981~1990	Sincerity (10)	Creativity (5)	Love, Intelligence, Cooperation, Diligence, Autonomy	15 schools
1991~2000	Sincerity (11)	Creativity (10)	-	26 schools
2001~2010	Sincerity (4)	Volunteer (3)	Creativity (3)	31 schools
2010~Now	Sincerity (4)	Passion (4)	Creativity (3)	12 schools

Conclusion

Focused on school mottos of high schools in Incheon Metropolitan City, South Korea, the most frequently used school motto was 'sincerity', regardless of whether it was a boys' or girls' school, or school establishment period. In Korean, the word meaning 'sincerity' is 'seongsil'. And 'seongsil' is Sino-Korean word. Here, 'seong' originates from 'earnestness' in Chinese, and 'sil' originates from 'fruit' in Chinese. So 'sincerity' means the attitude of life that earnestness and fruit, that is, try to harvest good fruit with earnestness. In other words, sincerity includes genuine efforts to complete himself as a human being, authenticity in relationships with others, authenticity in his own language and behavior, and authenticity in all things. This can be interpreted as related to the Confucian tradition, which emphasizes the keeping of the human nature that is granted from heaven. Therefore, the human figure shown in school mottos of Korean high school can be said to be a true, reliable human being who endeavors to realize humanity. If the purpose of education is to aim for a human being (one who is humane), then school mottos in terms of personality formation are still important today. It is also important to make sure that school mottos are settled in the course of practical education.

Effect Of Self-Esteem On School Life Satisfaction Of Adolescents With Disabilities: Focused On The Mediating Effect Of Evaluation On Their Own Human Rights

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Abstract

The purpose of this study was to investigate the predictive factors that can increase the school life satisfaction for the adolescents with disabilities in the integrated education field and to provide basic data for constructing the educational program to help the adaptation of school life by raising self-esteem and human rights awareness. Data of 143 adolescents with disabilities who responded fully were collected from the “Korean National Youth Policy Institute(2015)” from NYPI. The Results of this study was as follows. First, as a result of analyzing the correlation between self-esteem, school life satisfaction, evaluation on their own human rights, it was found that the higher self-esteem, the higher satisfaction of school life and evaluation on their own human rights. Also, the higher evaluation on their own human rights, the higher school life satisfaction was found. Second, As a result of the regression analysis, it was confirmed that the evaluation on their own human rights partially mediated the relationship between self-esteem and school life satisfaction. As a conclusion of this study, it was suggested that constructing various practical plans that to build an integrated education site recognized as a ‘Ddadeutan(warm) educational community’.

introduction

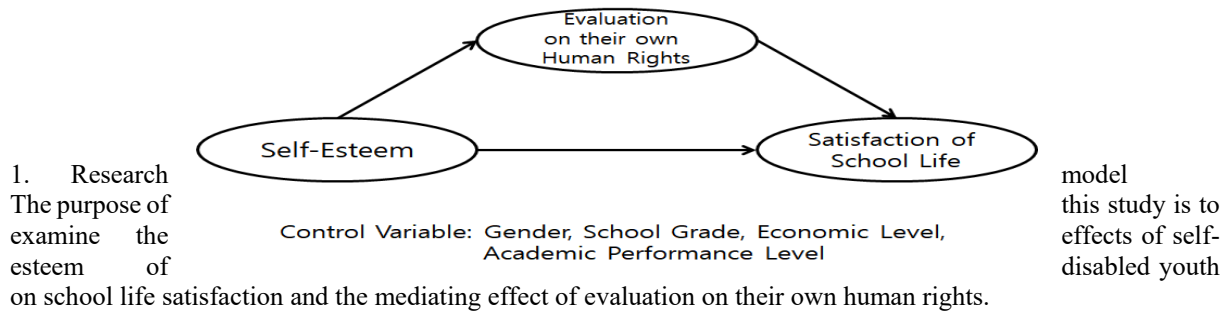
Adaptation to school life is a very important part of the growth of adolescents, and external environmental factors and internal personal factors can work together to influence it. In a number of previous studies, social relations, self-esteem, and resilience have been found to be highly correlated(Bronfenbrenner, 2005; Oh & Lee, 2006). Among these factors, self-esteem is a psychological competence that must be included in self-value as perceived by individual as beliefs about his own values and abilities and at the same time essential for adaptation to the environment(Baek & Hwang, 2005). In general, students with higher self-esteem are more likely to have high adaptability to school life because they perform their tasks with confidence and patience(Kim, 2017).

In 2007, the revised "The Special Education Law of Individuals with Disability" provided legal basis for pursuing curricular integration beyond physical integration. In addition, Researches and practices are actively being carried out about the key conditions for integrated education are the promotion of interaction between students with disabilities and general students, support for the achievement of students with disabilities and general students, administrative support, team collaboration, modification of teaching environment and curriculum(Kim, Jung, & Jung, 2014; Lee, 2010). Nevertheless, due to the environment that prioritizes physical integration, adolescents with disabilities who are receiving integrated education are experiencing human rights violations in various forms such as direct discrimination or indirect discrimination in the school and abroad. Human rights violations against students with disabilities may cause problems such as limiting the participation of students with disabilities in school, causing maladjustment in school life, and impeding integration into the community after graduation(Kim & Park, 2014; Lee, 2013).

The purpose of this study was to investigate the predictive factors that can increase the school life satisfaction for the adolescents with disabilities in the integrated education field and to provide basic data for constructing the educational program to help the adaptation of school life by raising self-esteem and human rights awareness. Specific research issues are as follows.

1. What is the relationship between self-esteem, school life satisfaction, and evaluation on their own human rights of adolescents with disabilities?
2. How does the self-esteem of adolescents with disabilities affect school life satisfaction and the mediating effect of evaluation on their own human rights?

Method



[Figure-1] Research model

2. Research subjects

For the purpose of this study, the "Korean National Youth Policy Institute(2015)" from NYPI was used. The purpose of this survey was to provide basic data on policy making for the promotion of human rights for children and adolescents by identifying the actual situation and changes in the human rights of Korean children and adolescents. 143 students with disabilities who answered all the questions for the purpose of this study were selected.

<Table-1> Characteristics of research subjects (N=143)

Characteristics		n	%
Gender	Male	121	84.6
	Female	22	15.4
School Grade	Elementary school	29	20.3
	Middle school	46	32.2
	High school	68	47.6
Economic Level	High	63	44.1
	Middle	57	39.9
	Low	23	16.1
Academic Performance Level	High	28	19.6
	Middle	69	48.3
	Low	46	32.2

3. Data analysis

The SPSS 23.0 program was used to analyze the following. First, the demographic characteristics of the research subjects were examined by frequency analysis. Second, through the correlation analysis, the relationship between self-esteem, school life satisfaction and evaluation on their own human rights were examined. Lastly, In order to investigate the effect of self-esteem on the school life satisfaction and the mediating effect of evaluation on their own human rights, the mediating regression method of Baron and Kenny(1986) was used. Sobel test was used to verify the mediating effect.

Results

1. The relationship between self-esteem, school life satisfaction, and evaluation on their own human rights of adolescents with disabilities

There was a statistically significant correlation between self-esteem and school life satisfaction, self-esteem and evaluation on their own human rights, evaluation on their own human rights and school life satisfaction of adolescents with disabilities at the significance level of .01. The results showed that the higher self-esteem, the higher school life satisfaction and evaluation on their own human rights, and also the higher evaluation on their own human rights, the higher school life satisfaction.

<Table-2> Correlation between self-esteem, satisfaction of school life, evaluation on their own human rights

variable	Self-Esteem	School Life Satisfaction	Evaluation on their own Human Right
Self-Esteem	1		
School Life Satisfaction	.227**	1	
Evaluation on their own Human Rights	.276**	.428**	1

**p<.01

2. The effect of self-esteem of adolescents with disabilities on school life satisfaction and mediating effect of evaluation on their own human rights

Multiple regression analysis was conducted to confirm whether the effects of self-esteem of adolescents with disabilities on school life satisfaction were mediated by evaluation on their own human rights. First, the influence of the independent variable on the mediator was confirmed. Self-esteem of evaluation on their own human rights and the explanatory power of the control variables were statistically significant at 9.6%, self-esteem, as an independent variable, was found to have a significant influence on the evaluation on their own human rights ($\beta=.276, p<.01$). Therefore, the influence of the independent variables on the mediator variables was confirmed to be significant, and the requirements of the first step of the mediating effect verification were established.

As a stage 2, the influence of independent variables on dependent variables was examined. The explanatory power of independent variables and control variables on dependent variables was statistically significant as 9.7%, and it was confirmed that self-esteem had a significant influence on school life satisfaction ($\beta=.166, p<.01$). Therefore, the influence of the independent variables on the dependent variables was confirmed to be significant, and the requirements of the second step of the mediating effect verification were established.

In the stage 3, the influence of independent variables was controlled and the influence of mediator variables on dependent variables was confirmed. To do this, self-esteem and evaluation on their own human rights were all applied as independent variables, and self-esteem, evaluation on their own human rights and control variables were statistically significant at explanatory power of 25%. Also, evaluation on their own human rights was found to have a significant influence even when self-esteem was controlled ($\beta=.395, p<.001$). Therefore the higher evaluation on their own human rights, the higher school life satisfaction was confirmed.

The R^2 value and the F value of the stage 2 were increased from .096 and 2.384 to the stage 3 to .097 and 2.419 respectively. The independent variable was decreased from .227 ($p<.01$) to .118 ($p<.01$), so the direct effect of self-esteem on school life satisfaction was significant. Evaluation on their own human rights has been found to mediate the relationship between self-esteem and school life satisfaction in part.

Overall, the control variables did not have a significant effect, but in the stage 2 and stage 3, school life satisfaction was significantly influenced by gender.

<Table-3> Analysis of the mediating effect of evaluation of their own human rights

Dependent Variable Variable		Stage 1 (Independent Variable →Mediating Variable)				Stage 2 (Independent Variable →Dependent Variable)				Stage 3 (Independent Variable · Mediating Variable →Dependent Variable)			
		<i>B</i>	<i>S.E</i>	β	<i>t</i>	<i>B</i>	<i>S.E</i>	β	<i>t</i>	<i>B</i>	<i>S.E</i>	β	<i>t</i>
Control Variable	Gender 1	.122	.149	.070	.816	.286	.139	.167	2.054*	.286	.139	.167	2.054*
	School Grade 1	.175	.149	.129	1.172	.230	.146	.135	1.573	.017	.109	.013	.158
	School Grade 2	.237	.147	.187	1.613	.138	.146	.104	.945	.189	.142	.153	1.335
	Economic Level	.015	.077	.017	.193	.068	.076	.079	.894	.069	.074	.081	.928
	Academic Performance Level	.036	.077	.040	.460	.010	.075	.011	.128	.010	.075	.011	.128
Independent Variable	Self- Esteem	.344	.101	.276	3.396**	.203	.111	.227	2.752**	.270	.100	.118	2.712**
Mediating Variable	Evaluation on their own Human Right	-	-	-	-	-	-	-	-	.387	.078	.395	4.992***
(Constant)		4.268				6.365				4.729			
R^2		.096				.097				.250			
Adjusted R^2		.056				.057				.211			
F		2.384*				2.419*				6.373*			

* $p<.05$, ** $p<.01$, *** $p<.001$ 4.992***

These results confirmed that evaluation on their own human rights was mediated partly to the relationship between self-esteem and school life satisfaction. As a result of the Sobel test, the Z value was 2.80, which was significant at the level of $p < .001$. Thus, evaluation on their own human rights was found to have mediating effects between self-esteem and school life satisfaction.

<Table-4> Sobel test for mediating effect validation

Sobel Test	z	p
Self-Esteem → Evaluation on their own Human Right → School Life Satisfaction	2.807	.000

Conclusions

First, as a result of the correlation analysis of self-esteem, school life satisfaction, and evaluation on their own human rights of adolescents with disabilities, the higher self-esteem, the higher school life satisfaction and evaluation on their own human rights. Also, the higher evaluation on their own human rights, the higher school life satisfaction was confirmed.

Second, the regression analysis was conducted to confirm whether the effects of self-esteem of adolescents with disabilities on school life satisfaction were mediated by evaluation on their own human rights. As a result, it was confirmed that evaluation on their own human rights partially mediated the relationship between self-esteem and school life satisfaction, and it was confirmed by Sobel test at last.

The suggestions based on the results of this study are as follows.

In order to establish an integrated education field recognized as a 'Dadeutan(warm) educational community, it is necessary to improve the school life satisfaction by preparing plans and programs to enhance the self-esteem and evaluation on their own human rights of adolescents with disabilities. In addition, various approaches such as institutional support to prevent violation of human rights of students with disabilities, special education services, and development of self-protection programs to raise the evaluation of evaluation on their own human rights of students with disabilities and parents of students with disabilities are needed.

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Effective Communication English Education In Artificial Intelligent Era: An Essay Through Drawing Pictures

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Abstract

This paper aims to search ways to enhance effective communicative English education in college in Korea. In Artificial Intelligence Era it is easy to neglect learning English or other languages. Because most people have smartphones which can be connected with internet, whenever or wherever, they can be access to internet and search meanings of the language which they hear. Accordingly, the importance of learning English tends to be weak. Therefore, this paper is to seek how to encourage students to learn English and communicate others through the educational theories of Immanuel Kant and Martin Heidegger.

Introduction

Today is the Fourth Industrial Revolution era. Accordingly, AI(Artificial Intelligence threatens English Education in class. Klaus Schwab indicated in his book, *The Fourth Industrial Revolution*, that the Fourth Industrial Revolution changes our identities as well as our life patterns. As the educational environments in Korea have become rapidly globalized, the significance of students' intercultural communication competence (ICC) along with the linguistic ability has been increasing (Sunyoung Choi).

Heidegger mentioned that "language is the home of existence." The language of existence is a general term for all of the experiences we experience, that is-see, or hear in the process of realizing something. Only through these experiences can a being be revealed as some being, and a being (or human being) himself can exist by doing so (Heidegger and Education 229).

Kant's humanism notion: The aesthetic ability of the human subject.

Whether objective or entirely intelligent, it is an undeniable fact that all representations inside us can ultimately be combined with pleasure or pain. (KU, B 129)

It is only in aesthetic manner that the experiential self-consciousness and the transcendental self combine widely.

Kant's practical education: Being skilled, world wisdom, morality

World wisdom which he thinks is the skill that our well-trained skills are applied to others, that is, the skill using others for our purpose (*Kant's education theory* 266). Also Kant's most important education is personality education, especially enhancement of rationality. But it also raises the question of the nature of human existence faster than expected (Schwab 156). Effect that Some particular technique like the Internet and smart phones affect us relatively has been realized properly and has been extensively discussed (Schwab 159). It causes students a kind of social empathy shortage. In this environment, communicative English education grows hard and hard. Students get used to search the Internet and get the answers to their problems in the Internet, and they are prone to indulge in disillusionment. So, we teachers need to seek for the new way to invite them into conversation with classmates or teachers, etc. The way I sought is drawing and writing. That is to form empathic relationships. This way may sounds flat and stale, but it is very effective. Through this presentation, I would like to introduce you to implement the way.

The Study

Group 1

- The first year students of University
 - : The basic Class in The Art Educational Course
 - : There have a variety of majors in the class, and the number of the students is 39.
- The title of Text: World Link 2

Group 2

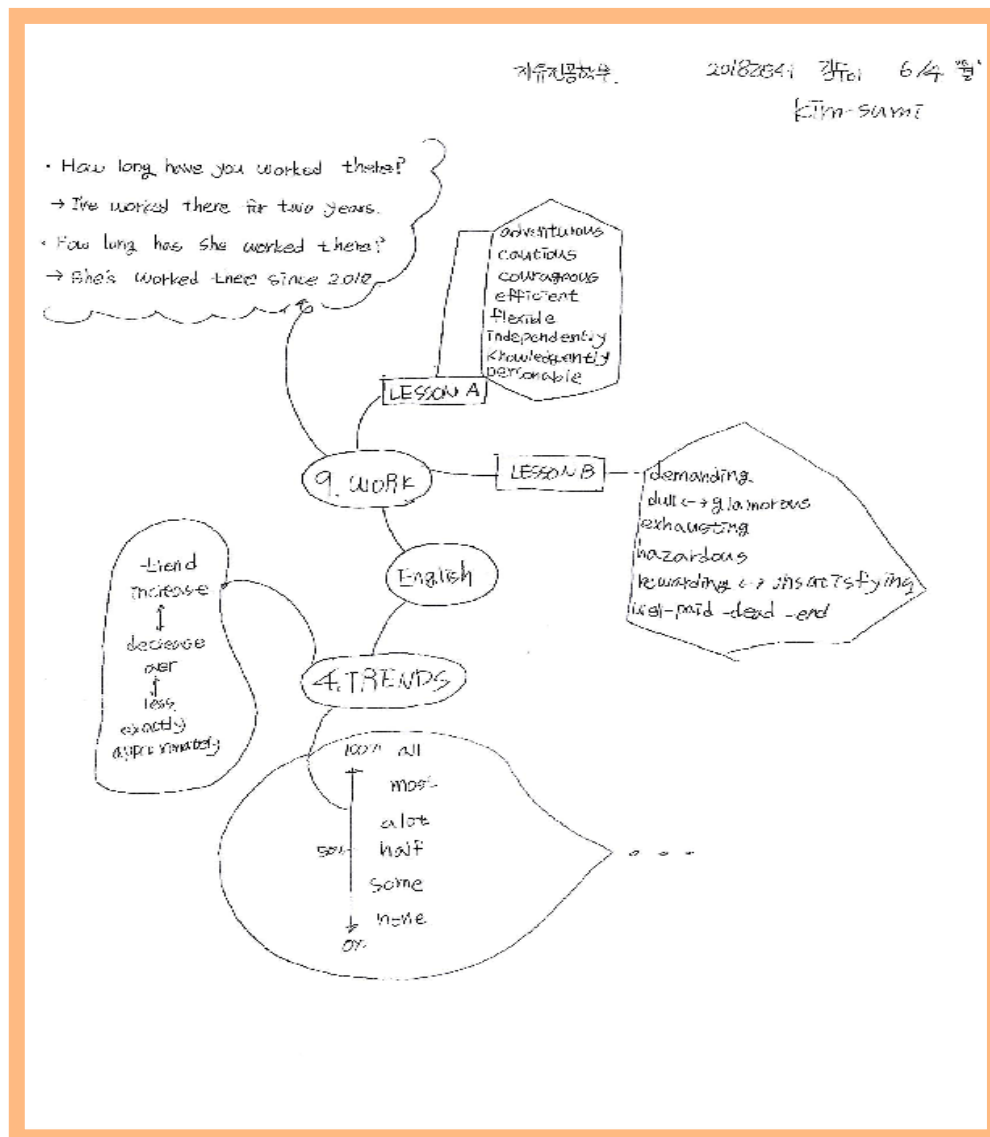
- The third year students of University
 - : English Fiction in Department of English Language & Literature
 - : The number of students is 30.
- The title of Text: *Never let me go* by Kazuo Ishiguro

Findings

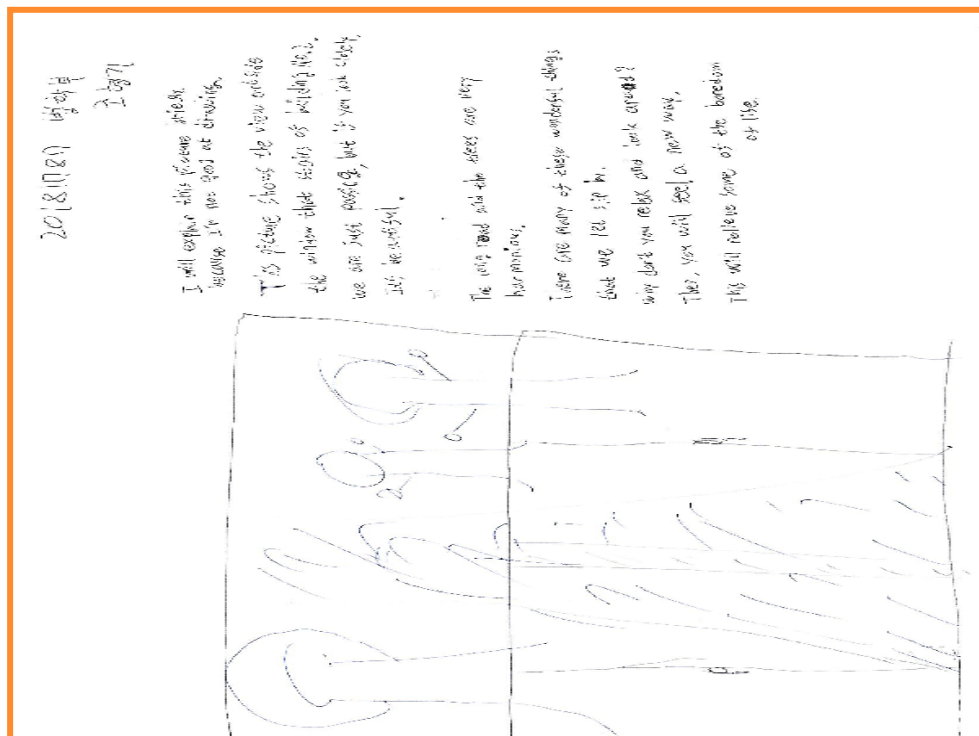
Cognitive apprenticeship:

This term means that a process in which learners gradually gain expertise through interaction with professionals or adults, older colleagues and colleagues who are superior to themselves. This is, "Apprenticeship is made by experience."

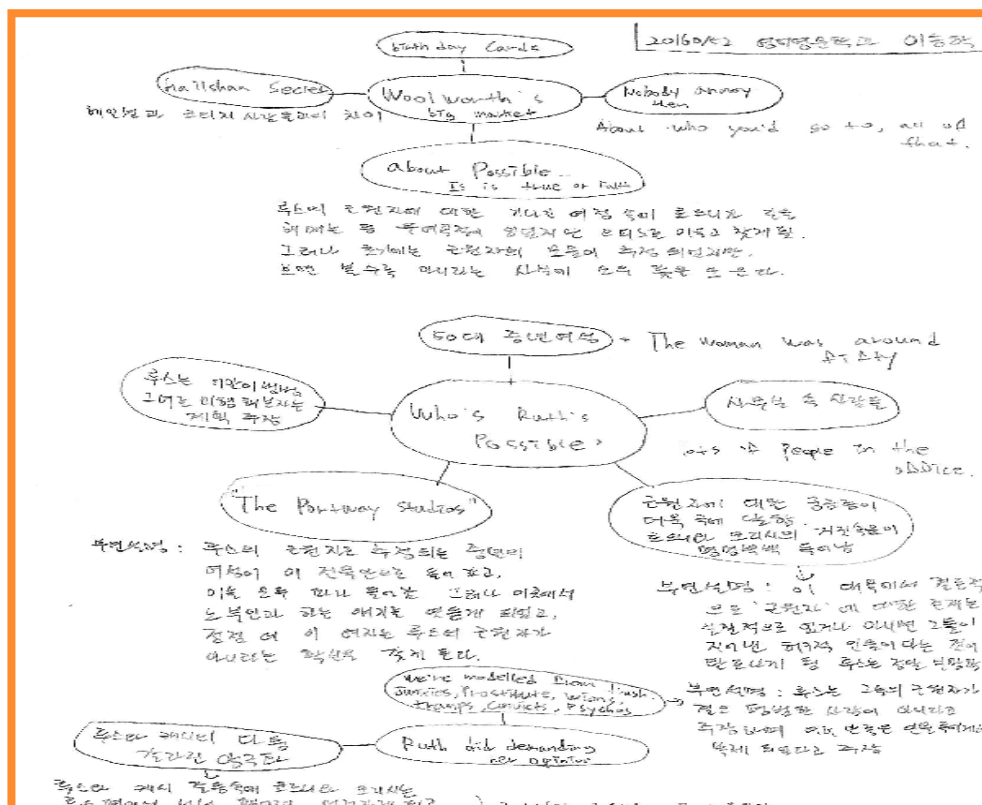
Students feel free to draw the things that they see, besides, they write the feeling about that briefly. After finishing them, they describe their works themselves to others and have time to communicate each other. Therefore, they learn to understand other people and have the opportunities to be close to others.



(Figure 1)



(Figure 2)



(Figure 3)

Conclusions

Students learn by interacting with adults and better peers than themselves. Listening is not meant to be heard by the ear. It means being in talking to oneself, being one with it. Man exists by communication. Education is a unique form of existence for humans, who become united through dialogue, just as communication is a unique form of existence for humans who are verbal beings. In the Fourth Industry Revolution Era, thanks to machines or robots, we get comfortable but also may be in danger. Human must be central in this era.

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Effective Postgraduate Student Recruitment Strategy: Identifying The Prerequisites

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Abstract

The increased accessibility to higher education, coupled with the heightened aspirations for lifelong learning among working professionals have significantly raised the demand for postgraduate degrees in the country. Stiff competition among institutions of higher learning has driven education providers to run universities as structured business entities, where the postgraduate programmes offered in the respective institutions are adaptively designed, skillfully packaged and tenaciously marketed. This paper examines the basic prerequisites of expectations and perceptions of potential students for enrolment in the University's postgraduate programmes, with the aim of acquiring a better understanding of the students' perception and expectations as a first step in fostering effective branding of the University. A simple online survey was conducted for data collection over a short period of a week, to gauge the response for a number of basic questions. Considering that the University is relatively young in terms of provision of postgraduate programmes (20 years), the survey was necessary to identify the salient aspects in outlining an effective recruitment strategy for sustained enrolment of postgraduate students. Besides, the means by which respondents prefer to explore the University and the programmes available was identified, along with their preferred choices of tokens upon registration as new students at the University. In a nutshell, the survey shed light on the general recognition and identification of the University, as well as the potentially effective outreach channel and manner to improve the chances of successful new postgraduate student recruitment. A close-loop marketing and recruitment model was also proposed in support of a greater sustainable student enrolment system.

Keywords: *Higher education, accessibility, recruitment, marketing strategy*

Introduction

The boom of knowledge economy since the 80's has been propelling expansion in higher education to enhance the accessibility to university degrees via mass delivery systems (Marginson, 2015). As with everything else, the higher education sector has been overridden by the relentless waves of internet and IT technological advancement ushering in creative and innovative ways of promotion, advertising, delivery and above all, connectivity with the global economy. As rightly foreseen by Brown et al. (2001), high-skilled and high-valued workers would increasingly be in demand to maintain competitiveness of business enterprises and to meet the rising living standards. In this chaotic fast-paced highway of development, the job market for graduates has become remarkably more and more globalised and competitive (Brown et al., 2010), and interestingly, higher education remains the key to upkeep the societal balance in terms of engagement, tolerance and trust (McMahon, 2010).

At the same time, the open market trend has since spilled over to the higher education industry, with widespread deregulation almost a decade ago increasing the competition within the public sector as well as between the public and private sectors in a market-driven environment, consequently raising the heat among higher education providers to attract and train students to meet the market's demand (Gibbs, 2008). Barney (1991) suggested that to steer clear of competition, universities should centre on identifying their strength and niche while emphasizing their difference and specialty. The traditional efforts in student recruitment which often focus on providing

universal access to a higher degree with disregard for excellence and talents (Aamodt & Kyvik, 2005) have apparently grown less relevant with time.

To remain in the mainstream of training and providing high-skilled and high-valued workers, universities need to go back to the drawing board for a reconditioning of the quality of services and repositioning in the aggressive market to maintain a competitive edge (Stimac, 2012). In other words, universities are called upon to think and function like a business entity with adoption and implementation of business as well as marketing strategies (Padlee et al. 2010), and to build a notable image of distinction for establishing a solid footing in the competitive higher education market (Nga, 2009). An interesting parallel development is the intensive endeavour to recruit international students by universities, either by setting up shop in other countries (Batalova, 2007), offering attractive scholarships (Scott, 2007), or introduction of new government policies (Knight & Morshidi, 2011). All these indicate the global market-driven trend of higher education in general, encompassing the fundamental economic elements such as finance, workforce, value, new age education and branding.

This paper describes a quick pulse-checking of the prospective market and students for postgraduate programmes at the University. Using a simple online survey, the perceptions and expectations of potential postgraduate students for enrolment in the University's postgraduate programmes were examined as basic prerequisites forming the first step towards effective branding of the University.

Quick Survey

Branding the University by making a definitive articulation of the compelling uniqueness of the institution to ensure it stands out from the competitors in its own class is a first crucial step towards effective and successful marketing. The approach channels adopted for branding purposes should be multi-prong, extending from basic public exhibitions and events to strategic merchandising, social media, alumni network as well as industrial linkages, among others. The branding exercise seeks to establish connection and engagement with prospective students, through targeted advertisements and promotional activities to strongly advocate the University by nudging it onto centre stage without glossing over the less-than-satisfactory features. The survey was used a quick tool to gauge the basic parameters for the purpose.

The survey was simply divided into background questions and outreach tools, requiring respondents to answer either 'YES' or 'NO' for capturing the first impression with little or no premeditation. In the former section, respondents were asked of their current employment status, general and iconic recognition of the University as well as interest to know the University better; while the latter section explores the respondents' preferred channel of advertisement and engagement for the University to literally 'make an impression' and attract them for enrolment. The questions asked in the survey are as follows:

- | | |
|--|------------------------|
| Question 1: What is your current status of employment? | } Background questions |
| Question 2: Do you know UTHM? If YES, go to Question 3. If NO, go to Question 4. | |
| Question 3: What is the first image that comes to mind when you think of UTHM? | |
| Question 4: Would you like to get to know UTHM? | } Outreach tools |
| Question 5: What is the most iconic feature at UTHM? | |
| Question 6: What is your preferred choice of medium to learn more about UTHM? | |
| Question 7: What would you like to have as a souvenir upon registration at UTHM? | |

Results And Discussions

Following are the analysis and discourse based on the responses acquired from 104 respondents over a period of one week in the online survey.

Background Questions

Status of respondent

Figure 1 shows the status of the respondents in the categories of students in either UTHM or other universities, as well as employees in the government or private sectors. Almost one-third (29.1%) of the respondents were government employees, indicating the tendency of public servants to seek out public universities as potential places to pursue a postgraduate degrees. This is perhaps not surprising as the University does have a good track record of pre-arranged cohorts of employees from the public sector enrolling for the various master's programmes, including those from local community colleges and vocational training institutions. In addition, the fact that a quarter (25.2%) of the respondents hail from private companies suggests the relatively lower tuition fees compared to private institutions and other more established public universities to be an attractive factor. On the other hand, 28.2% of the respondents were existing UTHM students, while the remaining 17.5% came from other institutions of higher learning (IHLs).

Recognition of UTHM

Considering that UTHM is relatively young in terms of establishment as a public university in the country, 86.4% respondents reported knowing the University seems an encouraging trend (Figure 2). This is indicative of the University visibility and good name in the higher education sector. Nonetheless, this number could also be inflated by the 28.2% existing students who took on the survey (see Figure 1). The recognition of the University can be attributed to promotional efforts in education fairs, revised website, Facebook and other outreach conduits. Indeed, a separate survey conducted found Facebook to be the most common way potential students get to know about the University, where traditional advertisement via printed media like newspapers saw the lowest report of usage and reference for this purpose.

First image that comes to mind

This particular question was asked to gauge the most prominent feature of the University that captures the respondents' attention, namely the main buildings on campus, academic programmes offered and others (Figure 3). Note that 'aeroplane' refers to the replica erected in the courtyard of the campus as a representation of the new aeronautics programme developed and offered by the University. It was only answered by respondents who were affirmative in Question 2. The library being the landmark of the University clearly gained the most hits at 26%, followed by the University's logo (20%). These are positive signs that the University is prominent geographically where the respondents could relate the library architecture with UTHM. It is also suggestive of a reminder of University's role as a respectable institution of higher learning, centralized and represented by the primary repository in the University, i.e. the library. However it is a little puzzling considering the 17% who claimed to not know of anything to be associated with the University as a first image. A plausible explanation is that the respondents concerned have never set foot in the campus or the town of Parit Raja, Batu Pahat.

Getting to know UTHM

Referring to Question 2 and Figure 2, respondents who answered in negative were directed to Question 4, which responses are presented in Figure 4. 86.7% of the respondents were keen to learn more about the University: a positive sign of the interest UTHM raised in them. On the contrary, the 13.3% who did not express wishes to get to know the University were probably having no plans for furthering their studies in the near future, or lacks the motivation to make further enquiries due to various factors, such as location, programmes and environment deemed unsuitable for their preferences. Of course, possibility of the unkindled interest could include lack of the desired amenities yet to be afforded by the University, especially for international students of various backgrounds and needs. These could include international schools, accommodation, communities of the relevant ethnicity or nationality, suitable food availability and proximity to larger cities (e.g. in approximation, southbound Johor Bahru is over an hour's drive away, while northbound Bandaraya Melaka is 1.5 hours' drive away, and the nation's capital Kuala Lumpur is 3.5 hours' drive away).

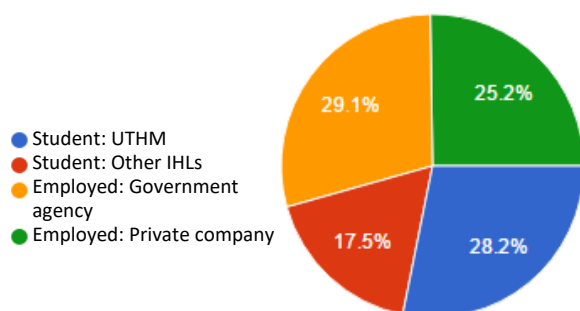


Figure 1: Status of respondents.

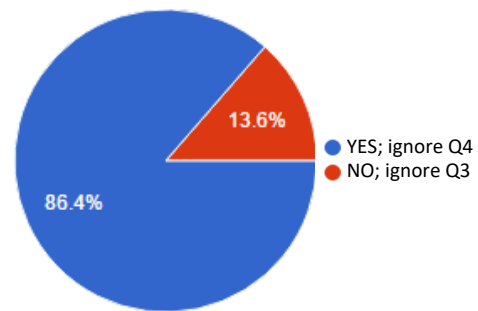


Figure 2: Recognition of UTHM.

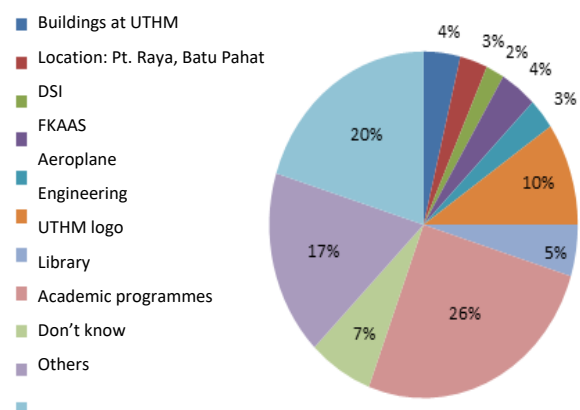


Figure 3: First image that comes to mind.

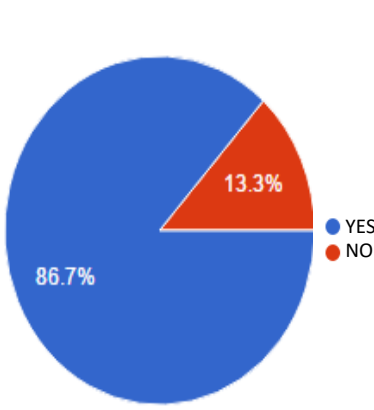


Figure 4: Getting to know

Outreach Tools

Iconic features

Figure 5 compiles the responses on the iconic feature associated with UTHM. Irrespective of the large portion of the respondents who did not appear to give much thought on the matter, an almost equal number of respondents considered the library (15%) and third prime minister of Malaysia (14%) to be the icons of the University. Note that the University is named after the third prime minister, Tun Hussein Onn who hailed from Batu Pahat where UTHM is located. Choice of the library as the University's icon corresponded with the first image conjured when the University is mentioned (see Figure 3), further highlighting the significance of the structure in association with the University. The historical connotation also hints at the unique brand of the University, i.e. the only public university in the country named after a former prime minister.

Medium of interface

This question aims to extract information on the preferred medium of outreach by the respondents, and the results are presented in Figure 5. Perhaps not surprisingly, nearly half the respondents (46.6%) considered the website to be the most convenient and accessible medium for information on the University. 35% of the respondents learned about UTHM via Facebook, another ubiquitous and popular web-based social platform. Other medium of outreach were seemingly less attractive to the respondents, including the conventional printed media. This is just another sign of the World Wide Web, internet access and extensive global network dominating the mainstream non-face-to-face communications and interaction, which is especially useful for foreign students to obtain information about the University. Indeed, the diminishing impact of information dissemination and advertisement on higher education provision has seen the University cutting back on expenses for such purposes over the years. The latest advertisement by the Centre for Graduate Studies, for instance, covered the space of just a quarter page with only essential information and a QR code that directs readers to the relevant website. This approach was not only more economical, but kept pace with the web-based resources accessibility trend adopted by almost all sectors now.

Preferred souvenirs

It is customary that new registered students are given a token or souvenir. When the question was posted with a list of popular items as choices, 70.9% of the respondents wanted a laptop or tablet. Not surprising, as postgraduate students certainly require a laptop or tablet for their studies, though an expensive token to ask for really. Along the same line 13.6% of the respondents would like to have an external hardisk as a souvenir, most probably for storage of work and references accumulated in their postgraduate studies then. The responses clearly point towards the practicality of gifts preferred by the potential students, who could put the IT gears into good use in the duration of their postgraduate studies at UTHM. Nonetheless it is common knowledge that the 'gifts' are really funded partially by the students' tuition fees. Hence giving out expensive tokens would inadvertently raise the tuition fees and this may not be favourable in maintaining competitiveness in terms of the costs of study.

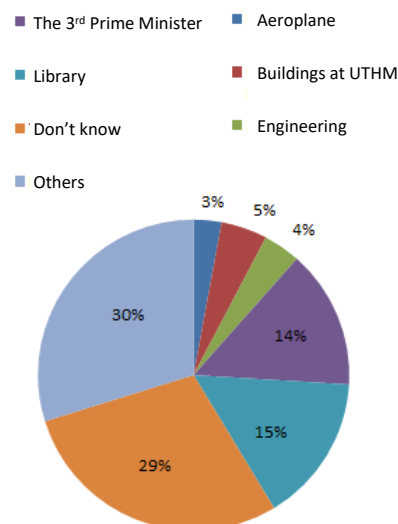


Figure 4: Iconic features.

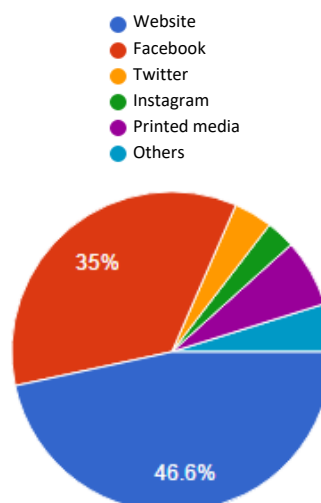


Figure 5: Medium of interface.

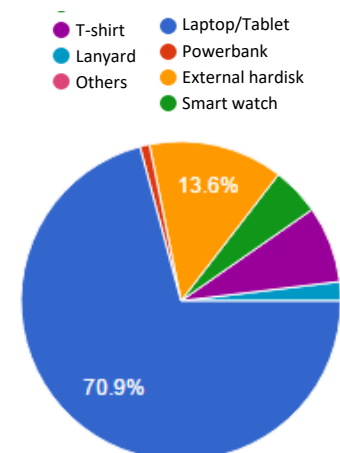


Figure 6: Preferred souvenirs.

Marketing Strategy: Philosophy And Outline

While acknowledging the survey to be setting out feelers for the ‘likes’ and ‘dislikes’, as well as ‘knowns’ and ‘unknowns’ of the public to lay the grounds in marketing strategy design, it is important to have an comprehensive marketing plan to ensure closing of the loop even after the ‘clients’ are roped in. Figure 7 shows the close-loop marketing and recruitment exercise proposed for a greater sustainable student enrolment system of the University. As can be seen, the survey results and analysis are relevant and useful for the initial outreach tool design stage to attract the outliers either unlikely or contemplating to consider UTHM as their choice of institution for pursuing a postgraduate degree. Following are the descriptions of the proposed model.

The proposed model consists of 6 stages of actions for 5 evolving categories of people. The actions include outreach, attract, convince, capture, deliver and engage in sequential manner, and self-recycle from the end in a continuous loop. At the *outreach* stage, primarily internet-based and mobile advertisement campaigns are carried out via platforms like Facebook, Instagram and Youtube for a greater contact radius with the outliers especially. Once contact is made and the attention commanded, efforts are expended to *attract* and transform the prospective students. The key areas to maintain a competitive edge in the race for new recruits encompass tuition fees, amenities and facilities as well as a conducive and supportive learning or research environment. Next, drawing the prospective students into campus would require concentrated efforts of the marketing team of direct and indirect nature, substantiated by the good reputation and standing of the University in the *convincing* act. Once a new student is ‘*captured*’ and registers, enrolment is notched and the recruitment mechanism is technically completed. Induction of newly registered students into the University would involve taking into account the welfare of the freshmen to avoid early withdrawals due to various reasons, such as financial problem, ill-suited adaptation process (especially for international students) and others. Nonetheless as mentioned earlier, the proposed model constitutes part of a larger University’s agenda to not just raise the enrolment number but to ensure a viable system for long term growth of the institution with relation to number and quality of students as well as graduates. Hence the proposed model extends beyond student recruitment as elaborated in the following paragraph.

In order to ensure students receive value for money in the pursuit of a postgraduate degree, the University must *deliver* what is promised to meet the expectations of a responsible and accountable higher education provider. It is imperative to put in place well developed instructional design and delivery templates to be implemented by both the academic and supporting arms of the University. The wellbeing and needs of the active students should be constantly monitored alongside the basic teaching, learning and research support provided throughout their study at the University. Satisfaction of the services given and forging of a good relationship that lasts beyond graduation would *engage* and keep the graduates as ambassadors for the University in future promotional exercises. The sense of gratitude and loyalty instilled in the graduates, buoyed by remembrance of the nurture, cultivation and assistance received at the University would encourage the graduates to spread good words of their alma mater. Having alumni speak highly of their alma mater is arguably the most positive representation of the institution’s worth, and make honest promotional outreach for those keen or half-keen on signing up for a postgraduate programme at UTHM.

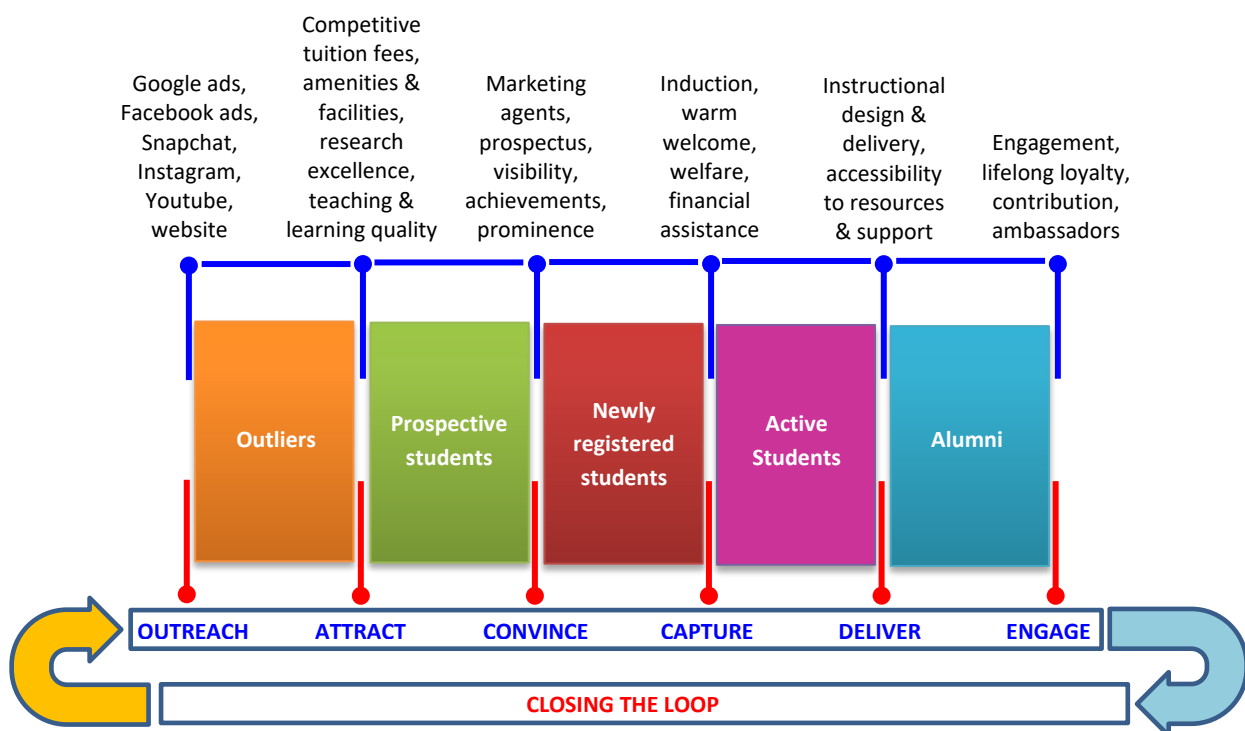


Figure 7: Close-loop marketing and recruitment process.

Conclusions

The study shed light on the prerequisites to be taken into consideration when laying effective marketing strategy for the University's postgraduate programmes. The good mix of respondents from among students and employees points to certain attraction UTHM holds for the potential new recruits, while a good many of the respondents (>80%) already have an idea of what and where UTHM is. Besides, recognition of the University's library and logo suggests an encouraging level of established standing among institutions of higher learning in the country, despite the University's rather young age. In exploring the outreach tools, the library remains the most popular iconic feature favoured by the respondents, and the website and Facebook are the most preferred channel for information retrieval on the University and postgraduate programmes offered. When asked what they would like to receive as souvenir upon registration, laptops / tablets and external hardisk clearly led the race as these are useful IT gears for the potential students' studies. Finally, based on the survey results analysis, a close-loop marketing and recruitment strategy was proposed: with a comprehensive multi-channel outreach approach to attract new students, followed by meet-the-promises delivery of teaching, learning and research support in a conducive academic environment, and concludes with the engagement of graduates as lifetime promotional ambassadors for the University in the cycle.

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Efficiency Of Public Spending On Higher Education: A Data Envelopment Analysis For Eu-28

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Abstract

One of the main objectives of education policy is to improve educational outcomes. If resources are used inefficiently they will fail to maximise those outcomes. In this paper we survey and discuss conceptual and methodological issues related to the measurement and analysis of efficiency focusing on European higher education. Using the latest data available we apply Data Envelopment Analysis and calculate technical efficiency of public spending on education for EU-28. We identify the most efficient countries and also countries for which real efficiency improvements are possible. We also use a novel set of variables to highlight more appropriately the distinctiveness of the higher education sector and the relationship between input and outputs. The advantage of using Data Envelopment Analysis is that it identifies the best performing decision making units and not the averages. In today's competitive economies countries cannot afford to have average education systems. Obtaining information about the efficiency of public spending on education is of relevance to many parties. This information can be used to formulate policy proposals, promote 'yardstick' competition in the areas where the lack of market mechanisms is most evident and to improve the monitoring of education.

Key words: *Efficiency, Higher Education, Public Spending, Data Envelopment Analysis, European Union*

Introduction

Higher education (HE) plays an essential role in an economy, by fostering economic growth, increasing productivity and contributing to social cohesion. Many countries in the world finance their higher education systems from public funds and the European Union (EU) is not an exception. In the interest of accountability and in light of the economic crisis of 2008 it is becoming crucial to evaluate the efficiency with which these funds are being utilised. Efficiency concerns are even more serious when we look at some of the trends in European HE.

In the EU-28 there has been a steady increase in the number of students in tertiary education. According to Eurostat (2017) in 2015 there were 19.5 million students in tertiary programmes and approximately 4.7 million students graduating from tertiary education. The share of persons aged 30-34 with completed tertiary education increased, from 23.6% in 2002, to 39.1% in 2016 in EU-28 (Eurostat, 2017). Germany had the highest number of tertiary education student in 2015, about 3 million, or 15.2% of EU-28 total. Following Germany is France with 12.4% of EU-28 total, the United Kingdom (11.95%), Spain (10.1%), Italy (9.4%) and Poland (8.5%). In all EU countries more students were enrolled on Bachelor's degrees than on any other level of tertiary education. This is especially the case for Greece where 84.4% of students were studying for Bachelor's degrees. One of the targets of the Europe 2020 strategy is to have at least 40% of persons aged 30-34 with completed higher education by 2020.

Most of the EU countries have a significant share of their HE financed from public sources. In the EU-28 (excluding Greece and Croatia), public expenditure on tertiary education was equivalent to 1.3% of GDP in 2014 (Eurostat, 2017). This ratio ranged from 0.5% of GDP in Luxembourg, to 1.3% in Germany and 2.4% in Denmark in 2014. With above mentioned increases in the number of people participating in HE and the already stretched out public resources, the issues of efficiency, effectiveness and accountability are being evoked more often in discussions and national planning documents.

In many EU Member States there is a growing feeling that the current systems of higher education are not organized in an efficient way and a large number of empirical studies to date have attempted to define and measure

this (in)efficiency in an HE framework. These studies used a variety of techniques to identify ‘efficient’ decision-making units (students, HEIs, departments, universities, countries) and compare them with ‘inefficient’ ones.

The efficiency concepts currently dominant in economics originate from engineering relationships where a technical process is considered efficient when the desired mix of outputs is maximised for a given level of inputs or when inputs are minimised for a desired mix of outputs. When transposed to the field of economics (of education) it seems there is no general consensus about how to define and measure efficiency. The foundation of the theory of efficiency and its measurement was laid out by Farrell (1957) who used three main measures of efficiency (overall, technical and price efficiency). Technical efficiency was defined as the ability of a firm to achieve maximum output from a given set of inputs. Fried et al. (2008) provide a more detailed analysis of the efficiency concepts in neoclassical economics. Concepts of efficiency and how they related to higher education will be examined in more detail in the next section.

With the development of non-parametric techniques in the 1970s such as Data Envelopment Analysis (DEA) (Charnes et al, 1978; Banker et al, 1984), Stochastic Frontier Analysis (SFA) (Aigner et al, 1977), and others there has been a thriving literature on efficiency across various settings, including education. A recent survey of this general literature focusing on the most widely used method, DEA, can be found in Emrouznejad and Yang (2017). Surprisingly, only about 3.5% of studies using Data Envelopment Analysis were dedicated to the higher education issues (Gatouffi et al., 2010) and even smaller share is dedicated to cross-country comparisons (noted in Thanassoulis et al., 2016).

Given the importance of higher education and the limited research in this area the focus of this paper is the analysis of efficiency in the context of higher education. Using Data Envelopment Analysis we estimate technical efficiency of public spending on education for EU-28 using the latest available data. We also use a novel set of variables to highlight more appropriately the distinctiveness of the HE sector and the relationship between input and outputs. The advantage of using DEA is that it identifies the best performing DMUs and not the averages. In today’s competitive economies countries cannot afford to have average education systems. Technical efficiency estimates serve to inform education policy-makers about the effects of changes in the production of educational services on outputs, hence they can learn more about the consequences of different procedures and methods in education. Without such information they would solely rely on past practices and traditional approaches. As emphasised in Pausits and Pellert (2007), with the increasing size of HE the complexity of the system increases and HEIs are themselves becoming more performance oriented, and specifying goals and strategies to achieve them. Hence, examining the efficiency of an HE system is of great importance as a means of obtaining relevant information about the way HE functions.

The structure of his paper is as follows. In Section 1 we discuss conceptual and methodological issues related to the analysis and estimation of efficiency in the context of higher education. A brief overview of methods for estimating a production function for HE is presented and the advantages and disadvantages of various methods are highlighted. A brief overview of studies on efficiency in HE is also presented. In Section 3, we present our model and discuss the variables. Section 4 presents the results. Concluding remarks are in Section 5.

Measuring Efficiency In Higher Education: Theory And Practice

The higher education sector has important characteristics separating it from other levels of education. In HE there are multiple stakeholders, multiple objectives and multiple outputs (Dixit, 2002). Contemporary HEIs are diverse, have multiple inputs and carry out a number of activities sometimes extending further than the customary teaching and research work (Cohn and Cooper, 2004). Furthermore, most educational outcomes are not sold at market prices, thus making it difficult to attach a market value to these outcomes. These distinguishing features of HE need to be taken into consideration when estimating the production function and measuring its efficiency. An overview of literature on the efficiency of various levels of education can be found in Johnes et al (2017).

The term production function can simply be defined as producing the maximum output feasible with given inputs. In a mathematical form a production function illustrates how a DMU generates a vector of outputs using a flow of inputs and some available technology. When estimating efficiency in HE, several distinctive techniques have developed in the literature. We will briefly discuss their main features and introduce an approach that will be followed in this paper. Three most widely used approaches in efficiency estimation are the statistical, econometric approach that mostly uses regression analysis, the Stochastic Frontier Estimation and the DEA.

A statistical approach is often parametric and assesses how DMUs produce educational outcomes similar to firms producing outputs. Economic principles from the neoclassical theory of the firm (Baumol et al 1982) are applied to model educational production. This method provides estimates of parameters whose significance can be tested.

However, there are problems with model misspecification and, more importantly, this approach cannot handle multiple inputs and outputs. That is a serious shortcoming when estimating HE efficiency.

The Stochastic Frontier Analysis was pioneered by Aigner et al (1977). Here a functional form is established between the set of explanatory variables and the dependent variable. The analysis provides parametric estimates of efficiency. The main difference between SFA and the traditional parametric regression is that the error term in SFA is composed of two parts: a normally distributed error term, and a second term capturing the remaining error (i.e. technical inefficiency). Given the presence of normally distributed error terms, the tools of statistical inference can be employed which is seen as an advantage of this approach. However, a particular distributional form for the error terms needs to be imposed by the researcher that gives rise to misspecifications in the efficiency measure. Additionally, SFA uses data on costs and prices which according to which may introduce additional measurement errors (Worthington, 2001). Finally, SFA is not easily extended for multiple input and output settings.

The third approach in estimating efficiency is the DEA. It was originally developed for efficiency evaluation of 'not-for-profit entities participating in public programs' where prices are not clearly observed (Charnes et al., 1978). It is a non-parametric method which assigns a set of weights to selected outputs and inputs. Efficiency estimates are then obtained as the maximum of a ratio of weighted outputs to weighted inputs, subject to certain restrictions such as monotonicity and convexity. This approach amounts to constructing an efficiency frontier over the data so that the actual input/output quantities are either on or in the interior of this frontier. The efficiency frontier defines the maximum combinations of outputs that can be produced by a given set of inputs. DEA assigns a score of 1 to a DMU which lies on the frontier. That unit in comparison with other units shows no evidence of inefficiency. An efficiency score less than 1 implies that a linear combination of other units from the sample could produce the same output using less inputs. However, the method does have some downsides. Being a nonparametric technique, statistical inference cannot be used to examine the possible bias resulting from measurement error or omitted variables. Furthermore, DEA only estimates relative efficiency scores but cannot offer insights on the performance of DMUs in comparison to the global best-practice. Some of the advantages of DEA is that it can handle multiple inputs and multiple outputs, it requires no assumptions on the functional form relating inputs to outputs and the DMUs are directly compared to one another. All of this makes it an appealing choice for measuring the efficiency in HE. Comparing these three different approaches, DEA stands out as a valuable tool in measuring efficiency in an HE setting as can be noted from the following research on efficiency in HE.

Relevant research

Existing studies on efficiency in HE have focused mostly on specific countries and their HEIs as the main DMUs (some of the exceptions are Johnes 2006a, Barra and Zotti 2016, and Thanassoulis et al. 2017). The UK has a particularly long tradition in the efficiency analysis of HE (see, among other studies, Glass et al. (1995), Athanassopoulos and Shale (1997), Sarrico et al. (1997), Sarrico and Dyson (2000), Johnes (2006b,c). Most of these studies have shown the efficiency of the UK's HEIs to be quite high. Australian HE system and its universities have also been widely examined (see in Abbott and Doucouliagos, 2003; Worthington and Lee, 2008). Studies on efficiency in HE can also be found for Italy (Agasisti and Dal Bianco, 2006, Abramo et al. 2008), Germany (Kempkes and Pohl, 2010) and more recently for Greece (in Thanassoulis et al, 2017).

Only a small number of studies analyses HE efficiency for several European countries. Some of the examples are Joumady and Ris (2005) for 209 HEIs in eight European countries, Bonaccorsi et al (2007) for six European countries (Italy, Spain, Portugal, Norway, Switzerland, and the UK), Agasisti and Johnes (2009) for Italy and England, Agasisti (2011) for 18 countries, and finally, Wolszczak-Derlacz and Parteka (2011) for seven European countries (Austria, Finland, Germany, Italy, Poland, Switzerland and the UK).

All of the above studies focus on country specific data or use a small sample of DMUs in cross-country comparisons. This is understandable given the problem of obtaining micro data on HE that can then be used for country comparison. The DMUs are mostly universities or HE staff and not the whole country. The exception is the study by Agasisti (2011) who used countries as DMUs enabling an assessment of the overall performance of the HE system and their cross country comparison. Some of the variables used in that research are the total resources for HEIs as a percentage of GDP – this is the input variable. And for the outputs, the author planned to use employment rates for the population aged 25-64 and tertiary graduation rates which were later dropped from the model due to missing data. The variables for DEA are for a selection of European countries in the period from 2000-2003. A similar approach will be followed here. To the best of our knowledge this will be the first study to examine the efficiency of public spending on HE for all 28 countries of the European Union using the most recent variables.

The next section therefore presents an application of DEA in measuring the efficiency of public spending on HE and attempts to address some of its downsides.

Dea Model

This research will use DEA in measuring the efficiency of public spending on education. It identifies optimally performing DMUs and assigns them a score of one (or 100). These DMUs will serve us to identify an efficiency frontier against which all other DMUs are compared. A fundamental step in DEA is the selection of appropriate inputs and outputs (Thanassoulis, 2001). These variables need to satisfy the condition of exclusivity and exhaustiveness i.e. the inputs and they alone must influence the output levels, and only of the outputs used in estimation. Furthermore, to have adequate discriminatory power for the DEA model, the number of DMUs should exceed the number of inputs and outputs by more than a few times (Cooper et al., 2007). The DMU's used in this research are the 28 countries of the European Union.

The efficiency frontier in DEA will differ depending on the scale assumptions of the model. Two scale assumptions are commonly used in DEA: constant returns to scale (CRS), and variable returns to scale (VRS). Variable returns to scale assumption allows the production technology to exhibit increasing, decreasing and constant returns to scale. Given the nature of HE, i.e. that outputs will not change by the same proportion as inputs, VRS is better suited to examining the efficiency. Furthermore, we use an output orientation approach which is also common when examining efficiency in education. The output orientation is a logical choice given the nature of higher education financing. The objective is to maximise the output production while not exceeding the actual input level.

We use one input and two outputs related to country's higher education system (Table 1).

The input used is the public expenditures on tertiary education as a percentage of GDP. This serves as a proxy for all inputs in public HE and allows easier cross-country comparisons as discussed in the research by Afonso and St Aubyn (2005, 2006). This indicator is available for all countries in the sample. However, countries may still have a different education production technology that is not best expressed through the use of public expenditures. However, given to data limitations on the more precise indicators of education production in each country we opted to use this indicator as an input and focusing on EU-28 we have a collection of countries with similar policy objectives in HE.

The two outputs are the share of graduates in HE per 1000 inhabitants and the employment rates of people aged 20-34 with completed tertiary education. In comparison to the work by Agasisti (2011) this is a valuable improvement in data availability. The output variable on employment rates is available for population aged 20-34, which gives a better indication of the short-term effects of HE. These two indicators serve as a proxy for the quality of HE delivered and capture, to some, extent, private returns to HE.

Table 1: Variable names and definitions

Variable	Category	Description	Year
Public expenditures (%GDP)*	Input	Public expenditures on tertiary education as a percentage of GDP	2012
Graduates in HE (per 1000 of population)	Output	Graduates in tertiary education per 1000 of population	2015
Employment rates (%)	Output	Employment rates of young people not in education and training with completed tertiary education level one to three years beforehand aged 20 to 34	2016

The data used in this research is from one source, Eurostat. For the two outputs we use the latest data available which was updated in May and June, 2017. This allows us to present a fresh perspective on the efficiency of European HE. For the share of graduates the latest data available was for the year 2015, and for employment rates the data is for 2016.

For the input variable, public expenditures, we decided to use the data for 2012, although the most recent data is for the year 2014. Our motivation is the following. Public expenditures being spent on HE (including students) in one year are assumed to have a full effect when that cohort of students graduates or looks for employment several years after. Here we are trying to follow, as much we can, the same cohort of student as they progress through

their studies towards graduation and employment. In all EU countries in 2015, more students were studying for Bachelor's degrees than any other level of tertiary education (Eurostat, 2017). We use the term cohort loosely; we actually follow the whole HE system being funded in one year and its outputs several years later. This approach is drawing some of its insight from the window analysis technique in DEA pioneered by Charnes et al. (1997) which measures efficiency changes over time. Given the characteristics of our variables that change very slowly over time we used the above mentioned approach. This allows a stronger functional link to be established in our model between the input and the outputs.

Results

The model was estimated using the Performance Improvement Management Software (PIMDEA) developed by A. Emrouznejad and E. Thanassoulis. The results are discussed in the next section. First we present summary statistics for our variables in Table 2.

Table 2: Summary statistics

	Mean	Sum	St.dev.	Variance	Min	Max	Range
Public expenditures (%GDP)	1.26	35.22	0.44	0.2	0.45	2.25	1.8
Graduates in HE (per 1000 pop)	72.5	2030	19.22	369.4	27.4	126.8	99.4
Employment rates (%)	82.62	2313.3	9.39	88.18	55	97	42

The highest share of public expenditures on HE was recorded in Denmark (2.5% GDP), followed closely by Finland (2.13%) and Sweden (2.01%). These are the only counties with public expenditures on HE over 2% of GDP. The lowest public expenditures are in Luxembourg (0.45%) and a fairly better situation is in Bulgaria (0.66%), Romania (0.78%), Hungary (0.82%), Italy (0.83%) and Portugal (0.85%). The latter group is formed of countries with public expenditures less than 1% of GDP. The average public expenditures on HE in the EU in 2012 are 1.26%.

The greatest number of graduates from tertiary education per 1000 of population is in Ireland (126.8), followed by Denmark (102.9), France (96.5) and Poland (96). However, if we only use the data on the number of graduates from tertiary education, Ireland and Denmark are not the leading countries. The greatest population of tertiary graduates is in France (752,068 graduates), the UK (740,276) and Poland (516,675). The smallest number of graduates per 1000 inhabitants is in Luxembourg.

The employment rates for recent graduates are calculated for the age group 20–34 and concerns those who had successfully completed their highest level of education one to three years beforehand. The minimal employment rate is in Greece (55%) and the highest in Malta (97%), followed by the Netherlands (94.2) and Germany (93.1). We proceed to the results of our DEA model.

Table 3: DEA results

Country	Technical efficiency
Austria	95.62
Belgium	93.78
Bulgaria	100
Croatia	85.3
Cyprus	82.53
Czech Republic	95.72
Denmark	96.03
Estonia	82.9
Finland	87.46
France	87.51
Germany	90.14

Greece	59.5
Hungary	100
Ireland	100
Italy	73.39
Latvia	96.78
Lithuania	97.37
Luxembourg	100
Malta	100
Netherlands	98.24
Poland	98.17
Portugal	89.35
Romania	90.37
Slovakia	93.89
Slovenia	88.27
Spain	87.42
Sweden	94.23
United Kingdom	94.61

The average technical efficiency of public expenditures on HE for EU-28 is 91.4%.

Five countries stand out as 100% efficient. These are Bulgaria, Hungary, Ireland, Luxembourg and Malta. We might argue that Luxemburg and Malta stand out as efficient because of their size and that perhaps they should be dropped from the analysis. We decided not to remove them from our sample to report a complete picture of efficiency in public spending for EU-28. The Netherlands, Poland, Latvia, Lithuania and Denmark are close to the efficiency frontier with an efficiency score over 96.

The least efficient country is Greece (59.5). Given the recent economic crisis in Greece this inefficiency in public spending was an expected result. As previously mentioned in an output-oriented model, an inefficient unit is made efficient through an increase in its outputs, while the input proportions remain the same. For Greece this would imply an increase in the share of graduates and an improvement in the employment rates.

These results of DEA provided a form of ranking for countries, from best to worst. This ranking is easier for inefficient countries. However, the countries on the efficiency frontier all have the same efficiency score equal to 1 (or 100) and it is difficult to establish which countries stand out as best examples.

We also decided to include in our results the benchmarks for each of the individual countries. These are the countries that can potentially serve as role models for inefficient countries. These results are in Table 4.

Table 4: Benchmarks

Name	Bulgaria	Hungary	Ireland	Luxembourg	Malta
(Frequencies)	5	12	22	7	18
Austria	0	0	1	0	1
Belgium	0	0	1	0	1
Bulgaria	1	0	0	0	0
Croatia	1	0	1	1	0
Cyprus	0	1	1	0	1
Czech Republic	0	1	1	0	1
Denmark	0	0	1	0	1

Estonia	0	1	1	0	1
Finland	0	0	1	0	1
France	0	1	1	0	1
Germany	0	1	0	1	1
Greece	0	0	1	0	1
Hungary	0	1	0	0	0
Ireland	0	0	1	0	0
Italy	1	0	1	1	0
Latvia	0	1	1	0	1
Lithuania	0	1	1	0	1
Luxembourg	0	0	0	1	0
Malta	0	0	0	0	1
Netherlands	0	0	1	0	1
Poland	0	1	1	0	1
Portugal	1	0	1	1	0
Romania	0	1	1	1	0
Slovakia	0	1	1	1	0
Slovenia	0	1	1	0	1
Spain	1	0	1	0	0
Sweden	0	0	0	0	1
United Kingdom	0	0	1	0	1

The efficient countries are in the first row and all of the other countries are compared to them. Efficient countries are their own “benchmarks” while inefficient countries have several benchmarks. For example, Romania has Hungary, Ireland and Luxembourg as benchmarks, while Austria has Ireland and Malta as best practice examples or peers. This means, to become efficient Austria must use a combination from both Ireland and Malta. Those two countries have the highest frequencies in the table as they are peers to 22 and 18 countries respectively (including themselves).

The next issue is how to calculate what combination of efficient peers must an inefficient country use to become efficient. So for Austria the question would be, should it attempt to ‘become more’ like Ireland or more like Malta. The answer is in the λ (lambda) weights. For example, Austria should look up more to Malta ($\lambda=0.77$) than to Ireland ($\lambda=0.23$). These results uncover interesting relationships between countries that would merit a more detailed analysis. That is, however, out of scope for this paper, hence these results can be obtained from the authors.

We now focus on the estimation of efficient targets for our input and outputs. In Table 6 target input and output levels are prescribed for each country. These targets would allow countries to gain full efficiency. A detailed formulation for the calculation of these target values can be found in Thanassoulis and Dyson (1992). However, we should caution that some of these target values and improvement options may not be practical for policy makers in HE. We present them here to offer more insight into the efficiency of public spending on HE and as a source for potential future research in the area.

Table 5: Efficient targets for input and outputs

	Input			Output			Output		
	Public spending			Graduates in HE			Employment rates		
	Value	Target	Gain(%)	Value	Target	Gain(%)	Value	Target	Gain(%)
Austria	1.88	1.46	-22.4	75.6	79.06	4.58	90.5	94.64	4.58
Belgium	1.48	1.44	-2.51	79.3	84.56	6.63	87.9	93.73	6.63
Bulgaria	0.66	0.66	0	70.3	70.3	0	78.5	78.5	0

Croatia	0.93	0.93	0	70.4	82.54	17.24	74.7	87.58	17.24
Cyprus	1.17	1.17	0	57.6	69.79	21.17	76.4	92.57	21.17
Czech Republic	1.05	1.05	0	74.3	77.62	4.47	86.3	90.16	4.47
Denmark	2.25	1.38	-38.79	102.9	107.15	4.13	86.4	89.97	4.13
Estonia	1.06	1.06	0	59.4	71.65	20.62	75.5	91.07	20.62
Finland	2.13	1.41	-33.74	83.4	95.36	14.34	80.4	91.93	14.34
France	1.27	1.27	0	96.5	110.27	14.27	77.3	88.33	14.27
Germany	1.37	1.37	0	55.9	62.02	10.94	86.4	95.85	10.94
Greece	1.48	1.42	-4.03	54.9	92.28	68.08	55	92.44	68.08
Hungary	0.82	0.82	0	55.3	55.3	0	90.5	90.5	0
Ireland	1.32	1.32	0	126.8	126.8	0	86.7	86.7	0
Italy	0.83	0.83	0	58.2	79.31	36.26	61.3	83.53	36.26
Latvia	1.01	1.01	0	63.2	65.3	3.33	88.4	91.34	3.33
Lithuania	1.4	1.4	0	80	82.16	2.7	91.1	93.56	2.7
Luxembourg	0.45	0.45	0	27.4	27.4	0	89	89	0
Malta	1.5	1.5	0	64.9	64.9	0	97	97	0
Netherlands	1.7	1.48	-12.9	70.3	71.56	1.8	94.2	95.89	1.8
Poland	1.15	1.15	0	96	97.79	1.86	87	88.62	1.86
Portugal	0.85	0.85	0	66.8	74.76	11.92	77.8	87.07	11.92
Romania	0.78	0.78	0	52.7	58.31	10.65	80.7	89.3	10.65
Slovakia	0.95	0.95	0	78.3	83.4	6.51	82.5	87.87	6.51
Slovenia	1.23	1.23	0	77.5	87.8	13.29	80.2	90.86	13.29
Spain	1.02	1.02	0	88.4	101.12	14.39	72.3	82.97	14.76
Sweden	2.01	1.5	-25.37	59	64.9	10	91.4	97	6.13
United Kingdom	1.47	1.43	-2.83	84.7	89.52	5.69	87.9	92.9	5.69

In a VRS, output-oriented model the objective is to maximize the output production (tertiary graduates and employment rates) while not exceeding the actual input level (public spending). DEA calculates for each country the amount and category that needs to change in order for country to reach efficiency frontier. For inefficient countries an increase in outputs is suggested. In some cases, a decrease in public spending is also an option. All the efficient countries have the same targets and values for input and outputs, and gain equal to zero. Countries that were far from the efficiency frontier (Greece, Italy, Cyprus, Estonia, Croatia) have to make substantial changes in their outputs in order to become efficient. For example, Greece will need to increase graduates and employment rates by 68 percentage points and Italy by 36 percentage points. Countries which were close to the frontier (e.g. Netherlands, Poland, Lithuania, Latvia) have a smaller magnitude of changes suggested. Only 1.9 percentage point increase in outputs is suggested for Poland, and a 2.7 percentage points increase in outputs for Lithuania.

With target values for outputs, a decrease in public spending is suggested for eight countries (Austria, Belgium, Denmark, Finland, Greece, Netherlands, Sweden and the UK). An interesting example is Denmark; with a cut in public spending of almost 40 percent and an increase of 4 percentage points in employment rates and share of graduates, it can achieve full efficiency. Bearing in mind the limitations of DEA, in the time of economic crisis this might present an interesting issue for further investigation.

Conclusion

This paper presented new information on the efficiency of public spending in EU-28 in the recent years. It also adds to the literature on efficiency in HE; a level that has been underrepresented in efficiency evaluations. The goal of this paper was to connect the additional information generated in this research with the general discussion by European policy makers. With more information on performance and efficiency, policymakers can be in a better position to develop effective HE strategies. Nevertheless, the key responsibility for generating reforms in HE lies with individual Member States.

Using DEA and the latest data available, this research managed to compare 28 European countries. We identified the most efficient countries and also countries for which real efficiency improvements were possible. Benchmark countries and target values were also presented and discussed.

Results in this research need to be interpreted with caution. Although great care was taken in the selection of variables, and current literature was consulted, measuring the efficiency of public spending on HE is still a challenging undertaking. From the overview of the research in this area there is still a lot of room for improvement. There are often data limitations preventing researchers from making functional cross-country comparisons. There are also well-documented limitations of methods being used to calculate efficiency i.e. DEA is good at estimating relative efficiency of DMUs, but it converges slowly to absolute efficiency, it is also very sensitive to changes in the data, and the hypotheses testing is still not available.

Efficiency analysis is valuable in informing policy makers and providing a better understanding of the education system. As Monk (1992) argues, the production function can be viewed as a model which connects conceptually and mathematically outcomes, inputs, and the processes that transform the latter into the former in educational institutions, thus, production functions can be important as a means of identifying ways of improving both technical and allocative efficiencies.

Although there are severe problems in estimating efficiency in an HE system, it remains important to develop reliable estimates, especially considering the emphasis currently given to issues of accountability, value-for-money and cost effectiveness. European HE system needs to contribute to Europe's prosperity Finding the most productive benchmarks and eliminating waste in resources dedicated to HE represents a good starting point. Research in this area is of great consequence because if inputs are used inefficiently they will fail to produce the maximum improvement in educational outcomes and may fail to promote economic growth effectively.

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JEL codes: C14, H52, I21, I22, I28

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Essential School Leadership For School Principals In The Northeast Of Thailand

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Abstract

The main aim of this paper was to examine the factors of five essential leadership styles of school principals in the northeastern region of Thailand. The designed research survey was carried out to validate the goodness-of-fit of a structural relationship model. A total of 560 primary school directors were selected from a population of 11,720 using multi-stage sampling technique. A quantitative method employing questionnaire was constructed by researchers as an instrument to collect data. Data was analyzed using confirmatory data analysis. The results of the study indicated that learning leadership consists of six factors, strategic leadership has three factors, technological leadership is comprised of four factors, collaborative leadership consists of five factors, and ethical leadership has five factors. Final result showed that the structural relationship model is found to be consistent with empirical data, with chi-square $\chi^2 = 94.294$, $df = 89$, $p\text{-value} = 0.253$, $RMSEA = 0.013$, $SRMR = 0.019$, $CFI = 0.999$, and $TLI = 0.998$.

Keywords: *Collaborative leadership; ethical leadership; learning leadership; strategic leadership, technological leadership*

Introduction

Current school directors must understand various leadership styles in order to motivate their teachers to learn and to solve problems collaboratively (Somprach, Tang, & Popoonsak, 2017). According to Ariratana, Sirisooksilp, and Tang (2016), sustainable development of educational leadership needs to be highly emphasized to ensure it is managed to produce knowledgeable human capital in order to remain compatible at the global level. Therefore, it is imperative for school directors to modify their target goals to drive their school excellence by practicing appropriate leadership styles. This is supported by Somprach and Tang (2016) who indicated that leadership is a vital factor in job reform for organizational effective and is an important mechanism affecting the process, organizational structure, patterns, social interactions, belief, values, attitudes, and working behaviors.

Learning leadership is defined as engaging in the design, implementation, and sustainability of powerful innovative learning environment (Somprach & Tang, 2016). Therefore, learning leadership puts creating the 21st century teaching and learning at the core of leadership practice. Hence, learning leadership establishes creativity and often courage. Kouzes and Posner (2016) defined learning leadership as a strong determinant of directive outcomes at the micro and macro level of school operations.

On the other hand, strategic leadership is viewed as the set of decisions and actions that resulting in the formulation, implementation, and control of plans designed to achieve an organization's vision, mission, strategy, and strategic objectives within the administrative environment in which it operates (Prasertcharoensuk & Tang, 2017). As a result, strategic leadership is defined as the leader's ability to anticipate, envision, and maintain flexibility and to empower others to create strategic change (Hitt, Ireland, & Hoskisson, 2007: 375).

Technological leadership is defined as the act of commitment to the provision of technology facilities and enabling environment that can support their application in school administration to promote teachers' teaching and students' learning. It entails the enhancement of the leadership roles of school directors through the provision of technological facilities and coordinating their utilization for the achievement of organizational goals (Tang & Somprach, 2015). Collaborative leadership refers to the process of facilitating and operating in a reciprocal interactions and relationships between school directors, teachers, situations, school-level factors of their work, and the school environment (Somprach et al., 2017).

Ethical leadership refers to the school directors have to play a significant role as a leaders and role models for their

students. An ethical school director not only endeavors to do the right thing but also to do things right (Prasertcharoensuk, Tang, & Klinthaisong, 2017). Since school directors are the main decision makers, their ethical behaviors and decisions directly affect school climate positively. Based on the above literature reviews, researchers would like to investigate the structural relationship model of the five leadership styles and the congruence of the structural model with empirical data among the directors of primary schools in northeast of Thailand.

Method

Survey design was employed using questionnaire as a method to collect quantitative data. A total of 560 samples was selected using multi-stage sampling from a population of 11,720 school directors who administer the primary schools in northeast of Thailand. Hair, Back, Babin and Anderson's (2013) proposed that the proper ratio of samples is 20:1 or 20 samples per one parameter. Since there were 28 parameters in this study, the required sample size was 560 samples of school directors. On this line of reasoning, simple random sampling technique was utilized to select 560 of school directors to fulfill Hair et al. (2013) suggestion that sample size should not less than 100.

A survey questionnaire was administered in Thai language to ensure that the respondents were able to understand the statement better. The instrument consists of two sections. Section A of the questionnaire was intended to gather information related to demographic factors of the respondents which included information pertaining to their personal background such as gender, age, education level, job position, and working experience. Section B was specifically designed by researchers to elicit information relating to school directors' administrative behaviors, exercise of power, abilities to motivate, and abilities to direct. This section was aimed to evaluate the leadership styles of the school director namely learning leadership, strategic leadership, technological leadership, collaborative leadership, and ethical leadership. To measure the respondents' responses toward leadership style practice, a five-point Likert scale was used.

This questionnaire was then sent to a panel of experts for comments and feedbacks. The panels of expert were selected using the criteria based on their expertise. From the feedbacks returned by the panel, some modifications were made to the original instrument. Subsequently, the questionnaire was tested according to the index of item-objective congruence of at least 0.50 and further testing the reliability test to a pilot test group consisted of 30 primary school directors (Srisatidnarakul, 2012: 5). Cronbach alpha value gained from the pilot study was 0.987, thus the questionnaire was ready to use in the actual study. Confirmatory Factor Analysis (CFA) is used to validate the structural relationship model. CFA was used as a desirable validation stage preliminary to the main use of structural equation model to identify the causal relations among latent variables (Schumacker & Lomax, 2004).

Results

Results of this study are presented based on the research aims that are indicated above. The initial result is the descriptive results related to the background of the 560 respondents. This is followed by results of the CFA to confirm the correlation between the essential leadership factors in the structural relationship model. Finally, result from the goodness-of-fit is presented.

Descriptive results of respondents' background

A total of 560 primary school directors were the selected respondents who participated in the survey showed that most of them are males, aged more than 50 years old and have more than 20 years working experience. Majority of them are master's degree holders, followed by bachelor's degree, and doctoral degree.

CFA of school leadership style in structural relationship model

Results of CFA showed that there are five latent variables in the structural relationship model namely learning leadership, strategic leadership, technological leadership, collaborative leadership, and ethical leadership. In addition, results of the study indicated that learning leadership consists of six factors, strategic leadership has three factors, technological leadership is comprised of four factors, collaborative leadership consists of five factors, and ethical leadership has five factors.

Specifically, results showed that each latent variable has its factors so called as observable variables as follow. Learning leadership (x1) consisted of learning environment (x11), team learning (x12), integration (x13), advanced technology (x14), creativity (x15), and self-directed learning (x16). Strategic leadership (x2) was comprised of organizational direction (x21), strategic action (x22), and evaluation (x23). Technological leadership (x3) included technology in teaching and learning (x31), technology in management (x32), technology in measurement and evaluation (x33), and ethics in technology use (x34). Next is collaborative leadership (x4) encompassed rotation of leadership roles (x41), shared decision-making (x42), team building (x43), communication (x44), and change-making (x45). Finally, ethical leadership (x5) covered trustworthiness (x51), justice (x52), responsibility (x53),

respect (x54), and good citizenship (x55). There are a total of 23 observable variables as shown in Figure 1 below.

CFA was used to validate at the preliminary stage to identify the causal relationships among the latent variables. Results related to factor loading values of all the latent variables for leadership styles structural relationship model ranged from 0.924 to 0.982 are statistically significant at 0.01. Moreover, factor loading is the importance of standard factors of each observable variable in the relationship model of leadership styles had been taken into account. The co-variance with leadership style was from 85.40 to 96.50 percent. Besides, results regarding to factor loading values of the leadership style factors or observable variables ranged from 0.518 to 0.900 are statistically significant at 0.01. The co-variance with leadership style factors was from 26.90 to 81.00 percent. Table 1 shows factor loading results of the five leadership styles and their related factors. As a result all the factors of the structural relationship model are found to be important construct for leadership styles.

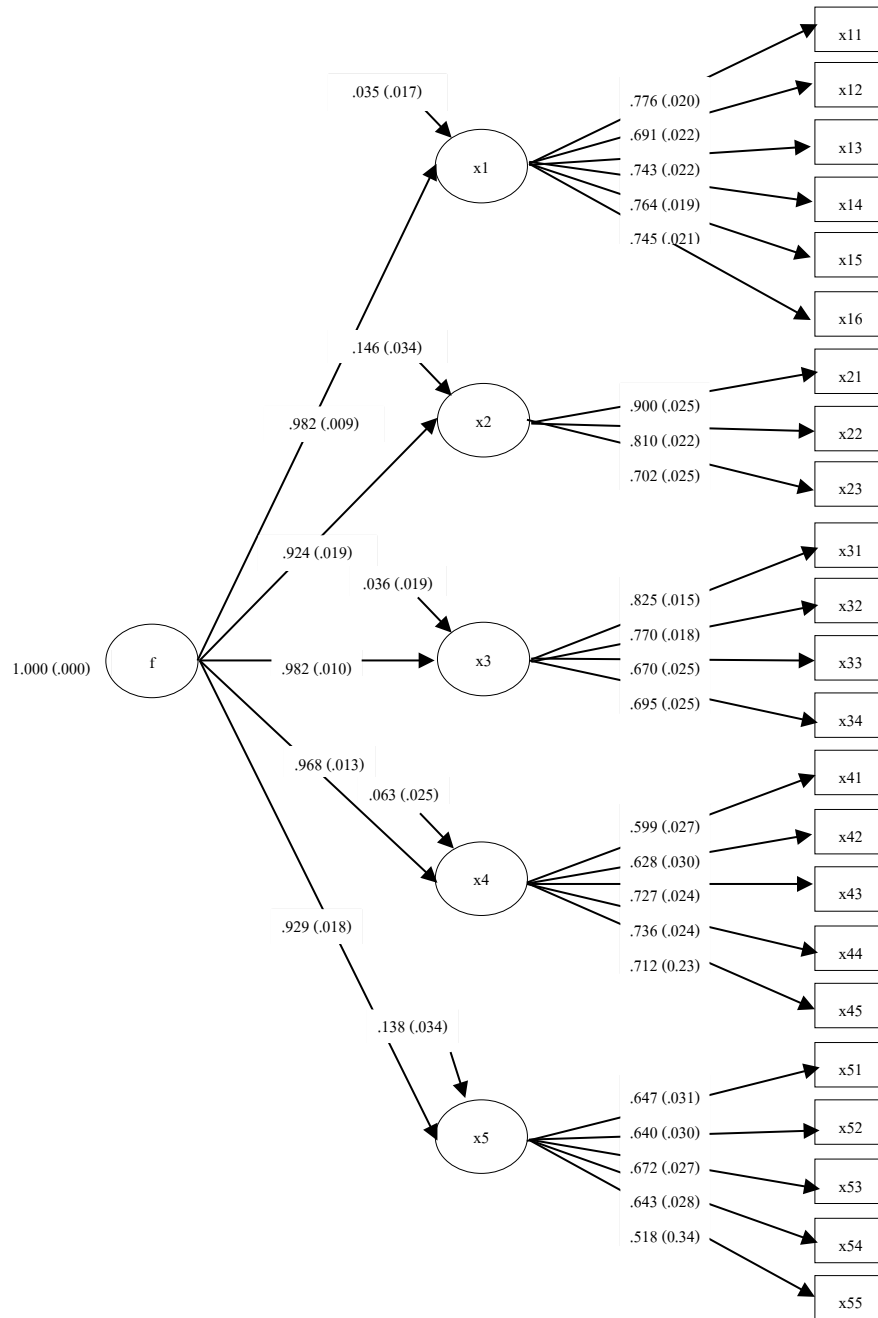


Figure 1. Factors of Hypothesis Structural Relationship Model

Firstly, the leadership styles with the highest factor loading was learning leadership and technological leadership with the same β value that is 0.982 and slightly difference in term of R^2 that are 0.965 and 0.964 respectively. The second highest leadership style was collaborative leadership ($\beta = 0.968$, $R^2 = 0.937$). This is followed by ethical leadership ($\beta = 0.929$, $R^2 = 0.862$). The strategic leadership was found to have the least capacity with the β value as 0.924 and R^2 value as 0.854. On this line of reasoning, school directors should prioritize developing the aforementioned variables of essential leadership in that order. These five essential leadership styles are comprised of 23 factors, with average factor loading values within 0.518 to 0.900.

The factor with the highest factor loading was organizational direction ($\beta = 0.900$, $R^2 = 0.810$). The second highest factor was technology in teaching and learning ($\beta = 0.825$, $R^2 = 0.681$). The third highest factor was strategic action ($\beta = 0.810$, $R^2 = 0.657$). This is followed by learning environment ($\beta = 0.766$, $R^2 = 0.603$), technology in management ($\beta = 0.770$, $R^2 = 0.593$), advanced technology ($\beta = 0.764$, $R^2 = 0.584$), creativity ($\beta = 0.745$, $R^2 = 0.554$), integration ($\beta = 0.743$, $R^2 = 0.552$), communication ($\beta = 0.736$, $R^2 = 0.542$), self-directed learning ($\beta = 0.732$, $R^2 = 0.535$), team building ($\beta = 0.727$, $R^2 = 0.528$), change-making ($\beta = 0.712$, $R^2 = 0.507$), evaluation ($\beta = 0.702$, $R^2 = 0.493$), ethics in technology use ($\beta = 0.695$, $R^2 = 0.483$), team learning ($\beta = 0.691$, $R^2 = 0.477$), responsibility ($\beta = 0.672$, $R^2 = 0.451$), technology in measurement and evaluation ($\beta = 0.670$, $R^2 = 0.448$), trustworthiness ($\beta = 0.647$, $R^2 = 0.419$), respect ($\beta = 0.643$, $R^2 = 0.413$), justice ($\beta = 0.640$, $R^2 = 0.409$), shared decision-making ($\beta = 0.628$, $R^2 = 0.394$), and rotation of leadership roles ($\beta = 0.599$, $R^2 = 0.359$) respectively. The factor that had the lowest factor loading was good citizenship ($\beta = 0.518$, $R^2 = 0.269$). As a result all the factors of the structural relationship model are found to be important construct for leadership style practice.

Table 1. Factor loading and validity of leadership styles and their factors in the structural relationship model

Latent variables	Observable variables	β	S.E.	R^2	t
Learning leadership		0.982	0.009	0.965	113.355
	Learning environment	0.776	0.020	0.603	37.908
	Team learning	0.691	0.022	0.477	31.190
	Integration	0.743	0.022	0.552	34.334
	Advanced technology	0.764	0.019	0.584	39.441
	Creativity	0.745	0.021	0.554	35.118
	Self-directed learning	0.732	0.022	0.535	33.397
Strategic leadership		0.924	0.019	0.854	49.560
	Organizational direction	0.900	0.025	0.810	36.219
	Strategic action	0.810	0.022	0.657	37.442
	Evaluation	0.702	0.025	0.493	27.736
Technological leadership		0.982	0.010	0.964	99.560
	Technology in teaching and learning	0.825	0.015	0.681	54.087
	Technology in management	0.770	0.018	0.593	42.101
	Technology in measurement and evaluation	0.670	0.025	0.448	26.936
	Ethics in technology use	0.695	0.025	0.483	28.045
Collaborative leadership		0.968	0.013	0.937	74.719
	Rotation of leadership roles	0.599	0.027	0.359	22.075
	Shared decision-making	0.628	0.030	0.394	20.936
	Team building	0.727	0.024	0.528	30.663
	Communication	0.736	0.024	0.542	30.654
	Change-making	0.712	0.023	0.507	31.243
Ethical leadership		0.929	0.018	0.862	51.142
	Trustworthiness	0.647	0.031	0.419	21.116
	Justice	0.640	0.030	0.409	21.395
	Responsibility	0.672	0.027	0.451	24.799
	Respect	0.643	0.028	0.413	22.656
	Good citizenship	0.518	0.034	0.269	15.336

Quantitative results of congruence of the structural relationship model with empirical data

Results from the correlations between the factors of leadership styles performance could be assessed in the standard component score (β). Results showed that the structural relationship model has a goodness fit with evident data, with $\chi^2 = 94.294$, $df = 86$, and $p = 0.253$. This means that chi-square value was not significant and RMSEA =

0.013, SRMR = 0.019, CFI = 0.999, and TLI = 0.998. This means that the structural relationship model of leadership style among the school principals in northeast of Thailand is correlated with empirical data.

Discussion And Conclusion

The major focus of this study was on the importance of standard factor loading of each variable in the structural relationship model. Results revealed that all the factors of the five leadership styles namely learning leadership, strategic leadership, technological leadership, collaborative leadership, and ethical leadership are important for these leadership styles to practice by school directors. As a result, results seem to be in accordance with theories and previous research studies.

Results of this study showed that the variables used in the structural relationship model are compliance with the reference criteria and correlated with the empirical data. This shows that these five leadership styles and their factors are correlated in the same direction. If school directors want to practice that particular leadership, they have to implement each factor as well. Nevertheless the results can be used to explain the relationship between the leadership styles and their factors. This implies that the variables developed either the latent or observable variables are relevant to the context and nature of primary school administration in northeast of Thailand. The results of this study are found to be parallel to Prasertcharoensuk and Tang (2017), Prasertcharoensuk, Tang, and Klingthaisong (2017), Somprach et al. (2017), and Tang and Somprach (2015).

The overall results are useful for the policy maker, educational administrators, school directors, educators, and practitioners. Empirical development particularly in the a few leadership styles largely neglects to recognize their factors as important elements in administrative practice. Therefore, the results are able to provide empirical justification that leadership styles are crucial in the construction of their factors practices. The richness and justification of data reveals its valuable contribution to educational administration.

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Ethical Behavior of Vocational School Student: Business Department Sample*

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Abstract

The typical method to the exercise of ethics (morals) in schools, professional and administration could be an inflexible method, which concentrations on what student, workforces and persons in all-purpose must do to act as honorably accountable players (Jones, 1991). When the standards and customs of the congresses of the school and commercial world show to go straightforward on the materials speediness, it looks more and more compulsory to not only gauge but also analyses how and why unethical behavior can intensification so straightforwardly and effectively, in the face of the occurrence of numerous controller and technological following systems (De Cremer, 2010).

Only by following the educational TV programs from all over the world, we can understand that the role of sophisticated education has been shifting in last century. Previously, student showed conservatoire in instruction to have a respectable “progressive teaching” that equipped of students to happen the tasks of grown-up life. Freshly nonetheless, supplementary student is joining sophisticated tutoring to ready themselves for pay openings for their fiscal life. Accordingly, plans that effort on “applied forms” could be swelling in numeric while programs that cheer unfathomable considerations of the human complaint have been diminishing (Bellizzi, J.A. and W. Murdock, 1981; Brint, Riddle, Turk-Bicakci, & Levy, 2005)

One of the foremost imperative ways of university student is ethical behaviors. Stealing is a material ethical difficulties for approximately student’ instruction natural life. That is an imperative exploration interrogation that approximately unethical customs in school life expectancy can be root to original unethical customs in social life expectancy after learning. Much of research on controlling ethical behavior of student has been valid in many countries in the world.

The rapid fluctuations in the high-tech life expectancy have triggered many tasks in the global world. Many vocational school students are exceedingly sensitive in daily life and have an authority of comment to their maternities at home, their instructors in school and to their colleague in social life expectancy.

In this education, a numerical opinion poll useful to a sample of 145 business department student at a vocational school in Turkey. Statistical analysis revealed that male student has a suggestively less ethical behavior in three features that egotism, abstract dishonest and computer ethics than female student in this department. It is very significant to comprehend that one of the main areas of any informative program is to change personalities’ both personally and professionally.

Key words: *ethics, ethical behavior, vocational school student*

Introduction

Ethics is the responsibility of each student at the school. Therefore, every student of the vocational school stand-in on the department of the university, is in charge for ethical comportment dependable with Kocaeli University's procedures. Vocational school student essential assume accountability for confirming which the comportment, and the processes for parts that students learn, observes with the policy. Kocaeli University rules of morals is a declaration of the acceptance in ethical, allowed and specialized performance in the communications in some situations, exterior of the school. Student of the university are anticipated to workout duty suitable to the situation. Students are accepted to the campus communal for the activities and the choice don't to performance. Every specific participant is anticipated to behavior the rules of the university in harmony with the directions of ethics to superlative assist the authority of the university (Forsyth, D. R. and W. R. Pope: 1984; Grove, S.J., S.J. Vitell and D. Strutton: 1989; Nejati, M., Jamali, M. And Nejati, M., 2009; Bellizzi, J.A. and W. Murdock, 1981; Schonert-Reichl, K. 2000).

The matter of student’ ethical behavior and that connection for gender has been expansively considered in Turkey and many other countries, but there have been different conclusions by unlike investigators. Only one or two first examinations conducted between Turkish university students to examine the effects of gender on student’ ethical

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behavior with the basic ethical subjects (Schonert-Reichl, K. 2000; Nejati, M., Jamali, M. And Nejati, M., 2009; Forsyth, D. R. and W. R. Pope: 1984; Bellizzi, J.A. and W. Murdock, 1981;).

Ethics is a full thought that its rules protections done the social life. Every word which we use or not use and every action which we do or not can be a subject of ethical estimation (Schonert-Reichl, K. 2000; Lee Tayolr, 2004; Mirshekary, & Lawrence, 2009; Forsyth, D. R. and W. R. Pope: 1984;). Then, ethics is associated with the determined ethics has positive principles. Ethics reflects important situations impossibly to do support or reject customs through its special language and without being transformed with their firm environment (Schonert-Reichl, K. 2000; Nejati, M., Jamali, M. And Nejati, M., 2009; Grove, S.J., S.j. Vitell and D. Strutton: 1989; Fisher, Fullerton, & Woodbine, 1999).

Several scholarships have inspected ethical behavior and the reasons of student from different countries (Hosmer 1999; Helfgot, 2005; McDonald & Carroll, 2006; Schonert-Reichl, K. 2000). Observed exploration on ethics reports plentiful variances between students. For example, St. Pierre et al. (1990) found that bookkeeping student keep count subordinate at the defining issues test, a survey on ethical intellectual, and then psychology student. In alternative education, (Hosmer, 1999) in its homework distinguished that accounting and finance student were supplementary prospective to observe business ethics and community accountability to be normally inconsequential, as associated to another student (Schonert-Reichl, K. 2000; Nejati, M., Jamali, M. And Nejati, M., 2009; Forsyth, D. R. and W. R. Pope: 1984).

There have been unlike lessons on the affiliation flanked by gender and ethical behavior that there is no relation. A few scholars have originated no momentous variance flanked by male students and females students at the affiliation with ethical characters and behaviors (Bennet, 2005; Dubinsky And Levy 1985; Peterson Et Al. 2001). But some authors reflect gender that an efficient issue on ethical behavior (Kishner, 2005; Smith and Rogers 2000; Ryan and Ciavarella 2002; Nejati, M., Jamali, M. and Nejati, M., 2009; Grove, S.J., S.j. Vitell and D. Strutton: 1989; Schonert-Reichl, K. 2000).

Method

There have been different lines for calculating ethics using different scales between several studies on student' ethics. Many of the scholars have unrushed the boldness in the direction of ethics using opinion poll. The key resolution of our training is to inspect student' ethical behavior in the university atmosphere at the view of observed conclusions testified in the poetry on genders (Forsyth, D. R. and W. R. Pope: 1984; Nejati, M., Jamali, M. And Nejati, M., 2009).

The sample for this study comes from accounting department of a vocational school of a Turkish university. An open-ended questionnaire used to accumulate data for this study was applied in four classes (2-first classes and 2-second classes) on the vocational school. There were no motivations given to the student to participate in the study. 145 student participated the study. The gender segment of the study model is below (table 1). As indicated %53 of the student were females and %47 is male. Besides, student' age interval from 18 to 23 years old (Forsyth, D. R. and W. R. Pope: 1984; Grove, S.J., S.j. Vitell and D. Strutton: 1989; Nejati, M., Jamali, M. And Nejati, M., 2009).

Table 1 gender of study sample

We define the following this study (Nejati, M., 2009):	Category	Frequency	Percent	hypotheses for the aim of Jamali, M. And Nejati, M.,
	Male	68	46.9	
	Female	77	53.1	
	Total	145	100.0	

- *Female student are meaningfully less than "computer ethics" than male student*
- *Female student are meaningfully less than "violations" than male student*
- *Female student are meaningfully less than "cheating" than male student*
- *Female student are meaningfully less than "selfishness" than male student*

For the resolution of calculating student' ethical behavior, an opinion poll was changed by the education of Zopiatitis and Krambia-Kapardis (2008). The feedback form involved of 19 questions, calculating student' ethical behavior in the groupings, explicitly destruction of school principles (4 questions), egotism (6 questions), abstract dishonest (5 questions), and computer ethics (4 questions). Also, a five-point ruler established by Muncy And Vitell (1992) was added in the questionnaire, whether they supposed the travels tha having erroneous (unethical), coded as 1, or not erroneous (ethical), implied by five types (Grove, S.J., S.j. Vitell and D. Strutton: 1989; Nejati, M., Jamali, M. And Nejati, M., 2009).

Findings

The findings show that male data have a larger mean altogether four sorts of destruction of school principals (regulations), egocentricity (selfishness), abstract unprincipled (academic cheating), and processor ethics (computer ethics) (table 2) (Nejati, M., Jamali, M. And Nejati, M., 2009).

Table 2 student ethical behavior

Category	Gender	Mean	Standard deviation
Violation of school regulations	Male	1.814	0.345
	Female	1.716	0.374
Selfishness	Male	1.859	0.448
	Female	1.647	0.353
Academic cheating	Male	2.215	0.654
	Female	1.851	0.543
Computer ethics	Male	2.250	0.745
	Female	1.876	0.451

According to above table, we can say that the female student has a suggestively not as much of affectionate arrogance toward ethics. With the purpose of test the steadfastness of the education, we applied cronbach's alpha both disjointedly and collected for all the features. The cronbach's important for all the 19 influences was 0.785 (Bellizzi, J.A. and W. Murdock, 1981; Nejati, M., Jamali, M. And Nejati, M., 2009; Grove, S.J., S.j. Vitell and D. Strutton: 1989).

With the purpose of test whether these variances are momentous, we applied t-test. Even though both male and female plaintiffs have an unkind less than the usual in all sorts, the submission of t-test confirmations that female plaintiffs have a suggestively less tender behavior in the direction of all the sorts than male student (table 3) (Grove, S.J., S.j. Vitell and D. Strutton: 1989; Nejati, M., Jamali, M. And Nejati, M., 2009).

Table 3. Test results Levene's test for equality t-test for equality of means of variances

		F	Sig.	T	df	Sig. (2-tailed)
Violations	Equal variances assumed	2.741	.136	2.324	143	.020
	Equal variances not assumed			2.352	135.117	.026
Selfishness	Equal variances assumed	10.172	.003	2.563	143	.017
	Equal variances not assumed			2.665	137.884	.006
Cheating	Equal variances assumed	2.444	.160	2.452	143	.022
	Equal variances not assumed			2.741	135.300	.018
Computer ethics	equal variances assumed	12.632	.000	3.141	143	.001
	Equal variances not assumed			3.540	135.700	.000

Since the steadfastness for the features of this education was lower than the other study, we asked two geometricians in the university to verify the situation. They declared that an illustration size of 145 student by misplaced register, the steadfastness could be painstaking as normal for the study.

One of the main explanations for several levels of ethical behaviors among male and female student in changed republics and in unlike education systems is the variance in artistic families of the student. Reiss and Mitra (1998) stressed the artistic variances and artistic circumstantial influence student' ethical brashness and beliefs.

Research conclusions exhibited that Turkish female vocational school student tend to be not as much of easygoing toward unethical behaviors. We can say that generally females from all academic, social and economics level are considered to be more positive. The number of Turkish female student from all parts of the country who get admission to elementary school, high school, vocational school and university is enlarging each past time. So, this creates much force on male student to participate to demonstrate the good ways to the friends (Nejati, M., Jamali, M. And Nejati, M., 2009). By the effect of grooving female numbers, the closing rates of gender turn out to be motivating factor for Turkish male student to be restriction toward unethical behaviors at the school environments.

Result

It is well-known reality that one of the primary areas of any educational system in the world is to develop individuals' both for my part and for work. In other words, it is of most standing to run student with mandatory abilities and facts and do participants accustomed with the social order and business ethical ideals at the end the education life (Nejati, M., Jamali, M. And Nejati, M., 2009). We believe that this education and its discoveries are imperative as it is between the very first studies shown among Turkish vocational school student on ethical behavior, when getting into account the gender differences. Extra new and extended research might investigate the reasons that why male student to do low ethically in assessment to female student.

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Evaluating Parenting Skills With Ecep Attitude Scale: A Case Study In French Polynesia

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Abstract

The paper focuses on declared practices of eight parents (mothers and/or fathers) of pupils belonging to the CM1-CM2 classes (the last two levels of the primary education) of Nuku Hiva island, in the Marquesas archipelago, French Polynesia. To evaluate declared parenting practices (essentially, parents' representations about their educative performances), we opted for the Scale of Educative Parental Skills (échelle des compétences éducatives parentales - ECEP). According to the results of our fieldwork, parents in Nuku Hiva perceive their parenting performance as "normative" but, paradoxically, they also perceive their practices as "extremely liberal". We interpret these results as an effect of the joint pressure generated by local, national and global ideologies (due to the fact that, often, locally grounded attitudes and practices are not coherent with the expectations of national institutions -such as school- and global markets).

Theoretical Framework

Several authors have been exploring the impact of domestic parents' practices on school adaptation of their children (Baumrind, 1966; Lautrey, 1995; Kellerhals & Montaudon, 1991). Educative practices may be observed in the framework of "everyday routines" (playing, domestic chores and jobs around the house) or as a part of activities especially focused on learning (supporting exploration and "discoveries", visiting a museum, assisting for homework).

In our previous works on family education (Ailincai, 2005; Ali, 2016a; Ali & Ailincai, 2013), we showed that the same parent may act with different interactive styles, according to the type of activity and the influence of ecosystemic variables. We observed parent-child dyadic interactions in both of their everyday life (using ethnographic tools such as participatory observation and ethological-systematic observation with behavior sampling), with the aim to identify "spontaneous interactive styles", and in experimental situations (observing children during a "learning-focused activity", in a school context), with the aim to identify "epistemic interactive styles". Contemporary scholars typically classify parenting styles into four groups:

1. Autocratic, with high levels of control and low levels of affectivity;
2. Indulgent and permissive, with low levels of control and high levels of affectivity;
3. Democratic, with high levels of control and affectivity;
4. Careless or negligent, with a lack of control and affectivity.

Nevertheless, this approach only focuses on two variables: control (or authority) and affectivity. We prefer a different classification (Ailincai, 2005), based on the « quality » of the educative interaction:

1. The "guiding" style (parents imposing the "way to well doing", bringing knowledge, defining procedures, objectives and goals; he or she is concerned about the attention children shows for the activity and the accomplishment);
2. The "evocative" style (parents questioning children about chosen procedures, encouraging them to present their arguments, to create links between different domains of knowledge and to explain their decisions. They also bring children about proactive attitudes, reformulating questions, clarifying their expectations, asking the advice -or the assistance- of the same children);
3. The "autonomizing" style (parents leave children free to discover, supporting their "trial and error" activities, observing them when focused on their task -the parents' presence itself offering an implicit evaluative support to the activity-. The assessment is formative and its positive impact is a consequence of the authorization allowed to the children to dedicate to their activities);
4. The "disjoint functioning" style (characterized by a lack of dialogic interactions. Sharing the same individualistic ideology, both adults and children act according exclusively to their individual needs).

These typologies are a very useful tool for scholars in socio-anthropology of education and comparative education studies, because they contribute to define the domestic educative contexts (*id est*, how the family members play the role of educators) and to better understand the domestic causes of the school success (or defeat). Actually, it is not possible to imagine a positive correlation between a given educative style and the certain school success. In fact, a review of the latest development in research in education confirm that same interactive typologies have a different incidence according the surrounding social environment. In a seminal work, Darling et Steinberg (1993) elaborated a theoretical model to understand the connection between parenting styles, parental practices and child development.

Nevertheless, those approaches neglect other factors, such as teachers' practices. Actually, recent research in socio-anthropology of education suggests that the degree of coherence between the educative styles of parents and teachers influences school outcomes. However, according to Duru-Bellat et van Zanten (2009), in most cases that kind of continuity -between family and normative school frameworks- is a privilege shared by few well-off families.

Motivated to explore this peculiar "continuity", we developed -with the financial aid of the French Ministry of Overseas Territories and the EASTCO Research Lab at the University of French Polynesia- the PREEPP research project (*PRatiques Éducatives Enseignantes et Parentales en Polynésie française* – Teachers' and Parents' Educative Practices in French Polynesia) supposing that there is a correlation between parenting practices and school achievements. To confirm our hypothesis, we compared children's school assessment with declared and actual practices (*id est*, perceived vs. observable performances) of parents and teacher in several Polynesian communities.

Methodology

In this paper we focus on the data gathered in Nuku Hiva, the main island of the Marquesas archipelago, in the northern sector of French Polynesia (the global findings of the project are archived on-line, freely available on the project web space: <http://www.itereva.org/mompepe/frontend/>). Most of the inhabitants belongs to the Enata autochthonous community, speaking the 'éo enana, an Oceanian language with Austronesian origins.

As regards the methodology applied to evaluate declared parenting practices (essentially, parents' representations about their educative performances), we opted for a survey tool, the Scale of Educative Parental Skills (*Échelle des Compétences Éducatives Parentales* - ECEP) created by Terrisse et Larose (2000; 2009), specifically the version they elaborated for parents with children aged between 6 and 9 years old.

Through 47 questions, ECEP explores three main domains:

1. the educative attitudes of parents (how they develop their relationship with children);
2. their educative practices;
3. the perceptions of parents concerning their capability to control and manage the behavior of their children.

We reformulated some questions with the aim to facilitate the lecture and we opted for a simplified written data input procedure (the participants were only asked to check if they agree or not with the affirmations presented in the survey).

By using the ECEP scale, we had the opportunity to systematize declared parenting practices of the parents from Nuku Hiva and to compare the trends with the school achievements of their children that we registered. Finally, the results are discussed taking into account the observations we made among other Polynesian communities (Ali, 2016a, 2016b). Because of our special concern for analyzing family dynamics and family/school relationships, the gathered data have been interpreted using an ecosystemic perspective (Bronfenbrenner, 1979; Super & Harkness, 1986) and a sociocultural approach (Vygotsky, 1934; Valsiner, 1987).

Population

Data presented in this paper were gathered in Nuku Hiva island and the sample was selected among parents of pupils belonging to the CM1-CM2 classes (the last two levels of the primary education).

<i>Location of the school</i>	<i>N. of parents participating to the study</i>	<i>Age</i>	<i>Sex</i>
AAKAPA	1	+ 45yo	F

<i>HATIHEU</i>	1	36-40yo	F
<i>TAIOHAE</i>	5	36-40yo	F
		41-45yo	F
		41-45yo	F
		31-35yo	F
		26-30yo	F
<i>TAIPIVAI</i>	2	31-35yo	M
		41-45yo	F

Table 1 : The population of our study.

The nine ECEP surveys were filled at school, after a meeting gathering researchers, students' parents and school staff. Parents completed the surveys individually. Our choice -to pass the questionnaires inside the schools- is justified by the need to use school personnel (especially the pedagogical counselor in charge of the Nuku Hiva district) as translator, due to the fact that some parents are illiterate and unable to read in French. The findings presented in this article concern only declared parenting practices but the same parents were also invited to participate in an experimental study focused on observable parenting practices: they were filmed with their children during a situation of learning support for a scientific activity. The relation between declared and observable practices will not be analyzed here but it will be evoked to discuss the results of students' assessments and -at least, we hope- to bring more elements to confirm our hypothesis. To interpret the results of our surveys, we applied the scores calculation procedure proposed by the two ECEP creators (Terrisse et Larose, 2009). Every question is associated to an item and every item to a scale. The first one, the attitude scale, organize the items in three groups of poles: rigidity/flexibility (including 4 items), distrust/trust (6 items), internal control/external control (10 items). The second one, the practices scale, organize the items on two groups: normative/creative (9 items) and strict/permissive (7 items).

Finding N.1: Parents Attitudes According To Their Declarations

Once the survey were passed, we analyzed the items included on the attitude scale with the aim to describe how they perceive their educative attitudes (and, *latu sensu*, how they auto-evaluate their parental "role"). Parents n.2 and n.5 obtained a score of 10-12, corresponding to an extremely controlling attitude. This attitude is often correlated with rigidity, distrust and an interactive style based on a scarce verbalisation (explanations, discussions) between parents and children: instructions are shorts, emitted with authoritarian thones and formulated as orders. The content of verbal interventions is often linked with the formulation of menaces or the application of consequences (which were not announced, explained nor negotiated in advance with children). Parents n.4 and n.8 obtained a 14-15 score, corresponding to an average and standard normative attitude: a relatively frequent "way of parenting" including some authoritarian behaviour but also a large space allowed to exploration, creativity and dialogic participation to the family everyday life. All other parents obtained an intermediary score (more than 12 but less than 14), associated with high levels of top-down normativity and low levels of bottom-up participation. No parents obtained a score upper than 16, associated with tolerant and extremely tolerant parenting styles. Figure n.1 show the scores obtained by our study subjects on the attitude scale.

Scores obtained in the ECEP attitude scale

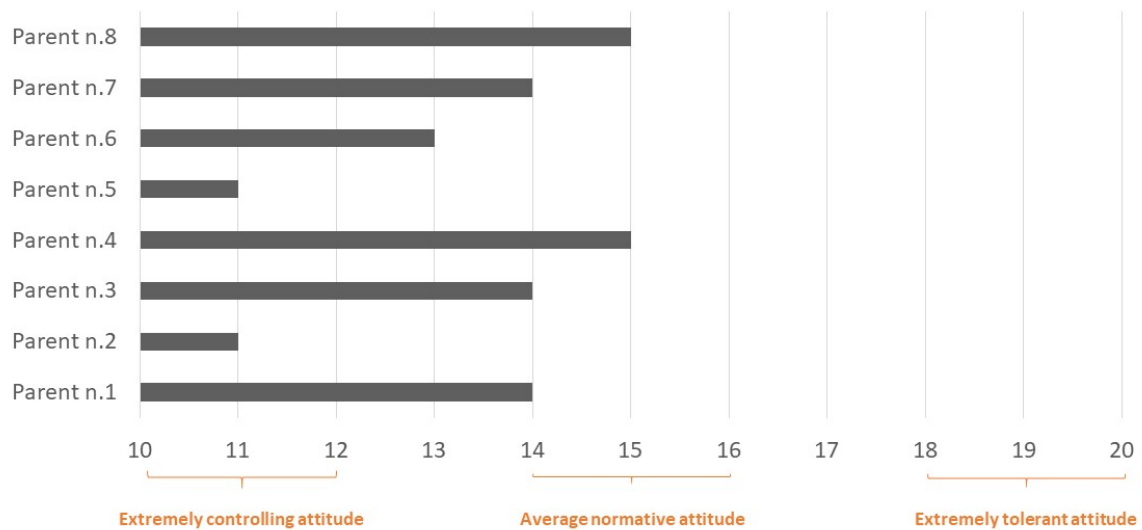


Figure 1 : Scores obtained in the ECEP attitude scale by Nuku Hiva parents.

Although in terms of attitudes most of parents declared they perform a standard normative attitude (in our survey the exception were represented by the extremely controlling attitude of parents n.2 and n.5), this constatation need to be interpreted prudently. In fact, our survey demonstrated that this standard “way of parenting” (*id est*, an average level of normativity) is, in most of cases, the effect of the balance of opposite attitudes, intrinsically polarized (especially on both distrust/trust and rigidity/flexibility axis. See figures n.2 and n.3).

Rigid/flexible attitude

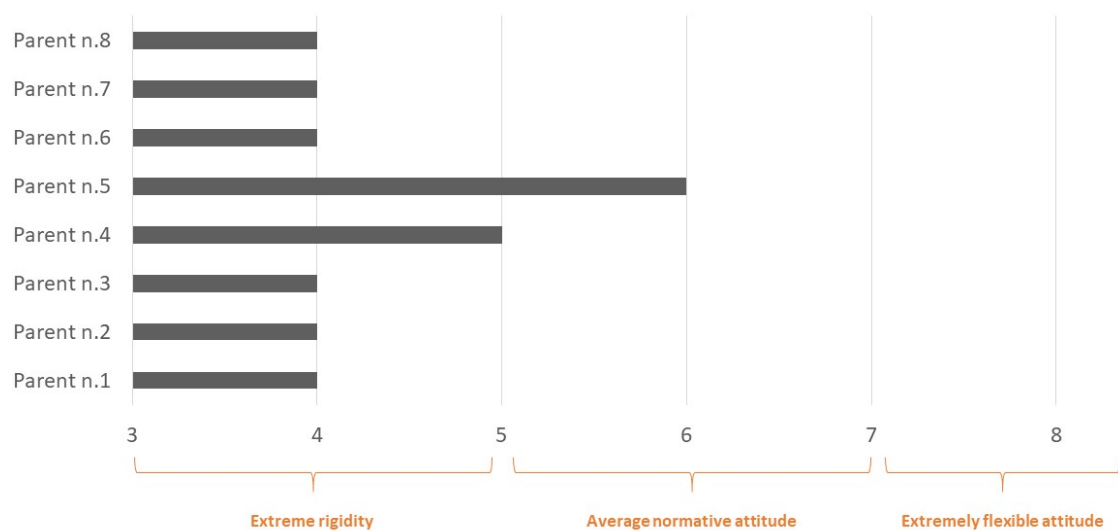


Figure n.2 : Declared attitudes of Nuku Hiva parents : scores obtained in rigidity/flexibility axis. This axis focuses on controlling or tolerating attitudes.

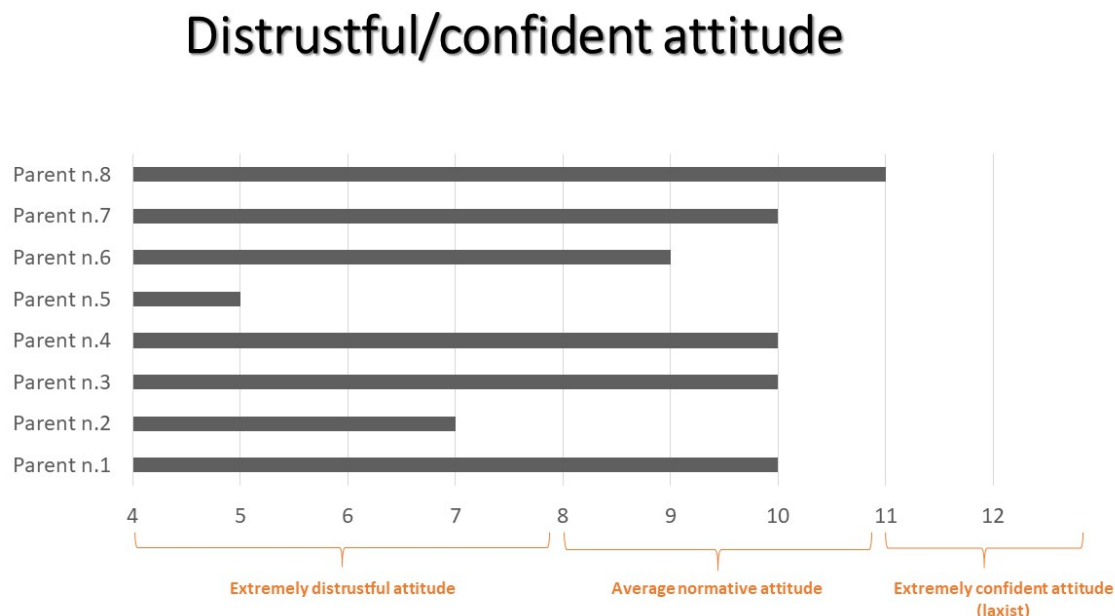


Figure n.3 : Declared attitudes of Nuku Hiva parents : scores obtained in distrust/trust axis.

In other words, parents declared that, at home, they impose a strict normative framework (a series of obligations which breaking is associated to a severe punishment) but, concerning their children skills (and their ability to “handle things”), they affirm to be sincerely confident, tolerant and “open-minded”.

Finding N.2: Parents Practices According To Their Declarations

The ECEP scale allows us to identify parenting skills taking into consideration the declared practices (*id est*, the declared parenting performances: how parents describe their parental role). The scores obtained by our study subjects has to be interpreted as follows:

1. A score between 16 and 17 corresponds with formalist practices, typical of parents focused on the formal respect of external norms (imposed or reproduced ideologies, dogmes and believes). The dialogues are limited and, often, the interactions are articulated as orders;
2. A score between 22 and 23 corresponds to an average level of normativity, combining a system of obligations-and-sanctions and a permissive approach to the intellectual development of the child, facilitating the interpersonal exchanges, the exploration, the taking of initiatives;
3. A score between 30 and 32 corresponds to extremely liberal practices, characterized by a low level of parental supervision, by an horizontal hierarchy in family structure, facilitated by interactive exchanges guided by the children (encouraged by parents to be creative and authonomous) and by a normative system lacking of sanctions and punishments.

Figure n.4 shows the scores obtained in the ECEP practices scale by parents in Nuku Hiva.

Scores obtained at the ECEP practices scale

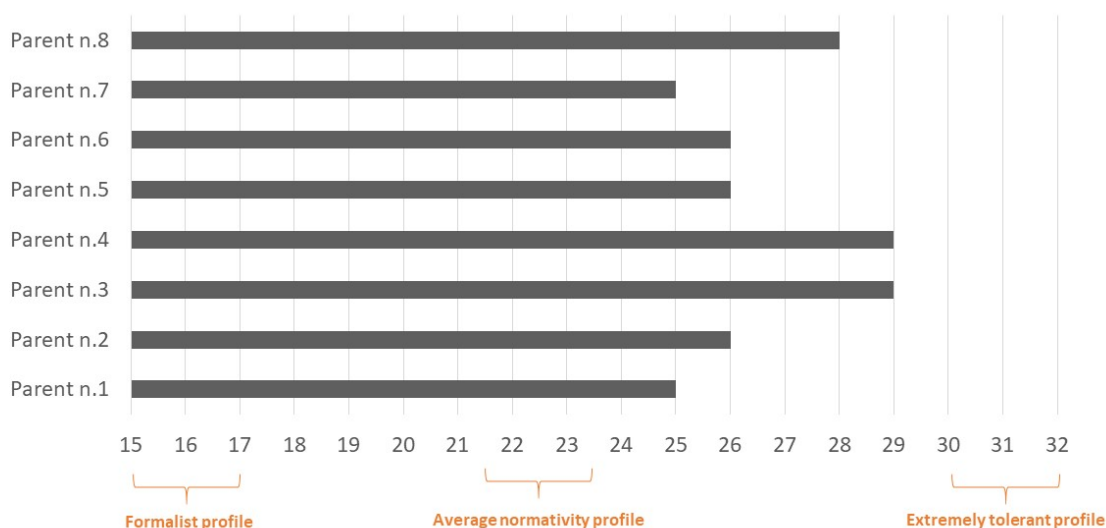


Figure n.4 : Scores obtained in the ECEP practices scale by Nuku Hiva parents.

The data we gathered show that parents participating in our survey situate themselves between the “average normativity” (22-23 points) and “extremely liberal” profiles (30-32 points). As we see in the last chapter, the average normativity is a relatively frequent parenting profile combining authoritarian behaviour (and the application of punishments) with the stimulation of creativity and dialogic participation between parents and children, especially to facilitate the comprehension of the family and social normative system (in anthropological terms, the social organization and its “interiorization” as a structure. See Ali & Ailincal, 2013).

Extremely liberal practices are typically associated to child-centered families, where the “spoiled child” (a sort of little tyrant) is omnipresent and constantly overstimulated. Actually, this family profile -often combined with laxist attitudes- has been accused to undermine the children self-confidence and to have negative consequences for the personality development (De Luccie, 1996 ; Zerkowitz et Papageorgiou, 1996).

As seen for the declared attitudes, declared practices may be discussed in a more detailed manner by the analysis of the results obtained in every axis constituting the ECEP scale (see figures n.5 and n.6).

Normative/encouraging practices

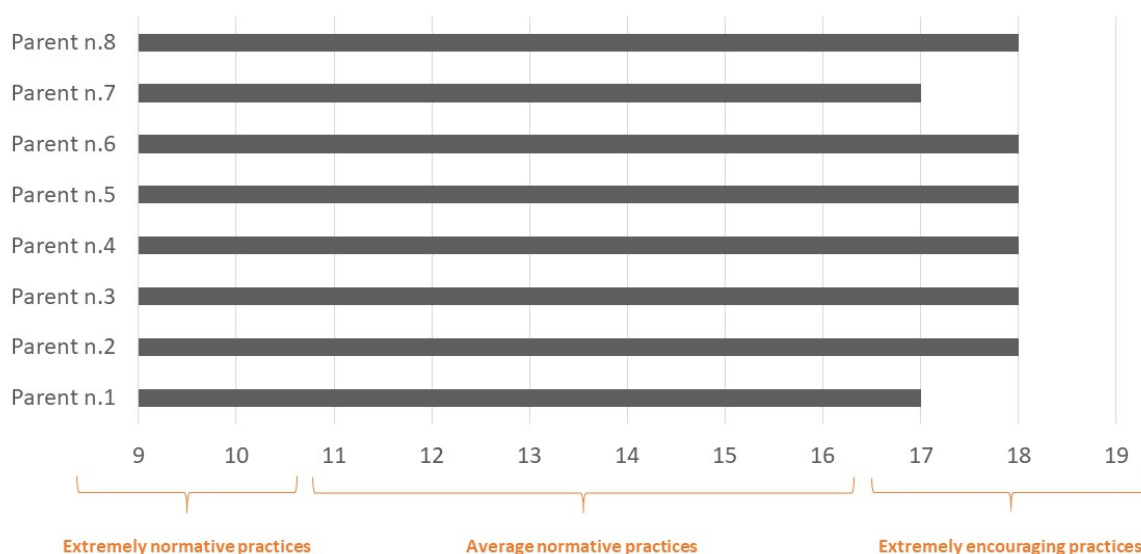


Figure n.5 : Declared practices of Nuku Hiva parents : scores obtained in normative/encouraging axis.

Strict/permissive practices

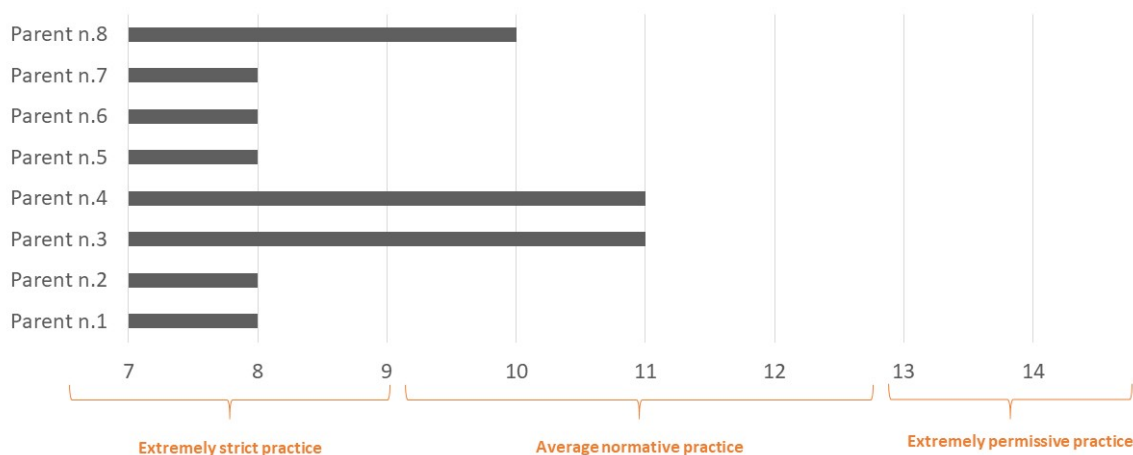


Figure 6 : Declared practices of Nuku Hiva parents : scores obtained in strict/permissive axis.

In fact, the data we gathered show that, if on one hand, most of parents in Nuku Hiva perceive their practices as an effective « tool » to facilitate the intellectual development of their children (and their ability to « elaborate » the surrounding social and natural environment), on the other side they do not exclude the use of authority and a severe approach to the family hierarchy.

Conclusions

According to our ecosystemic approach, our results may be interpreted according to the cultural and geographic context. Actually, the significative statistical deviations we observed between the scores obtained in declared attitude and practices scales (and the fact that they perceive their parental attitude as normative unlike they consider their parental practice as encouraging and tolerant) confirm what we observed, using an ethnographic approach, during our fieldwork: the parents' attitudes oscillate permanently, as an effect of an incessant dynamic to respond to the imperious needs of the ecosystem upper levels: the local ideologies (believes, customs and traditions), the civic duties, the participation to the global markets. This oscillating attitude, affecting the parents' educative role, is shared by other social groups. For indeed, we observed similarities among the Wayana-Apalai -a native community living in the Amazon rainforest, in Brazil, Suriname and French Guiana- but also among the Enata living in Hiva Oa, an island of the Marquesas archipelago (Ali, 2016a), suggesting the hypothesis that such a "schizophrenic attitude" is the effect of postmodern dynamics in postcolonial territories (see also Ali, 2010 and Ali & Ailincal, 2016, 2017).

Nevertheless, the results obtained in this exploratory study do not aspire to display an universal trend. A larger set of researches needs to be developed to unveil what is changing in parenting dynamics in postcolonial context. Therefore, in the future we will work to another set of publications comparing the results obtained in Nuku Hiva with the results we obtained in other Polynesian islands (Ailincal et al., 2016b and 2016c; Ali, 2019) and among indigenous communities and minority groups in French Guiana (Ailincal et al., 2012, 2016a and 2017; Ali, 2015, 2016a, 2016b and 2017). Also, we envisage a deeper analysis of the data obtained at Nuku Hiva to better understand what determines not only parents attitudes and practices in everyday learning situations (routinary activities) but also their epistemic parenting styles (applied to learning focused activities). Actually, we are interested to identify the factors facilitating the coherence between both spontaneous and epistemic interactions (Ailincal, 2015). Finally, a next step will be the comparison of the parental survey with the school assessments of their pupils.

We hope that our work may contribute to a better understanding of the domestic factors that incide on children scholar careers. With optimism, we also hope that it may contribute to a deepen reflection about the need to develop inclusive education systems structured to allow an horizontal dialogue between school and families (with the aim to take conscience of the expectations -the educative ideologies- of both social actors), especially among ethnic communities and minority groups.

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Evaluation Of Attitudes Of Dentistry Students Towards Cadaver And Organ Donation

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Abstract

Anatomy laboratory studies are very important in terms of medical education. Despite the contribution of technological developments to the education of anatomy, cadaver dissection still remains as the basis of anatomy education. Cadaver and organ donations have a very low rate in society. In this study conducted among dentistry students who will become health professionals of the future; we aimed to evaluate the effect of anatomy laboratory education on knowledge, attitudes and behaviors of dentistry students on organ and cadaver donation issues. Our work was carried out between 2017-2018 academic year, Kocaeli University Faculty of Dentistry Term-1 students. A total of 66 students (43 female, 23 male) who had not previously participated in the cadaveric dissection were included in the questionnaire study. The same questionnaire was repeated within the same group after students see the cadaver for the first time. A total of 12 questions including "Yes", "No" and "I do not know" answers were addressed to the students who participated in the study. The anatomy laboratory studies were accepted as normal by 16.7% (n = 11) by the participants before the dissection study, and this ratio increased to 37.9% after dissection study (p <0,05). When the question "Would you consider donating your organs if brain death takes place?" was asked %57,6 (n=38) of the participants said "Yes" before the dissection study and % 62,1 (n=41) said "Yes" to the same question after they see the cadaver for the first time. (p >0,05) In this context, the greatest responsibility for the creation of social awareness in organ and cadaver donation issues is down on the health professionals. Determining health workers' attitudes towards the topic will be helpful in raising public awareness and so increasing the quality of community health and health education.

Keywords: *Cadaver donation, organ donation, anatomy education, dentistry students*

Introduction

Anatomy lessons are important for all health care professionals. Despite the contribution of technological developments to the education of anatomy, cadaver dissection still remains as the basis of anatomy education. Cadaver procurement has always been a major problem and the procurement routes bring out ethical arguments along with it. There are many cadaver procurement methods applied in different countries such as; presumed consent where person who has deceased is presumed to have consented to organ donation unless he or she expressly forbade it before death or a family member forbids it., explicit consent is a system where cells, tissues or organs may be removed from a deceased person if the person had expressly consented to such removal during his or her lifetime before, familial consent is to obtain the consent of family members after the person has died, required request, payment for organs. Among these procurement routes, it is thought that the most ethical method is based on volunteerism which is obtaining human body or body parts through donation (Dalal, 2015, Kleinman & Lowy, 1989). Reports from countries around the world have noted that people's attitudes toward organ donation are influenced by factors such as knowledge, education, and religion. Anatomy laboratory studies may also influence the attitudes of student. Understanding the attitudes of dentistry students towards cadaver and organ donation might help us to understand the attitudes of health care professionals and attitudes of population to some extent. In this context we aimed to evaluate attitudes of dentistry students towards cadaver and organ donation and whether these attitudes change after anatomy laboratory studies.

Material And Method

Our study was carried out between 2017-2018 academic year, Kocaeli University Faculty of Dentistry Term-1 students. A total of 66 students (43 female, 23 male) who had not previously participated in the cadaveric dissection were included in the questionnaire study. The same questionnaire was repeated within the same group after students saw the cadaver for the first time. Questions that investigated demographic characteristics, such as age, sex, region and a total of 12 questions including "Yes", "No" and "Undecided" answers were addressed to participants. The questions in the questionnaire directed to the students were designed to assess their views on cadaver and organ donation, awareness of the issue and their attitudes in case of need for one's own or relatives [Figure 1]. The questionnaire was applied based on volunteerism. Therefore, response rate of the questionnaire was 100%. Obtained data from study was transferred to the digital environment and statistical analysis was performed with SPSS for Windows 20 package program. Frequencies were observed for all questions and Chi-square goodness of fit test was applied.

Questionnaire On Cadaver and Organ Donation Attitudes For Dentistry Students		Yes	No	Undecided
Date of birth:				
Gender: Woman Man				
In which region does your family live?				
a- Mediterranean Region b- Eastern Anatolia Region c- Aegean Region d- Southeast Anatolia Region				
e Central Anatolia Region f- Black Sea Region g- Marmara Region				
1- Do you want to donate your organs when brain death takes place?				
Yes	No	Undecided		
2- Do you want to donate the organs of anybody from your family when brain death takes place?				
Yes	No	Undecided		
3- Would you donate one of your own kidneys to any of your relatives or loved ones if it were necessary?				
Yes	No	Undecided		
4- Are you a registered organ donor?				
Yes	No	Undecided		
5- Would you accept organ donation from another person whose brain death takes place in case of need?				
Yes	No	Undecided		
6- I think that the donation of the organs carried out after death disturbs the peace of the dead.				
7- I believe that it's not appropriate for my religion to donate organs after death.				
Yes	No	Undecided		
8- Do you think organ donation after death disturbs body integrity of the dead and harms that person?				
Yes	No	Undecided		
9- Have you ever seen a cadaver used in medical education?				
Yes	No	Undecided		
10- Would you consider donating your body as a cadaver for medical education purpose?				
Yes	No	Undecided		
11- Do you want someone from your family donate himself/herself as a cadaver?				
Yes	No	Undecided		
12- I think it's "....." to work in the anatomy laboratory,				
a- Frightening b- Disgusting c- Exciting d- Interesting e- Something normal				
* Do you think that medical education has changed your mind about organ and / or cadaver donation?				
Yes	No	Undecided		

Figure 1: Questionnaire that is used in the study

Findings

Among 66 students who participated in the study 43 (65.2%) were female and 23 (34.8%) were male. The average age of the students is 19,9. The geographical region where the students' families mostly live is found as Marmara region with 60.6% (n: 40).

When we evaluated the obtained data, it is found that 57,6% (n:38) of students would want to donate their organs if brain death takes place. 28,8% (n:19) of the students would consider donating their relatives' organs. 83,3% (n:55) of participants said they would accept organ donation from another person whose brain death took place in

case of need. Only 3% (n:2) of the students indicated that they would consider donating their body as a cadaver for medical education purposes. Even though there was no scientifically significant difference between the answers given before and after anatomy laboratory studies, when we compare answers given to different questions there were significant differences.

Comparison of students' tendencies for donating their organs and their tendency towards donating their body as cadavers shows that while 57,6% (n:38) indicates that they would donate their organs, this ratio is only 3% (n:2) for donating body as a cadaver [Table 1].

Table 1: Comparison of students' tendencies for donating their organs and donating their body as cadaver

Questions	Before Dissection			After Dissection		
	Yes	No	Undecided	Yes	No	Undecided
1- Do you want to donate your organs when brain death takes place?	57,6% (38)	9,10% (6)	33,3% (22)	62,1% (41)	12,1% (8)	25,8% (17)
2- Would you consider donating your body as a cadaver for medical education purposes?	3% (2)	74,3% (49)	22,7% (15)	6,1% (4)	71,2% (47)	22,7% (15)

When students' tendencies towards donating their organs and their tendencies toward donating organs of relatives in case of brain death are compared, while 57,6% (n:38) indicates that they would donate their organs, this ratio is 28,8% (n:19) for donating relatives' organs [Table 2].

Table 2: Comparison of students' tendencies for donating their organs and donating a relatives' organs in the case of a brain death

Questions	Before Dissection			After Dissection		
	Yes	No	Undecided	Yes	No	Undecided
1- Do you want to donate your organs when brain death takes place?	57,6% (38)	9,10% (6)	33,3% (22)	62,1% (41)	12,1% (8)	25,8% (17)
2- Do you want to donate the organs of anybody from your family when brain death takes place?	28,8% (19)	21,2% (14)	50% (33)	36,4% (24)	28,8% (19)	34,8% (23)

It is also seen that students' tendency for accepting organ donation in case of need is significantly higher than their tendency towards donating their own organs. While acceptance ratio is 83,3% (n:55) the ratio for donating one's own organ is 57,6% (n:38) [Table 3].

Table 3: Comparison of students' tendencies for donating their organs and accepting organs in the case of need

Questions	Before Dissection			After Dissection		
	Yes	No	Undecided	Yes	No	Undecided
1- Do you want to donate your organs when brain death takes place?	57,6% (38)	9,10% (6)	33,3% (22)	62,1% (41)	12,1% (8)	25,8% (17)
2- Would you accept organ donation from another person whose brain death takes place in case of need?	83,3% (55)	1,5% (1)	15,2% (10)	80,3% (53)	1,5% (1)	18,2% (12)

When asked how the students feel about studying in the anatomy laboratory, there was a scientifically significant difference between before and after first cadaver dissection study ($p < 0.05$). Before the first anatomy laboratory study 16,7% (n:11) of the students described studying in anatomy laboratory as something normal this ratio increased to 37,9% (n:25) after the first laboratory study [Table 4].

Table 4: Distribution of the views of students participating in the research about the anatomy laboratory studies before and after participating in a dissection study

	I think it's "....." to work in the anatomy lab.
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	Frightening	Disgusting	Exciting	Interesting	Something normal
Before Dissection	3% (2)	9,1% (6)	28,8% (19)	42,4% (28)	16,7% (11)
After Dissection	6,1% (4)	4,5% (3)	12,1% (8)	39,4% (26)	37,9% (25)

Discussion And Conclusions

Anatomy studies and lessons are a very important part of medical education. Cadaver needs for anatomy education is increasing day by day. Although there are many different methods for cadaver procurement, most of those procurement methods are a topic of argument in terms of ethic on a broad perspective (Caplan, 2014, Emson, 1987). Among these procurement methods most ethical method is thought to be obtaining body or body parts through donation. Yet still cadaver and organ donation rates are not enough to compensate the need.

There are many studies on the topic of cadaver and organ donation. In a study conducted among 1184 health care professionals, 44,2% of participants claimed they were willing to donate their organs (Akgün, 2003). On another study conducted among 689 intensive care unit staff members rate of willingness to donate organs was found as 49% (Bøgh & Madsen, 2005). In our study this ratio is found as 57,6%.

Healthcare professionals' knowledge and attitudes toward organ donation and transplantation are essential factors to promote a positive influence and rise the donation rate in community. When we evaluate the obtained data; in the case of brain death, it is observed that people would consider donating their own organs more easily than their relatives' organs [Table 2]. However, it is also seen that the rate of donation acceptance is higher when the same situation is questioned according to the needs of themselves or their families [Table 3]. Also people have more positive attitudes towards organ donation than cadaver donation [Table 1].

In conclusion well-rounded anatomy laboratories are essential for increasing the quality of medical education. To achieve such laboratories cadaver procurement is a keystone. In this context, the greatest responsibility for the creation of social awareness in organ and cadaver donation issues is down on the health professionals. Determining health workers' attitudes towards the topic will be helpful in raising public awareness and so increasing the quality of community health and health education.

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Evaluation Of The Conduct Of Executive Communication Course For The Graduate School Of Business Students Of The College Of Business Administration and Accountancy Of De La Salle University-Dasmariñas, City Of Dasmariñas, Cavite, Philippines

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Abstract

This study was undertaken to evaluate the conduct of Executive Communication course for the Graduate School of Business students of the College of Business Administration and Accountancy of De La Salle University-Dasmariñas, City of Dasmariñas, Cavite, Philippines. Specifically, this determined the profile of the respondents in terms of select classificatory variables, the rating of the respondents on the following: *Syllabus; Content and Methodology of Teaching; Personal Experience and Association; and Celebration/Culmination of the Course*, over-all evaluation of the respondents on the conduct of Executive Communication course for all Graduate School of Business students of De La Salle University-Dasmariñas College of Business Administration and Accountancy, and recommendations of the aforesaid respondents vis-à-vis the conduct of the course. After the evaluation on the conduct of the course, it clearly shows that the College of Business Administration and Accountancy Graduate School of Business of De La Salle University-Dasmariñas is responsive to the needs of the students and that the integration of such to the curriculum effects positive change into the lives of the students. It can also be concluded that the Executive Communication Course Level Learning Outcomes have been fully realized.

Introduction

In SY 2007-2008, the Graduate School of Business of the College of Business Administration and Accountancy of De La Salle University-Dasmariñas, Cavite, Philippines started to offer the Executive Communication course as an elective subject for those students enrolled in the Executive and Regular MBA programs.

For the past years, several students have already enrolled and finished the course. Some have successfully defended their theses and graduated, some have been promoted in their respective areas of work, some have delivered already a number of presentations outside their own work places, some have pursued further studies and have enrolled in the PhD programs, and among others.

However, since its initial offering in SY 2007-2008, no attempts yet have been initiated to evaluate the offering of the Executive Communication course in the Graduate School of Business. This has prompted the researcher to undertake a study to determine how significant and helpful the program has become for all the students who have finished it and likewise identify areas where the program could be better improved, delivered, facilitated, and implemented to future takers. This would help the Graduate School of Business in the revision of its curriculum relative to the offering of the Executive Communication course.

This study was anchored on Paul Allen's Communication: A Critical Executive Skill (2017). According to Allen, there is no debate with regard to the importance of communications in the context of executive effectiveness. It is critical for leaders to be able to present their ideas and initiatives in a powerful and compelling way, and to gain backing for those ideas, whether from the team, the board or the customer. Communications effectiveness is a close relation of executive effectiveness.

He further adds that however, despite the importance of this skill, most executives still struggle significantly to craft presentations that are truly compelling or impactful. This could be attributed to those bad habits we don't know how to break creep back in – and all too often we present bland and uninspiring material, leaving our hearers unmoved, and more importantly unmotivated to act. We may laugh at the term 'Death by PowerPoint', but we are often the perpetrator, not the victim.

Finally, Allen clearly elucidates that of course, most companies recognize this problem, and have deployed training to address this important skill gap. Unfortunately, this is where a second problem presents itself. While it certainly makes sense to invest in solving this problem, traditional training solutions typically focus heavily on the trivia of eye contact and body language, squarely hitting the bulls' eye on the wrong target.

The Study

This study focused on the MBA students from the Graduate School of Business of the De La Salle University-Dasmariñas College of Business Administration and Accountancy who enrolled and finished the Executive Communication course from SY 2007-2008 up to SY 2016-2017.

This study utilized the descriptive research survey technique. A survey is a non-experimental, descriptive research method. Surveys can be useful when a researcher wants to collect data on phenomena that cannot be directly observed (such as opinions) (<http://www.gslis.utexas.edu/~palmquis/courses/survey.html>).

A survey is a means of gathering information about a particular population by sampling some of its members, usually through a system of standardized questions. It can be conducted by mail, telephone, personal interview or internet. It can be administered either to individuals or groups. Questions may be related to behaviors, beliefs, attitudes and/or characteristics of those who are surveyed. The aforementioned research technique was employed in this study considering that the purpose of a survey is to elicit information, which after evaluation, results in a profile or statistical characterization of the population sampled. (<http://www.fairfaxcounty.gov/demogrph/pdf/questionnairedesign.pdf>).

Using the Slovin's Formula with the marginal error of 0.1, which gives a 90% accuracy rate, the computed sample size for the study is 73 respondents. The aforesaid respondents finished the Executive Communication course from SY 2007-2008 to SY 2016-2017. All of them were given the communications regarding the conduct of the research and survey questionnaire was also distributed through email and Facebook.

Data for this study were collected with the use of a researcher-made and validated survey questionnaire. The questionnaire is a structured technique for collecting primary data in a marketing survey. It is a series of written or verbal questions for which the respondents provide answers (Quick MBA, Marketing, Knowledge to Power Your Business/www.quickmba.com/marketing/research/design/2008).

A self-made survey-questionnaire was prepared by the researcher and validated by faculty and administrators. It was pilot-tested to select students of the College of Business Administration and Accountancy Graduate School of Business and had undergone reliability testing using the Cronbach's Alpha in which the alpha coefficient for the 28 items is **0.959**, suggesting that the items have an **Excellent Internal Consistency**. Based on the items contained in the questionnaire, the questions were grouped according to the following: PART I: Personal Information; PART II: The Syllabus with 7 items; The Content and Methodology of Teaching with 8 items; The Personal Experience and Association with 10 items; and The Celebration/Culminating Part with 3 items. Commendations and recommendations relative to this were also noted. This study used a 5-Point Likert Scale to evaluate/assess the implementation of the conduct of Executive Communication course.

- 1= Poor; Does not meet expectations
- 2= Needs Improvement; Sometimes meets expectations
- 3= Fair; Meets expectations
- 4= Good; Exceeds expectations
- 5= Excellent; Far exceeds expectations

The survey-questionnaire was sent to all respondents through email and Facebook. The same was retrieved through email, Facebook and personal delivery to the researcher. The survey started on March 28, 2017 and ended on April 25, 2017.

In order to evaluate and assess the implementation of the conduct of Executive Communication course, the following descriptive statistical techniques were applied: mean; and standard deviation. The following was used to interpret the results of the study:

- 4.21 – 5.00 - Excellent; Far exceeds expectations
- 3.41 – 4.20 - Good; Exceeds expectations
- 2.61 – 3.40 - Fair; Meets expectations
- 1.81 – 2.60 - Needs Improvement; Sometimes meets expectations
- 1.00 – 1.80 - Poor; Does not meet expectations

Findings

Evaluation of the Respondents on the Syllabus Used for the Course

	N	Mean	Std. Deviation	Verbal Interpretation
It contains significant and relevant topics in Executive Communication, which can be applied in my current assignment/position.	73	4.6575	.60597	Excellent
It contains specific items about the Expected Lasallian Graduate Attributes such as Passion for Excellence, God-centeredness and Patriotism.	73	4.4521	.78247	Excellent
It has topic learning outcomes, teaching-learning activities and assessment strategies.	73	4.7260	.60691	Excellent
It has sufficient number of references such as books, journals, publications, and other on-line resources.	73	4.3288	.81743	Excellent
It contains topics, which are covered/finished within the given term.	73	4.6301	.58942	Excellent
It has been distributed to the members during the first day of class.	73	4.6301	.67714	Excellent
It has been fully discussed to the class.	73	4.7260	.62938	Excellent
Mean	73	4.5934	.58575	Excellent

Table 1 reveals that generally, the respondents affirmed that the **Syllabus** used in the course was excellently prepared and executed, as evidenced by the mean score of **4.5934**. As regards the specific items contained in this table, the respondents rated the following with excellent evaluation: It contains significant and relevant topics in Executive Communication, which can be applied in their current assignment/position; It contains specific items about the Expected Lasallian Graduate Attributes such as Passion for Excellence, God-centeredness and Patriotism; It has topic learning outcomes, teaching-learning activities and assessment strategies; It has sufficient number of references such as books, journals, publications, and other on-line resources; It contains topics, which are covered/finished within the given term; It has been distributed to the members during the first day of class, and It has been fully discussed to the class. The rating scores show that the **Syllabus** used in the course far exceeds the expectations of the respondents. The excellent rating could probably be attributed to the adherence to the standard format of the DLSU-D Syllabi be it in the Undergraduate or Graduate Levels. Parkes and Harris (Retrieved May 2, 2017 from https://jan.ucc.nau.edu/~coesyl-p/syllabus_cline_article_2.pdf) in their article titled **The Purposes of a Syllabus** explain that the purposes of a syllabus are almost as varied as the possible contents but can be grouped into several categories. The article proposes that syllabi serve three major roles: the syllabus as a contract, the syllabus as a permanent record and the syllabus as a learning tool. Each function has implications for what a syllabus should contain. The syllabus as a contract contains clear and accurate course calendar grading policies: components and weights; attendance policy; late assignment policy; make-up exam policy; policies on incompletes and revisions; academic dishonesty policy; academic freedom policy; and accommodation of disabilities policy. As regards the syllabus as a permanent record, Parkes and Harris include title and date(s) of course; department offering; the course credit hours earned; title and rank of instructor(s); pre- or co-requisites; required texts and other materials; course objectives; linked to professional standards; description of course content; and description of assessment procedures. Finally, as a learning tool, the following compose these functions: planning and self-management skills; time to spend outside of class; tips on how to do well on assessments; common misconceptions or mistakes; specific study strategies; availability of instructor(s) and teacher assistants; campus resources for assistance; offices that aid students with disabilities; relevance and importance of the course to students; and a model of high-quality work. General observations about constructing syllabi conclude the article.

Table 6: Evaluation of the Respondents on the Content of the Course and Methodology of Teaching

	N	Mean	Std. Deviation	Verbal Interpretation
The topics presented range from the very specific to the most challenging ones.	73	4.5205	.66895	Excellent
The basics and rudiments of executive communication such as the different techniques, approaches and methodologies introduced and developed by experts, which shall have an immediate impact on presentations have been included in the discussions and presentations.	73	4.6575	.65020	Excellent
The topics presented stimulate critical thinking, open-mindedness and scholarship in reading and writing.	73	4.5205	.74740	Excellent
The topics help the students in developing, demonstrating and exhibiting mastery in subject presentations by delivering practical examples of what not to do and what to do when caught in those worst-of-all-possible situations that require a higher level of communicative competence.	73	4.6986	.63868	Excellent
The subject itself demonstrates the importance of integrity, truthfulness, objectivity, competency, and proficiency by integrating creative, effective, dynamic, and Christian-like executive communication skills and practices in and out of the business world.	73	4.6027	.70198	Excellent
It also bolsters sensitivity to human, communal and societal needs and problems inferred from the topics by dealing with people and circumstances particularly by engaging in constructive conversations even when criticisms, complaints and other tough encounters are necessary.	73	4.5753	.74382	Excellent
Employment of different teaching and learning methodologies such as Socialized Recitation, Video Presentations, Lecture-Fora, Oral Presentations, Classroom Activities, Article Critiquing, Q and A Sessions have been done.	73	4.6712	.68829	Excellent
Different assessment strategies such as Group Discussion; Oral Presentation; Self and Group Assessment; Self-Introduction; Presentation of the Company Profile; Q and A Sessions; and Critiquing have also been incorporated in the course.	73	4.7534	.66208	Excellent
Mean	73	4.6260	.61533	Excellent

It can be gleaned from Table 6 that in regard the **Content of the Course and Methodology of Teaching**, the respondents agreed that it far exceeds their expectations, as reflected in the mean score of 4.6260 with a standard deviation of .61533. Specifically, it can be noticed that all the 8 items presented have excellent ratings. The excellent ratings could be due to the proven good selection of topics contained in the syllabus and the different methodologies employed in the teaching of the course particularly on the following areas: different techniques, approaches and methodologies introduced and developed by experts; topics presented stimulate critical thinking, open-mindedness and scholarship in reading and writing; topics help the students in developing, demonstrating and exhibiting mastery in subject presentations by delivering practical examples of what not to do and what to do when caught in those worst-of-all-possible situations that require a higher level of communicative competence; the topics bolster sensitivity to human, communal and societal needs and problems inferred from the topics by dealing with people and circumstances; subject presentations demonstrate the importance of integrity, truthfulness, objectivity, competency, and proficiency by integrating creative, effective, dynamic, and Christian-like executive communication skills and practices in and out of the business world; employment of different teaching and learning methodologies and assessment strategies such as Socialized Recitation, Video Presentations, Lecture-Fora, Oral Presentations, Classroom Activities, Article Critiquing, Q and A Sessions; Group Discussion; Self and Group Assessment; Self-Introduction; Presentation of the Company Profile; and among others.

In the article *Effective Teaching Strategies: The Importance of Marrying Content and Process*, Weimer (2008) points out that when teachers think the best way to improve their teaching is by developing their content knowledge, they end up with sophisticated levels of knowledge, but they have only simplistic instructional methods to convey that material. To imagine that content matters more than process is to imagine that the car is more important than the road. Both are essential. What we teach and how we teach it are inextricably linked and very much dependent on one another. She further adds that even though both are tightly linked, development of one does not automatically improve how the other functions. So you can work to grow content knowledge, but if the methods used to convey that knowledge are

not sophisticated and up to the task, teaching may still be quite ineffective. It may not inspire and motivate students. It may not result in more and better student learning. Because teachers so love the content, they almost never blame it. No, it's the students' fault. They aren't bright enough. They don't study enough. They don't deserve to be professionals in this field.

Finally, as excerpted in the Content Knowledge: A Barrier to Teacher Development, The Teaching Professor (2007), Weimer (2008) highlights

the topic "The Power of Process in Determining Student Learning Outcomes". She discusses that the typical college teacher has spent years in courses developing the knowledge skill set and virtually no time on the teaching set. This way of preparing professors assumes that the content is much more complex than the process, when in fact both are equally formidable. Marrying the content and the process requires an intimate and sophisticated knowledge of both. Some kinds of content are best taught by example, some by experience. Other kinds are best understood when discussed and worked on collaboratively. Other kinds need individual reflection and analysis. Besides these inherent demands of the content itself, there are the learning needs of individual students, which vary across many dimensions.

Furthermore, Weimer affirms that the best teachers are not always, not even usually, those teachers with the most sophisticated content knowledge. The best teachers do know their material, but they also know a lot about the process. They have at their disposal a repertoire of instructional methods, strategies, and approaches—a repertoire they continually cultivate, just as they develop content knowledge. They never underestimate the power of the process to determine student-learning outcomes.

Table 7: Evaluation of the Respondents on their Personal Experience and Association in the Course

	N	Mean	Std. Deviation	Verbal Interpretation
I have experienced that introductory activities relative to the topics for the session have been conducted and participation of everyone has been accomplished.	73	4.7534	.59584	Excellent
I have fully appreciated what is expected of me as an ExeCom student.	73	4.6849	.70468	Excellent
I could personally say that I have now fully understood the basics and rudiments of Executive Communication.	73	4.5890	.70387	Excellent
I have seen the relevance of the activities done in the class and have enjoyed them at the same time.	73	4.7534	.66208	Excellent
I have seen that professor and the student-presenters have prepared for the session.	73	4.6438	.71433	Excellent
I have noticed that the lecture room is conducive for the kind of session we have had for the day.	73	4.6164	.82715	Excellent
I have observed that the discussions and activities done in the class have promoted an atmosphere of active participation, commitment and solidarity.	73	4.7260	.69242	Excellent
I have been given the opportunity to share my expectations about the session/activity.	73	4.6712	.68829	Excellent
I have observed that everyone has been given the opportunity to share his/her thoughts about the topics during the session.	73	4.6575	.73066	Excellent
I have observed that everyone has been very comfortable sharing his/her thoughts about the topic.	73	4.5616	.76351	Excellent
Mean	73	4.6658	.63360	Excellent

Going over Table 7, it can be noted that the evaluation of the respondents in terms of their **Personal Experience and Association in the Course** shows an excellent rating, as reflected in the mean score of 4.6658 verbally described as far exceeds expectations. The said mean score clearly shows that the respondents have experienced introductory activities relative to the topics for the session and that they have participated very actively; they fully appreciated what is expected of them as students; they have now fully understood the basics and rudiments of Executive Communication; they have seen the relevance of the activities done in the class and have enjoyed them at the same time; they have seen that professor and the student-presenters have prepared for the session; they have noticed that the lecture room is conducive for the kind of session they have had; they have observed that the discussions and activities done in the class have promoted an atmosphere of active participation, commitment and solidarity; they have been given the opportunity to share their expectations about the session/activity; they have observed that everyone has been given the opportunity

to share his/her thoughts about the topics during the session; and they have observed that everyone has been very comfortable sharing his/her thoughts about the topic. The excellent evaluation is a proof of the commendable partnership between the students with their classmates and the students with their professor. Rimm-Kaufman and Sandilos (2017) in their article titled Improving Students' Relationships with Teachers to Provide Essential Supports for Learning clearly elucidates that positive relationships can also help a student develop socially. Improving students' relationships with teachers has important, positive and long-lasting implications for both students' academic and social development. Solely improving students' relationships with their teachers will not produce gains in achievement. However, those students who have close, positive and supportive relationships with their teachers will attain higher levels of achievement than those students with more conflict in their relationships.

Significantly, the American Psychological Association (2017) emphasizes the importance of the topic How to cultivate positive relationships in your classroom. This includes: Know your students; Give students meaningful feedback; Create a positive classroom climate; and Be respectful and sensitive to adolescents.

Similarly, Bonura (2008) in her paper Classroom Relationships discusses that when students believe that their peers and teachers like and respect them, they are more likely to achieve academic success (as cited by Goodenow, 1993; Ladd, 1990; Ryan & Patrick, 2001). There are many benefits for developing positive relationships with students – students who feel cared for by their teachers and in their learning environments experience higher self-efficacy for learning, enjoy learning more, are more likely to request needed help, less likely to cheat, and more likely to achieve at high levels (as cited by Hayes, Ryan, & Zsellar, 1994; Kim, Solomon, & Roberts, 1995; Murdock, Hale, Weber, Tucker, & Briggs, 1999; Osterman, 2000; Ryan & Patrick, 2001; Ryan, Pintrich, & Midgley, 2001; Wentzel & Wigfield, 1998). Further, Gorham and Millette (1997) indicate that students attribute demotivation (i.e., loss of motivation for academic performance) to teacher behavior, including lack of enthusiasm. Classroom relationships matter in both the traditional classroom and in the modified classroom of an online learning community, where technology strategies need to be developed in ways that support the development of classroom relationships (as cited by Bennett, 1999).

Table 8: Evaluation of the Respondents on the Celebration/Culmination of the Course

	N	Mean	Std. Deviation	Verbal Interpretation
I have witnessed wonderful presentations from the different groups.	73	4.6986	.61655	Excellent
I have seen that the final outputs such as the Lecture Forum, Toastmaster Session and Mock Board Meeting, and Communication Survey are clear manifestations and proofs of the success of the course.	73	4.7397	.68774	Excellent
I find the conduct of ExeCom sessions very relevant, helpful and contributory to my development as a student in the Graduate School of Business and as an employee of my company.	73	4.8082	.63809	Excellent
Mean	73	4.7489	.60588	Excellent

Table 8 presents the evaluation of the respondents on the **Celebration/Culmination of the Course**. The table points out that the all items contained in this area were all rated excellently, as reflected in the mean score of 4.7489 verbally described as far exceeds expectations. The said mean score clearly shows how successful the conduct of the Executive Communication course had become, how the students enjoyed and loved watching presentations of the different groups, how fulfilling the presentation of the final outputs such as the Lecture Forum, Toastmaster Session and Mock Board Meeting, and Communication Survey, and how very relevant, helpful and contributory to their development the course is, as students in the Graduate School of Business and as an employee of the company. In the article titled What is a Culminating Activity, the following have been presented: a Culminating Activity should: be central to the purpose of the course or the unit and require students to think about important issues or questions; be multifaceted, requiring a number of skills, different learning styles or mental intelligences, and assess more than one aspect of achievement; be engaging and hold the interest of students over time; use important content and meet many of the specific expectations of the curriculum guideline; provide for clear assessment of student development with levels of achievement identified; be authentic in nature or represent a real-life experience, role or application as opposed to a contrived situation; provide opportunities for the teacher and student to monitor the process of development of the activity or project and assess (formative) the learning; be described in advance to the students, including examples, timeline for development, process sequence, expectations, and formative and summative assessment (The Confederation Chronicles Retrieved May 03, 2017 from www.collectionscanada.gc.ca/obj/008001/f2/008001-4020.10-e.pdf).

Table 9: Over-all evaluation on the Conduct of ExeCom Course

Legend:

4.21 – 5.00	Excellent
3.41 – 4.20	Good
2.61 – 3.40	Fair
1.81 – 2.60	Needs Improvement
1.00 – 1.80	Poor

	N	Mean	Std. Deviation	Verbal Interpretation
Syllabus	73	4.5934	.58575	Excellent
Content and Methodology of Teaching	73	4.6260	.61533	Excellent
Personal Experience and Association	73	4.6658	.63360	Excellent
Celebration/Culmination of the Course	73	4.7489	.60588	Excellent
Overall Mean	73	4.6586	.57493	Excellent

In summary, the over-all result of 4.6586 with an excellent rating verbally described as far exceeds expectations is a manifestation and an empirical proof of the success of the conduct of Executive Communication course for all Graduate School of Business students of De La Salle University-Dasmariñas College of Business Administration and Accountancy. Notably, the individual mean score and standard deviations reveal that the objectives of the course were met, the content and methodology of teaching were highly commendable, the personal experience and association parts were great, and the celebration/culmination of the course were highly appreciated. The excellent rating for the conduct of the Executive Communication course clearly shows that the College of Business Administration and Accountancy Graduate School of Business is responsive to the needs of the students and that the integration of such to the curriculum effects positive change into the lives of the students.

Taking a look at the aforesaid evaluation on the entirety of the Executive Communication course, it can be concluded that the **Course Level Learning Outcomes** have been fully realized specifically on the area of different techniques, approaches and methodologies introduced and developed by experts, do's and don'ts in executive communication; critical thinking, open-mindedness and scholarship in reading and writing; mastery in subject presentations; importance of integrity, truthfulness, objectivity, competency, and proficiency by integrating creative, effective, dynamic, and Christian-like executive communication skills and practices in and out of the business world; and sensitivity to human, communal and societal needs and problems inferred from the topics by dealing with people and circumstances.

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Conclusions

The over-all result of 4.6586 with an excellent rating verbally described as far exceeds expectations is a manifestation and an empirical proof of the success of the conduct of Executive Communication course for all Graduate School of Business students of De La Salle University-Dasmariñas College of Business Administration and Accountancy. Notably, the individual mean score and standard deviations reveal that the objectives of the course were met, the content and methodology of teaching were highly commendable, the personal experience and association parts were great, and the celebration/culmination of the course were highly appreciated. The excellent rating for the conduct of the Executive Communication course clearly shows that the College of Business Administration and Accountancy Graduate School of Business is responsive to the needs of the students and that the integration of such to the curriculum effects positive change into the lives of the students.

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Evaluation On The Pulitzer and Awarded Workshop Between The World's Most Important Journalism Awards For The Photography Composition Level

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Summary

Composition is the use of all the narrative elements forming the surface of the photograph as a surface, so that the expression can be effectively used. It is the use of items that will facilitate the expression of the viewer's emotions and thoughts. This regulation needs to be done in a certain art discipline and at a suitable aesthetic rate. The most important elements of the composition are simplicity, simplicity, golden ratio, clarity, balance, harmony and rhythm. This study is based on the review of five photographs of Pulitzer that were among the best journalism awards in the world, taking into consideration these items.

Introduction

The concept of composition is independent of each other, the content is composed of harmony and rhythm harmony together as a whole. The composition that all these components will form creates different aesthetic pleasures in the audience. The concept of composition lies in every aspect of life in nature. According to the constructions in different circles, the seasons are combined with many elements such as geography and they are shaped appropriately. In this sense, composition constitutes the most important part of life (Karageçi 2006: 2).

Composition of the items

Light:

It is necessary to use the light well when creating composition in photography. The most important item in photography is light. Pictures can not be taken without light. By examining every aspect of the framed picture, the direction of the light is selected according to the composition. The light that is used when an object is being taken outside is called the external light. After all, at the beginning of the picture there is light at the end (MEB, 2012: 7). Light creates size, depth volume in the photo. One of the ideal light sources for volume effect is the lateral light. By using shadows, the depth of light is gained by the impression. While light illuminates objects, it also creates visual effects on their color and shape. (Full Moon and Distributor, 2016: 190). It is the first circumstance of visual perception of the world. Secondly, the energy emitted from the light source is projected by a surface to reach the pore. The third is the transmission of energy to the brain by the receptors on the retina layer. It is a kind of energy that allows us to see the light (savior, 2013: 117).

Simplicity/Simplicity

While the composition is being edited in the photo, the complicated rear structure which is not in harmony with the subject is cleaned and simple and simple compositions are preferred. It focuses on the subject of simplicity watching when approaching the main subject. while the composition is applied, it provides short and clear expressions in the simple photograph. The main issue emerges clearly (Akbaş 2011: 34). In a photo, there are many items beside the main item. When the camera reflects on the film you see, items outside the items that support the main theme need to be removed from the photo frame.

Goldratio

It is a rule applied so that the object or area being photographed can be more pleasing to the eye and be perceived more easily by the brain. The frame is vertically divided horizontally into 3 and consists of 4 points of placement. The photographed object is placed at one of these points to make the composition harmonious. If we want to emphasize the point and dynamism when we take the picture, we can make the frame according to it either horizontally or vertically. In the vertical photograph, the upper side is highlighted; while the front is highlighted on the horizontal (Kamburoğlu 2013: 189).

Balance:

The balance element forms the compass of the composition. The balance item is used to complement the compositional elements such as light, color, tones, visual accents, main theme, light or dark areas and complement each other. It is controlled with the aim of establishing the balance in relation to the size and space of the content of the photographed image (Akbas 2011: 50).

Framing

The photographing of the main theme alone leads to a dry view; but when enriched by framing, a beautiful composition is obtained. Framing hides non-point-blank images that do not look nice, as well as showing the photographed object in a different way, resulting in a smooth image. The framing element of the composition reveals details in landscape and architectural shots. In this context, such elements as doors, windows, between window frames, between minarets and columns can be used as a natural frame (Tekbas 2011: 172).

Mounting

Overlapping mistakes must be avoided to achieve a successful composition. This error can be encountered in many photo types. When composing a composition, it is distracting to overlay other objects or lines on the highlighted theme. The fact that the background and the objects on the front are in the same tone and colors make the picture inevitable. The points to be emphasized disappear with the mixing of tones. The object to be removed to the foreground disappears in the overlying colors. As a result, the desired contrast can not be revealed (Eyriboyun 2009: 31).

Stain and Form

The photograph, which shows the instantaneous particles of time, shows the physically stationary objects in two dimensions. The photographed objects can be reflected and changed by changing to the viewfinder of the photographer. In this context, the meaning of the content of the photograph may change. Stain and form elements also show moments when our living spaces reflect on the photo. The stain element in the composition shows the boundaries of the items photographed in two dimensions; and the form element is three-dimensional. The blemish and the form carry graphical features besides providing images from the real world to us. The abstraction effect of these graphical features becomes more evident by the transformation of the photographed objects into a square (Akbaş 2011: 84).

Tissue

All the motifs in the scene are made up of the texture that comes together. The tissues of the light from the side more reveal very successful compositions. In this context, photographs can be taken with the aim of getting closer to the main theme with the appropriate optical material. Appropriate objects for texturing: Painted walls or painted walls in ruins and rundown spaces, dehydrated soil, carpet designs, dry tree caves, fences ... (Kamburoğlu 2013: 192). It is evident that the proportions of these proportions are more attractive when certain ratios are involved in the disintegration of the surface within a given frame. Apart from the abstract richness that the lines, dots, and tones expressed on the surface impart to the surface, there are second-order functions such as giving depth to the small diameter by reflecting the natural structure of the surface (kalfagil 2014: 153).

Background

In the composition, the background photographed is an element of life, color, strength of meaning, and richness of the object. The photographed object is backed with a background; Sometimes there is an opposite meaning. This changes according to the purpose of the photographer. The background is one of the main elements of the photo. When photographing an object in the foreground, it is important to pay attention to the suitability of the background for the object. In this context, the front panel must be avoided from details that would pull the standing object away from the center of interest and create a mixed image. The things to be avoided are the tree branches that entered the frame, and the details of the other structures beside a frame full of the face, which distort the composition as if it were in the frame from the edges (Akbaş 2011: 104).

Rhythm

Rhythm is an object to use many times in photography. It is more influential than the fact that the photographs that make up the rhythm consist of repeating itself regularly and repeating it irregularly. Multiple narrative is more advantageous than single narrative. For example; a harmonious image of flowers with the same color, a row of people walking in a single row, a staircase, steps, a lot of image rhythms in the nature (birds fly in sequence, traces shaped by the wind etc.) (MEB 2011: 7). More objects on three sides with equal spacing make a stronger emphasis than the complex array. The prerequisite for equating rhythm is equally spaced. At least two intervals are required to be able to speak of equality. In addition, equally spaced objects must be identical in order to be able to speak rhythm (kalfagil, 2014. 96).

Contrast

Contrast, which is literally the opposite of word meaning, is the fact that elements that express opposition in terms of color, light and objects are placed in a square. For example; Two items of different sizes must be in the same frame to emphasize their size. An image of objects moving in two different directions can be an example of motion contrast. A rounded object with a square cismın on the same square is a form of contrast. Colors can also emphasize contrast. The use of two different color shades leads to both contrast enhancement and richness in the photo (MEB 2011: 9). Contrast

It is the relationship between the elements that make balancing the one in the photo and the elements that make it balancing. The mobility brings vitality to the photo. Contrast is the relationship between vertical horizontal lines, hardness softness, distance proximity, dark lightness, color tones (CarafGil, 1981: 12). The contrast in the colors becomes important in the photo. Contrast gives a unique message. The presence of more than one contrast area in the photo can create confusion, while the low contrast areas lead to soft sensations (Grill and Scanlon, 2003: 15).



In the composition the light is reflected from the correct location. The photograph is of a framed nature. It is a triangular composite of the refugee's eclipse shape. Composition is simple and the background is also simple. The main subject, the refugee front plan has been removed. The photographer used the horizontal frame. There is a hand perpendicular to the horizontal composition. The subject is centered in a balanced manner. Photo colors are composed of cool colors. Only a strip of burgundy that cuts from the bedside, which is in the form of a red line on the bottom, appears.



Horizontal and vertical framing is used in the composition. The graffiti on the train increases the attention to the subject. In the composition, the backlit trainees provided movement to the composition in the vertical position. The hand movement of the left-hand side of the refugee gives the feeling that it is pointing to the subject. Another factor that activates the mind is that the refugees are rhythmically standing with a steady position.



Foto 3: Tranquil composition was used in photography. The attention of the refugee in front of the subject attracts attention. Sky and sea colors are united in gray tones. It gives horizontal movement to the vertical composition with the hand attracting small refugees. Refugees on the back improve the expression of the child in front. As a composition, overlapping is the issue. Correct framing is used. Colors are harmonious in terms of light usage



The two refugees who fall on a steel field to get the goods distributed are visually accentuated. The overlapping refugees are taking a rhythm to get the goods distributed. Blue hats also form a rhythm. In the photo there is a triplet composition.

RESULT:

Composition is the use of all the narrative elements forming the surface of the photograph as a surface, so that the expression can be effectively used. There are a number of schemes in mind when it comes to composition. These schemes are the functional fiction of photography. The photograph also contains its own plastic items. This study is based on a review of five photographs that won the Pulitzer award among the world's best journalistic awards, taking advantage of basic design elements. It is thought that the worker will contribute to the writing of the field about photo analysis.

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Examination Of Some Performance Tests Used In Tennis Talent Selection And Anthropometric Characteristics By Gender

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Abstract

The aim of this study is to examine some performance tests used in tennis talent selection and the anthropometric characteristics by gender. A total of 60 athletes consisting of 30 females with an average of age of 09.99 ± 01.87 years, an average height of 137.25 ± 11.92 cm, an average weight of 34.75 ± 08.13 kg and a body mass index (BMI) of 18.19 ± 01.90 kg/cm², and 30 males with an average of age of 09.93 ± 01.84 years, an average height of 142.30 ± 14.02 cm, an average weight of 35.25 ± 09.27 kg, and a body mass index (BMI) of 18.19 ± 01.90 kg/cm² voluntarily participated in the study. Participants participated in anthropometric and performance tests. All anthropometric measurements were performed according to the Anthropometric Standardization Reference Manual. Height measurements were performed using a digital height measuring device, weight measurements were performed using a weighing machine with 0.01 kg precision, and skinfold measurements (skinfold thickness) were performed with Holtain brand caliper as recommended by Lohman. The obtained values were recorded in millimeter by taking the average of the two closest measurements. Measurements were taken from a total of 5 regions including biceps, triceps, subscapular, suprailiac and calf. Circumference measurements were taken from a total of 4 regions including thigh, knee, calf and forearm as recommended by Behnke and Wilmore. In diameter measurements, humerus and femur diameters were measured with anthropometric caliper. Of performance measurements, sit and reach flexibility, triple jump, 10m sprint, targeting, medicine ball throw, flamingo balance test, and auditory and visual reaction tests were applied. 10m sprint test was performed using the Newtest 2000 device, upper body strength was measured by medicine ball throw test, leg quick strength was measured by standing triple long jump test, flexibility was measured by sit and reach test, static balances were measured by flamingo balance test, targeting was measured by tennis balling throw test, and the auditory and visual reaction time was measured using the New-Test 2000 device. As a result of the statistics, no statistically significant difference was found between the groups in terms of age, height, weight, and BMI values ($p < 0.05$). With respect to the anthropometric characteristics of the participants, it was seen that only the difference between gender-specific averages of humeral diameter values of bone diameter measurements was statistically significant ($p < 0.05$). In the comparison of the performance values of the participants, it was seen that only the difference between gender-specific averages in auditory reaction values was statistically significant ($p < 0.05$). When the data obtained as a result of the study we carried out on boys and girls playing tennis were examined with other studies, it was seen that they showed low or high values in some parameters although they are partially parallel to other similar studies in Turkey. It is thought that this may depend on many factors such as individuals' nutritional status, environmental conditions, training quality and coach attitude.

Keywords: *Children, tennis, performance, anthropometric characteristic*

Introduction

To achieve a high level of success in sports is closely related to early orientation to sports. The fact that children and the young are oriented to the branches where they will have the highest performance at the right time constitutes the most important issue of sport science. For this reason, it is an important issue to orient children to the branches where they can be successful at the earliest possible age. Tennis is a performance sport in which aerobic and anaerobic loads are together and also which requires a good level of biomotorical features such as strength, speed, durability, flexibility and coordination.

A tennis match normally lasts for 1.5-2 hours on average under normal circumstances, but it also appears to reach 4 hours (Fernandez et. al., 2006). In tennis branch, technical and tactical trainings are primarily kept at the forefront to make an athlete to reach high-level performance. However, it should not be forgotten that body composition also affects physical performance. Nowadays, it should not be forgotten that sporting success is associated with starting sports at an early age regardless of the branch. Nevertheless, it is of great importance to be involved in sports at an early age since sports will play a significant role in the growth, maturation, cognitive development and socialization of the child.

In this study, some performance tests used in tennis talent selection of male and female athletes performing sports in the tennis branch and gender-specific anthropometric characteristics were examined.

The Study

Participants

A total of 60 athletes consisting of 30 girls with an average of age of 09.99 ± 01.87 years, an average height of 137.25 ± 11.92 cm, an average weight of 34.75 ± 08.13 kg and a body mass index (BMI) of 18.19 ± 01.90 kg/cm²,

and 30 boys with an average of age of 09.93 ± 01.84 years, an average height of 142.30 ± 14.02 cm, an average weight of 35.25 ± 09.27 kg, and a body mass index (BMI) of 18.19 ± 01.90 kg/cm² voluntarily participated in the study.

Measuring Instruments

All anthropometric measurements were performed according to the Anthropometric Standardization Reference Manual (Lohman et al., 1988). Height measurements were performed using a digital height measuring device (heels together, in upright position and barefoot) and were recorded in cm. Weight measurements were performed (barefoot, t-shirt and shorts) using a weighing machine with 0.01 kg precision (TANITA TBF-300), and the results were recorded in kg. Skinfold measurements (skinfold thickness) were performed by measuring twice on the right side of the body with Holtain brand caliper (Holtain United, Dyfed, UK) as recommended by Lohman, and a third measurement was performed when the difference between the two measurements was greater than 0.4. The obtained values were recorded in millimeter by taking the average of the two closest measurements. Measurements were taken from 5 regions including biceps, triceps, subscapular, suprailiac and calf. Circumference measurements were taken from a total of 4 regions including thigh, knee, calf and forearm as recommended by Behnke and Wilmore. In diameter measurements, humerus and femur diameters were measured with anthropometric caliper. In our study, sit and reach flexibility, triple jump, 10m sprint, targeting, medicine ball throw, flamingo balance test, and auditory and visual reaction tests of performance measurements were applied.

10m Sprint Test: 10m sprint test was performed using the Newtest 2000 device. Participants were asked to run for 10 meters at maximum speed with high start in the 10-meter area designated. Measurements were taken with the photocell placed in the start and end sections. The test was repeated twice, and the best result was recorded.

Medicine Ball Throw Test: The medicine ball throw test was applied to measure the upper body strength. Participants were asked to extend parallel to the ground with hip, back and head in upright position and legs ahead and to throw the ball forward over the head with two hands in order to throw the medicine ball weighing one kilogram as forward as possible horizontally. The distance the starting point of the ball to the point where it first hits the ground was taken in cm. The test was repeated twice, and the best result was recorded.

Standing Triple Jump Test: Its purpose is to measure the leg quick strength. Participants were asked to make three jumps in the standing position, without gaining speed, in posture position, with the two legs connected with each other. The distance between the line at jumping point and the latest jumping point was measured in cm. The test was repeated twice, and the best result was recorded.

Flexibility Test: The sit and reach test was applied to determine the flexibility feature. The participant was asked to sit on the flat ground, to evenly lean his bare soles against the test table, and then to wait for a second or two seconds at the latest point with arms and fingers stretched and straight by extending his body forward as far as possible, and the best result was recorded after two trials.

Flamingo Balance Test: Flamingo Balance Test was used to determine the static balances of the study group. The aim is to stand in balance on an iron bar or metal beam with one leg (50cmx4cmx3cm). According to this test, participants stand in balance on the balancing instrument by extending dominant leg forward. He bends his other leg on the knee, pulls it towards his hip and holds it with his hand on the same side. The time starts when the research group stands in balance with one foot in this way, and they try to stay in balance for 1 minute in this position. The time is stopped when he becomes unbalanced (if he leaves his foot while holding, if he falls to the ground from the board, if he touches the ground with any part of his body, etc.). The time resumes when the research group gets onto the balancing instrument and keeps balance again. The test lasts for one minute in this way. When the time finishes, every attempt of the research group to keep balance (after falling) is counted, and this number is recorded as the score of the research group when one minute is completed at the end of the test.

Tennis Ball Throwing Test: The participant was asked to take the tennis ball into the basket hanged against him. The aim is to measure how many tennis balls he has targeted. The participant was asked to try to target 20 balls to the basket. The amount of balls he could target was recorded. Auditory and visual reaction time measurements were performed using the New-Test 2000 device. Before the test, the test was explained to all participants, and they were allowed to sit on the chair, put their hands on the table, sit comfortably and make a trial. The athletes were ensured to concentrate and to push the button with their index fingers. Sound and light stimuli were given for 3 times. The reactions of the athlete were recorded as a measurement result in milliseconds and by calculating the arithmetic mean.

Data Analysis

The statistical analyses of this study were performed using the IBM 22.0 SPSS package program. Mean, Standard deviation (SD), minimum (Min.) and maximum (Max.) were used as descriptive values. Before performing the statistical operations, the Kolmogorov-Smirnov was applied for controlling the normal distribution, and the Levene's Test of Homogeneity was applied for controlling the homogeneous distribution. The Independent-Samples T test was used in the comparison of gender-specific groups to determine the differences between the groups. A significance level of $p < 0.05$ was used in the analysis of the data.

Findings

The mean, standard deviation, minimum and maximum values of age, height, weight and body mass index values of boys and girls participating in the study are presented in table 1.

Table 1. Age, height, weight and BMI values of Boys and Girls

Girls (n=30)			Boys (n=30)		
Mean ± S.D.	Minimum	Maximum	Mean ± S.D.	Minimum	Maximum
09.99±01.87 13.33	07.41	13.42	Age (year)	09.93±01.84	07.42
137.25±11.92	111.00	160.00	Height (cm)	142.30±14.02	110.00
34.75±08.13	19.00	52.00	Weight (kg)	35.25±09.27	20.00
18.19±01.90	15.42	22.32	BMI (kg/cm ²)	17.26±03.16	13.43
					25.60

The comparison of the age, height, weight and body mass index values of the participants of the study is presented in table 2.

Table 2: Comparison of the age, height, weight and BMI characteristics of the participants

Girls (n=30)		Boys (n=30)		t Value	P Value
Mean ± S.D.		Mean ± S.D.			
09.99±01.87	Age (Years)	09.93±01.84		-0.017	0.915
137.25±11.92	Height (cm)	142.30±14.02		1.227	0.227
34.75±08.13	Weight (kg)	35.25±09.27		-1.181	0.857
18.19±01.90	BMI (kg/cm ²)	17.26±03.16		-1.114	0.272

The anthropometric mean, standard deviation, t value and p values of the participants of the study are presented in table 3.

Table 3. Gender-specific comparison of the anthropometric characteristics of the participants

Girls (n=30)		Boys (n=30)		t Value	P Value
Mean ± S.D.		Mean ± S.D.			
13.18±03.29	Triceps	11.92±03.60		-1.153	0.256
07.75±02.33	Biceps	06.97±01.61		-1.230	0.226
09.67±03.60	Subscapula	08.23±02.52		-1.453	0.154
08.53±02.89	Subrailliac	08.57±04.81		0.028	0.978
13.80±03.76	Calf	13.72±04.66		-0.060	0.953
08.14±00.70	Femur diameter	08.19±00.82		0.206	0.838
05.06±00.65	Humerus diameter	05.58±00.76		2.329	0.025*
28.65±03.34	Calf circumference	28.78±03.46		0.116	0.908
38.72±05.26	Thigh circumference	38.15±04.57		-0.369	0.714
21.70±03.13	Forearm circumference	21.25±03.30		-0.442	0.661
31.42±03.29	Knee circumference	31.27±03.69		0.136	0.893

*p<0.05

In anthropometric characteristics of the participants, it was seen that only the difference between gender-specific averages of humeral diameter values of bone diameter measurements was statistically significant (p<0.05).

The mean, standard deviation, t-value and p-value of targeting, flexibility, visual and auditory reaction, 10 m sprint, triple jump, flamingo balance and medicine ball throw tests of the participants are presented in table 4.

Table 4. Performance values and gender-specific comparison.

Girls (n=30)		Boys (n=30)		t Value	P Value
Mean ± S.D.		Mean ± S.D.			
07.65±01.76	Target (hit)	08.40±02.42		1.123	0.268
22.25±07.08	Flexibility (cm)	23.65±05.68		0.689	0.495
460.50±87.24	Visual Reaction (sec.)	497.55±94.94		1.285	0.207
378.30±57.23	Auditory Reaction (sec.)	463.95±100.74		3.306	0.002*
02.53±00.34	10 m Sprint (sec.)	02.50±00.26		-0.352	0.726
105.9±21.71	Triple Jump (mt)	117.90±26.67		1.567	0.125
05.53±03.43	Flamingo Balance (error)	05.37±02.96		-1.152	0.880
06.08±02.16	Medicine Ball Throw (mt)	05.88±01.27		-0.358	0.723

*p<0.05

In the comparison of the performance values of the participants, it was seen that only the difference between gender-specific averages in auditory reaction values was statistically significant ($p<0.05$).

Conclusions

In the study carried out to examine some performance tests used in talent selection made in tennis and the anthropometric measurements by gender, the following results were obtained in the gender-specific evaluation of age, height, weight, body mass index (BMI), flamingo balance test, medicine ball throw, triple jump, tennis ball targeting, auditory and visual reaction, 10 m sprint, sit and reach test values of the participants. No statistically significant difference was found between the groups in terms of age, height, weight, and BMI values ($p<0.05$). This also removes the idea that chronological age or a physical characteristic with height and weight values could be effective, in the evaluation of both genders in the same age group in our study.

In a study carried out on little girl athletes with an average age of 9.75 ± 0.41 years, it was reported that skinfold values were measured as 13.13 ± 2.62 mm for triceps, 7.46 ± 1.95 mm for biceps, 9.51 ± 3.31 mm for subscapula, 12.77 ± 4.34 mm for suprailiac, and 14.52 ± 2.23 mm for calf. In the same study, in circumference measurements, biceps circumference and calf circumference were reported to be 22.1 ± 1.9 cm and 22.1 ± 1.9 cm, respectively, while it was reported that humerus diameter and femur diameter were measured as 6.0 ± 0.4 cm and 8.8 ± 0.5 cm, respectively (Bektaş et al., 2007). In our study, it was determined that girl athletes' skinfold values were 13.18 ± 0.29 mm for triceps, 07.75 ± 0.23 mm for biceps, 09.67 ± 0.30 mm for subscapula, 08.53 ± 0.29 mm for subrailliic and 13.80 ± 0.37 mm for calf, that diameter measurements were 08.14 ± 0.07 cm for femur diameter and 05.06 ± 0.05 cm for humerus diameter, and that circumference measurements were 28.65 ± 0.34 cm for calf circumference, 38.72 ± 0.56 cm for thigh circumference, 21.70 ± 0.13 cm for forearm circumference and 31.42 ± 0.29 cm for knee circumference. Although similar results were found in many variables when we compared the results of our study with the results of this study, it is seen that there are differences in subrailliic and calf skinfold value, and in humerus and femur diameter value. In another study carried out on female students with an average age of 9 years, skinfold values were reported as 7.10 ± 1.06 mm for triceps, 4.05 ± 0.96 mm for biceps, and 5.07 ± 0.05 mm for subscapula (Ziyagil et al., 1999). It is seen that these values are lower than the values in our study. It can be said that the reason for this is related to involvement in sports.

In our study, it was determined that boy athletes' skinfold values were 11.92 ± 0.30 mm for triceps, 06.97 ± 0.16 mm for biceps, 08.23 ± 0.22 mm for subscapula, 08.57 ± 0.41 mm for subrailliic and 13.72 ± 0.46 mm for calf, that diameter measurements were 08.19 ± 0.02 mm for femur diameter and 05.58 ± 0.06 mm for humerus diameter, and that circumference measurements were 28.78 ± 0.46 mm for calf circumference, 38.15 ± 0.47 mm for thigh circumference, 21.25 ± 0.30 mm for forearm circumference and 31.27 ± 0.39 mm for knee circumference. In a study carried out on boys in the 7-11 age group, it was reported that the average height of boys in the 9-year-old age group was 130.42 ± 6.99 cm and their average weight was 31.05 ± 7.66 kg (Özgün, 2002). The values related to physical characteristics obtained from our study are not parallel with the values of the same age group in this study. In another study carried out on 8-10 year old boys, triceps skinfold value was reported to be 9.59 ± 3.25 mm (Ayan et al., 2007). In a study carried out to determine the health-related physical fitness norms of 8-10 years old Turkish boys, triceps skinfold value was reported to be 10.46 ± 5.21 mm for an average of 9 years (Güler et al., 2004). The values obtained in that study are not parallel to our study and do not support the study. Subscapular skinfold thickness is an anthropometric measurement that best reflects the amount of fat in the central region of the body (Selby et al., 1989).

With respect to performance values, it was determined that the number of hits in the tennis ball target hit test was 07.65 ± 0.17 in girls and 08.40 ± 0.42 in boys, flexibility values (cm) were 22.25 ± 0.08 in girls and 23.65 ± 0.68 in boys, visual reaction time (seconds) was 460.50 ± 87.24 in girls and 497.55 ± 94.94 in boys, auditory reaction time (seconds) was 378.30 ± 57.23 in girls and 463.95 ± 100.74 in boys, 10 meter sprint test value (seconds) was 02.53 ± 0.34 in girls and 02.50 ± 0.26 in boys, triple jump test value (meters) was 105.9 ± 21.71 in girls and 117.90 ± 26.67 in boys, flamingo balance test value (error) was 05.53 ± 0.43 in girls and 05.37 ± 0.29 in boys, and medicine ball throw test value (meters) was 06.08 ± 0.16 in girls and 05.88 ± 0.27 in boys. As a result of the statistics, it was seen that the difference between the genders was significant in favor of girls only in the auditory reaction test in performance values ($p<0.05$). In a study carried out on children, it was reported that there was no significant difference between boys and girls in terms of motor performance. Girls were found to be more inactive than boys. Furthermore, it was stated that there was a significant positive correlation between physical activity and motor performance (Fisher et al., 2004). Attracting children to sports is influential in the formation of healthy and productive societies (Turna and Kılınç, 2018). In a study carried out on girls playing tennis with an average age of 9 years, it was reported that the mean value of standing long jump performance was 1.39 ± 0.13 m (Akşit and Özkol, 2006). In another study, it was reported to be 100.36 ± 17.62 cm. (Haslofça et al., 2006). Speed is an important motor characteristic that determines efficiency in many types of sports. In a study carried out on 9-10 year old girl students, it was reported that the mean 20 m sprint was 4.23 ± 0.19 seconds and the mean medicine ball throw was 5.33 ± 0.94 meters (Arabacı et al., 2008). In another study, the mean 20 m sprint was reported to be 4.51 ± 0.21 seconds (Ziyagil et al., 1999). We know that the variables related to talent selection in sports are of similar nature

in many sport branches. However, there are some differences when orientation to branch in talent selection is taken into account. For instance, it has been indicated in many studies that the maximal speed of athletes and even athlete candidates should be examined while making evaluation for short distances in talent selection in athletics. In a study carried out on talent scanning in children aged 10-12 years, it was reported that the flexibility value was 18.7 ± 5.2 cm in girls and 20.0 ± 6.4 cm in the 12-year-old age group, and in males, it was 17.3 ± 5.4 cm in the 10-year-old age group and 18.4 ± 5.6 cm in the 12-year-old age group. In the same study, standing medicine ball throw was reported to be 419.2 ± 87.9 cm in 10 year old girls, 481.9 ± 92.7 cm in the 11-year-old age group and 543.8 ± 116.3 cm in the 12-year-old age group. (Pekel, 2007). In a study carried out on boys aged 10-12 years who do not play sports, it was reported that the flexibility value was 10.7 ± 3.6 cm and the value of standing medicine ball throw was 507.5 ± 0.92 cm (Gül et al., 2006).

When the talent search model of norm studies which can be performed in many areas of sports is considered, it is stated that very complicated tests should not be used. In particular, it is stated in various sources that most of the preliminary tests are composed of simple field tests and the coach's observations provide the most important information. An athlete with normal values will be able to perform better than an athlete who keeps himself background in some environments and cannot show his real performance. On the other hand, among two children with the same chronological age, the child with early development will be able to get a much better test data compared to the child with late development. In such cases, not only the studies like talent scanning studies and norm development will be important but also the coach's observation will be of great importance.

When the data obtained as a result of the study we carried out on boys and girls playing tennis were examined with other studies, it was seen that they showed low or high values in some parameters although they are partially parallel to other similar studies in Turkey. It should not be ignored that this may depend on many factors such as individuals' nutritional status, environmental conditions, training quality and coach attitude. It should not be forgotten that to carry out more comprehensive studies by addressing environmental factors during talent scanning in future studies may be an important factor in the selection of sports branch.

Authors' Disclosures of Potential Conflicts of Interest

The authors indicated no potential conflicts of interest.

Footnotes

This study was presented as a video presentation in international conference on new horizons in education Congress (INTE), Paris, France, 18-20 July, 2018.

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Examination Of Student Opinions On The Use Of Social Media In Educational Environments

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Abstract

This study aimed to determine the use of social networks in educational environments from a student's perspective, for which 57 students at Kastamonu University, Kastamonu Vocational School, Department of Nursing and Care Services, Child Development Programme and taking Educational Tools and Development course were interrogated. The students were asked to use Facebook, which was among the most used social networking sites in Turkey. A group of administrators were selected based on volunteerism among the students enrolled in the course. A closed Facebook group was created for these students. Each week, the students posted the images of the materials and their ideas of the new course material in this closed group. Other fellow students shared positive or negative criticisms about these posts by stating their reasons. The course instructor commented on students' new ideas. At the end of the 15-week course, students' opinions were gathered via semi-structured interview form and evaluated using a content analysis method. A total of 724 statements of opinion were obtained according to the research results. These expressions were collected under Technological Advantages, Negativities, Influencing Classroom Communication, Factors Considered in Commenting, Idea and Project Sharing.

Keywords: *Social media, Facebook, material development course*

Introduction

Many innovations have come to the fore in the 21st Century in the field of information and communication technologies. One of them is the emergence of some new techniques and applications that transform users into active participants instead of passive recipients in the information building process (Amasha & Alkhalaf, 2017). Social networking sites (SNS) are particularly popular among youngsters (Fewkes & McCabe, 2012). Kaplan and Haenlein (2010) defined social media as 'a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0 and that allows the creation and exchange of user-generated content' and have classified the existing social media as follows:

Table 1: Classification of social media based on social presence/media richness and self-presentation/self-disclosure (Kaplan & Haenlein, 2010)

Self-presentation/Self-disclosure	Social presence/Media richness			
		Low	Medium	High
	High	Blogs	Social networking sites (e.g. Facebook)	Virtual social worlds (e.g. Second Life)
	Low	Collaborative projects (e.g. Wikipedia)	Content communities (e.g. YouTube)	Virtual game worlds (e.g. World of Warcraft)

Nowadays, people not only need online networks connections but also feel obligated to be connected to their SNS that offer a wide range of services (Kanthawongs et al., 2016). People join social media sites, create profiles, connect with existing friends, maintain communication and interpersonal relationships, update various events, share photos, archive events, receive news about their friends, add new friends, inform friends or family members about new developments (Civicevic et al., 2016).

970 million users registered on social media in 2010; this figure reached 2.62 billion in 2018 and is estimated to be 3.02 billion in 2021. As of April 2018, the most used SNS include Facebook (2.234 billion users), YouTube (1.5 billion users), WeChat (980 million users), Instagram (813 million users), Tumblr (794 million users), QQ (783 million users) and Twitter (330 million users) (Statista, 2018). As of January 2018, there are 51 million active SNS users in Turkey, equivalent to 63% of the total population. These users spend an average of 2 h 48 min per

day on SNS. The widely used SNS in Turkey include YouTube (44 million users), Facebook (41 million users), Instagram (37 million users) and Twitter (29 million) (Weareinsocial, 2018).

SNS offer advantages to students, such as sharing information, asking for help and questions to fellow students. Instructors can get access to students even outside school (Mazer, Murphy, & Simonds, 2007), use SNS as a forum and a blog (Barczyk & Duncan, 2013) as well as a learning management system (Manca & Ranieri, 2013).

Social media tools are a powerful means for changing teaching and learning practices in terms of openness, interaction and socialisation (Manca & Ranieri, 2016). Students use Facebook for leisure activities and not for educational purposes. Facebook apps are used less for educational purposes and more for connecting with friends (Kanthawongs et al., 2016). There is no direct connection between the intensity of Facebook use and the academic performance of students (Jankovic et al., 2016; Lambic, 2016). However, several studies mentioned the positive effects of using Facebook for education (Ainin et al., 2015; Irwin et al., 2012; Shih, 2011).

Using collaboration tools and interaction opportunities of Facebook, this study was conducted to determine the opinions of the students regarding the usage of Facebook in material development for educational purposes.

Method

Study Group

The study group comprise 57 second-year students enrolled in 'Materials and Education Development in Education' course in the Child Development Programme of the Kastamonu University Vocational School of Higher Education during the 2017–2018 spring semester.

Process

The research was performed for 15 weeks during the 2017–2018 spring semesters. The course was held face-to-face for 5 h per week. After the course, students shared the necessary changes in their work, the new ideas they wanted to implement, every step taken to achieve these ideas, the materials they used in the closed group created on Facebook. The friends of the students, and when necessary, the instructor responsible for the course, contributed to the sharing of the students by commenting. Students were given the opportunity to criticise the works of their friends in the Facebook group. After the practice, the interview form was used to obtain students' opinions about the course. Three expert opinions on the interview form were taken, and the form was finalised in line with expert opinion.

Data-collection Tool

The data were collected from students with an open-ended interview form, which comprised the following five questions:

- Q1) What were the advantages of using SNS during this course?
- Q2) What were the disadvantages of using SNS during this course?
- Q3) How did using SNS in this course affect classroom communication?
- Q4) What were the things you paid attention to when commenting on the work of your friends on SNS during this course?
- Q5) What type of contribution did your friends share of their work and ideas on SNS with you during this course?

Analysis of Data

The data of this study were obtained with open-ended questions in the interview form. Participants were asked to write their answers in an itemised format. The contents were then analysed in detail considering the similarities and differences between them, and similar data were collected under the categories (main category) determined during the analysis. Subsequently, these data were re-examined and subcategories were created under the main categories (Yıldırım & Şimşek, 2011). Based on this practice, the method can be called as content analysis (Weber, 1990).

Content analysis is a systematic, repeatable technique, in which certain words of a text are summarised by small content categories using codes based on certain rules (Büyüköztürk et al., 2008).

Grounded theory methodology was used for data analysis. Some opinions of the participants were included in the findings of this study. The anonymity of the participants was maintained according to research ethics. While including their opinions, participants were given codes starting with K and indicating their number.

Reliability Study

The draft of the interview form was prepared by discussions and joint opinions of two researchers. This draft form was presented to the expert, and the form was finalised according to the feedback received. A pilot study was conducted with two students to draft a preliminary test of this form. The students stated that the questions were clear and understandable.

Two researchers formed the main categories and subcategories by discussing the data codes at each stage of the content analysis. The coding under the generated categories was presented to two different evaluators who reviewed the coding independently. As a result of the evaluation, it was considered as 'agreement' if evaluators agreed with the coding and 'disagreement' if they did not agree. The following formula was used to calculate the reliability of coding (Miles & Huberman, 1994): $\text{Reliability} = \frac{\text{Agreement}}{(\text{Agreement} + \text{Disagreement})}$. Reliability calculations were made separately for each sub-problem, which are listed Table 2.

Table 2: Reliability coefficients for the questions

Sub-dimensions	Number of Sentences	Reliability Coefficient
Technological Advantages	221	0.94
Negativities	88	0.82
Influence on Classroom Communication	143	1
Factors Considered on Commenting	117	0.87
Factors Provided by Idea and Project Sharing	155	0.86
Total	724	0.91

Thus, the coding was reliable because the reliability coefficient of coding for each sub-problem was >0.70 . Moreover, until all the reliability coefficients were 1, the researchers discussed the remaining sentences until they reached an agreement.

Results

This section discusses the findings in detail to provide the integrity of the study.

Findings Related to Advantages

Table 3 lists the findings related to the advantages of the using SNS during the course according to university students.

Table 3: Descriptive statistics of the advantages of using SNS during the course

Categories	Frequency
1. Personal Development Benefits	26
2. Easy Tracking of Posts	66
3. Enhancing Communication	18
4. Cooperation / Exchange of Ideas	31
5. Customisation of Materials	30
6. Detecting / Correcting Errors	33
7. Follow-up of Announcements	4
Invalid Statement	13

The students' responses are divided into seven themes, as shown in Table 3. The first theme was 'personal development benefits'. One of the students (K1) said that 'It improved my self-confidence, and my knowledge has increased'. The following statements can be given as examples for other comments: '...a better and more functional material development process has occurred' (K53), '... made the activities that I did more creative' (K3) and 'made our ideas grow' (K50). The second most common theme in student comments was 'easy tracking of the posts. A student (K43) mentioned that 'I did not have to bring material to school constantly', whereas another student (K45) said that 'we have shared every detail of the material we made'. Examples for 'enhancing communication' theme can be given as 'it has provided healthy communication' (K46) and 'the instant access of the instructor to the materials we made ensured efficient use of the time' (K50).

The fourth theme was ‘cooperation/exchange of ideas’. An example that can be given to this theme is ‘helped me to come up with ideas that did not come to my mind before’ (K47). Two examples that may fall into the theme of ‘customisation of materials’ may be ‘I tried to make different activities’ (K39) and ‘I had the opportunity to compare the tools I did with the things my friends did’ (K42). The second theme in the frequency is the ‘detecting/correcting errors’. One participant (K41) described this as ‘I recorded the steps; then, I better realised what kind of errors I made, where I made mistakes and then reached the solution’, and another participant (K49) said that ‘I realised what we did wrong by step-by-step sharing’. The last theme was ‘the follow-up of announcements’, which was the least common theme. An example of this would be the response of the student who was coded as K46, ‘It was better to hear the announcements or other things from the course instructor’.

Findings Related to the Negativities Encountered

Descriptive statistics and statements related to the negativity of using SNS during the course by the university students are provided. Table 4 lists the findings related to this theme.

Table 4: Descriptive statistics of the negativity experienced in using SNS in the course

Categories	Frequency
1. Encountered No Negativity	24
2. Internet Problem	11
3. Student Error	4
4. Possibility of Cheating	6
5. Device Problems	7
6. Communication Problem	8
7. Concern Related to Material	6
8. Not Having an Account	12
Invalid Statement	10

24 students expressed no negativity in using SNS as an aid tool during the course, whereas the remaining answers were divided into seven themes. The first theme was ‘Internet problem’. As an example for this, student who was coded as K21 commented that ‘Facebook is giving an error’, whereas the student who was coded as K22 stated that ‘I have experienced Internet-related problems; quota problem’. The second theme of the problems encountered is ‘student error’. Student who was coded as K10 commented that ‘...it was my first time to post to the group so that I was confused at what stage I should post something, so I waited for some people to share something’. Another theme is ‘possibility of cheating’. An answer to this theme was ‘I hesitated to share the work I did. I was concerned that my friends would see something that I made differently and would do the same’ (K28). ‘Device problems’ is another theme; the student who was coded as K6 commented that ‘I had to log in to Facebook using my friend's phone because my phone was broken for a week’; the student who was coded as K12 stated that ‘my phone had memory problems due to having too many pictures’; while the student who was coded as K18 commented that ‘...the phone's camera was broken’. The next theme is ‘communication problem’. As an example to this theme, the following can be given: ‘I was a little uncomfortable because of the constant notifications’ (K7). The following expressions can be given as examples for the theme of ‘Concerns related to material’: ‘I saw that I was behind when I saw the work of my friends’ (K8), ‘I was demoralised when I saw the better ones than my material...’ (K35) and ‘if I was behind in the construction phase, my fear of not being able to finish increased when I saw that my friends completed their materials’ (K36). When the practice started, it was seen that 12 of the students did not have a Facebook account and some did not insistently open their Facebook accounts. The following statements of the students who were coded as K10 and K11, respectively, are the examples of the last theme of ‘Not Having an Account’: ‘I had to post the pictures of what I made from my friends accounts because I had no Facebook account at that time’ and ‘I had difficulty sharing when I did not have a social media account’.

Findings Related to the Effects on Class Interaction

Table 5 lists the descriptive results of the responses for the question ‘how using SNS in the class affect classroom interaction and communication’.

Table 5: Descriptive statistics about the effect of using SNS on classroom interaction

Categories	Frequency
Communication (Positive)	45
Interaction (Positive)	23
Interaction (Negative)	4
Communication (Negative)	0
Invalid Statement	71

Table 5 shows that a majority of students think that using SNS in the course positively affects communication. Students contributed to this theme with the following statements: K36 stated that ‘I got the chance to talk to new classmates’; K41 commented that ‘I learned the names of my classmates’; K9 said that ‘I got to know my classmates that I did not meet before and it helped me to communicate with them’; K53 commented that ‘we communicated not only about course topics but also for other things thanks to the group’. Many expressions about the positive influence on the classroom interaction have come to fore. K1 said, ‘It helped to increase the interaction when we played games in the group or when we were in the class and told the person that I liked their post’. K32 said that ‘I recognised people better, who made pots, by seeing their pictures and names. My interaction in the class increased and we got more topics to talk about’. Only four expressions, which mention negative effect on interaction, were noticed. These comments are: ‘Only posting on Facebook and not coming together put some distance between us’ (K31); ‘We used to get more positive or negative comments for our materials in the class. There were not many comments on Facebook’ (K7); ‘Interacting with friends on social media instead of meeting in person has affected socialising negatively’ (K50); ‘I received the replies late for the questions I asked, so I could not use my time efficiently which frustrated me and discouraged me to comment on my friends’ (K7).

Findings of the Theme of ‘Factors Considered When Making Comments’

The following table shows the results that students have taken into account when commenting on Facebook shares within the context of the course.

Table 5: Descriptive statistics about the factors considered by students while commenting comment on Facebook posts shared by peers

Categories	Frequency
1. Students who did not comment	15
2. Respect/Empathy/Kindness	26
3. Introverted/Face-to-Face	7
4. Academic	27
5. Objectivity	10
6. Criticism	10
Invalid Statement	22

As shown in Table 5, 15 students did not comment although they followed the posts and benefitted from these posts. The answers of the other students were divided into five different themes. First, several expressions were found under the theme of ‘respect/empathy/kindness’. Student with code K25 commented that ‘I tried to avoid being offending while explaining the wrong aspects’, whereas K29 said that ‘I tried to give my recommendations without offending my friends if they made mistakes; K40 stated that ‘I sought not be offensive’, whereas K42 said that ‘When I comment on them about my opinions, I paid attention not to despise their work’. Some expressions are included under the theme of ‘introverted/face-to-face’, which include ‘I never made comments on Facebook; we had positive or negative comments between us’ (K6); ‘I did not write comments under the posts on Facebook, but I talked about the ones in class that caught my attention’ (K28) and ‘I could not express myself well because I could not use gestures or mimics’ (K7). The most common theme is ‘academic’. For example, ‘when there are mistakes in the development stage of an event, this practice encourages you to do the project without mistakes’ (K3) and ‘...suitability of the material to the assignment given by the instructor...’ (K8).. Some students stated that they were careful to be ‘objective’ when commenting on the posts of their peers: ‘I took care to be more objective when commenting’ (K10). The final theme is ‘criticism’. K6, K8 and K53 stated, respectively: ‘It helped us to be more creative with the criticism of others’, ‘We have criticised whether it is right or wrong’ and ‘We got the opportunity to criticise without the disadvantages of face-to-face communication’.

Findings on Factors Affecting Personal Development Provided by Idea and Project Sharing

The results of the student responses for ‘What did the sharing of works and ideas on Facebook by your friends contribute to you?’ are provided in the following table.

Table 6: Descriptive statistics about the contribution of the posts to personal development

Categories	Frequency
1. Academic Development	23
2. Problem solving skills	7
3. Learning the opinions of others	20
4. Getting inspired	15
5. Making decision	8
6. Competition	12
7. Critical thinking	25
Invalid Statement	45

The answers given to this question are distributed to a total of seven themes. The first theme was ‘academic development’. The student K2 said that ‘I found the opportunity to get more information on the material I worked on’ while K9 stated that ‘When I did not know what to do about the subject given to us, I got the information easier with the help of this practice’. As in line with the theme of ‘Problem Solving’, students stated that they solved their problems and they made the following comments: K10 commented that ‘I chose the fabric by reading your comments and the products made by others’; K32 stated that ‘I corrected my mistakes by seeing the rights and wrongs’ and K34 said that ‘While I was preparing the product, I saw what was missing sides and then completed the product’. The following statements are thought to go under the theme of ‘Learning the opinions of others’: ‘It helped me to come up with new ideas’ (K23); ‘Our exchange of ideas were enhanced and developed new opinions’ (K25); ‘...learned new things as my friends shared’ (K15); and ‘Everybody shared their own ideas’ (K39). Another theme is ‘Getting inspired’, The examples for which include ‘We were able to add new things with the help of concepts shared by our friends’ (K22); ‘I had the opportunity to see many creative material’ (K57); ‘We understood that we had to be authentic when we looked at the work done’ (K51) and ‘We got inspired by our friends who used different materials’ (K50). The following statements are included under ‘Making decision’: ‘It helped me to make a decision faster when I was trying to choose my material’ (K46); ‘The practice made it easier for me to make decisions by looking at the posts of my friends when I was indecisive’ (K56) and ‘... made my decisions clear when I was indecisive on some issues’ (K3). The following statements are examples for ‘competition’ theme: ‘It provided me to compare my material with the materials of my friends’ (K37); ‘I was able to compare the level of my own material’ (K40) and ‘I tried to finish my product faster when I saw the pictures of the finished products of my friends’ (K7). The last and most common theme was ‘critical thinking’. The answers of students with the code of K45, K52 and K55 are as follows, respectively: ‘I think about things I have never thought about and I have gained a different perspective when I see things that have not come to mind’; ‘I have seen how much an idea can be developed’ and ‘It helped me to think how I could produce something different when I see the works of others’.

Discussion

This study aimed at examining students’ opinions about using Facebook in educational environments. Accordingly, the study group comprised 57 students enrolled in the Child Development Programme of the Kastamonu University Vocational School of Higher Education during 2017–2018 spring semester and pursuing ‘Educational Material Development’ course. During the course, students designed educational materials for children in the pre-school period. During the course of designing these study materials, which was time consuming, students discussed the materials developed by their peers among themselves and consulted the course instructor for 15 weeks in a closed Facebook group. After the practice, opinions on the use of SNS in the course were collected via a semi-structured interview form comprising a total of five questions. These opinions comprised 724 sentences, which were coded by two different coders. Then, reliability analyses were conducted and the themes for the opinions of students were formed.

According to the students, the biggest advantage of using SNS during the course was to follow the posts. Students could examine and archive the works of all their friends and be inspired by them. They no longer needed to carry their work to class. One of the biggest advantages provided by SNS in application-oriented courses was to allow students to see others’ activities. Students could observe each production phase of the materials of their peers and find the opportunity to examine many works, which would otherwise have been impossible to experience in a classroom environment. Students believed that these posts allowed them to think by exchanging ideas and that they could rectify their mistakes and produce more original works. In the model of Mazman and Usluel (2010), Facebook had three sub-dimensions for educational use: ‘communication’, ‘cooperation’ and ‘material and

resource sharing'. The advantages stated by the students of the study group concentrated on cooperation and material/resource sharing sub-dimensions.

Students, who had not encountered any negativity while using Facebook as an aid tool during the course, were in majority. The most common negativity included not having a Facebook account. Some students did not have an account at the beginning of the programme; they posted content using their friends' accounts and did follow their peers in the same way. Yapici and Hevedanli (2013) emphasised on similar negativity. Students preferred opening an account after they faced these difficulties. The second most common problem was Internet-related. In the age of information when Industry 4.0 is being discussed, it is clear that the difficulty in connecting the Internet or facing quota problems need to be solved.

Gathering the entire class in a Facebook closed group has enhanced classroom interaction and communication. Although there are only four negative sentences in this regard, students got closer, as determined from the rest of the statements. Many students had learned the names of their peers and communicated with them. Yapici and Hevedanli (2013) also showed that classroom communication improved.

Students commented on their peers shared posts in an academic context and were careful not to offend their friends. Some students stated that objectivity was a priority in their criticism. Almost one-fourth of the students did not comment at all; they only posted, followed the posts of their peers and benefitted from the comments made by others.

When asked about what they benefitted from information sharing via the SNS, the answers of the students were focused on critical thinking skills. Thus, SNS contributed to the critical thinking ability of the students. Similarly, students stated that their knowledge improved in an academic sense. The other important benefits provided are that 'learn from the opinions of others' and 'get inspired'.

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Examining The Academic Culture Of Education Faculty In Terms Of Third Generation University Characteristics: In Case Of Education Faculty In Aksaray University

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Abstract

Today's universities are called third generation universities which research, innovate, transfer findings into technology, trade and educate new generations using of all their accumulation. Education faculties, as a unit of the university, are not exempted of these functions. In order to meet the demands of real life requirements, they have to educate and train teacher candidates, accordingly. Acquisitions of teacher candidates come out as a result of complex interaction of faculties' different features. According to cultural theory, culture in an organization covers many things including mainly content (values, codes, discourses etc.), socialization (relations, communication, ceremonies etc.) and action (goals, structures, responsibilities etc.). Organizational culture impels individuals to action and give their actions meaning. Because of shaping effect of institutional culture, administrators strive to generate relevance culture. Academic culture refers to the norms, values, beliefs and practices related with the working lives of faculty members at higher education institutions. One of its members are students. Academic culture represents the comprehensive features of an academic unit. By this study, we wanted to find out answers of two questions in a stepwise manner. i) How do the teacher candidates perceive academic culture in education faculty and ii) Which features of education faculty match the third generation characteristics. This cross-sectional survey research was implemented in 2017-2018 academic year in Education Faculty of Aksaray University. We randomly selected the study group consisted of totally 762 teacher candidates, who are currently student in the case faculty. Data gathering instrument has two sub-sections namely demographic and academic culture scale. We analysed the data using both quantitative and qualitative techniques. In quantitative analyse we computed descriptive statistics (f, %, mean, standard deviation) and exploratory factor analysis. In qualitative phase, we generated theoretical features of third generation university based on the literature review. We finally compared the factor results and these theoretically suggested features.

Key words: *Teacher candidate, academic culture, third generation university*

Introduction

Till now, we have witnessed some paradigmatic changes in the university understanding. The first generation universities including Bologna, Paris and Oxford, focused on teaching in eleventh century. Then Humboldtian universities integrated teaching and researching and generated knowledge. Berlin University, which was the first example of second generation universities in the nineteenth century, implemented mainly these two functions of researching and teaching simultaneously. Depending on researching it generated knowledge then it taught for students (Yung, 2015; Yildirim, 2016). Technology driven changes, competition and looking for financial methods of higher education impacted university understanding and universities obliged to transfer knowledge into technology and industry. In addition, universities as cooperating to the non-academic bodies in industry, traded their products. Today's universities are called third generation universities which research, innovate, transfer findings into technology, trade and educate new generations using of all their accumulation (Wissema, 2009; Yildirim, 2016). Changes in the university understanding reflected on practices in various dimensions of higher education including academicians and teaching methods. Projects and finding new ways and innovations have already been the main topics in university courses. Positive attitudes towards new things and research methods are valuable for university community. Cooperating and working in group in multidisciplinary is way of innovating. Practices in genuine field is embedded in the daily training activities. Incentive mechanisms are proposed to enhance intra group cooperation and also out group competition. The main characteristics of the university education are *institutional diversity, broad freedom, flexibility, competitiveness* and enriched financial support (Vest, 2007; Yildirim, 2016). Education faculties, as a unit of the university, are not exempted of these functions. In order to meet the demands of real life requirements, they have to educate and train teacher candidates, accordingly. Acquisitions of teacher candidates come out as a result of complex interaction of faculties' different features. Training courses in any education faculty mainly demand from students to research, to get relevance knowledge, to cooperate with others, to suggest projects and implement them in the field, to observe theoretical

knowledge in the school field and to implement their theoretical accumulation in the classroom settings. Innovations, creativeness, and entrepreneurship are rewarded (Eurydice, 2008; OECD, 2009). Changes in university understandings and training activities are reflected in all dimensions of university life. All things including what we do and what we use to do refer to culture. According to cultural theory, culture in an organization covers many things including mainly content (values, codes, discourses etc.), socialization (relations, communication, ceremonies etc.) and action (goals, structures, responsibilities etc.). Organizational culture impels individuals to action and give their actions meaning. It has a potential to affect many things and it can also be influenced by internal and external developments, as well (Schein, 2010; Smith, 2001). Because of shaping effect of institutional culture, administrators strive to generate relevance culture. Academic culture refers to the norms, values, beliefs and practices related with the working lives of faculty members at higher education institutions (Szelenyi and Rhoads, 2013; Yung, 2015). One of its members are students who experience the different dimensions of academic life. Therefore, students can observe and witness the various elements of academic culture that represents the comprehensive features of an academic unit. This, in turn, gives opportunity to compare the characteristics of any academic unit to the characteristics of third generation university. Students in education faculties are future teachers so we can call them as teacher candidates. Teacher candidates, who have gone on their training courses, can give information about the culture in education faculty. Their point of view can provide different perspective on characteristics of an academic unit. Furthermore, we can evaluate the characteristics of education faculty in terms of third generation university's characteristics. However, we could not get particular study focused on teacher candidates' perception of academic culture through the literature review. By this study, we wanted to find out answers of two questions in a stepwise manner. *i)* How do the teacher candidates perceive academic culture in education faculty and *ii)* Based on the teacher candidates' perception, which features of education faculty match the third generation characteristics.

Method

This study was carried out in mix method model in which qualitative and quantitative research techniques can be integrated. In quantitative phase we operated cross-sectional survey research. Qualitative phase consisted of content analysis. We followed stepwise manner: We first describe the academic culture in the case faculty by using academic culture scale through perceptions of teacher candidates who have been training in the case faculty (Phase 1: Survey). Then we define the features of third generation university by content analysis of literature related with third generation university characteristics (Phase 2: Content analysis). We finally compare the features of third generation university with characteristics of education faculty (Phase 3: Content).

Aksaray university, education faculty was chosen purposefully as the case faculty because of economic and accessible reasons. Researchers have been working in the case faculty for eight years. They know well the case faculty that enable them to interpret the findings much more genuinely. Research group was selected in case faculty. We randomly selected the study group consisted of totally 762 teacher candidates, who are currently student in the case faculty in 2017-2018 academic year in Education Faculty of Aksaray University.

Data gathering instrument has two sub-sections namely demographic and academic culture scale. We used academic culture scale, which was developed by Yildirim (2016), as data gathering instrument ($\alpha=.94$). Corrected item-total correlation scores changed between .37-.67 referring to keep all 30 items in analyses. After eliminating improper forms, we implemented analyses data belonged to totally 716 participants. We checked the data in terms of missings, outliers and duplications. Missings were changed with series mean scores. There was no outlier and duplication case. We first performed descriptive analysis and computed mean and standard deviations for all items in the scale.

We analysed the data using both quantitative and qualitative techniques. In quantitative analyse we computed descriptive statistics (f, %, mean, standard deviation) and exploratory factor analysis. In qualitative phase, we generated theoretical features of third generation university based on the literature review. We finally compared the factor results and these theoretically suggested features. In evaluating phase, we coded characteristics whether they fully exist in the case faculty. These codes and meanings are follows: 2 refers full existences; 1 refers partly existence and 0 refers not existence.

Findings

Findings of the study are presented in the following lines in considering the research questions.

Characteristics of academic culture in the case faculty

Table 1 shows the descriptive analysis results of teachers' candidates perception about academic culture in the case faculty. In generally, teacher candidates perceived a positive environment and open communication. Lectures positively response their help demands. Rules and procedures are strictly followed and most of them obey these rules. In the case faculty there is a positive attitude for innovation. Because descriptive statistics refer that teacher candidates experience new methods and techniques in their courses. An emphasis put on the specialization on their profession. However, they could not use their creativeness and they have scarce works cooperatively. They do not

share knowledge, experience and material widely. And rewarding, reminding notable people in the faculty is mostly neglected. Finally, we could not get strong sign of the competition in the faculty.

Table 1. Descriptive statistics of teacher candidates' perception about the case faculty academic culture

Items	Mean	Std. Deviation	Item-Total Correlation	α if Item Deleted
C1. are in a trust and friendly but not hostile environment.	3,23	1,181	,558	,937
C2. behave honestly with each other.	2,64	1,153	,589	,937
C3. open to spontaneous communication.	3,28	1,140	,523	,937
C4. are treated in a fair and objective way.	2,75	1,264	,566	,937
C5. mostly experience joyful, compassion and courtesy.	2,89	1,139	,640	,936
C6. feel that their achievement, professional growth and happiness are emphasized.	3,10	1,190	,655	,936
C7. protect and support each other.	2,38	1,119	,556	,937
C8. behave in friendly way such touching and hugging.	2,66	1,129	,578	,937
C9. produce original things using their creativeness.	2,58	1,085	,521	,938
C10. use technologic devices in line with their functions.	3,02	1,159	,515	,938
C11. share knowledge, experience and material with their colleagues.	3,00	1,109	,553	,937
C12. strive for specialization on their profession.	3,04	1,065	,536	,937
C13. apply the new methods and techniques in their jobs.	3,11	1,106	,610	,937
C14. welcome the new and original things and appreciate them.	3,07	1,133	,610	,937
C15. continually develop their knowledge and skills.	2,95	1,082	,633	,936
C16. widely use symbols, emblem etc. that represent the institution.	3,04	1,169	,451	,938
C17. have common symbols.	2,85	1,190	,501	,938
C18. see photographs, drawings or symbols reminding the past of the institutions.	2,96	1,252	,368	,939
C19. notice information and anecdotes belonged to noteworthy people in the past.	2,84	1,222	,396	,939
C20. deal with the students' problems and try to solve them.	2,88	1,160	,643	,936
C21. considering students' well-being.	3,12	1,169	,670	,936
C22. positively response to help demands.	3,25	1,129	,640	,936
C23. give importance and care for ceremonies.	3,31	1,155	,556	,937
C24. definitely obey the rules.	3,01	1,106	,601	,937
C25. put emphasis on carrying out the responsibilities as they are scheduled.	3,16	1,115	,642	,936
C26. fulfil their responsibilities.	3,09	1,092	,622	,936
C27. express easily their will and demands to managerial bodies.	3,14	1,180	,649	,936
C28. behave freely and anybody does not interfere others' doings.	2,87	1,278	,380	,939
C29. spend effort for the success of institution.	3,19	1,075	,633	,936
C30. come to the institution in enthusiasm and excitement.	2,37	1,164	,607	,937

Basic characteristics of third generation university

We reviewed the literature (Çetinsaya, 2014; Şenses, 2007; Wissema, 2009; Yıldırım, 2016) on the third generation university's characteristics. Then we summarized them as in the Table 2. Third generation universities characterize as research, innovation, competition, produce and trade what they generate originally. They also collaborate with industry and find alternative financial methods beside public funds.

Table 2. Main characteristics of third generation university

1. Research, education and know-how
2. Public or proprietary
3. Productive
4. Create scientists, scientific professionals and entrepreneurs
5. Academics educate students along with the demands of industry.
6. Depend on scientific findings, publications and know-how marketization and contracts with the industry etc.

- 7.They actively compete for the best academics and best students
- 8.They collaborate with industry, private R&D, financiers, and other universities.
- 9.Institutions with oriented research works separately
- 10.Research is largely trans-disciplinary or interdisciplinary
- 11.Mass and elite education, provide different programmes for different clients.

Comparison of the case faculty characteristics to the third generation characteristics

Table 3 shows that based on the teacher candidates' perception, which features of education faculty match the third generation characteristics. Table 3 is constructed qualitatively. Maximum coherence is measured by total 36 point (11x2). However, we found that only 3 characteristics of third generation university are partly exist in the case faculty.

Table 3. Comparison third generation characteristics and the case faculty's academic culture characteristics

Third Generation University	Exist	Partly Exist	Not Exist
Research, education and know-how	1		
Public or proprietary			0
Productive	1		
Create scientists, scientific professionals and entrepreneurs			0
Academics educate students along with the demands of industry.			0
Depend on scientific findings, publications and know-how marketization and contracts with the industry etc.			0
They actively compete for the best academics and best students			0
They collaborate with industry, private R&D, financiers, and other universities.			0
Institutions with oriented research works separately			0
Research is largely trans-disciplinary or interdisciplinary			0
Mass and elite education, provide different programmes for different clients.	1		

Discussion, Result And Suggestions

This study aims to evaluate the academic cultural characteristics of Aksaray University Education Faculties in terms of third generation university's characteristics. We described the academic cultural characteristics on perceptions of teacher candidates.

In the limitations of the study, we concluded that the case university meet only very small number of characteristics of third generation university. This result is coherence with the result by Yıldırım (2016). Oran (2016) examined the academic culture in six Turkish universities and found that collaboration is weak. This result is confirmed by the current study. Therefore, we suggest that joint research activities requiring participation of different disciplines in the case faculty.

Although we have no intentions to generalize for other higher education institutions, but some previous studies (Çetinsaya, 2014; Şenses, 2007) argued same results that many Turkish universities do not meet the demands of third generation university because of lack competitive environment and organizational incompatibilities. In spite of rhetorically declared of being third generation universities, many academic units of higher education institutions have not had the third generation university characteristics such as generating information, transferring it into the technology and trading them. In considering the main functions of education faculties, it seems difficult to generate new knowledge and trading them but in education sector have still need the innovations in integrating pedagogy and technology. Therefore, technological changes should encourage educators and educational researchers to find new ways in educating new generations.

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Examining The Reasons Of Teacher Candidates' Choice For Mathematics Teaching Program The Sample Of Aydın And Afyon

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Abstract

The aim of this study is to examine the reasons of teacher candidates' choice of primary education mathematics teaching program, their expectations from the program and whether their expectations have been met or not in terms of gender, placement score and graduated high school type. In the study, special case study method has been used. Content analysis has been used in the analysis of the data obtained. The obtained data has been presented as a table with frequency and percentage calculations. The study has been carried out with 66 students attending elementary mathematics teaching program at Adnan Menderes University and 91 students studying at Afyon Kocatepe University. When we look at the data obtained from this special case study, the reasons of candidates' choice are respectively, they like mathematics and teaching profession; primary education mathematics teaching's being a promising job and their university entrance points are not enough for their desired departments. Among the expectations of the program, it has been observed that the candidates want to be qualified teachers, to receive good education and to engage in social activities. When analyzed the replies of candidates whether their expectations from this program met or not, candidates are generally satisfied. It has also been determined that the majority of students who prefer the program are female students.

Keywords: *Mathematics curriculum, elementary mathematics, expectation, placement score*

1. Introduction

It is very difficult to define mathematics and to express it in a closed form. It is a continuous developing work area of which application and use is large. In a simple way, an introduction can be made to the field of mathematics as a way of expressing the mental activities that people use for meaning and comprehension by using abstract concepts in a universal language and in accordance with the rules of this language (Altun, 2006). All the mathematical expressions we use are based on abstract concepts and the rules that do not contradict themselves. Mental activities in the language of mathematics and understanding and using this language is an art. While trying to make sense of abstract mathematical concepts such as numbers, geometric shapes and the relations between these concepts, mathematics provides the skills to discover patterns and solve problems due to its nature. Mathematics plays an important role in understanding the events and situations in all our lives, finding solutions according to the problems encountered and the discoveries made by humanity in the field of science and technology.

As in the field of science and technology in the last century, there have been important developments and needs in the field of education. To maintain and further enhance the gains obtained, the educational lives of children is a prominent issue in Turkey and in the world. For this reason, the development and progress of countries depends mainly on the knowledgeable and equipped teachers. Therefore, the question of "How should knowledgeable and equipped teachers and qualified teacher training programs should be?" is the basis of international studies. In our country, teacher training programs within the framework of National Education Law necessitated education in three main areas as field knowledge, pedagogical formation and general culture. Various studies are carried out to improve the teaching profession and teachers' equipment, to transfer the achievements of scientific studies to our teachers and hence to our children. In the studies conducted, the development of teacher training programs in universities, teachers' being experts in their fields and following the developments, having the knowledge of self-taught knowledge in different areas and subjects, expressing their knowledge and skills, contributing to students' education and learning skills and having self-confidence to guide the students' lives are aimed. In our age, there is a need for individuals who can investigate, question, and produce solutions to the problems they face. Therefore, our teachers have a great role in the effective implementation of educational plans and programs.

New approaches in education have started to be adopted. In these approaches, it is expected that a healthy communication between the teacher and the students will be established and students will actively participate in

the classes. In constructivist approach, a teacher is expected to be open-minded, self-improving, to take into account individual differences among students, to be expert in the field of work, not only to provide ready-made knowledge to students but also to prepare appropriate learning environments, to interact with their students and even learn with them (Selley, 1999; 22). The perspectives of teacher candidates to their occupation play an important role in training qualified teachers. Candidates who want to do teaching profession should firstly love the profession of teaching and gain their self-confidence about what they can teach. For this reason, the reasons of the students who choose the teaching profession and their expectations' meeting level for this program are important. In this study, it is thought that it will be useful to shape teacher training process by taking into consideration the reasons of teacher candidates to choose mathematics teaching program and their expectations from the program.

2. Method

Research Design

To reveal the reasons of teacher candidates who prefer elementary mathematics teaching program their expectations from the program, whether their expectations are met or not and how they want to be a teacher have been examined by special case study method by using qualitative pattern.

This research is a qualitative research and it is a special case study as the opinions, attitudes and expectations of the people in the sample have been tried to be determined. It provides the opportunity to concentrate on the ordinary situation in special case studies (Çepni, 2007).

Sample

The research has been made with the volunteer 66 teacher candidates who are on the first and second class in elementary maths teacher program in Adnan Menderes University in 2017-2018 academic year fall semester and with 91 teacher candidates in Afyon Kocatepe University. The demographic data of the teacher candidates in Adnan Menderes University is given in Table.1.a and the demographic information of teacher candidates attending Afyon Kocatepe University is given in Table.1.b.

Table 1. a. Adnan Menderes University Demographic information of the students, the schools they graduate and the Placement Score

CATEGORIES	SUB CATEGORIES	FREQUENCY	PERCENT
GENDER	WOMAN	56	85
	MALE	10	15
GRADUATED SCHOOL TYPE	SCIENCE HIGH SCHOOL	1	2
	ANATOLIAN TEACHER HIGH SCHOOL	16	24
	ANATOLIAN HIGH SCHOOL	30	45
	PRIVATE HIGH SCHOOL AND BASIC HIGH SCHOOL	18	27
	VOCATIONAL AND TECHNICAL HIGH SCHOOL	1	2
PROGRAM PLACEMENT POINTS	350 POINTS	2	3
	350-360	10	15
	360-370	12	18
	370-380	17	26
	380-390	12	18
	390 POINTS OVER	6	9

	NOT REMEMBER	7	11
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As it is seen clearly, Adnan Menderes University teacher candidates are mostly female (85%), a portion of teacher candidates is The Anatolia and Anatolian Teacher High School graduates (69%) and there are also 18 (27%) teacher candidates who graduated from private schools and basic school. Only one teacher candidate graduated from science high school and one from vocational high school. It is also clear that 3% of teacher candidates' placement score are under 350 points, 15% between 350-360 points, 18% between 360-370 points, 26% between 370-380 points, 18% between 380-390 points and only 6 teacher candidates got over 390 points. There are also 7 teacher candidates who cannot remember their placement score.

Table 1.b. Afyon Kocatepe University demographic information of the students, the schools they graduated and their Placement Points

CATEGORIES	SUB CATEGORIES	FREQUENCY	PERCENT
GENDER	WOMAN	80	88
	MALE	11	12
GRADUATED SCHOOL TYPE	SCIENCE HIGH SCHOOL	3	3
	ANATOLIAN TEACHER HIGH SCHOOL	37	41
	ANATOLIAN HIGH SCHOOL	40	44
	PRIVATE HIGH SCHOOL AND BASIC HIGH SCHOOL	8	9
	VOCATIONAL AND TECHNICAL HIGH SCHOOL	3	3
PROGRAM PLACEMENT POINTS	350 POINTS	5	5
	350-360	16	17
	360-370	18	20
	370-380	12	13
	380-390	6	7
	390 POINTS OVER	7	8
	NOT REMEMBER	27	30

As it is given in the table, Afyon Kocatepe University teacher candidates are mostly female (88%). A large portion of teacher candidates is The Anatolia and Anatolian Teacher High School graduates (85%) and there are also 8 (9%) teacher candidates who graduated from private schools and basic school. 3 teacher candidates graduated from science high school and 3 from vocational high school. It is also clear that 5% of teacher candidates' placement score are under 350 points, 17% between 350-360 points, 20% between 360-370 points, 13% between 370-380 points, 7% between 380-390 points and only 8 teacher candidates got over 390 points. There are also 27 teacher candidates who cannot remember their placement score.

Data collection tool

The data obtained from the research has been collected through a semi-structured form with open-ended questions directed to the teacher candidates as "Why did you choose primary mathematics teaching program?", "What are your expectations from the mathematics teaching program", "Did the program meet your expectations?" and "How do you want to be a teacher?". It has been stated in the instruction section of the distributed form that the answers of the questions the teacher candidates answered in the form would be kept confidential and the answers would not be used for any purpose other than the research. Thus, teacher candidates have been asked to give sincere answers. In addition, the questions in the semi-structured form used in the research which INCIKABI,

MERCIMEK, BİBER, SERİN conducted on 'Why am I in Elementary Mathematics Teacher Education Program?' in Kastamonu University in 2013 have been benefited.

Analysis of data

Content analysis has been used in the analysis of the data obtained in the qualitative pattern study. The results of the analysis have been collected under category and subcategory. As qualitative studies are not concerned with generalization, the results are limited only to teacher candidates in the research. It is important that the validity and reliability of the results in qualitative researches should be examined as deeply as possible and tried to be provided by direct submission (Yıldırım and Şimşek 2013). For this reason, the answers of the teacher candidates have been included in the research where necessary. The opinions of two education experts have been taken into consideration and they have been divided into categories and sub-categories.

3. Findings and Comments

In order to understand the expectations of teacher candidates from the elementary mathematics teaching program better, some of their answers have been quoted.

Examining the reasons of preference of primary mathematics teaching program according to gender, type of graduation and placement scores

Table 2. a. Examining the reasons for choosing the program according to gender in Adnan Menderes University

Gender	Girl		Male	
	Frequency (f)	Percent (%)	Frequency (f)	Percent (%)
Future anxiety	17	19	7	47
Predisposition to Maths	28	31	5	33
Predisposition to profession	25	28	3	20
Obligation due to placement score	20	22	0	0

The reasons of preference according to gender factor have been examined under 4 categories. These categories are future anxiety, predisposition to Maths, predisposition to profession and the necessity due to score points. The preference in terms of predisposition to Maths is 31% for girls and 33% for males and it can be said that there is no significant difference according to gender. Future anxiety among male teacher candidates (47%) is higher than female teacher candidates (19%). The predisposition to the profession has been observed in females (28%) and males (20%). In addition, the reasons for preferring due to placement points have been found only in the answers of female teacher candidates. The answers like "I have chosen being teacher as I love teaching" have been categorized in predisposition to profession, "I have chosen being teacher as I love Maths" have been categorized in predisposition to Maths, "The reason why I have chosen mathematics as a department is that it is the closest to my score" has been categorized in obligation due to placement score and "it is easier to be assigned" have been categorized in future anxiety.

Table 2. a. Examination of the reasons for choosing the program according to gender in Afyon Kocatepe University

Gender	Girl		Male	
	Frequency (f)	Percent (%)	Frequency (f)	Percent (%)
Future anxiety	12	15	1	9
Predisposition to Maths	25	31	3	27
Predisposition to profession	26	33	5	46
Obligation due to placement score	17	21	2	18

The reasons of preference according to gender factor have been examined under 4 categories. These categories are future anxiety, predisposition to Maths, predisposition to profession and the necessity due to score points. The preference in terms of predisposition to Maths is 31% for girls and 27% for males and it can be said that there is no significant difference according to gender. Future anxiety among male teacher candidates (9%) is lower than female teacher candidates (15%). The predisposition to the profession has been observed in females (33%) and males (46%). In addition, they stated that female teacher candidates (21%) and male teacher candidates (18%) have preferred because of the score requirement. The answers like "I have chosen being a teacher as I love

teaching” have been categorized in predisposition to profession, “I have chosen being a teacher as I love Maths” have been categorized in predisposition to Maths, “The reason why I have chosen mathematics as a department is that it is the closest to my score” has been categorized in obligation due to placement score and “it is easier to be assigned” have been categorized in future anxiety.

Table 3.a. Examining the reasons for choosing the program according to graduated school in Adnan Menderes University

Graduated High School	Science High School		Anatolian Teacher High School		Anatolian High School		Private high school		Vocational and Technical High School	
	f	%	F	%	f	%	f	%	f	%
Future anxiety	1	100	4	15	14	30	5	22	0	0
Predisposition to Maths	0	0	9	35	17	37	5	22	1	50
Predisposition to Profession	0	0	8	31	12	26	5	22	0	0
Obligation due to placement score	0	0	5	19	3	7	8	34	1	50
Total	100		100		100		100		100	

While the reasons of teacher candidates’ preferences for primary mathematics teaching program according to the high schools they graduated from have been taken into consideration, it can be seen that the candidate who graduated from Science High School preferred to attend the school due to his/her future anxiety. For Anatolian Teacher High School graduates, future anxiety is 15%, predisposition to Maths is 35%, predisposition to occupation is 31% and point requirement is 19%. For Anatolian High School graduates, future anxiety is 30%, predisposition to Maths is 37%, predisposition to occupation is 26% and point requirement is 7%. For private high school graduates, future anxiety is 22%, predisposition to Maths is 22%, predisposition to occupation is 22% and point requirement is 34%. One of the 2 students who graduated from vocational high school preferred the program as he/she is tend to Maths and the other one preferred due to the requirement of point.

Table 3. b. Examination of the reasons for choosing the program according to graduated school in Afyon Kocatepe University

Graduated High School	Science High School		Anatolian Teacher High School		Anatolian High School		Private high school		Vocational and Technical High School	
	f	%	F	%	F	%	F	%	f	%
Future anxiety	1	33.3	7	19	3	7.5	0	0	1	33.3
Predisposition to Maths	1	33.3	9	24	17	42.5	2	25	0	0
Predisposition to Profession	1	33.3	7	19	17	42.5	5	62.5	1	33.3
Obligation due to placement score	0	0	14	38	3	7.5	1	12.5	1	33.3
Total	100		100		100		100		100	

In Afyon Kocatepe University, when we have analysed the reasons of teacher candidates’ preferences for primary mathematics teaching program according to the high schools they graduated from it can be seen that the candidates who graduated from Science High School preferred to attend the school due to their future anxiety, predisposition to Maths and predisposition to occupation. For Anatolian Teacher High School graduates, future anxiety is 19%,

predisposition to Maths is 24%, predisposition to occupation is 19% and point requirement is 38%. For Anatolian High School graduates, future anxiety is 7.5%, predisposition to Maths is 42.5%, predisposition to occupation is 42.5% and point requirement is 7.5%. For private high school graduates, predisposition to Maths is 25%, predisposition to occupation is 62.5% and point requirement is 12.5%. One of the 3 students who graduated from vocational high school preferred the program as he/she is worry about future, and the others preferred because of predisposition to occupation and the requirement of point.

Table 4. a. Examining the reasons for choosing the program according to placement points in Adnan Menderes University

Placement Ratings	Under 350 points		350- 360		360- 370		370- 380		380- 390		Over 390 points	
	f	%	f	%	f	%	f	%	f	%	F	%
Future anxiety	0	0	7	44	4	29	3	11	5	28	0	0
Predisposition to Maths	1	33	4	25	6	43	12	43	4	22	1	20
Predisposition to Profession	1	33	4	25	2	14	7	25	4	22	4	80
Obligation due to placement score	1	33	1	6	2	14	6	21	5	28	0	0
Total	100		100		100		100		100		100	

As it can be seen that the reasons for Adnan Menderes University teacher candidates with a placement score of less than 350 points are predisposition to Maths (33%), predisposition to profession (33%) and obligation due to placement score (33%). The reasons for the preference of the students in the 350-360 points are future anxiety (44%), predisposition to Maths (25%), predisposition to the profession (25%), and the score requirement (6%). The reasons for preference of students in the 360-370 points are future anxiety (29%), predisposition to Maths(43%), predisposition to the profession (14%) and the score requirement (14%). The reasons for preference of students in the range of 370-380 points are the future anxiety (11%), predisposition to Maths (43%), predisposition to the profession (25%) and the score requirement (21%). The reasons for preference of the students in the 380-390 points range are future anxiety (28%), predisposition to Maths (22%), predisposition to the field (22%) and the score requirement (28%). The reasons for the choice of students over 390 points have been determined as predisposition to Maths (20%) and predisposition to the profession (80%).

Table 4. b . Examining the reasons for choosing the program according to placement points in Afyon Kocatepe University

Placement Ratings	Under 350 points		350- 360		360- 370		370- 380		380- 390		Over 390 points	
	f	%	f	%	f	%	f	%	f	%	F	%
Future anxiety	1	20	2	12	1	6	3	25	0	0	2	29
Predisposition to Maths	2	40	7	44	6	33	3	25	2	33	1	14
Predisposition to Profession	1	20	3	19	6	33	4	33	4	67	3	43
Obligation due to placement score	1	20	4	25	5	28	2	17	0	0	1	14
Total	100		100		100		100		100		100	

When we look at table above, it is understood that the reasons for Afyon Kocatepe University teacher candidates with a placement score of less than 350 points are future anxiety (20%), predisposition to Maths (40%), predisposition to profession (20%) and obligation due to placement score (20%). The reasons for the preference of the students in the 350-360 points are future anxiety (12%), predisposition to Maths (44%), predisposition to the profession (19%), and the score requirement (25%). The reasons for preference of students in the 360-370 points are future anxiety (6%), predisposition to Maths (33%), predisposition to the profession (33%) and the score

requirement (28%). The reasons for preference of students in the range of 370-380 points are the future anxiety (25%), predisposition to Maths (25%), predisposition to the profession (33%), and the score requirement (17%). The reasons for preference of the students in the 380-390 points range are predisposition to Maths (33%) and predisposition to the field (67%). The reasons for the choice of students over 390 points have been determined as future anxiety (29%), predisposition to Maths (14%), predisposition to the profession (43%) and the score requirement (14%).

Table 5. a. Examining the teacher candidates' expectations of the program according to gender in Adnan Menders University

Gender	Girl		Male	
	F	%	f	%
Field knowledge	33	42	3	60
Pedagogical Knowledge	44	56	2	40
Social activities	2	2	0	0
Total		100		100

Elementary mathematics teacher candidates' expectations from the program have been analysed in 3 categories as field knowledge, pedagogical knowledge and social activities. 42% of female teacher candidates have expectations for field knowledge, 56% for pedagogical knowledge and only 2% for social activities. For male teacher candidates, it is 60% for field knowledge and 40% for the category of pedagogical knowledge. The expressions "I want to have more equipment in teaching and graduate as a fully-equipped teacher" and "I prefer learning teaching to learning mathematics" have been coded as field information (B34). The statement "Providing a permanent and enjoyable education environment by enriching the course with various activities, not just as a course" has been coded as pedagogical knowledge and social activity expectations (B35).

Table 5. b. Examining the teacher candidates' expectations of the program according to gender in Afyon Kocatepe University

Gender	Girl		Male	
	F	%	f	%
Field Knowledge	57	71.25	7	64
Pedagogical Knowledge	17	21,25	4	36
Social activities	10	12.5	-	-
Total		100		100

Elementary mathematics teacher candidates' expectations from the program have been analysed in 3 categories as field knowledge, pedagogical knowledge and social activities. Of the female teacher candidates 71.25% have expectations for field knowledge, 21.25% for pedagogical knowledge and 12.5% for social activities. For male teacher candidates, it is 64% for field knowledge and 36% for the category of pedagogical knowledge. It is seen that male teacher candidates have no expectations from the program as social activities.

Table 6. a. Examining the teacher candidates' expectations of the program according to graduated school in Adnan Menderes University

Expectations from Elementary Mathematics Education Program	Science High School		Anatolian Teacher High School		Anatolian High School		Private high school		Vocational Technical High School	
	f	%	f	%	f	%	f	%	f	%
Field Knowledge	1	50	12	46	18	50	11	48	1	50
Pedagogical Knowledge	1	50	14	54	17	47	10	43	1	50

Social activities	0	0	0	0	1	3	2	9	0	0
Total	100		100		100		100		100	

When the expectations of mathematics teacher candidates have been examined according to the type of high school graduates, it is seen that the students who graduated from Science High School, Anatolian Teacher High school and Vocational and Technical High School types have expectations for pedagogical knowledge and field knowledge. It has been analysed that expectations for field knowledge of Science High School graduates is 50%, Anatolian Teacher High School is 46%, Anatolian High School is 50%, Private High School is 48% and Vocational Technical High School is 50%. Expectations for pedagogical knowledge of Science High School graduates is 50%, Anatolian Teacher High School is 54%, Anatolian High School is 47%, private High School is 43% and Vocational Technical High School is 50%. It can also be stated that the teacher candidates who graduated from Science High School, Anatolian Teacher High School and Vocational Technical High have not mentioned any expectations for social activities.

Table 6. b. Examining the teacher candidates' expectations of the program according to graduated school in Afyon Kocatepe University

Expectations from Elementary Mathematics Education Program	Science High School		Anatolian Teacher High School		Anatolian High School		Private high school		Vocational Technical High School	
	f	%	f	%	f	%	f	%	f	%
Field Knowledge	2	50	27	73	24	57	7	87.5	3	100
Pedagogical Knowledge	1	25	6	16	13	31	1	12.5	0	0
Social activities	1	25	4	11	5	12	0	0	0	0
Total	100		100		100		100		100	

When the expectations of mathematics teacher candidates have been examined according to the type of high school graduates, it can be said that the students who graduated all types of high school have expectations for field knowledge. It has been analysed that expectations for field knowledge of Science High School graduates is 50%, Anatolian Teacher High School is 73%, Anatolian High School is 57%, private High School is 87.5% and Vocational Technical High School is 100%. Except for Vocational Technical High School, other graduates have expectations for pedagogical knowledge. Expectations for pedagogical knowledge of Science High School graduates is 25%, Anatolian Teacher High School is 16%, Anatolian High School is 31% and Private High School is 12.5%. It can also be stated that the teacher candidates who graduated from Private School and Vocational Technical High School have not mentioned any expectations for social activities.

Table 7.a. Examining the teacher candidates' expectations of the program according to placement score in Adnan Menderes University

Expectations from Elementary Mathematics Education Program	Under 350 Points		350-360		360- 370		370-380		380-390		Over 390	
	f	%	f	%	f	%	f	%	f	%	f	%
Field Knowledge	1	50	6	50	5	50	15	50	12	50	4	50
Pedagogical Knowledge	0	0	5	42	5	50	14	47	11	46	4	50

Social activities	1	50	1	8	0	0	1	3	1	4	0	0
Total		100		100		100		100		100		100

According to the placement scores of teacher candidates, it is seen that teacher candidates focus on knowledge of the field and pedagogical knowledge. The students who have a score of under 350 points have expectations for field knowledge 50% and social activities 50%. The students who have a score of between 350 and 360 points have expectations for field knowledge 50%, for pedagogical knowledge 42% and social activities 8%. The students who have a score of between 360 and 370 points have expectations for field knowledge 50% and for pedagogical knowledge 50%. The students who have a score of between 370 and 380 points have expectations for field knowledge 50%, for pedagogical knowledge 47% and social activities 3%. The students who have a score of between 380 and 390 points have expectations for field knowledge 50%, for pedagogical knowledge 46% and social activities 4%. The teacher candidates with a placement score of over 390 have expectations for field knowledge (50%) and pedagogical knowledge 50%.

Table 7.b. Examining the teacher candidates' expectations of the program according to placement score in Afyon Kocatepe University

Expectations from Elementary Mathematics Education Program	Under 350 Points		350-360		360-370		370- 380		380-390		Over 390	
	f	%	f	%	f	%	f	%	f	%	f	%
Field Knowledge	5	100	12	75	10	50	9	75	5	83	5	71 , 4
Pedagogical Knowledge	0	0	3	19	6	30	2	17	1	17	1	14 , 3
Social activities	0	0	1	6	4	20	1	8	0	0	1	14 , 3
Total		100		100		100		100		100		100

According to the placement scores of teacher candidates, it is seen that teacher candidates focus on knowledge of the field and pedagogical knowledge. The students who have a score of under 350 points have expectations only for field knowledge 100%. The students who have a score of between 350 and 360 points have expectations for field knowledge 75%, for pedagogical knowledge 19% and social activities 6%. The students who have a score of between 360 and 370 points have expectations for field knowledge 50%, for pedagogical knowledge 30% and social activities 20%. The students who have a score of between 370 and 380 points have expectations for field knowledge 75%, for pedagogical knowledge 17% and social activities 8%. The students who have a score of between 380 and 390 points have expectations for field knowledge 83% and for pedagogical knowledge 17%. The teacher candidates with a placement score of more 390 points have expectations for field knowledge 71.4%, pedagogical knowledge 14.3% and social activities 14.3%.

Did your primary mathematics teaching program meet your expectations? Examining the answers of the teacher candidates according to gender and type of high school graduated.

Table 8.a. Did Adnan Menderes University's Elementary Mathematics Teacher Program meet your expectations? Examination of the answers of teacher candidates according to gender

Did the program meet your expectations?	Girl		Male	
	f	%	f	%
Yes	24	43	2	22
No	6	11	0	0
Partially	11	20	0	0

Too early	15	26	7	78
Total		100		100

Did the program meet your expectations? As it is seen on the table above, the answers of female teacher candidates are “yes” 43%, “no” 11%, “partially” 20% and early to answer 26%. Male teacher candidates' answers are “yes” 22% and early to answer 78%. As the teacher candidates are on the first and second class, the rate of students who think it is too early to answer is high.

Table 8.b. Did Afyon Kocatepe University Elementary Mathematics Teacher Program meet your expectations? Examination of the answers of teacher candidates according to gender

Did the program meet your expectations?	Girl		Male	
	f	%	f	%
Yes	5	6	3	27
No	16	20	1	9
Partially	35	44	1	9
Too early	24	30	6	55
Total		100		100

Did the program meet your expectations? As it is seen on the table above, the answers of female teacher candidates are “yes” 6%, “no” 20%, “partially” 44% and early to answer 30%. Male teacher candidates' answers are “yes” 27%, “no” 9%, “partially” 9% and early to answer 55%. As the teacher candidates are on the first and second class, the rate of students who think it is too early to answer is high.

Table 9.a. Did Adnan Menderes University's Elementary Mathematics Teacher Program meet your expectations? Examination of the answers of teacher candidates according to high school graduated

Did the program meet your expectations?	Science High School		Anatolian Teacher High School		Anatolian High School		Private High School		Vocational Technical High School	
	f	%	f	%	f	%	f	%	f	%
Yes	0	0	4	25	11	38	5	28	0	0
No	1	100	1	6	1	3	3	17	0	0
Partially	0	0	2	13	6	21	4	22	1	100
Too early	0	0	9	56	11	38	6	33	0	0
Total		100		100		100		100		100

Did the program meet your expectations? When the answers of the students have been examined, the expectations of the student graduated from Science High School have not been met. The answers of the students who graduated from Anatolian Teacher High School are “yes” 25%, “no” 6%, “partially” 13% and “early to answer” 56%. The answers of the students who graduated from Anatolian High School are “yes” 38%, “no” 3%, “partially” 21% and “early to answer” 38%. The answers of the students who graduated from Private School are “yes” 28%, “no” 17%, “partially” 22% and “early to answer” 33%. It is also seen that the expectations of the student who graduated from vocational and technical high school have been partially met.

Table 9.b. Did Afyon Kocatepe University's Elementary Mathematics Teacher Program meet your expectations? Examination of the answers of teacher candidates according to high school graduated

Did the program meet your expectations?	Science High School	Anatolian Teacher High School	Anatolian High School	Private high school	Vocational Technical High School
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	f	%	f	%	f	%	f	%	f	%
Yes	0	0	2	5	6	15	1	12.5	-	-
No	0	0	7	19	9	22.5	1	12.5	-	-
Partially	2	67	15	41	13	32.5	5	62.5	1	33
Too early	1	33	13	35	12	30	1	12.5	2	67
Total		100		100		100		100		100

Did the program meet your expectations? When the answers of the students have been examined, the expectations of two students graduated from Science High School have been partially met. The other student's answer is "early to answer". The answers of the students who graduated from Anatolian Teacher High School are "yes" 5%, "no" 19%, "partially" 41% and "early to answer" 35%. The answers of the students who graduated from Anatolian High School are "yes" 15%, "no" 22.5%, "partially" 32.5% and "early to answer" 30%. The answers of the students who graduated from Private School are "yes" 12.5%, "no" 12.5%, "partially" 62.5% and "early to answer" 12.5%. The expectations of a student graduated from Vocational and Technical High School have been partially met. The other two students' answers are "early to answer".

Table 10.a. How would you like to be a teacher? Adnan Menderes University, Examination of the answers of teacher candidates according to high school graduated

How would you like to be a teacher?	Science High School		Anatolian Teacher High School		Anatolian High School		Private high school		Vocational Technical High School	
	f	%	f	%	f	%	f	%	f	%
Role model	1	50	14	47	19	40	16	47	1	50
Qualified (Successful)	1	50	14	47	22	46	16	47	1	50
Fair, Contemporary Idealist	0	0	2	6	7	14	2	6	0	0
Total		100		100		100		100		100

How do you want to be a teacher? When the answers given to the question have been examined according to the type of high school, it is understood that teacher candidates who graduated from Science High School want to be both a role model and a qualified teacher. A large number of Anatolian Teacher High School graduates want to be a role model and a qualified teacher. 6% of students want to be fair, contemporary and idealist. A large number of Anatolian High School graduates want to be a role model and a qualified teacher. 14% of students want to be fair, contemporary and idealist. A large number of Private School graduates want to be a role model and a qualified teacher and very few want to be idealistic teachers (6%). Teacher candidates who graduated from Vocational and Technical High School want to be both a role model and a qualified teacher.

Table 10. b. How would you like to be a teacher? Afyon Kocatepe University, Examination of the answers of teacher candidates according to high school graduated

How would you like to be a teacher?	Science High School		Anatolian Teacher High School		Anatolian High School		Private high school		Vocational Technical High School	
	f	%	f	%	f	%	f	%	f	%
Role model	1	50	14	47	19	40	16	47	1	50
Qualified (Successful)	1	50	14	47	22	46	16	47	1	50

Fair, Contemporary Idealist	0	0	2	6	7	14	2	6	0	0
Total	100		100		100		100		100	

How do you want to be a teacher? When the answers given to the question have been examined according to the type of high school, it is understood that teacher candidates who graduated from Science High School want to be both a role model and a qualified teacher. A large number of Anatolian Teacher High School graduates want to be a role model and a qualified teacher. 6% of students want to be fair, contemporary and idealist. A large number of Anatolian High School graduates want to be a role model and a qualified teacher. 14% of students want to be fair, contemporary and idealist. A large number of Private School graduates want to be a role model and a qualified teacher and very few want to be idealistic teachers (6%). Teacher candidates who graduated from Vocational and Technical High School want to be both a role model and a qualified teacher.

4. Discussion and Conclusion

In this study, it has been tried to determine the reasons of the teacher candidates who are attending the first and second class in Adnan Menderes University and Afyon Kocatepe University for their preference, their expectations and whether the expectations are met or not according to gender, placement score and type of school they graduated. Generally, it is seen that girls prefer this program more than males. According to the findings obtained from Adnan Menderes University female teacher candidates, it can be seen that they prefer the program respectively as they love mathematics (Disposition to Field), have interest in teaching profession (Disposition to Profession) and have points for the program (Score obligation). The reasons such as its being a promising job and its advantages (Future Anxiety) are the last reasons for preference. According to the findings obtained from Afyon Kocatepe University female teacher candidates, it can be seen that they prefer the program respectively as they have interest in teaching profession (Disposition to Profession), they love mathematics (Disposition to Field), and have points for the program (Score obligation). Future Anxiety is the last reason for preference. When we look at the results of the female students in two universities, it is understood that they prefer as they love mathematics lesson and the profession of teaching. The reason "future anxiety" takes the first place among the reasons for male teacher candidates in Adnan Menderes University while it is the last reason for male teacher candidates in Afyon Kocatepe University. It has been determined that male teacher candidates who are studying in Adnan Menderes University have not preferred the program because of the score requirement. Considering the reasons why the candidates prefer the program in Adnan Menderes University, the student who is a graduate of Science High School has future anxiety and the students in Afyon Kocatepe University have future anxiety, love Maths and love teaching profession. It is seen that the reasons of preference of the Anatolian and Anatolian teachers' high school graduates are disposition to maths and disposition to profession. In addition, when we look at the placement scores of the teacher candidates studying in Adnan Menderes University, it is seen that there is an accumulation between 360-380 points. The placement score of teacher candidates in Afyon Kocatepe University is in the range of 370-380. It can be said that the scores of the teacher candidates in both universities are close to each other. Analysing the expectations of teacher candidates, the majority of female teacher candidates studying in both universities have expectations in both academic and pedagogical fields. 2 female teacher candidates in Adnan Menderes University and 10 female teacher candidates in Afyon Kocatepe University stated that they expect social activities. When the expectations of the male teacher candidates in both universities are taken into consideration, there are more expectations in the teaching and teaching process especially in terms of teaching lessons and teaching practice courses. Furthermore, it is observed that there is no expectation of social activity from the program. When teacher candidates' expectations from the program according to the types of schools they graduated from are considered, pedagogical knowledge is the first place among the expectations of the Anatolian Teacher High School graduates who are studying in Adnan Menderes University. The ranking of other high school graduates is in the form of field knowledge, pedagogical knowledge and social activity. Students of vocational high schools do not expect social activities from the program. According to the high school graduates, the expectations of the teacher candidates in Afyon Kocatepe University are listed as field knowledge, pedagogical knowledge and social activity respectively. In addition, private high school and vocational high school graduates do not expect social activities from the program. When the teacher candidates' expectations from the program according to the placement scores in both university, they are in the form of field knowledge, pedagogical knowledge and social activity in all point ranges. Only teacher candidates who received a score of 360-370 and a score higher than 390 points do not expect social activities in Adnan Menderes University. Those who received a score of under 350 points and 380-390 points in Afyon Kocatepe University have no expectation of social activity.

Did the program meet your expectations? When analysed the answers to this question; the answers of female teacher candidates in Adnan Menderes University are “yes” 43%, “no” 11%, “partially” 20% and early to answer 26%. Male teacher candidates' answers are “yes” 22% and early to answer 78%. In Afyon Kocatepe University, the answers of female teacher candidates are “yes” 6%, “no” 20%, “partially” 44% and early to answer 30%. Male teacher candidates' answers are “yes” 27%, “no” 9%, “partially” 9% and early to answer 55%.

Did the program meet your expectations? According to the type of high school graduated from, in Adnan Menderes University, the expectations of the student graduated from Science High School have not been met. The answers of the students who graduated from Anatolian Teacher High School are “yes” 25%, “no” 6%, “partially” 13% and “early to answer” 56%. The answers of the students who graduated from Anatolian High School are “yes” 38%, “no” 3%, “partially” 21% and “early to answer” 38%. The answers of the students who graduated from Private School are “yes” 28%, “no” 17%, “partially” 22% and “early to answer” 33%. It is also seen that the expectations of the student who graduated from vocational and technical high school have been partially met. In Afyon Kocatepe University, the expectations of two students graduated from Science High School have been partially met. The other student's answer is “early to answer”. The answers of the students who graduated from Anatolian Teacher High School are “yes” 5%, “no” 19%, “partially” 41% and “early to answer” 35%. The answers of the students who graduated from Anatolian High School are “yes” 15%, “no” 22.5%, “partially” 32.5% and “early to answer” 30%. The answers of the students who graduated from Private School are “yes” 12.5%, “no” 12.5%, “partially” 62.5% and “early to answer” 12.5%. The expectations of a student graduated from Vocational and Technical High School have been partially met. The other two students' answers are “early to answer”. In general, since the teacher candidates are first and second year students, they answered the question as it is too early to answer.

As a result, in order to educate a qualified teacher, it is important to determine the reasons of preferences of teacher candidates, what their expectations are and whether their expectations are met or not (Tataroğlu, Özgen, Alkan, 2011).

According to the results of our research, it is understood that most of the teacher candidates come to the elementary mathematics teaching program willingly and fondly. Education faculties should have more responsibilities to train qualified teachers. On the other hand, it should be ensured that candidates with qualifications required by the profession be selected to the faculties of education. Because teaching is a profession that guides our future, has social responsibility and needs to be consciously chosen (İncikabı, Biber, Mercimek, 2016). To generalize, this study should not limited to a single university and should be applied in universities with more students.

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Executive Director Of Teachers In The Secondary Schools In The Trnc Communication Of The Teachers

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Abstract

The communication definition is close to each other but defined in many ways. "Communication is the process of conveying emotions, thoughts, events and problems to people or groups." (Aydın, 1994). Simple communication is the sharing of knowledge, ideas and emotions. On the definition of communication, Amount states, Tutar Communication is the transmission of ideas, emotions, knowledge, skills through person or group to one another through icons. It is a process in which people or persons share messages in order to create meaning and to communicate" (Tutar, 2003).

About the communication process Amount alıcı The communication process is a form of sending a message clearly to the recipient. It organizes the source message (codes), the receiver detects the message and decodes the encoded message. If the buyer who decodes the coded message gives feedback, the communication process is completed "As in every field, the communication processes in organizations are composed of Source, Message, Channel, Buyer and Feedback. These processes should be known to the members of the organization and should be used effectively (Başaran, 2012).

The information, feelings and thoughts that are intended to be transmitted from the source to the transmitter are called coded messages. Tedir Although the message is not only verbal, it may be written or mimic. The message varies from non-verbal, verbal, actions, and correspondence. The channel is transmitted according to the status of the message and transmitted to the receiver according to the types mentioned above. The way the message is sent can be provided in many ways. Batlaş on this subject, is Message sent to the recipient in writing verbally, non-verbally and in writing is possible with the development of sending skills. The ability to send the message of the source is shaped by the social environment and personality characteristics (Cüceloğlu,2007). The recipient is "the person who detects the message sent by a channel by the source and recognizes what this message means. It is the recipient of feedback, trying to share the meaning of the messages. In general, the source is the manager and the teacher is the teacher. As a teacher, the recipient is obliged to understand the messages from the administrator, the messages are more orders. In this case, the manager uses his authority against the teacher. Feedback is mostly observed among teachers. One of the main goals of education is feedback. Another name for the feedback is the feedback. It is the response of the receiver to a message sent by a resource. The effectiveness of communication depends on the fact that the message reaches the recipient without losing meaning in the complete and channel (Tutar, 2003).

In the communication, the personalities, prejudices, awareness about communication and experiences of the recipient and the source are important. In organizational communication, group differences among organization employees, the perspective of communication with the manager's subordinates play a decisive role in effective communication within the organization (Konti, 2011). In this case, when we look at elementary schools, how effective are managers, how can they communicate with teachers, what measures are they taking in order to communicate effectively, do they show interest, are they equal, do they contribute to their progress, respond to their expectations, answer these questions? communication is about how strong it is (Öner, 2000).

The manager's realization of the goals of the school is related to how much he / she can manage teachers, students and parents (Umur, 2011). The manager must be in effective communication with all members of the school in line with the continuity and objectives of the school. The more effective and effective the communication between the teacher and the manager, the higher the level of success in their tasks (Witte, & Rogge, 2014). The administrator should also manage the communication within the school taking into account the characteristics of the people for the purposes of the school (Özünlü, 2007). Managers, being aware of the communication with the teachers and taking measures to bring about this, lead to the effective and powerful manager-teacher communication.

Method of Research

The screening model was used in this study. In the process of communication between the manager and the teacher in primary schools, possible situations that may be encountered were transformed into questionnaire statements and the views of teachers about these statements were tried to be described. It has been tried to be tested whether the views of teachers about gender, age, branch, vocational seniority, graduated faculty, education level, communication skills and whether or not the teacher opinions have changed significantly depending on the location of the school.

Universe and sample

The population of the study consists of 1263 teachers working in the secondary education schools of the Ministry of National Education in Nicosia in the TRNC in the 2017-2018 academic year. The sample of the study consists of 198 teachers in various branches of secondary schools in Nicosia in the 2017 - 2018 academic year. In this study, simple random sampling method was chosen. All Simple random sampling is a sampling type in which all elements in the universe have the chance to be equally selected. In simple random sampling, the number of respondents from each of the element types in the universe is left to chance with all of them.

Data Collection

The questionnaires were applied to the teachers working in primary schools in the Nicosia District of the Turkish Republic of Northern Cyprus. 250 of the questionnaires were given to the teachers. In schools, a questionnaire was first shown to the principals and the teachers were provided to fill their courses in a way that they would not disrupt their lessons.

Results

Table 1. F and % Values for Teachers Gender Variable in the Sample Group

Gender	<i>f</i>	%
men	95	44,6
women	103	55,4
Total	198	100,00

In Table 1, 95 of the teachers in the sample group (44.6%) were male and 103 (55.4%) were female and 198 were primary school teachers. Table 1 shows that female teachers are more than male teachers. It can be said that the profession of teaching is mostly due to the fact that women prefer more because they devote more time to their private life.

Table 2. F and % Values for the Age Variable of the Teachers in the Sample Group

Year	<i>f</i>	%
21 – 25	31	%16,0
26 – 30	45	%30,5
31 – 35	38	%20,7
36 – 40	30	%12,2
41 – 45	28	%8,5
46 – 50	15	%7,0
51 ve Üzeri	11	%5,2
Total	198	100,00

In Table 3, the teachers in the sample group; 31 (16.0%) were in 21 - 25 age group, 45 (30.5%) were in 26 - 30 age group, and 38 (20.7%) were in 31 - 35 age group, 30% (% 12,2) 36 - 40 age group, 28 (8.5%) 41 - 45 age group, 15 (7.0%) 46 - 50 age group, 11 (5.2%) 51 and over the age group. According to these results, it can be said that the teachers who make up the sample group are mostly in the 26-30 age group. Due to the fact that the district of Nicosia is in the compulsory education zone, there is a high number of teachers. The shortage of teachers indicates that the MoNE has more assignments to this region. It can be said that the 26-30 age group is caused by the high number of the first appointment.

Table 3. F and% Values for the Variables of the Teachers in the Sample Group

Branch	f	%
Classroom Teacher	99	59,6
Math teacher	15	7,0
Music teacher	4	1,9
Business Education Teacher	3	1,4
Foreign Language Teacher	12	5,6
Turkish teacher	17	8,0
Science teacher	5	2,3
Physical Education Teacher	3	1,4
Visual Arts Teacher	4	1,9
Pre-school teacher	2	,9
Other	34	9,9
Total	198	100,00

In Table 3, the sample group consisted of teachers, 99 (59.6%) Classroom Teachers, 15 (7.0%) Mathematics Teachers, 4 (1.9%) Music Teachers, 3 (1.4%) Business Education Teacher, 12 (5.6%) Foreign Language Teacher, 17 (8.0%) Turkish Teacher, 5 (2.3%) Science Teacher, 3 (1.9%) Visual Arts Teacher, 2 (0.9%) Pre-School Teachers and 34 (9.9%) other branches. According to these results, most of the teachers who make up the group are classroom teachers. Due to the structure of primary schools, the class teacher is more. It can be said that the percentage of classroom teachers is due to this reason.

Table 4. Communication Training of Teacher Communication in Primary Schools Results of t-Test Analysis for Import Variables

Bottom Dimensions	Gender	f	x	ss	t	P
Recognition of Personnel	Yeah, I got it.	79	3,56	,78	,865	,388
		119	3,46	,81		
Participation	No, I didn't.	79	3,59	,76	,587	,558
		119	3,53	,78		
Breakthrough	Yeah, I got it.	79	3,71	,64	,570	,569
		119	3,66	,71		
Equality	No, I didn't.	79	3,69	,71	,480	,631
		119	3,74	,76		
Total	Yeah, I got it.	79 119	3,64 3,60	,66 ,71	,426	,670

Table 4, the results of t-test analysis conducted in terms of the variable of communication education of manager-teacher communication in primary schools were given. In primary schools, there was no statistically significant difference ($p > .05$) in terms of the variable of communication training in the sub-dimensions of recognition, participation, influence and equality. Conscious conduction of communication contributes to an effective communication between the receiver and the transmitter. Consciousness of the communication and the training of the receiver or the transmitter about communication are effective in establishing a conscious communication. According to these results, there is no significant difference in the communication between the teachers who do not receive communication training with the teachers who have communication training in the sub-dimensions of

Staff Recognition, Participation, Influence, and Equality in the communication of managers and teachers in primary schools. Looking at the average scores, it is observed that teachers' communication with their managers is strong. Comparing the teachers who have received communication training with non-teachers, it can be said that the teachers who received communication training in total have a relatively stronger communication with their managers than others. As mentioned earlier, teachers who receive communication education communicate more effectively and consciously with their managers. However, the teachers who received communication training in the equality sub-dimension have lower mean scores than others. According to the teachers who have received communication training, the scale is considered to be more negative than the others according to the sub-dimension of the scale.

Table 5. Kruskal Wallis - to determine whether the communication between the manager and the teacher in the primary schools differ in terms of the age variable H Test Results

Bottom Dimensions	Year	f	X sequence	x	sd	P
Recognition of Personnel	21 – 25	31	79,82	27,222	6	,000
	26 – 30	45	86,48			
	31 – 35	38	118,97			
	36 – 40	30	127,90			
	41 – 45	28	138,58			
	46 – 50	15	133,17			
	51 ve üstü	11	127,64			
Participation	21 – 25	31	94,38	18,746	6	,005
	26 – 30	45	85,94			
	31 – 35	38	117,17			
	36 – 40	30	132,19			
	41 – 45	28	134,03			
	46 – 50	15	110,00			
	51 ve üstü	11	121,91			
Breakthrough	21 – 25	31	96,32	11,714	6	,069
	26 – 30	45	89,50			
	31 – 35	38	117,68			
	36 – 40	30	124,81			
	41 – 45	28	119,11			
	46 – 50	15	120,80			
	51 ve üstü	11	119,95			
Equality	21 – 25	31	92,87	16,016	6	,014
	26 – 30	45	87,31			
	31 – 35	38	125,17			
	36 – 40	30	116,69			
	41 – 45	28	125,36			
	46 – 50	15	120,27			
	51 ve üstü	11	123,32			

Total	21 – 25	31	89,51	20,470	6	,002
	26 – 30	45	85,42			
	31 – 35	38	121,09			
	36 – 40	30	127,31			
	41 – 45	28	132,44			
	46 – 50	15	120,33			
	51 ve üstü	11	124,36			

Table 4, Kruskal Wallis - H Test was applied in order to evaluate the teacher - teacher communication in terms of age - variable in primary - school schools. There was no significant difference in the sub-dimension of the effect of manager-teacher communication in primary schools. According to this result, it can be said that teacher - education manager communication is strong in the sub - dimension of teachers' influence. It can be said that primary school administrators influence teachers. However, when the age groups are compared, the average scores are lower than the other groups between the 26 and 30 age groups. It can be said that 26 - 30 age group is less affected in their managers than in the age group after 30 years of age.

A statistically significant difference ($p = ,000 < ,05$) was found in terms of the age variable of the teacher in the sub-dimension of the manager-teacher communication scale personnel recognition in primary schools. After this process, complementary comparison techniques were applied to determine which groups were determined by Kruskal Wallis - H. For this purpose, Mann Whitney - U test was applied. At the end of the study, it was determined that the teachers in the 31 - 35 age group were in favor of teachers in the age group of 31 - 35 years, between the ages of 21 - 25 and 26 - 30 years. According to this result, as the ages of the teachers increase, the scores in the sub-dimension of staff recognition increase. Age groups after the age of 31, managers can be said to have enough knowledge of the staff. A statistically significant difference ($p = ,005 < ,05$) was found in the sub-dimension of the participation of the teacher-teacher communication scale. After this process, complementary comparison techniques were applied to determine which groups were determined by Kruskal Wallis - H. For this purpose, Mann Whitney - U test was applied. At the end of the study, it was determined that the teachers in the 31 - 35 age group were in favor of teachers in the age group of 31 - 35 years, between the ages of 21 - 25 and 26 - 30 years. After this age group, the participation size increases from the points they get. According to this result, it can be said that as the age of the teachers increases, the administrators make their participation in the decisions to be taken.

A difference was found in the sub-dimension of manager-teacher discount scale in primary schools ($p = ,014 < ,05$). Wallis - Hrushevichen - Hitzen - Hörgensen -. This garment was administered the Mann Whitney - U test. It has been found that teachers in the age group of 31-35 years are in favor of teachers between the ages of 21- 25 and 26- to 30-year-old teachers. After this age group, the equality is increasing with the points they get from the items. According to this result, as the age of the teachers increased, the administrators were told that the teachers behaved equally.

A statistically significant difference ($p = ,002 < ,05$) was found between the teacher and teacher communication scale in primary school. After this process, complementary comparison techniques were applied to determine which groups were determined by Kruskal Wallis - H. For this purpose, Mann Whitney - U test was applied. At the end of the study, it was determined that the teachers in the 31 - 35 age group were in favor of teachers in the age group of 31 - 35 years, between the ages of 21 - 25 and 26 - 30 years. After this age group, they are increasing in all of the items. According to this result, it can be said that teachers' communication with their managers is stronger as their age increases.

Table 5. Kruskal Wallis - to determine whether the markers differ in terms of the branch variable H Test Results

Bottom Dimensions	sequence	f	Xsıra	x	sd	P
Recognition of Personnel	Classroom Teacher	99	100,84	9,305	10	,503
	Math teacher	15	123,33			
	Music teacher	4	116,50			
	Business Education Teacher	3	123,50			
	Foreign Language Teacher	12	110,54			
	Turkish teacher	17	108,15			
	Science teacher	5	132,70			
	Physical Education Teacher	3	77,67			
	Visual Arts Teacher	4	175,50			
	Pre-school teacher	2	101,25			
	Other Branches	34	111,02			
Participation	Classroom Teacher	99	96,80	15,619	10	,111
	Math teacher	15	121,20			
	Music teacher	4	127,50			
	Business Education Teacher	3	140,83			
	Foreign Language Teacher	12	140,00			
	Turkish teacher	17	105,94			
	Science teacher	5	133,10			
	Physical Education Teacher	3	88,83			
	Visual Arts Teacher	4	175,88			
	Pre-school teacher	2	107,00			
	Other Branches	34	115,07			
Breakthrough	Classroom Teacher	99	99,11	13,896	10	,178
	Math teacher	15	110,90			
	Music teacher	4	123,50			
	Business Education Teacher	3	86,83			
	Foreign Language Teacher	12	128,83			
	Turkish teacher	17	113,94			
	Science teacher	5	132,00			
	Physical Education Teacher	3	110,00			
	Visual Arts Teacher	4	194,00			
	Pre-school teacher	2	80,00			
	Other Branches	34	113,17			
	Classroom Teacher	99	97,45	15,518	10	,114
	Math teacher	15	109,67			

Equality	Music teacher	4	129,88			
	Business Education Teacher	3	91,17			
	Foreign Language Teacher	12	136,96			
	Turkish teacher	17	110,76			
	Science teacher	5	148,40			
	Physical Education Teacher	3	115,00			
	Visual Arts Teacher	4	183,00			
	Pre-school teacher	2	119,50			
	Other Branches	34	113,90			
Total	Classroom Teacher	99	97,78	13,785	10	,183
	Math teacher	15	116,27			
	Music teacher	4	124,25			
	Business Education Teacher	3	116,17			
	Foreign Language Teacher	12	130,71			
	Turkish teacher	17	111,18			
	Science teacher	5	138,90			
	Physical Education Teacher	3	98,83			
	Visual Arts Teacher	4	186,88			
	Pre-school teacher	2	100,50			
	Other Branches	34	113,57			

In order to compare the opinions of teachers in terms of the manager - teacher communication branch variable in primary schools, Kruskal Wallis - H Test was applied in Table 5. In primary schools, there was no statistically significant difference ($p > .05$) between teacher - teacher communication scale personnel recognition, participation, influence, equality sub-dimensions and total. When the mean scores of the other branches of the scale are compared in the subscale of the scale, the average scores of the class teachers are lower than the average scores of the other branches. It can be said that the managers did not provide the participation of the class teacher in the decisions to be taken according to the other branches. Again, considering the total of the scale, the average score of the class teachers is lower than the other branches. In this respect, it can be said that communication between administrators and classroom teachers is weaker than other branches.

Table 6. To determine whether the differentiation of the manager-teacher communication in primary schools Kruskal Wallis - H Test Results

Bottom Dimensions	Education level	f	Xsıra	x	sd	P
Recognition of Personnel	Central School	99	112,83	17,511	2	,000
	School in Slum	55	78,17			
	School in Mass Housing	44	124,08			
Participation	Central School	99	113,99	23,642	2	,000
	School in Slum	55	73,40			
	School in Mass Housing	44	126,59			
Breakthrough	Central School	99	106,63	19,636	2	,000
	School in Slum	55	80,86			
	School in Mass Housing	44	131,98			

Equality	Central School School in Slum School in Mass Housing	99 55 44	106,68 84,37 128,64	14,744	2	,001
Total	Central School School in Slum School in Mass Housing	99 55 44	110,77 77,00 128,64	20,674	2	,000

In Table 5, the Kruskal Wallis - H Test was used to compare the views of teachers and teachers in terms of the neighborhood variable where the school is located in primary schools. There was a statistically significant difference ($p > .05$) between the levels of recognition, participation, influence, equality sub-dimensions of the teachers and the variables of the school where the school was located.

There was a statistically significant difference ($p = .000 < .05$) in terms of neighborhood variable where the school was located in the sub-dimension of manager teacher communication scale personnel recognition in primary schools. After this process, complementary comparison techniques were applied to determine which groups were determined by Kruskal Wallis - H. For this purpose, Mann Whitney - U test was applied. As a result of the application, it was determined that the teachers in the squatter region group of the difference were against the teachers in the squatter region group among the teachers in the center and in the school group within the mass housing units. According to this result, the average scores of the teachers in the squatter region group are lower in the recognition sub-dimension. The average scores of the teachers in the school group in the center and in the mass housing, respectively, increase in the recognition sub-dimension of the staff. It can be said that the managers working in the schools in the slum area are less familiar with their teachers than the other administrators in other central and mass housing.

There was a statistically significant difference ($p = .000 < .05$) in terms of the district variable where the school is located. After this process, complementary comparison techniques were applied to determine which groups were determined by Kruskal Wallis - H. For this purpose, Mann Whitney - U test was applied. As a result of the application, it was determined that the teachers in the squatter region group of the difference were against the teachers in the squatter region group among the teachers in the center and in the school group within the mass housing units. According to this result, the average scores in the sub-dimension of participation of teachers in the squatter region group are lower. The average scores of the teachers in the school group in the central and mass housing units are increasing. It can be said that the administrators working in the schools in the slum area did not provide the participation of the teachers in the decisions taken in the school according to the school administrators in other central and mass housing units.

There was a statistically significant difference ($p = .000 < .05$) in terms of neighborhood variable where the school was located. After this process, complementary comparison techniques were applied to determine which groups were determined by Kruskal Wallis - H. For this purpose, Mann Whitney - U test was applied. As a result of the application, it was found that the difference was in favor of the teachers in the school group within the mass housing, the teachers in the squatter region group and the teachers in the central school group in favor of the teachers in the school group within the mass housing. According to this result, the mean scores of the teachers in the squatter region and the central school group are lower in the sub-dimension of influence. It can be said that the school administrators in the mass housing affected teachers more than the managers working in schools in the other center and squatter districts.

There was a statistically significant difference ($p = .001 < .05$) in terms of the district variable where the school was located. After this process, complementary comparison techniques were applied to determine which groups were determined by Kruskal Wallis - H. For this purpose, Mann Whitney - U test was applied. As a result of the application, it was found that the difference was in favor of the teachers in the school group within the mass housing, the teachers in the squatter region group and the teachers in the central school group in favor of the teachers in the school group within the mass housing. According to this result, the average scores of the teachers in the slum area and the central school group are lower than those of the public housing group. It can be said that school administrators in public housing behave more equally to teachers than other group managers.

There was a statistically significant difference ($p = .000 < .05$) between primary school administrators and teacher communication. After this process, complementary comparison techniques were applied to determine which groups were determined by Kruskal Wallis - H. For this purpose, Mann Whitney - U test was applied. As a result of the application, it was determined that the teachers in the squatter region group of the difference were against the teachers in the squatter region group among the teachers in the center and in the school group within the mass housing units. According to this result, the communication with the teachers in the squatter region group is poor compared to the other group managers.

Conclusion And Recommendations

In the field study conducted with primary school teachers; It was observed that the gender of the teachers and the teacher - teacher communication did not affect the teacher - teacher communication significantly. However, when the mean scores of male teachers and female teachers are compared, the average scores of male teachers are higher. In this case, it can be said that male teachers have stronger communication with their managers than female teachers. In the case of Karlatirs Tuzla, it was concluded that male teachers were more powerful than their female teachers.

In primary and secondary school administrator-teacher communication, the average score between the teachers who received communication training from teachers and those who did not. When the arithmetical average of the scores of the teachers who received communication training with the teachers who did not receive communication training, the average scores of the teachers who received communication training were higher. In this case, teachers who receive communication training are more able to communicate with their managers than teachers who do not receive communication training. Teachers receiving communication training in the research conducted by Karli have stronger communication with their managers than the teachers who do not receive communication training.

Significant differences were observed in all sub-dimensions of primary school administrator-teacher communication, between teachers, in central schools, in schools in squatter region, in schools in public housing. The reason for the differences in all of the sub-dimensions was the same. According to the teachers working in the center and mass housing, the teachers working in the slum area are weaker. According to the teachers working in the schools in the central schools, the communication with the administrators is stronger. Teachers who work in schools in mass housing schools have stronger communication with their managers than teachers working in schools in squatter districts and teachers in central schools. In the study conducted by Karli, only the squatters and schools in the central region were used, so the results were compared between the two.

As the seniority of teachers and teachers in primary school teachers' seniority increase, their communication with their managers is also strengthened. When we look at the sub-dimensions of the seniority of the professional seniority only a significant difference was found in the sub-dimension of the staff recognition. When the sub-dimension of personnel recognition is examined, the seniority of the teachers is strengthening their communication with their managers over 6 years. Teachers' 1-5 years professional seniority and 21 - 30 age groups. Increasing the age of the teachers and their seniority naturally strengthens their communication with their managers. In his profitable research, he concluded that the communication of the teachers with the administrators was strengthened after the 1 - 5 year professional seniority group.

A significant difference was found in the sub-dimension of personnel recognition in terms of the faculty variable of the elementary school administrator-teacher communication. This difference arises from graduates of the Faculty of Education. According to the teachers who graduated from the Faculty of Education, the administrators of other faculties graduated from the managers, managers think that the staff does not know enough. There was no significant difference in the other sub-dimensions. Generally speaking, the change in the faculties that teachers have graduated affects the communication with their managers. In his profitable research, he concluded that the change of faculties that teachers had graduated did not affect manager - teacher communication.

Arithmetic averages of the teachers' responses to the manager - teacher communication scale according to the sub-dimensions, the sub-dimension of the staff recognition is 3.51, the sub-dimension of participation is 3.57, the sub-dimension of influence is 3.69, the sub-dimension of equality is 3.72, and the total is 3.62 . Looking at these arithmetic averages, manager - teacher communication is strong. However, when the sub-dimensions are compared, the highest value is in the sub-dimension of 3.72. It can be said that administrators behave equally to teachers in primary schools. The lowest value is 3.51 in the sub-dimension of personnel recognition. The value of 3.51 corresponds frequently to the scale. In this case, managers can be said to recognize the staff. Collecting is 3.62. The score of 3,62 is 116. The lowest and the highest 160 points can be obtained. In this case, it can be said that the communication of manager and teacher is strong in the primary schools with 116 points.

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Experiential Learning And Understanding Dualities In Reflecting Life Events

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Abstract

This paper shows the intertwining of experiential learning, reflection of life events and motivation. It also reveals that crucial to reflection is being able to see the ‘two selves’ in the way memory recall transpires, which affects ones interpretation. Through the narratives of selected women leaders of a national women’s organization in the Philippines, the dualities of self-meanings in ones self- reflection were clarified, which when deciphered, leads to better decisions and solutions to problems. The role of motivation is integrated as a significant push for action.

Introduction

Reflecting on experiences and learning from them has been a general process and a usual track in education – informal or formal. Similarly and connectedly, experiential learning becomes part of the whole process. Experiential learning has always been associated with adult education, lifelong learning, self-directed and informal learning based on practical occurrences in life. Valuable lessons can be derived from all these. In fact, experiential learning has been a well-trodden area of research in adult education and community organizing. Adult experiences are most often shared through story-telling. Our childhood, whatever our nationalities are, somehow contains stories told by grandparents and/or older people we have encountered. In the Philippines, there is what is called, “Mga Kwento ni Lola Basyang” – translated as, The Stories of Grandmother Basyang, where at certain time of the day, children in the neighborhood would gather around the grandmother to listen to her stories. Stories are narrated as they are and as they come when conditions permit among adult friends, children, neighbors and relatives.

Stories, being sources of knowledge, when re-told can be part of learning, if we know how to make use of them. Beyond learning, they become community wisdom and village history. Stories and narratives go through reflections, remembering, recalling past experiences and most often end in extracting and culling out what lessons have been gained. It has become a pattern of inquiry in qualitative research to make respondents re-tell events, notice highlights, and cull out life lessons. Narrating life events legitimizes experiences as sources of knowledge and lay down kaleidoscopic visions of shared memories. Narratives vary depending on the specific focus in life we want to know. This article puts to fore narrations of women community leaders referred to here as the learners.

The study used the results of a SWOT analysis workshop and leadership orientation cum interview and narration and first-hand data put together as the data sources (DALUYONG, 2015). These were culled out basically through reflections. During the workshops, the community women leaders were allowed to do reflection, deep recall and consultation with their peers. The researchers aimed to explore these narratives, to get into their thoughts, impressions, and self-assessments of their experiences.

The paper, specifically, aims to:

1. Understand how DALUYONG (a national organization of rural women) women leaders see themselves, the transformation process from being homemakers to community leaders;
2. Weave and make sense of these narratives towards deciphering what make up for their happiness and well-being (which from the narratives could be two different things); and
3. Share a community/national development model that may provide some energy and insights for a more inspired and reconfigured work of DALUYONG.

On Experiential Learning: Narration, Dualities And Reflexivity

This section sets the theoretical and conceptual underpinnings of the study. Some themes are highlighted to show how they influence the analytical framework.

Learning is a process -

When one narrates, the subject undergoes a process of reflection. For Fenwick (2001), this puts the subject as the main actor in the process of life recall and making meaning of life events. In here, memories are surfaced and given new meanings based on ones interpretation, how they were able to see those experiences in the now context. Through reflection, the subject recalls and tries to remember events that occurred in one's past. Part of it is weighing or valuating the importance of what transpired and gauging the effect of those events in ones overall life situation. As reflection takes place, one cannot avoid recalling memories beyond ones own. Aside from self, families, friends and relatives, organizational and workplace memories come out as well.

Fenwick considers experiential learning as a "process of human cognition" (Fenwick 2001). She further defines 'cognition' as broadly similar to 'learning.' She sets the question then for us to think 'what manner of learning can be conceived that is not experiential.' Because Fenwick avers experience can be through deep thought (reflective) and awareness of body movements (kinesthetic), both conscious and unconscious, and overall dynamics of life events of the subjects.

Learning by Doing -

It creates new knowledge emanating from action-interactions of people (Dewey 1938). As early as 1938, John Dewey already broached the idea of 'learning by doing.' Linking experience and education, he believes in the 'hands on' approach and experiences can be sources of learning, but also avers that not all experiences educate. In order for learning to take place, the experience must have continuity, where the learner must know how to connect certain aspects of the new learning with what she/he already has. Secondly, there should be interaction. The learner should be actively engaging with his/ her environment checking lessons gained. This is Dewey's idea of coherence of experiences.

In Vince and Reynolds (2007), learning from organized groups can be managed. As one reflects, the possibility of encountering two levels of reflections and outcomes can appear. While one is reflecting on one's personal life, the group or organizational dynamics where the learner is involved, surface as well (Vince and Reynolds, 2007). The incorporation of reflecting on the organization provides the possibility of finding or discovering untapped unconscious, even emotional forces which the subjects never realized were part and parcel of the influencing factors in their lives.

In Gherardi and Poggio (2009), very clearly the stance of feminism as an approach to research is through narration of stories. They sat with women managers and allowed them to talk about the dynamics inside the organization they are in. As a tool of expression, narrative was very effective. The women participants in retrospect rolled out their stories, recalling, analyzing the past events related to their work, thought out the meanings for them of their respective experiences. For Gherardi and Poggio (2009, page 56) Narrating is a way of "re-appropriating experience," recalling and reconstructing to put together past events in one's life. By recalling, the subjects are given the opportunity to a renewed projection, interpretation, and making meanings. In essence, it becomes a "practice of transformation, reflection, reconstruction, recognition and re-structuration of the self" (Gamelli, 1995 in Gherardi and Poggio, 2009).

Fenwick (2001) likewise, inquires into how life experiences are understood. Gherardi and Poggio (2009) see this as the learner's interpretative perspectives. What they see, how they see them, inevitably entails meaning configurations of their own reflections.

Introspection during narration can result in deepening analysis of organizational dynamics, thus under covering grounded and hidden conflicts. These conflicts may not be the learner's own personal experience, but that of the organization's operational settings, possibly finding out organizational flaws. Recounting 'signs and traces' of events are pieces of puzzles that when put together by the narrator can give a complete picture. Findings of conflicts, pose threats and uncertainties. But on the other hand, these findings can commence a re-direction of how the organization will be run.

Learning and gendered leadership -

Leadership has been associated with the male functions, roles and competencies. But taking off from a feminist perspective of experiential learning, narration and reflexivity, we ensue experiences of women as not just personal and organizational roles. In learning by doing, gaining experiences with new knowledge, skills and attitude, the

female narrators are actually ‘re-designing their self-esteem’ (Piccardo 1998 in Gherardi and Poggio, 2009) as a person with value added to note. This new form of leadership is relational and constructive. It veers away from the ‘inborn’ nature of a leader. Rather, it considers leadership to possibly emanate from amongst co-workers, co-participants, co-members. Leadership in this way is something interpersonal, not individualistic.

Leadership is also a situated practice, meaning, it cannot be taken out of context. There has to be interactions, both verbally (whatever the language is) and physically. Interactions are not simply ‘transactional’, which mostly male leaders do, but ‘transformational’ where relationality is given weight, to promote positive interactions, trust, and collective ends. Gendered leadership shares power, exercises control by the group, not control over the group. Chodorow (1978 in Gherardi and Poggio, 2009) avers that women gained this capacity to relate and enhance affective skill thru primary socialization and communication with others whereby they are exposed to attending to listening, sharing stories and experiences, and expressing concerns naturally. These activities, across time, have become society’s expectations and socially-created assignments to women (e.g., child-rearing, physical and psychological family care, negotiating, settlement of conflicts and even finding building block solutions to problems. However, at the societal level, even organizational, they rarely practice these capacities, as most often, men are identified as leaders. The lack of opportunity to employ formal authority in an organization, for example, led women to adapt the strategy of feeling their way thru, as they anticipate reactions from others they relate with.

In some societies though, women leadership was more associated with spirituality and being religious leaders (like the babaylans in the Philippines). But the babaylans’ capacities overflowed beyond spirituality when they were also recognized as healers, shamans, seers, and community ‘miracle workers.’

Contradiction in realities in learning experiences -

Britzman (2003) explains the ‘contradictory realities’ in learning. She specifically used teaching as the direct experience observed and analyzed. She theorizes that when teachers teach, they are ‘shaped by their work’ and ‘shaping their work’ at the same time. Applying and associating this with other types of work, we can similarly say that the contradiction is in - how the processes of the work affect the worker (‘express something about the subjectivities of the worker’), and how the worker construct their working identities. Put in a different light, Britzman (2003) pursues that ‘learning to teach is like teaching itself’ - one transforms in the process of teaching, the ‘teachers construct themselves, while they are being constructed by others.’ It is like a process of becoming: a time of ‘formation and transformation.’

When we teach, it is not rooted on producing and imparting knowledge alone, but we are projecting a public image of ourselves. One is expected to be custodians – enforcing school’s rules, communicates textbook knowledge, gives grades to students, and manages discipline norms. Unseen are – the ways teachers translate the contents and their experiences, their creativity in innovating facilitation of understanding the subject matter, culling out and working out students’ concerns, and balancing the requirements of the curriculum and the teacher’s desire to impart ‘what it means to know’ (Britzman, 2003).

Adding our insights on Britzman’s thoughts, we would refer to this as reflexivity in teaching or the dialectics of teaching, where teachers undergo the spiraling process of teaching-learning-theorizing-teaching – and learning again, but as they undergo the spiral process, they elevate their status in terms of quality – in the way/s of teaching, the ways of being teachers, the content/s or substance of knowledge learned and shared.

Engaging Our Two Mental Operating Systems

In TED Talk 2010, Daniel Kahneman talked about ‘our two selves.’ This was of great interest to the researchers particularly in linking it with experiential learning, narratives and reflections. In his presentation, Kahneman surfaced the concepts of ‘the experiencing self’ and ‘the remembering self.’

In recalling one’s life story, one can talk of the ‘experiencing self’ which is re-living the present. One can also talk of the ‘remembering self’ that keeps the record of the story of his/her life. The remembering self tells the story through our memory. In telling a story, Kahneman (2010) emphasizes three elements that define it – changes, significant moments and endings. For him, endings are very important because they dominate the story, they are usually retained, hence, most remembered.

Kahneman in his book, *Thinking Fast and Slow* (2011), also talks of two mental operating systems which were originally proposed by two psychologists, Keith Stanovich and Richard West. System 1 operates much quickly, with not much effort and sense of control. System 2 is done with more mental effort, like doing complex mathematical computations requiring more concentration before making a choice.

Juxtaposing them with the experiencing self and the remembering self, Kahneman views them as ‘System 1 relates with the experiencing self’; and ‘System 2 relates with the remembering self.’ System 1 is quick to express what it thinks is. As Kahneman would say, the experiencing self answers the query: “Does it hurt now?” On the other hand, associated with the remembering self, System 2 is not as quick to decide what is or how is, but it takes more effort to recall carefully what transpired, goes back to the stock of memories of the past, and answers the question: “How was it, on the whole?”

Juxtaposing further, when people try to recall past experiences, i.e., community engagements as an organizer, one’s life as an educator, a community development manager, a human resource specialist, an education development specialist, they recall in two ways, the ‘remembering self’ and the ‘experiencing self.’ The remembering self is the ‘story-teller’ when one recalls past experiences. Remembering entails narrating stories. What defines a story? For Kahneman, a story contains changes, significant moments, and endings. Emphasizing further, the importance of ‘endings’ in a story, when we recall thru our remembering self, we value much the ‘endings.’ This is the one that we remember, hence, the one that makes decisions.

Our insight on the matter, by linking it with experiential learning, memories recalled include what have been done and the learning from them – good or bad. But learning most often come in positive notes. Aware of the not so good experience, we try to cull out our learning from it and learning always comes as positive effects on one’s life. The ‘learning’ is realized as the ‘ending.’

The ‘experiencing self’ has no voice when we choose what decision to take. According to Kahneman (2010), “We don’t choose between experiences. We choose between memories of experiences.” To remind, it is the ‘remembering self’ that takes stock of memories.

So applying this to perceptions of ‘happiness’, Kahneman further clarifies, ‘the experiencing self’ sees ‘happiness’ as the moments of the experience, complications across process, how happily a person has lived and emotions felt over time. While ‘the remembering self’ talks about ‘how satisfied and pleased the person is when she/he recalls their lives.’ Hence, to emphasize Kahneman, we have to critically learn to decipher the distinction between ‘happiness of the experiencing self’ and the ‘satisfaction of the remembering self,’ if we need to use them for policy decision-making.

A Study Of Lived Experiences Of Rural Women Community Development Workers

This paper uses Kahneman’s ‘two selves’ in analyzing the experiences, learning, happiness and satisfaction of certain organized rural women leaders in the Philippines. The women’s organization is called DALUYONG. It was organized in 2003 by the Philippine Rural Reconstruction Movement (PRRM), one of the oldest and biggest non-government organizations in the country, so far. Its scope cuts across 13 provinces, 58 municipalities/towns with 5,146 members.

13 Provinces	Members	58 Municipalities (Towns)
Ifugao	302	3
Nueva Vizcaya	223	4
Nueva Ecija	106	5
Bataan	1,210	4
Cavite	201	4
Albay	18	5
Camarines Sur	450	6
Camarines Norte	300	4
Quezon	520	6
Marinduque	232	5
Camiguin	250	5
Negros Occidental	242	3
North Cotabato	1,092	4
TOTAL	5,146	58

Table 1.

Why study DALUYONG and look into its experiences –

The inclusion of DALUYONG in the study posits a form of theorizing, which is the ‘search for or making meanings’ emanating from real life experiences. This is a combination of critique, constructivism, and interpretative forms (Britzman, 2003). It is done largely thru narration of experiences, viewed as an advantage because even if lived experiences are not recoverable, they can be re-told thru ethnographic narratives (Brodkey, 1987). As Brodkey says, ‘ethnography is the study of lived experience.’

DALUYONG is eighteen (18) years old. It laid its foundations across thirteen (13) provinces, covering 58 municipalities, with 5,146 members. The expanse and extent of women organizing are amongst – farmers, fishers, traders, local and small entrepreneurs. After 18 years, the researchers wanted to know if the leaders (Executive Committee representing the provinces) are satisfied with their accomplishments and experiences, as a whole; and specifically, are they happy as women leaders.

The researchers sat down with seven (7) of the Executive Committee leaders (2 were absent). To start and reflect on their journeys, the participants were asked the question: Are you happy now as a woman – within the family, the organization, and the community and/or the country? This was done to sort of give the women leaders brief time to reflect on their journeys as community leaders.

In summary, the answers expressed were:

- (1) Empowered women - ‘Yes’ they are happy as ‘empowered women’ compared to when they were not members of DALUYONG. Now, they have broader and deeper knowledge about life in different aspects – socio-cultural context of women’s oppression and gender inequality; the complexities of the political situation of the country and its governance; and the economics of resources a country has, its usage and equitability of benefits to affect the poverty situation they are in, plus the others in similar case.
- (2) Awareness of women’s rights - They are now aware of their rights as women, in the context of their respective households, local-based organization, and the community.
- (3) Confident of their capacities - They are more confident of what they can do, especially as members and officers of their organization, representing their respective provinces to the Executive Committee. Most of them have been with DALUYONG for over 10 years. It is in DALUYONG that they have become more learned in terms of public speaking, engaging with officials in the local government when they have to raise their local issues in the community, and dealing with other organizations. They are now positive influence on others; a realization of how much their minds can reach (comprehensively), and able to link and synthesize multi-concerns like: poverty, environmental integrity, abuse of natural resources, corruption in governance, etc.
- (4) Citizenship - Contributing to the community in terms of identifying problems, finding solutions, e.g., family health and nutrition, food security; gender relations and counseling; coordinating with the church, school, youth and senior citizen-support activities.
- (5) Community recognition - Gained the respect and recognition of people in their respective barangays and other organizations.
- (6) Resource mobilization - They learned to make/write project proposals to start up social enterprises for DALUYONG members.

Meeting The Two Selves –

Kahneman’s theory of the two selves and Brodkey’s search for meaning/s approach can be used in understanding the narratives from each woman-leader based on recalled experiences and how Saemaul Undong (South Korea’s successful community development model) served as inspiration and motivation.

In telling the story of looking back at past experiences, Kahneman explains that what we recall are memories of our experiences which the storyteller narrates. He emphasized the point that what really defines or gives identity and meaning/s to a story are: changes, significant moments and endings. These elements are found in the ‘remembering self’ rather than the ‘experiencing self’ because it is the former that holds the stock of memories. The latter is more aware of what exist in the present yet can recall the past.

The ‘Remembering Self’ And Satisfaction –

So when asked if they are happy, the women leaders recall the memories of the changes that transpired in their lives – from being ordinary, not-so-knowledgeable housewives (according to them), or simply a farmer’s wife and mother to their children, extending unpaid labor, helping out in the farm to augment family food on the table, or a fisher’s wife selling fishes. If not sold, she dries and salts the fish for longer shelf life adding value to them. The recollection focusing on the transformation/changes in their lives were significant moments. From being silent, learning how to teach and organize other women, discussing community issues, engaging the local government, negotiating their needs, and tapping resources for community projects.

All the expressed themes mentioned above (i.e., empowerment, awareness of women's rights, confidence in one's capacities, citizenship, community recognition, and resource mobilization) are enormous changes and very significant moments in the women leaders' lives. It was their 'remembering self' doing the recall. They were just happy to narrate the memories they had, like trainings, meetings, orientations, the knowledge and skills learned, the feelings of elation from getting recognition in their communities, and the feeling of empowerment.

But there seems to be a hanging question in their mind. Were they satisfied? Following Kahneman further, another element that defines a story is the ending. For these women, at the outset, empowerment could be the ending. As part of experiential learning, this ending dominated in their narratives.

The 'Experiencing Self' And Happiness -

But is it really the end? Or is there something more for these women leaders? Apparently, we observed and looked deeper into the recent SWOT (strengths, weaknesses, opportunities, threats) results previous to the narration session. Noticeable are expressions of 'dissatisfaction' despite 'happiness.' Happiness and satisfaction are the expressed realities from stock memories of changes in the women's lives. These are their achievements. These are significant moments of being recognized in the community, memories of places they have been to, people they have met and projects they worked on, which contributed to economic gains. Despite expression of happiness of their past lives, there is dissatisfaction when they thought of the here and now. It is the experiencing self conveying this feeling.

In DALUYONG's case, happiness and satisfaction is experiencing and seeing solutions resolving existing concerns. Hence, the ending is yet to be realized. The ending seems to be never-ending because it is a moving target continuously rolling out. This is what the 'experiencing self' encounters in the present. In other words, one can be happy with good memories but may not yet be satisfied.

In matters of public welfare, banking on Kahneman's thought, "we should not mistake happiness as a substitute for welfare" (2003). DALUYONG's strategic goals of sustained growth and development and better quality of life are something for the 'experiencing self' to get. Decisions on social and public welfare, he is saying, should be based on what the 'experiencing self' sees.

In summary, the SWOT results were:

STRENGTHS: The national council and executive committee regularly meet; 85% of local formations still operating; strong links with local government units (LGUs); active in issue advocacy and lobbying; participating in conferences, seminars, trainings; has operating social enterprises but yet to enhance packaging and marketing aspects; accredited by the municipal and provincial government; can participate in LGU decision-making thru the local development councils.

WEAKNESSES: Wearing out of membership expansion; ageing leadership; no ready second-liners; low spirit and enthusiasm of some members; some field chapters stopped regular meetings; some members are unreachable (no more contact and update from DALUYONG chapters in the provinces of Negros Occidental, Cotabato, Camiguin, Ifugao, Nueva Vizcaya); overlooking the potential of resources available in the areas; certain policies need revisions, still weak in product promotion and market sustaining.

OPPORTUNITIES: access to participation in open planning and budgeting from barangay to regional levels thru the bottom-up-budgeting (BUB); passing into law of the Magna Carta for Women; chance to develop more gender and development champions; presence of financial network supportive of women's advocacies and projects (e.g., councilors, barangay/village captains, mayors, governors).

THREATS: non-readiness to climate change that can hit farm crops, properties and other resources; bureaucratic system that could deter processes of engagements with government; changes in administration may not favor flagship projects; negative effects of ASEAN integration.

Dissatisfaction And The Motivational Elements

DALUYONG leaders are hoping for 'better quality of life' for their communities. However, there is a part in their overall reflection that spurs the 'low spirit and enthusiasm' causing frustrations and dissatisfaction as a result of unrealized goals and objectives. At this point, South Korea's Saemaul Undong (SMU), a successful community and national development model, was narrated to the women leaders. Infusing the Saemaul Undong's spirit of diligence, self-help and cooperation, in the context of South Korea's history of recovery from ground zero after the Korean War, the immediate response was remarkable.

Saemaul Undong (SMU) is one classic approach to rural development which first unfolded in South Korea, during the presidency of Park Chung Hee in the 1970s. Saemaul Undong is a New Village Movement launched by President Park in the 1970s. It is a community-driven development (CDD) program which highlighted people-centeredness. It harnessed people's participation with shared vision, shared burden, working together, making sure women participated. SMU's overall aim is to overcome endemic rural poverty in Republic of Korea (ADB 2012).

"The spirit of diligence is to promote healthy work ethics and to emphasize one's voluntary and active involvement in development activities. The spirit of self-help means choosing one's own work and taking responsibility of one's own life. The spirit of cooperation stimulates a sense of community which necessitates harmony and mutual help, not to mention its contribution to increased work efficiency" (Chung 2009).

The leaders responded with heightened interest and enthusiasm that led them to immediately pilot Saemaul Undong learning session in a barangay (village) in Marinduque province. The women in that village who participated in the session, inspired by the SMU sharing, immediately requested for a practical learning session on natural farming.

Reconnecting with the 'experiencing self', the intervention was the element to recharge, recoup the strength and dwindling spirit of women leaders, to search for that feeling of satisfaction from their community development efforts. It made them reflect and digress from a 'high-headed' to a 'down-to-earth' mindset, one of which is to return the savings culture among the members, as savings can be the seed of growth of the local economy.

The South Korean SMU experience posed as the lynchpin to the leadership's revival of spirit. The sharing on SMU was an 'aha' moment. It showed the leaders that their goals are achievable and provided valuable insights on the how-tos. The SMU gave them hope and encouragement

Conclusion

DALUYONG women leaders in their ten years of service have learned a lot from their experiences. They conveyed that they felt happy when they remembered their experiences as community leaders because there have been positive changes and significant moments in their lives where they gained knowledge, skills and respect from their communities. According to Kahneman's 'two selves', the 'experiencing self' expressed happiness felt at that moment. On the other hand, DALUYONG women leaders also expressed some frustration and dissatisfaction when they reflected on their experiences because the realization of their organization's goals (i.e., improving the lives of their members and communities) have not yet been significantly addressed. The 'remembering self', according to Kahneman, keeps and recalls experiences as a life story which has three elements that define it – changes, significant moments and endings. The endings are very important because they dominate the story and are usually retained and most remembered. The story of DALUYONG women leaders says experiences which transpired still cannot provide the satisfaction they are looking for because the ending that they desire (i.e., realization of DALUYONG's goals) is still unrealized.

The SMU intervention served to motivate the weakening spirit of some DALUYONG members, which pushed them to commit more, regain their footing as they see clearer direction for the organization and achievability of DALUYONG's goals.

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Exploring The Meaning Of Social Practice Through Volunteer Activities Of University Students

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Abstract

The purpose of this study is to explore social practice and meaning of social practice through a multicultural mentoring activity, which is part of college students' volunteer activities. To this end, I interviewed ten students. The results of the study are as follows. First, they recognized that a variety of people must live together in a multicultural society. Second, Mentors and mentees have experienced a variety of experiences throughout mentoring activities and have learned to learn and grow. Third, the students participating in the mentoring program learned the joy of volunteering and sought more meaningful activities. Fourth, the students are always thinking about whether their activities are an activity or a social activity. Fifth, the excellence of a person's right to judge and wrong in life accomplishes an inner achievement.

Keywords: *Social Practice, Multi-cultural Mentoring Activity, Internal Achievements, Community, Global Citizenship.*

Introduction

People try to do socially beneficial and meaningful activities as life becomes rich. Through social activities such as volunteering, We try to enrich and enrich other people's lives as well as social activities. Likewise, university students try to do useful and rewarding activities through college life. MacIntyre(1984) defined Social benefit as social practice. He said that he regarded social practice as a collaborative human activity, and that these activities were formed and maintained in various ways to maintain society. Therefore, social practice should be beneficial to the community, not to mention what is naturally found in our lives.

Hirst(1993) said that the social rule should be respected in order to practice social practice. That is, it is necessary to judge right and wrong about whether or not one's activities are activities for the community before doing so.

University students' volunteer activities should also be considered and implemented primarily in terms of benefit from the community. Thus, university students' volunteer work begins with a good mind to contribute to society and community as a prospective social worker. It is necessary to search for activities that are more difficult to help people with disabilities than I do, but it is necessary to discover how they grow up and explore and reflect on how they grow up. In other words, exploring how college students achieve social fulfillment through various volunteer activities is an important task for a wide variety of people.

Therefore, in this study, we intend to explore social practice and meaning of social practice through a multi-cultural mentoring activity, which is part of university students' volunteer activities. Hopefully, it will serve as a basis for enhancing the social practice of college students.

Theoretical Background

2.1 Multi-cultural mentoring through social practice

Scholars are discussing various aspects of human conduct and practice. First of all, Schatzki(2001) divided the behavior into a form of life according to the concept of human behavior and practice. In addition, Miller said that the practice of separating humans from internal and external lines is divided into internal and external lines, and humans act differently according to their purpose. Also, MacIntyre(1984) emphasized that the most important thing in social practice is virtue, and fulfilling the virtues of virtue, my enemy achieved the public good. Social practice of social workers can form a healthy community in societies where social and community members form public good works of society. The realization of the inner values of the inner values is realized through the participation of the participants (Yoo Jae-bong, 2002).

The social practice of many people is mainly accomplished through volunteer work. University students also perform volunteer work for their environment and do a healthy act for society as a preliminary social worker. Volunteering activities in colleges have changed dramatically as society has changed. Though most volunteer

activities such as volunteer work, medical services, and educational services were used in the past, online volunteering has increased due to the development of the internet or the network. Among university students who are popular among university students, university students can benefit from their ability to extend their skills and engage in activities related to their careers. In particular, Multi-Cultural mentoring is a form of community outreach and a form of social practice in Korean society.

Multi-Cultural mentoring is an educational ministry program designed to support students from multi-cultural families who grow up in Korean society. Multi-Cultural mentoring is a collaborative mentoring of Korean college students, whose mentors are comprised of middle and high school students in middle and high schools, and college students, students, students, students, students, students, and students in their spare time. Multi-cultural mentoring is a collaborative effort between mentors and mentees. When cooperative activities continue, they form the best performance and the best minds of each other, creating the best mental health conditions (Kim Young-soon, 2010). The social practice of realizing the community's multi-cultural mentoring activities has led to social activism for the community to cooperate with the community's public offerings. In view of this, Park Mi-sook(2016) regarded that the multi-cultural mentoring activities were a social practice in the sense that multi-cultural mentoring activities are a cooperative activity for social minorities in society, as well as mentors and mentalities. Multi-cultural mentoring is also a source of everyday life for university students and learning the outcomes of learning in everyday life (Yoo Young-man, 2006).

Research Method

3.1 Collecting research participants and data

The participants chose 10 college students who were willing to participate in the study and voluntarily participate in the volunteer work. University students are mainly students participating in a multicultural mentoring program hosted by the University of Incheon in Incheon, and include the students of Education College students as well as students. The general information of the participants is as follows .:

<Table 1> Characteristics of participants

Research participants	Major	Gender	School Grade	Mentoring area	Mentoring Experience
Participants 1	Social Education	Woman	Middle	City	Three years
Participants 2	Education	Woman	Middle	City	Three years
Participants 3	Social Education	Woman	Middle	City	Two years
Participants 4	Social Education	Woman	Elementary	Farming village	Two years
Participants 5	Korean Language Education	Woman	Elementary	Farming village	Two years
Participants 6	Education	Woman	Middle	City	Two years
Participants 7	Social Education	Man	High	City	Two years
Participants 8	International Trade	Man	High	City	Two years
Participants 9	Social Education	Woman	Middle	City	Two years
Participants 10	Public Administration	Man	Elementary	City	Two years

The study explores the meaning of social practice through multi-cultural mentoring in South Korean society, which is becoming a multicultural society. From September 2015 to March 2016, the study conducted in-depth interviews of university students who participated in multi-cultural mentoring activities to analyze their experiences.

3.2 Method for research

Data collection for research was conducted in depth interviews after receiving consent from university students participating in the study. The in-depth interview was conducted by one or two participants in the study. The interview session was conducted in an hour and a half, and the interview venue was held in a quiet cafe. The atmosphere of the interview was free of charge and the interview was suspended when the data was saturated. All recorded materials were recorded in transcription and filed into files.

The data analysis was conducted by keyword actions centering on key themes. The analysis process continued to be repeated continuously and analyzed by the analysis participants by sending analyzed contents to the participants. In addition, they tried to improve the feasibility of research, including sending analyzed materials to fellow qualitative researchers.

Results

The results of the study are as follows.

4.1 Living together

It is important to recognise that a variety of people must live together in a multi-cultural society when it is changing into a multi-cultural society. It is important for all members of society to recognize each other's diversity and to coexist with their culture together. University students attending Multi-Cultural mentoring activities have recognized that the various social phenomena of Korean society should be understood to recognize diverse social phenomena and recognize each other's diversity in order to coexist. Mentors are also important to mentor the Mentoring, but have sought to develop skills to understand and support each other in diverse societies. Through this, everyone learned that they should live together.

I want to let my mentee know what to do with the other person, to think about it, to look at it, to make it happen, to make it happen. (Research participants 1)

At first, I was terrified because I was a multi-cultural group. Because of the idea of multiculturalism, I think it's not just discrimination, but it's kind of like that. I have come to understand multi-cultural people and I have changed my eyes. (Research participants 8)

4.2 Growth with each other

Volunteer work is also helpful for those who volunteer, but those who participate in volunteer work feel fulfilled by volunteering to participate in volunteer work. Mentoring mentors lead to mentoring motivation through mentoring, mentoring students, mentoring, and challenging students to demonstrate their ability to learn their own learning skills, such as mentoring, mentoring, and mentoring. Both Mentors and mentees have experienced a variety of experiences throughout mentoring activities and have learned to learn and grow.

I think it's true that I'm growing up with someone I love to be seen as someone I love, rather than just believing in what I love to believe, rather than believing in what I love. (Research participants 5)

I think it's grown a lot through Mentoring. I feel good because I have changed my mind to use the mentee and watch the mentee in order to use the mentee and watch the mentee. (Research participants 10)

4.3 Expandign service consciousness

Those who do not feel satisfied through volunteer work are no longer interested in volunteer work. However, volunteer work that affects her life and value is sought to do another volunteer work. A mentor who participates in this multi-cultural mentoring will know that his small powers empower others. Through these efforts, he participated in other volunteer activities and tried to act for the socially difficult people. The college students participating in the mentoring program learned the joy of volunteering and sought more meaningful activities.

You have to do something active. Volunteer work or personal affairs don't do volunteer work. That's why I want to help others if I think about it. (Research participants 2)

At first, mentoring time is thought to be a mystery, and it is interesting to have a sense of humor rather than to fulfill the concept of volunteering and to fulfill a sense of humor rather than in middle and high schools. (Research participants 9)

4.4 Establish a sense of community

We consider ourselves constantly question how to live, and thinking about their roles and responsibilities in relationships with others (Chang Yun-su, 2014). Thus, undergraduates are always thinking about whether their activities are an activity or a social activity. College students recognize that multicultural mentoring activities help students learn from multicultural families, as well as academic support for school life. College students recognize that this activity is aimed at reducing the outflow of multicultural families from multicultural families. The college students who participated in the multi-cultural mentoring ceremony have given a chance to rethink the community's broader community through mentoring. It protects the socially weak from such small things and strives to maintain the community well.

While growing up in the middle of learning, they grow bigger, but they grow bigger. And I want to see something bigger than me, and if that happens, I want to do something like that.

(Research participants 3)

Because of the multi-cultural mentoring, we have to pay attention to those who are alienated from the public. Having a sense of community, whether it's reflective or mentoring or mentoring, doesn't mean that you can form a community in society. (Research participants 6)

4.5 Excellent through internal achievements

The excellence of a person's right to judge and wrong in life accomplishes an inner achievement. (Aristotle) Aristoteles is said to be a person who can distinguish between good and bad things by dividing them into a good thing and not doing anything good, such as social practice, which is the source of a healthy society, which is the source of a healthy society. College students who participated in Multi-Cultural mentoring also showed their inner achievements through mentoring activities, which showed excellence. Also, many students were worried about changing society and realizing a good society.

My activities are always worrying about society, and I'm looking for answers to him. If the mentee changes both the mentee and the mentor, it can be both parallel to the two, but I'm doing the latter, which makes me change the society. (Research participants 4)

I don't think it's possible to reflect on the fact that I reflect and reflect on my values and pursue my values, and that I will not be able to form a good society when I come to society or where I come from. (Research participants 7)

Conclusions

The study seeks to explore the meaning of social practice through mentoring activities in multi-cultural mentoring. For this reason, the following conclusions were concluded by interviewing 10 college students who participated in the mentoring process.

First, college students who participated in multi-cultural mentoring have realized that various people must coexist and live together through mentoring. Secondly, through multi-cultural mentoring activities, the mentor was growing inward and internally inside. Third, college students participating in volunteer activities were expanding their sphere of service through multi-cultural mentoring activities. Fourth, college students who participated in multi-cultural mentoring were aware of what life was for, and hoped everyone would be happy, through the internal achievements of the community.

The study leaves college students with the opportunity to realize that their value has become an opportunity to realize their values and establish a community line through multi-cultural mentoring activities. These studies suggest that university students should provide opportunities and environments to provide diverse service activities.

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Factor Analysis Of Digital Leadership In Thai Primary Schools

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Abstract

This research was designed to explore the factors and indicators of digital leadership among executives who are working for Thai primary schools under the administration of Nong Bua Lamphu Primary Educational Service Area Office. Researchers utilized mixed mode design using a combination of quantitative and qualitative methods to collect data. Firstly, researchers interviewed three academic and policy experts to identify digital leadership factors. This is followed by a quantitative survey design that involved a total of 580 respondents comprised of executive members and teachers were selected as respondents. The ratio between of samples was 20:1 meaning that 20 samples to each parameter. Since this research involved 29 parameter, thus the required sample size would be 580 samples. Findings of this research revealed that digital leadership was performed at high level. Specifically, digital leadership factors were identified in descending order as follow: (i) demonstrating social morals and law compliance; (ii) brand creation; (iii) communication and public relations; (iv) learning how to use digital tools; (v) opportunities to learn and develop skills of using technology; (vi) career development, and (vii) assessment and evaluation. This is followed by exploratory factor analysis to determine the suitability of the identified factors. Findings of the exploratory factor analysis showed that a Kaiser-Meyer-Olkin value is 0.975 which was greater than 0.05 and the Bartlett's Test of Sphericity indicated that a Chi square of 35352.776 meaning that the correlations are significant at 0.05 level. In addition, finding of the factor extraction via Principal Component Analysis (PC) involved rotating of the core factors showed that there are 10 factors with Eigen values between 1.027 and 33.649, and give a variance of 65.929 percent. Finally, digital leadership factors in descending are identified as establishment of a technological network, creation of innovative environment that foster technological learning, ethics of technological use, ability to use digital devices, brand creation, inclusivity in planning, professional development, exploration and selection of precise and up-to-date information, compliance to digital information law and safety regulations, and evaluation.

Keywords: *Digital leadership; executive members; primary schools*

Introduction

For the past 10 years, hundred of billions of Thai bahts are funneled into technology initiatives and resources in school district throughout Thailand. As these tools become more prevalent in schools, it is school executives that will make the success of such innovative programs and ultimately help to determine if the monetary investments were worthwhile. School executives that exhibit digital leadership will undoubtedly have a higher return on such investments in technology (Office of the Civil Service Commission, 2017). Current school society moves into information age, professional learning will occur digitally, and that professional learning will be more dedicated to a digital learning for students. If a school executive is unable to create a digital culture, his or her school will struggle. Moreover, teachers have to develop the skills necessary to help students succeed in the new digital economy, if that capacity does not spread throughout the school, and if the school lacks the tools needed for teachers to effectively teach in the digital world, ultimately, students will suffer (Tang & Somprach, 2015).

Current school organizations need a completely different kind of leader that is a digital leader or executive. A digital executive is expected to build teams, keep teachers connected and engaged, and drive a culture of innovation, risk tolerance, and continuous improvement (Abbatiello, Knight, Philpot, & Roy, 2017). According to Tang and Somprach (2015) emphasized that high performing schools need digital leadership because it is a team effort and digital leaders are able to work together with teachers, complement each other, and function as a team. Hence, Abbatiello et al. found that the most critical need is to develop digital capabilities of leaders. Their study found that only five percent of organizations perceived as they have strong digital leaders in place, according to their 2017 Global Human Capital Trends survey respondents. However, there are 72 percent of respondents showed a sign of positive change as they are developing or starting to develop new leadership programs focused on digital management.

To require primary school executives to undergo transformation to embracing the digital educational world is crucial. Firstly, the executives need to recognize that they need to become digitally fluent and ensure that they are able to integrate digital thinking into their everyday management (Tang & Somprach, 2015). In addition, Sheninger (2014) highlighted that digital leadership has to take into account the recent changes such as ubiquitous, connectivity, open-source technology, mobile devices, personalization which represent a dramatic shift from how schools have been run and structured for over a century. Thus digital leadership is defined as establishing direction, influencing others, and initiating sustainable change through the access of information, and establishing relationships in order to anticipate changes pivotal to school success in the future. It requires a dynamic combination of mindset, behaviors, and skills that are employed to change and/or enhance school culture through the assistance of technology.

The target set for digital Thailand is to create opportunity and social equality so that 100 percent of Thai population will access to the Internet as a standard public service (Realizing digital Thailand, n. d.). Since the Royal Thai Government has identified to build a digital economy and society as a priority in order to transform Thailand into a digital leader within the ASEAN Economic Community, researchers would like to explore and determine the digital leadership factors and indicators. Therefore, researchers aimed to analyze digital leadership of primary school executives in Nong Bua Lamphu, Thailand.

Method

Researchers employed a mixed mode design to collect the quantitative and qualitative data using multiple ways to explore the research problem. It means a combination of different modes of collecting data for a single research. Survey design was employed utilizing questionnaire as a method to collect quantitative data. Researchers begin to collect qualitative data followed by a collection of quantitative data to achieve the sequential explanatory of the collected data. Researchers intend to use the quantitative data analysis from Exploratory Factor Analysis to validate the suitability of the digital leadership factors and indicators from the findings of a qualitative study at the first phase (Creswell, 2014).

There were three academic and policy experts who participated in in-depth interviews at the first phase. At the second phase, a total of 580 respondents comprised of executive members and teachers were selected as respondents. A multistage sampling technique followed by proportional simple random sampling technique was administered to select samples according to the two groups namely executives and teachers. Hair, Back, Babin and Anderson's (2013) proposed that the proper ratio of samples is 20:1 or 20 samples per one parameter. Since this research involved 29 parameter, thus the required sample size would be 580 samples. On this line of reasoning, simple random sampling technique was utilized to select 580 of executives and teachers to fulfill Hair et al. (2013) suggestion that sample size should not less than 100.

This research was initially started with studying the literature to identify the factors and indicators of digital leadership. This is followed by interviewing three academic and policy experts to validate the identified factors and indicators of digital leadership. The qualitative interview data was analyzed using content analysis. A survey questionnaire was used and administered in the Thai language to ensure that the respondents could understand about the statements. This survey questionnaire method benefits this study in terms of obtaining data more efficiently as time, energy, and costs would be minimized (Wyse, 2012), hence provides an excellent means of measuring attitudes and orientation in a large population which can, therefore, be generalized to a larger population (Gay, Mills, & Arirasian, 2012). Researchers used exploratory factor analysis to evaluate the suitability of the identified digital leadership factors and indicators from the phase before.

Findings

Findings of this study are presented based on the research aim that is indicated above. The initial result is the descriptive results related to the background of the 580 respondents from the second phase. This is followed by the identification of the digital leadership factors and indicators from the interview findings. Finally, finding from the exploratory factor analysis is presented.

Descriptive findings of background of respondents

A total of 580 respondents participated in the survey showed that most of them are 378 females (65.17%) and 202 males (34.83%). The respondents were comprised of 514 teachers (88.62%), 61 school directors (10.52%), and five vice directors (0.86%). Generally, there are 414 respondents (71.38%) who have more than 10 years of working experience, with the remaining 137 respondents (23.62%) who have 3 to 10 years working experience, and 29 of them (5%) have less than 3 years of working experience.

Qualitative and quantitative findings of digital leadership factors

Based on the qualitative findings from the three academic and policy experts, researchers found that there are seven key factors namely (i) demonstrating social morals and law compliance; (ii) brand creation; (iii) communication and public relations; (iv) learning how to use digital tools; (v) opportunities to learn and develop skills of using technology; (vi) career development, and (vii) assessment and evaluation. The overall digital leadership and its seven key factors were perceived by the 580 respondents as highly implemented.

Exploratory factor analysis of the digital leadership factors

Findings of a Kaiser-Meyer-Olkin (KMO) value is 0.975 which was greater than 0.05, indicating that all the data and variables are sufficiently related and are suitable to further analyze according to the research aim. Besides, the Bartlett's Test of Sphericity indicated that a Chi square of 35352.776 meaning that the correlations are significant at 0.05 level. This showed that the correlation matrix of the variables was sufficiently correlated. Therefore, the correlation matrix is found to be suitable for factor analysis. Finally, finding of the factor extraction via Principal Component Analysis (PC) involved rotating of the core factors showed that there are 10 factors with Eigen values between 1.027 and 33.649, and give a variance of 65.929 percent.

Findings of factor rotation and definition explanation

Identified factors were orthogonal rotated using the varimax method in order to clarify the variables thus enable to explicate the 10 factors of digital leadership in descending order as follows:

- i. The establishment of a technological network factor consisted of five indicators that required the executives to
 - Create platform and network for consultation;
 - Establish both internal and external technological network to open opportunities for organizational administration;
 - Support teachers and staff via technology;
 - Foster cooperation for learning development, and
 - Establish a technological network to share information, news, and knowledge.

All the indicators of the establishment of a technological network factor were weighted within 0.346 to 0.666.

- ii. The creation of innovative environment that foster technological learning factor was comprised of 13 indicators that required the executives to
 - Persuade students to learn new things;
 - Develop methods to improve students' memorization of whatever they learned;
 - Motivate and attract attention of students;
 - Support and assist students to accept their personal value;
 - Reasonably administration;
 - Act as positive role models;
 - Representing good behavior and creativity to staff, students, and parents;
 - Classroom environmental management that facilitating learning;
 - Managing external environment to facilitate learning;
 - Accept staff differences and diversities;
 - Integrating knowledge to lead innovation;
 - Support initiation and creativity at work using technology, and
 - Applying knowledge and new innovations in educational management.

All the indicators of the creation of innovation environment that foster technological learning factors were weighted within 0.434 to 0.685.

- iii. The ethics of technological use factor was included nine indicators and weighted within 0.481 to 0.688 as the executives:
 - Are not allowed to use technology to track their staff's personal life;
 - Are not allowed to access personal information of their staff or students;
 - Espouse ethics and morality in data management;
 - Use data with a high level of precision and accuracy;
 - Build and develop school database;
 - Transparent and scrutinize their administration using technology;
 - Use technology holistically in administration;
 - Use technology in punctual administration, and
 - Choose uses of technology that responsive mostly to staff's and students' needs.
- iv. The ability to use digital devices factor encompassed 10 indicators and weighted within 0.414 to 0.730 which required the executives to:
 - Use social media;

- Have portable electronic device skills;
 - Use online technology to delegate and communicate for work;
 - Have basic computer knowledge, understanding, and abilities;
 - Be good role models for applying technology within school administration;
 - Use digital technology as a key tool in school administration;
 - Persistently use new technological tools in administration;
 - Support the use of technology in learning courses and course management;
 - Use technology in meetings, discussions, and giving advice, and
 - Use technology to build and develop tools for school administration.
- v. The brand creation factor consisted of 10 indicators and weighted within 0.425 to 0.718 that required executives to:
- Raise staff's spirits;
 - Celebrate successful staff
 - Show sympathy, kindness, and generosity to staff, other group members, and community;
 - Promote a positive image of the school;
 - Establish trust in the name and school brand;
 - Praise students, staff, and organization including themselves for their identities;
 - Contribute to society;
 - Build a system that allowing staff and students' participation according to their identities;
 - Define strategy and planning that affecting school identity, and
 - Evaluate staff and students corresponding to school identity.
- vi. The inclusivity in planning factor consisted of six indicators and weighted within 0.433 to 0.737 that required:
- Executives and committee to represent the community to publicize school efficiently;
 - Executives invite school committee or local organizations to act as school communication team and public relations committee;
 - Executives offer opportunities for parents and community to plan and work together to publicize the school;
 - Staff participates in planning, forming principles, and determining the means to publicize the school;
 - Executives and staff meet and plan together, and
 - Executives survey ideas to consider when setting goals.
- vii. The professional development factor was comprised of seven indicators and weighted within 0.458 to 0.621 that required executives to:
- Provide and develop an online networking system;
 - Develop teachers and staff to be knowledgeable, experienced, and skilled with technology;
 - Set up courses to develop digital knowledge;
 - Support staff and students in developing their abilities to use technology by allowing the use of school technological network within the surrounding area and community;
 - Develop media and software to serve as the information and learning center;
 - Set clear goals for digital learning, and
 - Assign learning methods and delegate digital knowledge management.
- viii. The exploration and selection of precise and up-to-date information factor was comprised of three indicators and weighted within 0.432 to 0.587 that required executives to:
- Monitor precision and reliability of data before conducting communication or public relations;
 - Continuously examine and evaluate the precision and suitability of school information, and
 - Appoint staff to survey, analyze, and collect data appropriately for publicizing the school.
- ix. The compliance to digital information law and safety regulations factor consisted of six indicators and weighted within 0.351 to 0.523 that required executives to:
- Choose to use copyrighted technology legally;
 - Practice ethics while using digital technology;
 - Persistently use digital technology to generate work and innovations;
 - Manage information networking as part of management work;
 - Put security system in place for staff's information access, and
 - Choose technology use to administrate via various devices.
- x. The evaluation factor consisted of seven indicators and weighted within 0.454 to 0.795 that required executives to:
- Use a program or application to reduce expenses in conducting staff and student evaluations;
 - Use a program or application to control and track school operations;
 - Support the development of various programs or applications for learning assessments;

- Develop a program or application to facilitate work evaluations of their staff;
- Use technology to collect interviews data;
- Use technology to collect general data, and
- Use technology to store data

Discussion And Conclusion

Findings of this research showed that digital leadership factors are correlated to empirical information. These 10 digital leadership factors are identified as establishment of a technological network, creation of innovative environment that foster technological learning, ethics of technological use, ability to use digital devices, brand creation, inclusivity in planning, professional development, exploration and selection of precise and up-to-date information, compliance to digital information law and safety regulations, and evaluation. This finding is found to be in line with Abbatiello et al.'s (2017) and Tang and Somprach's (2015) findings. Both past research findings indicated that digital leadership has to be included team efforts such as working collaboratively with teachers, staff, students, parents, and community, complement each other hence functioning as a team.

Based on the findings, researchers would like to suggest to the Thailand Ministry of Education to encourage the establishment of more technological network in order to gather resources and knowledge among executives and teachers. Moreover, executives also should build internal and external environment to support and motivate students in inquiring new knowledge, as well as teachers and the community in building environment that facilitating technological learning. As a result, this will affect students' accomplishment and upgrade the quality of education. Furthermore, executives must practice morality in digital technological use in order to serve as a good example for teachers, staff, and students so that they will use technological tools safely without causing any ethical problems to others. On top of that, executives must have the ability to use and integrate digital tools to benefit school administration including social networking. Future research should channel to develop indicators of digital leadership using confirmatory factor analysis and structural equation modelling in order to provide deeper investigation in the area of digital leadership.

In conclusion, school executives today face greater pressures as the speed of technology accelerates. Therefore, the role that executives should play will continue to change, becoming even more digital-focused and team-centric. A focus on school organizational practice, including culture and organizational design, will become an ever-more important part of leadership development. Despite this more challenging environment, executives will be asked to execute at a higher level than what the researchers found in the findings and ensure that their school organizations do not lag behind in the digital transformation.

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Factor Analysis Of Innovative Primary Schools In Thailand

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Abstract

Innovative school is a school that developing new creative adaptations and incorporating its working style and learning management to create effective education management. Learners have the highest skill development. Teachers and educational personnel focused as innovators. Therefore, the school has educational competitiveness and sustainable value for its organization. The purpose of this research was to studies the components of innovative primary school in Thailand. Data was collected by 2 methods were using: 1) analysis the innovative school 185 documentary sources; and 2) studies in the 7 innovative schools model. The research found that: there are relatively few innovative school education, especially in Thailand. Innovative schools in primary school consisting of 7 components are 1) challenge of shared vision 2) flexible structure 3) innovator team 4) innovative strategic 5) innovative behavior 6) culture and open climate and 7) open communication.

Key words: *Innovative school, primary school, Thailand*

Introduction

Schools are important units for instructing and developing national personnel, especially since childhood is a time of learning that requires a supportive environment, including both good personnel and place.

Therefore, schools in the 21st century must adapt to learning trends and changes, requiring continuous development in a variety of skills, especially information technology, which plays a great role at present and will continue to in the future. Such skills can guide and encourage students to learn independently at any time. A new era of educational institutions does not aim to produce consumers but create producers.

Education in the era of Thailand4.0 aims to teach children to create innovative products or aims to reach so-called organizational productivity in order to accomplish innovation for the country. The Ministry of Education must be the leader that works along with schools, which are direct-operating units in charge of not only managing education for students" gaining of knowledge and analytical thinking, synthesizing, and interpreting skills, but also encouraging students to create lifelong innovations.

The above aims are consistent with the belief that the value of people is derived from their work performance and meeting these aims will also solve the problem of consumerism, which has been a persistent issue in Thai society. Meeting such ideals begins with supporting educational institutions to produce innovations. This leads students to have analytical thinking and become learners for innovation. Success or failure lies in the basic education of primary and secondary educational institutions. Pitune Silarat (2016) included the following elements for succeeding in becoming innovative schools under the concept of "Changing Education Paradigms for the 21st Century Skills:" 1) Access: All Thai people must be able to access quality education according to the same standards; 2) Equity: All educational institutions must provide education to all learners effectively and equally based on the set standards; 3) Quality: A quality education system must be able to develop learners to achieve their full potential; 4) Efficiency: An effective education management system must be cost- effective and facilitate successful educational investment; 5) Relevancy: The education system must be responsive to the dynamics of a changing world. (Ministry of Digital Economy and Society and The Association of Thai ICT Industry, 2017.

In Thailand, both public and private organizations have a variety of ideas for building innovative schools. Regarding a successful and well-known model for innovative schools, Darunsikhlalai School of King Mongkut's University of Technology Thonburi integrates situations associated with globalization into their learning management by implementing "constructionist learning," which is based on a learning theory by Prof. Seymour Papert from the Media Lab of MIT, and a vision of a "learning organization" as developed by Peter Senge from the Sloan School of Management, MIT, while acting in accordance with the National Education Act B.E. 2542. Both great teachers mentioned above have spent more than 20 years inventing teaching methods and organizational management paradigms for the modern world. Darunsikhlalai School, meanwhile, aims to develop learners, facilitators, administrators, personnel, and parents in order to aid in developing learners to meet their full potential by cultivating ideas of "Learning How to Learn" and "Thinking about Thinking." Ideas can be cultivated in learners at a young age (tacit knowledge). When they grow up, academic knowledge and English requirements are fulfilled. Then at upper secondary level, learners are developed with career-based learning. After that, they can be evaluated according to methods set by the Ministry of Education, and their passion for learning can be measured. This process is meant to guarantee that students are interested in lifelong learning, demonstrate leadership for change qualities, and develop good relationships with their colleagues while going to work with a positive mindset.

If general schools are developed into innovative schools, the students will be able to apply their knowledge in practice by inventing new products using analytical thinking skills and by synthesizing new ideas for society. In addition, students will be able to develop a sense of being producers rather than consumers. This will help Thai society reject consumerism. Thailand needs people with new ideas to create new products in order to balance its dependency with independence and to prepare itself for globalization. Such people can lead Thailand to overcome its weaknesses and move forward toward sustainable economic and social development.

The purpose of this study was to investigate primary schools in Thailand in order to identify components of innovative schools. The components will be analyzed in order to create a model for developing innovative schools in Thailand.

Research Objectives

The purpose of this study was to investigate innovative primary schools in Thailand

Methodology

This was a qualitative study consisting of 3 phases, as follows:

- 1) The researcher reviewed 185 documents regarding innovative schools to gather data on components of innovative schools and then categorized the data into groups based on similarity of meaning and concept.
- 2) The researcher studied data derived from schools that had been accepted as innovative schools. The schools included six overseas schools and one Thai school which had become successful after participating in a program and which had also been awarded. Purposive sampling was used to ensure that all selected schools were proper representatives of innovative schools in general.

The data collection process included field data collection, decoding of successful school practices, interviews with school stakeholders, and a summary of each school which covered a comprehensive overview of all aspects of education management for grouping components of innovative schools. The percentages and summaries of the 7 innovative school representatives revealed the components and behavioral indicators of innovative schools for primary schools as shown in Figure 1

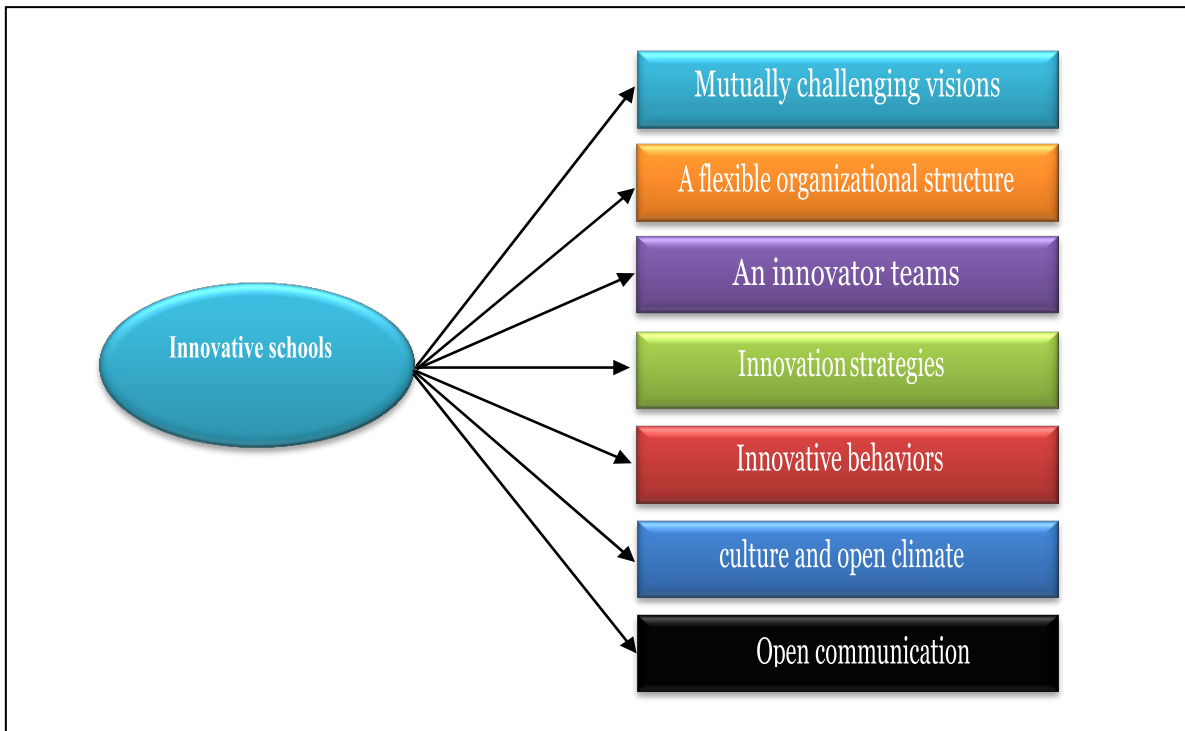


Figure1: Components of innovative primary schools

Table 1: Synthesis of innovative school indicators as aligned with components

Components	Operational Definitions	Indicators
1. Mutually challenging visions	Personnel sets a clear image for success for the organization which members of the organization can work together to achieve in the future, and personnel show bonds of love toward the organization. Personnel commit to working together, prepare to support the work to take it in the same direction, and utilize their knowledge, experience, and skills, as well as databases from both past and present. Most importantly, they use innovations in their work in order to achieve the organization's future-oriented goals.	1. A clear image of success for the organization 2. Bonds of love 3. Work is supported to take it in the same direction 4. Integration of innovations into work in order to achieve goals
2. A flexible organizational structure	Structure of working divisions or departments is set in a flexible way to facilitate adaptation to all changes in the organization free of controls. Working divisions are also granted freedom in self-administration, work autonomy, and opportunity for generating innovative creations. The personnel are excellent in a variety of disciplines. The organization decentralizes decision-making power to the personnel.	1. Able to adapt to changes 2. Control-free 3. Freedom granted to working divisions 4. Self-administration 5. Excellency in a variety of disciplines
3. An innovator team	The personnel of the organization are able to gather and transfer information appropriately, create new mechanisms for developing the organization continuously, and support the application of new ideas. In addition, they are proficient in generating creating innovations; possess and apply skills, ideas, questions, observations, interactions, and experimentation; and demonstrate courage in initiating new ideas and taking risks for the sake of implementing sensible changes. Moreover, they express perseverance, imagination, interpersonal skills, and reflection, and they enjoy challenges, continuous learning, and self-improvement. They are achievement-driven, have a variety of interests and motives, are skilled in analytical thinking and teamwork, and are open-minded and accepting of different ideas. Finally, they are enthusiastic and enjoy learning, are self-motivated, are troubleshooters when faced with obstacles in the organization, and do not fear mistakes or failure.	1. Creativity 2. Application of new ideas 3. Proficiency in innovation 4. Analytical-thinking 5. Courage to initiate new ideas or apply new mechanisms 6. Interpersonal skills 7. Outcomes and achievements 8. Self-motivation 9. Troubleshooting 10. Acceptance of mistakes or failures
4. Innovation strategies	Directions, processes, steps, or guidelines are put into practice for the sake of generating excellent innovation. Flexibility and adaptability are also applied toward constant change, both within the educational institution and in the context of the outside world.	1. New methods 2. Excellence in innovation 3. Flexibility 4. Environmental analysis and setting of strategies

Components	Operational Definitions	Indicators
5. Innovative behaviors	The personnel show clear signs of creativity; have freedom in thinking and expression in order to exploit novel processes through active practice; and seek opportunities that contribute to the growth and success of the organization. In addition, personnel are expected to be pioneers, initiating changes or experimentation. Moreover, they analyze opportunities, improve situations, swiftly respond to threats, and integrate all experiences into new productivity, contributing to research, solutions, and inventions. They also transfer knowledge to other colleagues in the organization for further development.	1. Creativity 2. Freedom of ideas 3. Seeking of opportunities through active practice; and seek opportunities that contribute to the growth and success of the organization. In addition, personnel are expected to be pioneers, initiating changes or experimentation. Moreover, they analyze opportunities, improve situations, swiftly respond to threats, and integrate all experiences into new productivity, contributing to research, solutions, and inventions. They also transfer knowledge to other colleagues in the organization for further development.
6. culture and open climate	Personnel are aware of the organization's support for creative ideas, freedom of thought, making queries, and participation in work-related goal setting. They also feel satisfied with job details and feel free to generate innovation. In addition, they are given opportunities to try out new methods for working, and they feel secure when participating.	1. Support for work 2. Freedom to express ideas 3. Freedom to ask questions 4. Freedom to participate in goal setting 5. Satisfaction with job details 6. Freedom to generate innovation 7. Security in participation
7. Open communication	The organization has a process and freedom for exchanging ideas, feelings, and desires among executives and personnel stakeholders, who all aim to achieve the set goals and have a mutual sense of ownership toward the organization. Consequently, personnel are inspired to generate innovation and appreciate any vision that contributes to innovative creations. In addition, personnel feel relaxed working under their supervisors' attitudes and among colleagues, leading to close and strong relationships for developing innovations together.	1. A process for exchanging ideas, feelings, and desires among executives and personnel stakeholders, who all aim to achieve the set goals and have a mutual sense of ownership toward the organization. Consequently, personnel are inspired to generate innovation and appreciate any vision that contributes to innovative creations. In addition, personnel feel relaxed working under their supervisors' attitudes and among colleagues, leading to close and strong relationships for developing innovations together.

Conclusion

This study on innovative primary schools in Thailand found few studies on innovative schools, especially those in Thailand. Components of innovative schools consist of 1) mutually challenging visions, 2) a flexible organizational structure, 3) an innovator team, 4) innovative strategies, 5) innovative behaviors, 6) an open atmosphere and culture, and open communication. Educational institutions that achieve all seven elements with collaboration

from all personnel are likely to become innovative schools, which can maximize a school's potential and lead to empirical productivity for students.

Results and Discussion

The present study found 7 components of innovative primary schools, as follows:

1. Setting mutually challenging visions is indicated by: 1) collectively setting a vision for the organization's success, 2) having support and bonds at work, 3) having support that takes work in the same direction, and 4) the organization's prioritization of applying innovations to success.

Setting mutually challenging visions is an important component and prerequisite for innovative schools. It is illustrated with messages of determination toward promoting creativity and innovation, both of which are sciences for learning (Senge, 2006). Katutura (2010) also believed that the message and words of the vision affect work. The factor that makes the organization so successful is the ability to visually share the goals of the personnel, which attracts personnel.

A mutually challenging vision is, therefore, beneficial for all personnel (Dvir et al., 2004), for it causes innovation to become a core competency of the organization. In addition, Vicharn Panich (2007) explained that to have a mutual vision is a matter of unity that will make the organization incredibly powerful, contributing to a psychological phenomenon that leads members of the organization to dedicate themselves to the organization's work (commitment and conviction).

The organization's mutual vision affects the beliefs, values, and dreams of the personnel, as well as the acceptance of the vision by members of the organization. It is an agreement approved by all the staff. It is also a learning tool at both the individual and organizational levels, which generates enthusiasm and continuous empowerment. In addition, West-Burnham (2010) stated that vision is important for schools, as it places emphasis on all aspects of the organization, promotes community values, and is the foundation for actions that will lead to school improvement.

2. With regard to having a flexible organizational structure, the following indicators were found: 1) adaptation to change, 2) control-free management, 3) freedom within working divisions, 4) independent teamwork, and 5) a diversity in professional personnel.

An effective innovative school must be a research and development center for innovations and have a flexible organizational structure in order to adapt to new environments and opportunities. It also has rules that promote innovation. In addition, it has a decentralized structure that contributes to the decision-making power of the personnel in their work and independent teamwork in generating innovations. The members of the team are comprised of people with knowledge and expertise in various fields to provide a diversity of ideas, skills, and knowledge. This is consistent with Sununta and Bechter (2001), who found that organizational structures correlate in the opposite direction to levels of innovation in organizations. In other words, if the organization has a very mechanical structure, it will have less innovation. Their research suggests that organizations should reduce hierarchical structures, as well as minimize divisions, to promote innovation in the organization.

3. Concerning having an innovator team, indicators include: 1) creative thinking, 2) application of new ideas, 3) expertise with innovative creations, 4) idea-association skills, 5) courage to initiate new ideas and mechanisms, 6) interpersonal skills, 7) achievement- and outcome-based goal setting, 8) self-motivation, 9) problem solving skills, and 10) ability to face failures and mistakes. Sustainably innovative schools require capable personnel who have lifelong self-learning and teamwork skills. Schools must develop their personnel to become innovators with the capacity to create innovations. That is, they must be learning schools, and school leaders must believe in the value of their human resources, recognizing them as a priceless asset of the organization (Paron Israsena Na Ayudhya, Online). The key qualification of the innovator is their venturesome character. They must be the first person to take action, invent, learn about technology, admire innovation, initiate quality relationships with other organizations, understand and apply complex technical knowledge, and handle uncertain situations during the innovation development process. Wasan Sutthawart (2014) found that a basic educational innovator in the government sector is a person who initiates, invents, creates, and supports techniques, methods, tools, processes, and work which are innovations and also implements such innovations in their work and passes them on to the educational management system. These innovations are beneficial, valuable, and appropriate for developing and solving problems in basic education in the government sector.

4. The indicators of innovation strategies include: 1) new methods, 2) innovative excellence, 3) flexibility, and 4) environmental analysis and strategy-setting. The administrators of innovative schools must create strong strategies for developing innovations and have project plans or activities with the collaboration of all personnel. Strategies must support creativity and new work processes that facilitate change, as well as research for organizational development. In addition, school leaders must assess innovative practices, improve learning development, support financial resources from administrative departments, follow up on and assess work systematically and continuously, and create innovative strategies in order to seek new methods. Furthermore, educational management should be operated in accordance with set visions and policies. Proper innovative strategies must be created. Scholarships and rewards should be presented to personnel who create innovations or who meet guidelines and practices for innovative excellence.

5. The indicators of innovation behaviors are: 1) creativity, 2) freedom of ideas, 3) opportunity seeking, 4) pioneering, 5) initiating change, 6) analyzing opportunities, 7) swiftly responding to threats, and 8) creating success for the organization. Innovation behaviors are essential and all school personnel are required to demonstrate such behavior. When all personnel at a school show these behaviors, their school will have an explicit culture of innovation creation. Proper characteristics of personnel with innovation behaviors include high self-motivation, enthusiasm for learning, and innovative creativity, and such personnel should set realistic goals and visions that are achievable without fear of failure (Nicholson and West, 1988; Rushton and West, 1988; Linden, 1990). They can see opportunities for generating innovation from present conditions. Besides knowledge and ability, they need to have the determination to succeed in generating innovation.

6. The indicators of culture and open climate consist of: 1) support for work, 2) freedom of ideas, 3) freedom to express ideas, 4) freedom to ask questions, 5) participation in setting goals, 6) satisfaction with job details, 7) freedom to generate innovations, and 8) security in participation. An organization with an innovative atmosphere basically has open communication, which reveals strong relationships among the personnel. Conflicts rarely occur, and personnel have the courage to take risks consistently. In addition, personnel do their work in a highly independent manner. They are always allowed to initiate new ideas. With an innovative atmosphere, personnel show high levels of satisfaction with their work. To promote an innovative atmosphere, the organization's culture must not emphasize formality, and the organization should have a horizontal structure (Dolphin index). This is consistent with Laegreid et al. (2011), who revealed that the occurrence of innovations in Norway had a positive relationship with organizational cultures that valued action-taking by means of awarding personnel who were actively hands-on in their work. This method led to the personnel having the courage to take risks, apart from demonstrating teamwork, the ability to take swift action, and having the patience to experience failure. Such an atmosphere helps lead to effective innovation generation (Caldwell and O'Reilly, 2003). Furthermore, Brown and Moberg (1980) stated that an organizational atmosphere does not only support expectations of the members, but also strengthens the personnel's good attitudes, satisfaction, and loyalty toward the organization.

7. With respect to open communications, its indicators are: 1) a process for exchanging ideas, feelings, and desires; 2) feelings of ownership toward the organization; 3) freedom to exchange ideas; 4) feelings of inspiration; 5) flexible attitudes; 6) development of powerful relationships; 7) understanding and awareness of changes in environment; 8) influence over attitudes and behaviors of personnel; and 9) feelings of relaxation. Communication at work is an important element and tool for making the organization become successful. If an educational institution wants to increase its potential, it is necessary to implement strategies concerning communication among the personnel. Therefore, choosing the right communication processes for each organization's culture is a powerful mechanism for change and innovation. There should be a variety of accessible forms and channels of communication for the personnel in the organization. Communication, in addition, should be extensive, open, and promoted for intercommunication with other organizations in order to exchange ideas. This way of communication is consistent with a study by Siripak Sirito (2016), which investigated innovation organization of higher education institutions in Thailand and found that communication is a supporting factor for innovative organization. Moreover, Tidd and Pavitt (2001) have also disclosed that communication factors promote innovative organization, and a study by Upasana and Abhishek (2009) revealed that communication was a basic factor leading to innovative organization.

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Factors Analysis Of Superleadership For Private School Administrators In Thailand

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Abstract

The objective of this research was to synthesize the elements of SuperLeadership for private school administrators in Khon Kaen, Thailand. The criteria for determining the sample group was the function of the number of parameters or factor analysis which was 360 private school administrators consisted of 45 administrators and 315 teachers. The data-collecting instruments were the set of five-leveled questionnaires in 46 questions and the reliability was 0.983. The data analyzed by confirmatory factor analysis. The result of this research found the 4 main elements of SuperLeadership for private school administrators in Khon Kaen that were 1) Become a self-leadership which had 3 sub-elements; creating inspiration, self-value and good relationship 2) Model self-leadership which had 3 sub-elements; vision and ideology, Morality and Emotional Intelligence 3) Empowerment which had 4 sub-elements; Authorization and responsibility, Awareness and information exchange, Trust and reliability and Respect each others. and 4) Create a self-leadership culture which had 4 sub-elements; Love and bond, Practice, value and belief, Involvement in organization development and Welfare. With the empirical data found that the index of harmonization of SuperLeadership for private school administrators in Khon Kaen were Chi-square = 63.28, df = 49, P-Value = 0.084, RMSEA = 0.028, SRMR = 0.014, CFI = 0.997, and TLI 0.995.

Keywords: *SuperLeadership; self-leadership; Empowerment; Private School*

Introduction

The changing situations and economic and social trends inside and outside the country inevitably affect the determination of national education development including private education. The private educational system has to be adjusted according to social demands and to be able to compete in the changing context. In terms of educational development in the country, which is defined in the constitution, national strategy and the development plans of the country, including related policies and law, affect the directions and strategies of private educational development that has to be corresponding to reality, be continual, and solve problems that have not been successfully solved. An important principle of the private educational development needs involvement and responsibility in educational management and development by considering the differences of students and schools in order to strengthen the private educational development methods (private educational development plans B.E.2017–2021, 2016).

While private education plays an important role in the country's educational management and lessens the burden in the government's educational management, private schools still encounter problems and difficulties in educational management that are not solvable, which are: 1) problems in private educational management from policies, regulations, limitations, and the government's support, 2) problems of the school staffs who come and go through the bureaucratic teacher recruitment, 3) problems of the administrators who take care of the private education that is changing all the time; thus making it difficult to follow the policies and private educational development continually, 4) problems of staffs in regional organizations are less compared to number of schools that have to be taken care of, 5) problems about social conditions that affect the private education, and the private schools have to compete in quantity and quality with both state and private schools. So, smaller or less quality private schools are facing the problem of budget and fail as well as the economic crisis that causes some private schools to reduce their sizes and finally close down (Suwisut, 2014). The previously mentioned problems and

difficulties of the private educational management pause the private schools' quality improvement from being successful. In terms of administration, each private school is different in various ways according to the problems they are encountering including strong and weak points of internal environment and organizational structure especially human resources problems that affect the private schools' sustainable existence as well as external environment – economic, social, cultural, and political environment under the situations that always change.

In the context of private educational management, the administrators are the key to the school progress and solutions including the improvement of the management to match up with other countries. If compared with the state school management, the administrators can change things during their terms or until retirement. However, private school administrators will play a different role as a founder of the schools; private school administrators are “the creators” of the school, and it is essential to find someone to carry on the ideology for the future as well as staffs who will follow the same ideology to successful administration and management. Super leadership is considered a new leadership for today's private educational management; it is a leader who creates a leader that can be a role model and a consultant about improvement - someone who will be trusted by staffs, be independent, be able to develop critical and creative thinking concepts, and build leadership qualities in the staffs. Therefore, the important role of a leader is to create a leader – a role of private school administrators is not only produce work but also people with the capacity to carry the organization forward and compete in the future. Private educational management requires sustainable existence; thus, the administrators have to do more than leading their staffs. They have to be able to carry on the duty and more in the future.

As mentioned previously, it can be seen that to develop the education with quality and respond to the trends of today's world, a leader is the key factor in organization's management and development. New generation leaders have to face many problems, so they need suitable leadership to lead the organization to its goals as the leader is the life and energy of the workplace; the leader can persuade, decide, plan, motivate, and lead the staffs in the organization to work together most effectively (Somprach, 2017). A leader suitable for situations and problems in private school context is then necessary to have “SuperLeadership” – to build self-leadership in the staffs. The leader is a role model of self-leadership in order to create a self-leadership culture. The important compositions of the super leadership are: (1) to build self-leadership in the staffs and team, (2) to be a good role model of self-leadership, (3) to exercise their power with the staffs, and (4) to lead in self-leadership culture to make the staffs believe that they have high capacity and abilities to succeed in any difficult and challenging situations (Tawinkarn, 2015). Be able to invent innovations or new things useful for the school, and be able to develop quality education based on the changing world. Moreover, the leader involves directly in the creativity, development, and important motivation for the changes and effectiveness in the school. Hence, it is vital for the administrators to have SuperLeadership. For these reasons, the researchers are interested in studying the SuperLeadership of private school administrators by synthesizing the compositions and use the acquired data in the development of the administrators in Khon Kaen private schools for SuperLeadership and use as basic data in the determination of private school development as well as useful application to the organization and institute. The most important thing is to develop or build human resources as new generation leaders who will be the key to private educational development, as well as the society and the country development in the future.

Literature Reviews

The definition of Super Leadership

Manz&Sims (2001) define SuperLeadership as administrating behavior of a SuperLeader beyond the leadership. A leader will help followers find ways to use their abilities and find their value. The SuperLeadership provides power to the followers and can make them become self-leaders. Furthermore, Jeffery (2003) states that a SuperLeadership is a leading role in facilitating in shared leadership – the super leader will give the power to their teams and trust them to complete the assigned tasks and develop self-leader skills, which is corresponding to David (2005), who gave a definition of a SuperLeadership as a leadership applied to staffs or teams to help them manage themselves, reflecting thoughts of someone who can lead other people into self-leadership instead of being a leader using a traditional way of order. To be a successful leader, one has to be a coach and facilitator and help the staffs at work and build a team to self-lead so that the staffs and teams can show their abilities and capacities.

Moreover, Wisavasookmongkol (2012) defines a SuperLeadership as a leader that leads others to be able to self-lead. The leader is the teacher and teaches the staffs to develop their critical thinking concept and use it as a way to self-develop until they are confident and independent enough to be a self-leader. A SuperLeader inspires people to inspire themselves, and when they have a chance to self-lead, they will be able to improve themselves most effectively. This is relevant to Sanrattana (2014)'s belief that some academics are SuperLeaders, and it links to “power over” meaning that one has more power than the other or they have power over the other. This is the old concept of administration and does not correspond to the new one that focuses on shared power; it is thus called “SuperLeadership” that focuses on leading others to lead themselves. In addition, Tawinkarn (2015) also explains

that there are 7 steps to Super Leadership which are: 1) become a self-leader, 2) model self-leadership, 3) motivate self-set goals, 4) create positive thought patterns, 5) self-leadership through reward and constructive reprimand, 6) promote self-leadership through teamwork, and 7) facilitate self-leadership culture.

To conclude, from the previously mentioned definitions, a SuperLeadership is a behavior or quality of an administrator to create ways to lead the staffs to lead themselves in order to lead others, support them in the development and team build to show their potential independently. The administrator has to be a good role model in self-leadership until it becomes a culture of self-leadership of the staffs and teams.

Compositions of SuperLeadership

Manz & Sims (2001) define the compositions of SuperLeadership as follows: 1) build self-leadership, 2) be a role model of self-leader, 3) exercise power, 4) expand positive energy, 5) support the staffs, 6) build super leadership, and 7) promote the culture of self-leadership.

Jeffery (2003) explains the role of SuperLeadership and its compositions as follows: 1) being a role model of self-leadership, 2) strategy to support self-leadership, 3) motivation to learn from mistakes and avoid punishment, 4) listen more and speak less, 5) promote initiation and creativity, 6) promote self-independence and interdependence without depending on only others, and 7) encourage the staffs in the teams to be able to solve problems and decide by themselves.

David (2005) points out that there are 6 behaviors that show the SuperLeadership which help the staffs and teams to be able to manage themselves: 1) encourage the staffs and teams to support each other and increase teams' potential as well as promote the team members to be aware and compliment other members in the team, 2) promote self-evaluation and teams' involvement in the evaluation in order to follow and evaluate the work, 3) encourage the staffs and teams to present their work, 4) promote good culture of helping team members and participate in behavior examination, 5) encourage the staffs to expect from their teammates to increase the effectiveness of the team, and 6) encourage the staffs to practice before operation.

Chareonwongsuk (2007) says that the SuperLeadership is behaviors of administrators to prepare themselves before leading the organization and be aware of the necessity to lead others using appropriate power to reach the set goals: 1) prepare to self-lead, 2) build a leader, 3) exercise power, 4) expand positive energy for goals, 5) reinforce the participants, 6) build leadership, and 7) create self-leadership culture.

Sanrattana (2014) explains behaviors of SuperLeadership that the followers will follow to finally be self-leaders and the compositions can be summarized as follows: 1) developing environments that promote positive attitudes, 2) enable employees to set personal goals, 3) encourage observation and comment amongst subordinates, and 4) encourage members of a group to support and motivate one another.

Tawinkarn (2015) explains behaviors of SuperLeadership and it can be summarized as the following compositions: 1) be a consultant and adviser, 2) encourage by asking questions, 3) lead others to have self-leadership, 4) make less imperative statements and listen more, 5) encourage the colleagues to be able to tell their mistakes without punishment, 6) train the colleagues to think and speak logically, and 7) encourage the colleagues with creative words.

Sripranam (2016) concludes the compositions of SuperLeadership as follows: 1) build self-leadership, 2) be a role model of self-leadership, 3) exercise power, 4) expand positive energy, 5) support and reinforce the staffs, and 6) create self-leading culture.

Chaisamoot (2016) states the definition that leads to categorizing compositions of the Super Leadership as follows: 1) self-leadership development, 2) inspiration for self-development, 3) creativity promotion, 4) responsibility and self-confidence building, 5) positive thinking, 7) problem solving by oneself, 8) sufficient knowledge development to practice self-leadership.

From the study, synthesis, and analysis of the principles, concepts, and theories about SuperLeadership by Thai and international scholars, as previously mentioned, the researchers have selected 5 compositions most frequently mentioned of SuperLeadership of the administrators as a conceptual framework: 1) Become a self-leadership, 2) Model self-leadership, 3) Empowerment and 4) Create a self-leadership culture.

Research Objectives

To synthesize the compositions or factors of the SuperLeadership of private school administrators in Khon Kaen, Thailand.

Method

This is a descriptive research, and the participants are 400 administrators and 2,875 teachers in Khon Kaen private schools, 2017 academic year, which are 3,275 participants in total. The sample group of the participants comprises of 45 school administrators and 315 teachers in the same academic year. They were selected randomly using multi-stage sampling. The research method is as follows:

Size of the sample group uses criteria according to a number of parameters or factors in factor analysis (Hair et al., 2010). In the topic of factor analysis, he mentioned that a sample group should not be less than 50 participants. In general, a researcher will determine the size of a sample group by comparing the proportion with the studied variable such as 5:1, 10:1, or 20:1; nevertheless, it should not be less than 100 people. The size of the sample group in this study is about 10 people per 1 parameter (there are 36 parameters with the 10:1 proportion). That makes 360 people in total for the sample group.

Multi-stage sampling is applied for the research sampling. Firstly, stratified random sampling is applied according to the sizes of the schools respectively, and then simple random sampling is applied to have a representative sample group. The size determination of a subsample group is according to the proportion of the sample group of the schools.

A questionnaire is used as a research tool to collect the data; it is developed according to the objective of the research, document synthesis, related research, and research conceptual framework. The questionnaire is divided into two parts: part 1 is a checklist asking about the respondents' status comprising of 5 questions, which are about sex, age, education, position, school size, and work experiences; part 2 is a 5 rating-scale asking about the compositions of the SuperLeadership.

The researchers have developed and examined the quality of the research tool for data collection following these steps: 1) study concepts, theories, documents, and research about SuperLeadership of the private school administrators and determine the structure of the research tool, 2) Scope the content that will be used to develop a questionnaire according to the objectives and present the proposal to the supervisor, 3) develop a questionnaire to collect data, 4) present the questionnaire to 5 experts to examine content validity, wording, and any other things that should be revised following the Index of item Objective Congruence or IOC: select the questions with the index value from 0.50 and up (Phanphariek, 2010). After calculating, the questionnaire has the index value between 0.60 – 1.00. The researcher then revises the questionnaire after receiving suggestions from the experts and supervisor, 5) examine the reliability of the questionnaire – the researcher uses 30 copies of the revised questionnaire to pilot with private schools in Khon Kaen that are not in the sample group to examine the reliability of the tool. The calculation of Cronbach's alpha coefficient equals alpha coefficient of the whole questionnaire, which is 0.983.

The researcher analyzed primary data of the sample group from the questionnaire part 1 (sex, age, education, position, school size, work experience) by calculating frequency and percentage. The analysis of the questionnaire part 2 is to find the compositions of the SuperLeadership of Khon Kaen private school administrators, and the statistics used in the data analysis is: 1) the status of the respondents of the questionnaire (\bar{X}) and standard deviation (S.D.) to analyses average value of the SuperLeadership of the private school administrators in Khon Kaen, 2) the suitability analysis of the compositions of the SuperLeadership of the private school administrators in Khon Kaen by calculating average values using criteria in index selection for setting in the model which will be tested; average value equals or is more than 3 and distribution coefficient equals or is less than 20% (Konkarn, 2004), 3) confirmatory factor analysis by testing the consistency of the model, the relation of the structure, compositions, and setting weight value for sub-variables from data analysis from the questionnaire and to investigate the consistency of the research model. This model is a theoretical model that the researcher has developed from the confirmatory and empirical factor analysis, and 4) the examination of the consistency of the research model and empirical data – even though the first data analysis does not meet the criteria, the researcher would adjust the model according to the criteria from Wiratchai's framework (2002). Therefore, the researcher used the criteria to examine the consistency between models that the researcher had developed with empirical data concluded in Table 1.

Table 1. Statistical values used in the consistency examination of the models of the relation of the structure according to the hypothesis and empirical data

Statistical value used	Acceptance level
1. Chi-square statistics (χ^2)	(χ^2) without significance or p – value higher than 0.05 shows that the model is consistent.
2. Chi-square per Degree of freedom (χ^2/df)	> 2 shows that the model is well consistent. 2.00 – 5.00 shows that the model is fairly consistent.
3. Root Mean Square Error of Approximation (RMSEA)	> 0.05 shows that the model is consistent with the empirical data.
4. Comparative Fit Index: CFI	> 0.95 and up shows that the model is well consistent. 0.90 – 0.95 shows that the model is fairly consistent.
5. Tucker-Lewis Index: TLI	> 0.95 and up shows that the model is well consistent. 0.90 – 0.95 shows that the model is fairly consistent.

6. Standardized Root Mean Square Residual (SRMR)	≥ 0.08 shows that the model is consistent with the empirical data.
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Results

This study collected data from 360 administrators and teachers who work in private schools in Khon Kaen. The participants were selected through multi-stage sampling and the sizes of the school following by simple group sampling. The result of the primary data analysis of the respondents showed that 45 people out of 360 were school administrators, and 315 were teachers. Most of them were female (75.80 %) aged between 25-40years old; most of them graduated with bachelor's degree (74.20%), and their work experience is between 5-10 years (36.90%). The confirmatory factor analysis of the model indicating SuperLeadership of the private school administrators in Khon Kaen is a result from the consistency examination of the model of the SuperLeadership indicators with empirical data by analyzing the confirmatory factors. The results of the data analysis are as follows: $\chi^2 = 63.208$, Df = 49, $\chi^2 / Df = 1.290$, P-Value = 0.084, RMSEA = 0.028, SRMR = 0.014, CFI = 0.997, TLI = 0.995.

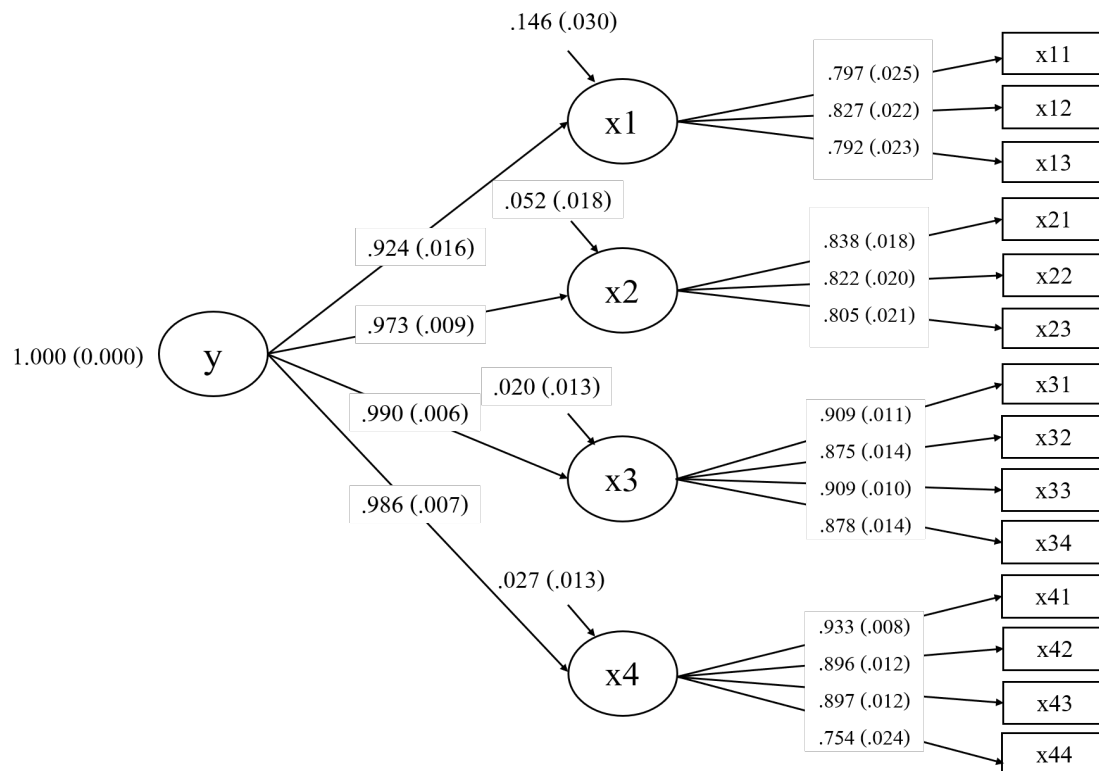


Figure 1. Model of the assessment of the SuperLeadership indicators of private school administrators in Khon Kaen, Thailand

The consistency index of the SuperLeadership indicators assessment model of the Khon Kaen private school administrators meets the criteria. When consider Chi-square value (χ^2) = 63.208, degree of freedom (Df) = 49, Statistical significance (P-Value) = 0.084, it shows that the Chi-square is not statistically significant. When root mean square error of approximation (RMSEA) = 0.028, Standardized Root Mean Square Residual (SRMR) = 0.014, Comparative Fit Index (CFI) = 0.997, Trucker-Lewis Index (TLI) = 0.995, it shows that the model is consistent to the empirical data as shown in Table 2.

Table 2. Consistency Index of the SuperLeadership Indicators Model of the Private School Administrators in Khon Kaen, Thailand

TLI	Criteria	Analysis Result	Result
$\chi^2 - \text{Test}$	No sig. P > 0.05	$\chi^2 = 63.208$ Df = 49 P-Value = 0.084	Pass
χ^2 / Df	< 2.00	1.290	Pass
RMSEA	≤ 0.05	0.028	Pass
SRMR	≤ 0.08	0.014	Pass
CFI	≥ 0.95	0.997	Pass

TLI	≥ 0.95	0.995	Pass
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The factor analysis of the SuperLeadership of the private school administrators in Khon Kaen found that the composition with the most factor loading is empowerment ($\beta = 0.990$) with predicting coefficient value (R^2) = 0.980. The second compositions are create a self-leadership culture ($\beta = 0.986$) with the predicting coefficient value (R^2) = 0.973 as well as model self-leadership ($\beta = 0.973$) with the predicting coefficient value (R^2) = 0.948. The composition with the least factor loading is become a self-leadership ($\beta = 0.924$) with the predicting coefficient value (R^2) = 0.854 as shown in Table 3.

Table 3. The Confirmatory Factor Analysis of the SuperLeadership of the Private School Administrators in Khon Kaen, Thailand

Compositions	Factor Loading			Predicting Coefficient (R^2)	Factor Significance (FS)
	β	S.E.	t		
1. Become a self-leadership	0.924	0.016	57.832	0.854	0.012
2. Model self-leadership	0.973	0.009	106.853	0.948	0.010
3. Empowerment	0.990	0.006	156.694	0.980	0.005
4. Create a self-leadership culture	0.986	0.007	146.161	0.973	0.009

The result of the confirmatory factor analysis of the SuperLeadership of the private school administrators in Khon Kaen shows that in the overall sub-compositions of the SuperLeadership of the private school administrators in Khon Kaen, the factor loading is between 0.754 – 0.909, which can be thoroughly described as follows:

1. Become self-leadership: the sub-compositions with the most factor loading are self-value building (Factor Loading = 0.827) and creating inspiration (Factor Loading = 0.797).

2. Model self-leadership: the composition with the most factor loading are vision and ideology (Factor Loading = 0.838) and morality (Factor Loading = 0.822).

3. Empowerment: The compositions with the most factor loading and 2 sub-compositions with equaled factor loading are authorization and responsibility, trust and reliability (Factor Loading = 0.909) followed by respect of each other (Factor Loading = 0.878).

4. Create a self-leadership culture: the compositions with the most factor loading are love and bond toward the organization (Factor Loading = 0.933), followed by organization development involvement (Factor Loading = 0.897) as shown in Table 4.

Table 4. The Confirmatory Factor Analysis of the SuperLeadership of the Private School Administrators in Khon Kaen, Thailand

Compositions	Factor Loading			Predicting Coefficient (R^2)	Factor Significance (FS)
	β	S.E.	t		
1. Become a self-leadership					
1.1 Creating inspiration	0.797	0.025	31.986	0.636	0.164
1.2 Self-value	0.827	0.022	37.023	0.684	0.167
1.3 Good relationship	0.792	0.023	33.853	0.627	0.172
2. Model self-leadership					
2.1 Vision and ideology	0.838	0.018	47.392	0.703	0.129
2.2 Morality	0.822	0.020	41.575	0.675	0.104
2.3 Emotional Intelligence	0.805	0.021	38.603	0.649	0.098
3. Empowerment					
3.1 Authorization and responsibility	0.909	0.011	84.143	0.826	0.180
3.2 Awareness and information exchange	0.875	0.014	63.119	0.766	0.149
3.3 Trust and reliability	0.909	0.010	87.657	0.826	0.113
3.4 Respect each others	0.878	0.014	62.401	0.771	0.157
4. Create a self-leadership culture					
4.1 Love and bond	0.933	0.008	111.597	0.870	0.207
4.2 Practice, value and belief	0.896	0.012	77.343	0.804	0.157
4.3 Involvement in organization development	0.897	0.012	77.987	0.805	0.154
4.4 welfare	0.754	0.024	30.951	0.569	0.049

Discussion

The factor synthesis of the SuperLeadership of the private school administrators in Khon Kaen and the examination of the consistency of the SuperLeadership indicators model of the private school administrators in Khon Kaen with the empirical data for the SuperLeadership factor synthesis are from the document and related research synthesis. To acquire the compositions and indicators of the SuperLeadership of the private school administrators in Khon Kaen, the SuperLeadership of the private school administrators in Khon Kaen comprises of 4 compositions which are: 1) Become a self-leadership with 3 sub-compositions and 10 indicators, 2) Model self-leadership with 3 sub-compositions and 9 indicators, 3) Empowerment with 4 sub-compositions and 14 indicators, and 4) Create a self-leadership culture with 4 sub-compositions and 13 indicators. That makes 4 main compositions, 14 sub-compositions, and 46 indicators of the SuperLeadership. The result of the basic statistical analysis of the suitability of the SuperLeadership indicators of the private school administrators in Khon Kaen met the criteria and can be used in the analysis of the confirmatory factor as the next step. Moreover, the result of the consistency examination of the SuperLeadership indicators model of the private school administrators in Khon Kaen and the empirical data show that the consistency index of the model met the set criteria. When Chi-square value (χ^2) = 63.208, degree of freedom (Df) = 49, statistical significance (P-Value) = 0.084, it means that the Chi-square is not statistically significant; Root Mean Square Error of Approximation (RMSEA) = 0.028, Standardized Root Mean Square Residual (SRMR) = 0.014, Comparative Fit Index (CFI) = 0.997, Tucker-Lewis index (TLI) = 0.995 meaning that the indicators model is consistent to the empirical data.

It can be concluded that the SuperLeadership indicators model of Khon Kaen private school administrators is consistent to the empirical data, which is the developed indicators consistent to the school context. The factor loading of the 4 main compositions is positive and statistically significant at 0.01 level. The order is as follows: 1) empowerment (β = 0.990), 2) create a self-leadership culture (β = 0.986), 3) model self-leadership (β = 0.973), and 4) become self-leadership (β = 0.924) respectively. This shows that the SuperLeadership indicators comprise of these 4 compositions (empowerment, create a self-leadership culture, model self-leadership, and become self-leadership). Generally, there are 14 sub-compositions with factor loading between 0.754 – 0.909. The order of the highest to the lowest factor loading compositions with their descriptions is as follows:

1. The empowerment: it is found that the composition with the most factor loading has 2 sub-compositions that have equal factor loading which are authorization and responsibility and trust and reliability (Factor Loading = 0.909) followed by respect each other (Factor Loading = 0.878).
2. Create a self-leadership culture: the composition with the most factor loading is love and bond toward the organization (Factor Loading = 0.933) followed by involvement in organization development (Factor Loading = 0.897).
3. Model self-leadership: the composition with the most factor loading is vision and ideology (Factor Loading = 0.838) followed by morality (Factor Loading = 0.822).
4. Become a self-leadership: the composition with the most factor loading is self- value building (Factor Loading = 0.827) followed by inspiration (Factor Loading = 0.797).

Discussion And Conclusion

From the research result in each issue according to the objective, it can be explained about the related concepts to confirm the result as follows

- 1) The synthesis of the SuperLeadership of Khon Kaen private school administrators is from the synthesis of the document and related research and to acquire the compositions and indicators of the SuperLeadership. There are 4 compositions: 1) become a self-leadership with 3 sub-compositions and 10 indicators, 2) model self-leadership with 3 sub-compositions and 9 indicators, 3) empowerment with 4 sub-compositions and 14 indicators, and 4) create a self-leadership culture with 4 sub-compositions and 13 indicators. That makes 4 main compositions of the SuperLeadership, 14 sub-compositions and 46 indicators. The result of the consistency examination of the indicators model of the SuperLeadership of Khon Kaen private school administrators with the empirical data found that the TLI of the model met the criteria, so the model is consistent to the empirical data. That is, the synthesized compositions are consistent to the Khon Kaen private school context because the researcher studied and reviewed conceptual theories about SuperLeadership variously and concisely. Therefore, the research result of the compositions of the SuperLeadership is as set by the researcher and also corresponds with Manz&Sims (2001), who proposed a behavior practice that aims for self-leadership. A leader will have to build self-leadership to be able to lead themselves and others, to be a model of self-leader, behave well and empower the staffs, and to build self-leading culture by creating love, faith, impression, and bond toward the organization – sharing the sense of belonging and desire to involve in the organization development. This also corresponds with Chareonwongsuk (2007), who states that the SuperLeader has to prepare to be a good leader, to make the staffs leaders by passing on visions and be a good role model, empower by encouraging the staffs' potential to make the most of them, believe that the staffs can carry out the leader's tasks, build self-leading culture and encourage the staffs to be

open-minded, listen, and share responsibilities and goals of success together until the bond and sense of belonging occur. The result also corresponds with the research result of Jitsangawong (2016), who studied the relation between the SuperLeadership of school administrators, inspiration to work of teachers and the effectiveness of the school under Chachoengsao Primary Educational Service Area Office 1 and found that the SuperLeadership of the school administrators in this area is positively related to the effectiveness of the school. This could be because the school administrators apply leadership and encourage the staffs to be a self-leader, be a role model of a self-leader, encourage them to set their goals, have positive thinking, facilitate self-leadership, support self-leadership by forming a committee, facilitating and creating culture of leaders and motivation to work for teachers, and positive relation between the teachers' performances and school's effectiveness. This is because the school administrators encourage and inspire the teachers to work by providing good welfare to help the teachers work successfully and the school be as effective as planned.

2) The result of the consistency examination of the model of the SuperLeadership indicators of the private school administrators in Khon Kaen with the empirical data that should be taken into account is the composition with the most factor loading, which is the empowerment. This shows that this composition is the most important to the SuperLeadership building of the private school administrators in Khon Kaen. Moreover, because the empowerment is an interaction between administrators and staffs resulting in the development of their potential in terms of coordination and performance of the staffs - allowing them to reach their responsibilities and achievements independently and offer a change for them to decide and evaluate their own performance in every step. This results in the progression of their assigned tasks as well as the administrators follow, advise, and observe the performances of the staffs to provide knowledge and information they truly need. The administrators should also increase the staffs' performances and offer an opportunity to involve in organization development planning, to build trust and respect each other by accepting the value of the work and the performances of the staffs. This corresponds to Tracy (1990), who explains the compositions of the empowerment for the staffs called "Pyramid" of power, which is essential and related continuously as follows: 1) responsibility, 2) power and duty, 3) excellence standard, motivation provision for the staffs to succeed, 4) training and development according to the staffs needs for their skills and confidence, self-value promotion and inspiration in learning without the resistance of changes, 5) sharing knowledge and information, 6) information exchange, which is the promotion of better performance, showing the staffs whether they need improvement and encourage them to perform better and give them dignity, 7) awareness by praising and evaluating their performances for more power and better welfare. When the staffs understand their values, they will be happy and inspired to work or service more effectively, 8) reliability, 9) failure awareness by helping them understand that a failure is a positive experience. So that they can make a plan and expectation for failure, 10) respect each other.

Recommendation

From the research results of the synthesis of super leadership compositions of Khon Kaen private school administrators, there are suggestions as follow:

Policy: The analysis and synthesis of SuperLeadership including qualities and compositions are suitable for private school context in Khon Kaen to develop administrators and the heads of the departments, which is useful to the policy makers and the private schools under their control to succeed.

Application: The compositions of the SuperLeadership of the private school administrators in Khon Kaen can be used to improve the leadership of the private schools and as a guideline for management development, promotion and support for administration system base in the future, which affects the sustainable existence and quality of the schools.

Further Research: The compositions of the SuperLeadership of the private school administrators in Khon Kaen can be used for further research and development (R&D) in the future, and there should be a study about the SuperLeadership in other contexts, such as private schools in Northeast region or state schools with different contexts to develop the Super Leadership that is suitable for each school's scenario.

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Factors Analysis of Teacher Leadership in Thailand World - Class Standard Schools

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Abstract

This research aims to analyze factors of teacher leadership in World-Class Standard Schools under Secondary Educational Service Area Office 27. The research instrument was a five scale rating questionnaire with reliability 0.985. The sample group included 500 teachers from World-Class Standard Schools who had been selected by using the stratified random sampling technique. Factor analysis of teacher leadership in World-Class Standard Schools was conducted by using Mplus for Windows. The results are as follows:

The results of confirmative factor analysis on teacher leadership in World-Class Standard Schools within Secondary Educational Service Area Office 28 revealed that the model significantly correlated with the empirical data. The consistency index value was $\chi^2 = 105.635$, $df = 87$, P-Value = 0.085, TLI = 0.996, CFI = 0.998, RMSEA = 0.021, and SRMR = 0.018. The value of factor loading of teacher leadership was positive, with statistical significance at the level of 0.01. The value of six factors was between 0.870-0.995. The highest factor loading was the professional learning community, followed by child-centered instruction, participation in development, the role model in teaching, transformational leaders, and self-development with factor loading at 0.995, 0.927, 0.910, 0.906, 0.900, and 0.870, respectively. The reliability of each factor was 99.0%, 85.9%, 82.9%, 82.1%, 80.9%, and 75.7%, respectively.

Keywords: *Factor Analysis, Teacher Leadership in World-Class Standard Schools, Factor loading*

Introduction

The administration of “World-Class Standard School” must be driven by the director of the Education Service Area office, the school director, teachers, and other educational staff in order to achieve the proposed concrete goals. According to the quality of administration management of World-Class Standard School, there was a network development aimed at producing students capable of being world citizens. The factor that most directly affects student development is teachers in World-Class Standard Schools. Hence, teachers are expected to meet academic excellence and be able to apply research-based learning in the classroom. This factor will help support and promote the Administration of World-Class Standard School achieve their goal distinctively. The teacher, through participation in administration processes, is an essential factor in terms of educational administration movement. This statement coheres with The Office of the Education Council (2008) which mentions that the quality of teacher affects the quality of educational management, which directly affects the quality of students. Therefore, the teacher’s development in World-Class Standard School is important for student improvement which is the goal of the project. According to the academic study, in terms of teacher development, teacher development is focused on the creation of teacher leadership. Leithwood & Duke (1999) identified six types of teacher leadership: instructional, transformational, moral, managerial, participative, and contingent. On the other hand, Suranna & Moss (2002) studied teacher leadership in teaching and learning, and found that good teacher leadership demands high quality teachers who engage in curriculum development, provide suggestions to colleagues, work collaboratively with others and their principals, and represent organizations on either internal or local levels. York-Barr & Duke (2004) has synthesized research, and the results show the important characteristics of teacher leadership, which are coordinating and managing school or district curriculum, participating in school change or improvement, being involved in professional development of colleagues, contributing to the profession, engaging in parent and community involvement, and encouraging and coordinating teacher education. Office of the Basic Education Commission (2010) mentions that there are five indicators of teacher leadership in basic education. These are Adult Development, Dialogue, Change Agency, Reflective Practice, and Concern for improving pupil achievement. Moreover, Apharat Ratchapat, Wirot Sanrattana, and Paisan Suwannoi (2011) have developed teacher leadership indicators for teachers in basic education. They concluded that there are four indicators of teacher leadership for teachers in basic education: 1) self-development and the professional learning community, 2) the role model in teaching, 3) the participation in development, and 4) the transformational leaders. It can be seen that factors or guidelines to enhance teacher leadership are various. Advanced statistics research needs to be conducted so as to determine each factor of teacher leadership. Yuth Kaiwan (2014) described that a statistics analysis technique needs to be carried out in order to retrieve appropriate factors. This is called factor analysis.

Studying educational and teacher leadership development in World-Class Standard School by using factor analysis is an important method towards administration quality improvement for World-Class Standard School. It will benefit educational development at the current era which focuses on learners’ global competitiveness. It is also consistent with the “World-Class Standard School” project presented by Office of the Basic Education Commission of Thailand in order to enhance learners’ characteristics according to The Basic Education Core Curriculum B.E. 2551 (A.D. 2008), including youth development for the 21st century as a Thai citizen, ASEAN citizen, as well as members of the world community. (Pimpan Dechakup and Payao Yindeesuk, 2015).

Hence, research has shown the importance of the study Factors Analysis of Teacher Leadership in World-Class Standard School Secondary Educational Service Area Office 27. The results of the study can be used in self-development and other benefits towards educational organizations and relevant sectors.

Research Objective

To conduct confirmative factor analysis (CFA) on teacher leadership in World-Class Standard Schools within Secondary Educational Service Area Office 27.

Scope of the Study

1. The population of the study was 1,499 teachers in World-Class Standard Schools in Secondary Educational Service Area Office 27, academic year 2015. The sample group consisted of teachers who were selected by using sample size determination with parameters. Advanced statistics such as sample size determination with parameter 20:1 were used in factor analysis (Hair, Black, Babin, & Anderson, 2010). There were 24 parameters; hence, 480 samples were derived. The sizes of the sample groups were then adjusted according to the criteria of Comrey & Lee (1992). The sample group size in this study can be classified as excellent, with 500 teachers from world-class standard schools.

2. The variable in the current study was teacher leadership for World-Class Standard Schools which was retrieved from literature reviews, relevant researches, the analysis and synthesis of previous researches and the concepts of scholars. The model was created to test the correlation between the model and the empirical data of teacher leadership in World-Class Standard Schools. The model of teacher leadership in World-Class Standard Schools consisted of the following: 1) Self-development, which consists of three indicators: having vision in self-development, having confidence in self-development, and being able to develop themselves by self-learning; 2) Transformational leaders, which consist of three indicators: having vision in transformation, being a learning person, and being accepted; 3) Participation in development, which consists of three indicators: having vision in self-development, teamwork, and networking; 4) The professional learning community, which consists of three indicators: being a teacher leader in the professional learning community, supervision and counseling, and sharing knowledge to the professional learning community; 5) The role model in teaching, which consists of three indicators: applying a variety of different teaching methods, promoting a learning atmosphere, and promoting self-directed learning; and 6) Child-centered instruction, such as learning process, planning lessons, and authentic assessment.

Literature Review

Leithwood & Duke (1999) indicates that there are six characteristics of teacher leadership: being instructional leaders, being moral, being transformational leaders, being managerial/strategic, being participative, and contingency.

Snell & Swanson (2000) have conducted qualitative research involving teacher leadership. The research lasted for two years and it was concluded that there are three main reasons contribute to teacher leadership: 1) expertise, 2) reflection and empowerment, and 3) collaboration.

Katzenmeyer & Moller (2001) mentions that there are three main dimensions in teacher leadership:

- 1) Leadership of development of other teachers and students: taking the role of a facilitator, coach, mentor, trainer, curriculum specialist, creating new approaches, leading study groups.
- 2) Leadership of operational tasks: keeping the school organized and moving towards its goals, through roles as Head of Department, action researcher, member of task forces.
- 3) Leadership through decision-making or partnership, such as being a member of school-improvement teams, committees, instigator of partnerships with business sectors, higher education institutions, and parent-teacher associations.

Suranna & Moss (2002) studied teacher leadership in teaching and learning and found that there are five indicators contributing to teacher leadership: being a good teacher, engaging in curriculum development, providing suggestions to colleagues, working collaboratively with others and their principals, and representing organizations on either internal or local levels.

York-Barr & Duke (2004) has synthesized researches, and the results show the important characteristics of teacher leadership, which are coordinating and managing school or district curriculum, participating in school change or improvement, being involved in professional development of colleagues, contributing to the profession, engaging in parent and community involvement, and preservice teacher education.

Reichardson & Sarah (2006) has identified characteristics and responsibilities of teacher leaders. They mentioned that although formal roles for teacher leaders do still exist, the new role of teacher leaders today is rather informal and gained from classroom experience. Teacher leaders implement these informal roles in ways such as: 1) sharing their own classroom practices and personal expertise, 2) developing themselves and mentoring new teachers, 3) modeling collaboration, 4) taking care of their students, and 5) understanding the discrepancy between the school's mission and actual practice.

Boyd (2011) investigated the administrators' perceptions on teacher leadership. He claims that the characteristics of teacher leadership consist of 1) Quality Development for Excellence, 2) Educational culture preservation in institutions 3) the role model in teacher leadership, and 4) knowledge exchange cultivation and factors that influence leader development.

Kiranh (2013) conducted research on principals' perceptions related to teacher leadership. The results showed that there are four characteristics of teacher leadership: 1) institutional development, 2) professional development, and 3) collaboration with colleagues.

Office of the Basic Education Commission (2010) mentioned that there are five indicators in teacher leadership in basic education which are described as follows:

1) **Adult Development** refers to the level of maturity needed to be a teacher, such as being considerate, assessing self-evaluation on behavior towards students and others, having self-discipline and having social responsibility. Teacher should also appreciate other people's ideas and their work, including encouraging relationship-building and working collaboratively to achieve goals.

2) **Dialogue, building interaction, and conversation:** Participating in creative conversation with others, while focusing on both student learning and professional development through listening, speaking, and asking questions. Being flexible, open-minded, and able to listen to different ideas to find a new way of creating creative conversation.

3) **Change Agency:** Focusing on immediate situations and link them to the vision, goals, and mission of the educational institute. Initiating transformation and creating innovation. Motivating others to learn. Working collaboratively to improve learners, develop the institution and the professional learning community, including working with others in a new system.

4) **Reflective Practice:** Working deliberately because teacher's behavior represents the correlation between student learning and learning management.

Teacher should support their colleagues' ideas and participate in creating or developing innovation.

Teacher should be able to use multiple assessment techniques for self-evaluation and institution administration.

5) **Concern for improving pupil achievement** refers to teacher's behavior in setting challenging goals and authentic learning standards that can be achieved by students. Teacher should be able to provide holistic information about students to their parents, and listen to parents' opinions about their expectations on student learning outcomes. Teacher should accept responsibility to know and check student information in order to improve pupil achievement. Conducting research or constructing body of knowledge to help solve problems or develop new guidelines to improve student achievement systematically.

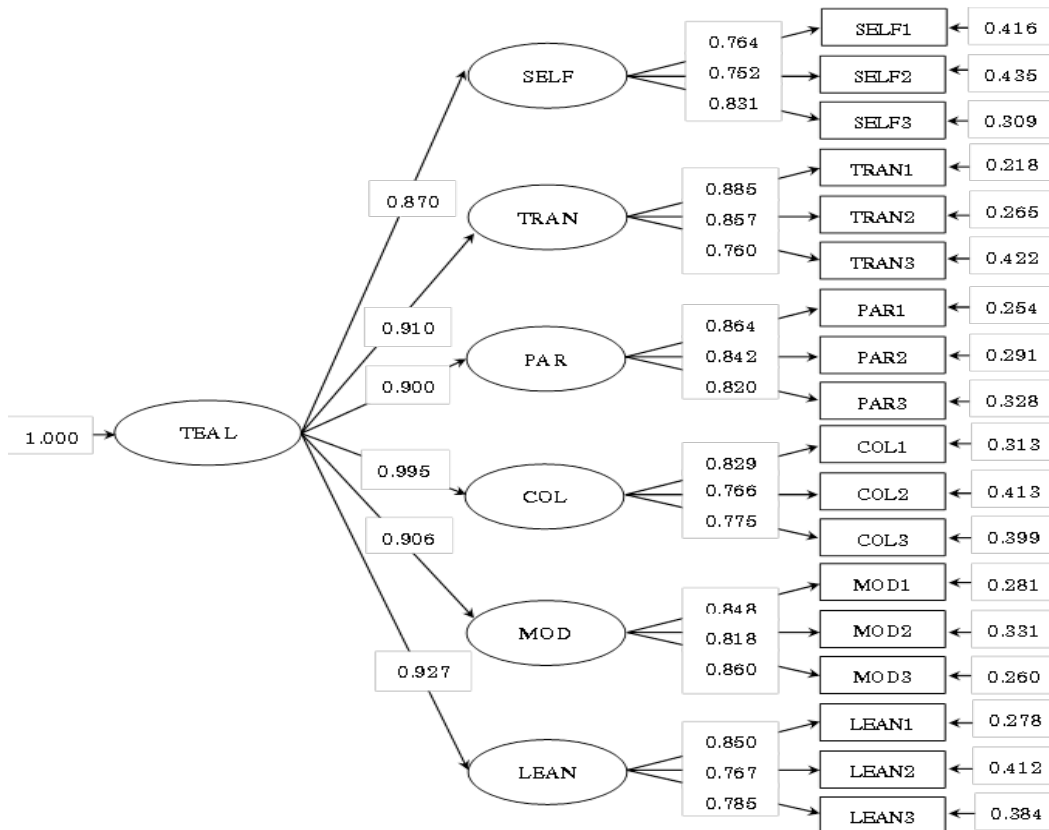
Research Methodology

The research procedures were divided into two phases. **Phase 1** was the factor development of teacher leadership in World-Class Standard School. A document analysis was used as a tool to compile the major factors and their subcomponents. To confirm the developed factors, five experts were interviewed. After that, the confirmed factors were outlined and were used as research tools. The research instrument was a five scale rating questionnaire, consisting of 91 questions. Content validity was approved by five experts. Index of Consistency of the questions was between 0.80 - 1.00. After the questionnaire was improved according to the experts, it was used with 30 teachers in World-Class Standard Schools in other Secondary Educational Service Areas. **Phase 2** consisted of the quality assurance of major factors and the subcomponents of teacher leadership in World-Class Standard Schools.

Data was collected by using a five-scale rating questionnaire with a reliability level of 0.985. 500 questionnaires, or 100% of the questionnaires, were completed by the sample groups who were teachers in World-Class Standard Schools. Both descriptive statistics and inferential statistics were used for data analysis by using SPSS for Windows. M-Plus for Windows was used to analyze Descriptive Statistics, frequency, percentages, mean, and standard deviation. Second order confirmatory factor analysis was conducted to verify the consistency of models with empirical data by using a Chi-Square Test (χ^2), Chi-Square Correlation (χ^2/df), Comparative Fit Index (CFI), Tucker Lewis Index (TLI), Standard Root Mean Square Residual (SRMR), and Root Mean Square Error of Approximation (RMSEA).

Results

According to confirmatory factor analysis on teacher leadership in World-Class Standard Schools within Secondary Educational Service Area Office 27, the model significantly correlated with the empirical data with consistency index value $\chi^2=105.635$ $df=87$, P-Value=0.0849, TLI=0.996, CFI=0.998, RMSEA=0.021, and SRMR=0.018. The value of factor loading of teacher leadership in World-Class Standard Schools within Secondary Educational Service Area Office 27 was positive. The value of the six factors was between 0.870-0.995 with a statistical significance of 0.01. The highest factor loadings were the professional learning community, child-centered instruction, the participation in development, the role model in teaching, the transformational leaders, and self-development, respectively, as shown in figure 1.



Discussion

The two minor factors that most directly affect this study are lesson planning and authentic assessment, with Correlation Coefficient at 0.798. These two components focus on ensuring students become World Citizens, which is the objective of World-Class Standard School. The dominant characteristic of World-Class Standard School students is the ability to build academic knowledge by themselves through Independent Study (IS) on a topic in which they show interest. In course design or lesson planning, teachers normally use teaching methods that focus on specific learning skills, such as information retrieval, interviewing, Knowledge Inquiry, and arguing. The teacher then acts as a developer of important learning skills in students by motivating students to think as active learners rather than passive learners. Authentic assessment techniques such as reflective thinking are based on classroom environment and student action. The assessments divide student quality into four levels: excellent, good, fair, and poor. Boonleang Thumthong (2011) claimed that teaching is a process of both teaching and learning, and activities and should be consistent with the curriculum. Four steps need to be completed in order to evaluate the efficiency of the curriculum. These are institution curriculum development, course design or lesson planning, teaching and learning activities, and evaluation and assessment. The final step, evaluation and assessment, should be designed before planning the lesson in order to set the goals of the curriculum. Hence, the assessment is directly related to lesson planning because it reflects student improvement in learning, which is the objective of the lesson and curriculum. The above statement is consistent with Jatuphum Ketchatturat (2014), who claimed that classroom assessment and evaluation is integrated in the teaching process. The results of an assessment should reflect both teacher's teaching processes and student achievement. An assessment is an important resource used to improve student achievement. Course design and assessment connect the teaching and learning processes. In addition, Rapin Posrie (2009) claimed that authentic assessment should be related to both teaching and learning. The design of a course or lesson plan should include and lead directly to authentic assessment. Students should be evaluated from what they have been taught, which will reveal their competency. Tisana Khammani (2008) said that authentic learning is a teaching process in which the teacher designs a course or plans a lesson to encourage students to learn in real-life situations. Students work cooperatively to solve problems using different techniques and teacher uses authentic assessment to evaluate their learning outcomes.

Factor Loading of every factor is higher than the average. The highest factor loading was the professional learning community (0.995), child-centered instruction (0.927), the participation in development (0.910), the role model in teaching (0.906), the transformational leaders (0.900), and the self-development (0.870). The result conforms to the World-Class Standard School evaluation guidelines, sector 7, which focuses on the outputs. These outputs consist of curriculum and process, students, personnel, leadership and organization management, finance, and the capacity of services. It can be seen that the first three factors can be developed through teacher leadership. The results of factor loading of teacher leadership in World-Class Standard School Secondary Educational Service Area Office 28 confirmed that the six factors of teacher leadership are consistent with World-Class Standard School evaluation guidelines based on the Office of the Basic Education Commission of Thailand. Moreover, the mentioned factors also conform to the results of education reform in order to improve the efficiency and the quality of education, and to be able to

produce students in a learning society. The teacher is an important factor in knowledge formation and knowledge transfer. The teacher plays essential roles in learning and education reform (Office of the Basic Education Commission of Thailand, 2007). Teacher is a key mechanic in the development of students' quality. As a result, teacher leadership is necessary in terms of institutional development.

This coheres with Harris (2002), which found that teacher leadership is the main factor of institutional development due to its positive influence towards self-confidence and organization. Sureerat Phuttanatein and Prompilai Buresuwan (2009) have studied models of teacher leadership capacity in basic educational institutions, the results revealed that both leadership capacity and teacher leadership directly and positively affected teacher effectiveness and indirectly affected their effectiveness through the school climate. So, the success of school not only depends on director leadership, but also on teacher leadership. The teacher can be classified as an important variable in instructional development, and also affect student achievement. Hence, the six factors of teacher leadership in World-Class Standard Schools are significantly important. They also have a higher factor loading than the criterion.

4. According to teacher leadership in World-Class Standard Schools in Secondary Educational Service Area Office 27, the factor with the highest factor loading is the professional learning community (0.995). Currently, the institutional management focuses on the development of Professional Learning Community which is similar to the learning organization. The aim of Professional Learning Community is to create school culture which focuses on teacher leadership and sustainable institutional development (Kanokorn Somprach, 2016). Nevertheless, World-Class Standard School is an educational innovation of Office of the Basic Education Commission of Thailand aimed to develop educational institutions to meet the world standard. So, the management framework of World-Class Standard School may differ from other institutions in order to meet the world standard and be equivalent to the academic quality of institutions with similar curricula or other academic excellence in leading countries. Schools should organize curricula that promote excellence and meet students' needs. Vocational curriculum, Mathematics, and Science should also be taught in English. In terms of teacher's quality, teacher should have both knowledge and teaching expertise. In addition, teachers should be able to communicate in the second language as well as apply electronic media in class activities. Teacher should be able to exchange their teaching experience at the international level and be able to apply research methodology, including educational innovation in order to constantly develop students. Most importantly, school management should meet the criteria of Thailand Quality Award in order to develop the ability of the school towards the world standard or the standard of countries with high education standards. The reason for this development is to ensure students become World Citizens, whose abilities include academic excellence, the ability to communicate in at least two languages, be progressive in thinking, produce work tasks creatively, and collaborate with other world citizens (Office of the Basic Education Commission of Thailand, 2012). Therefore, institutional management, especially teacher's roles should be changed according to world standards, which include the following: organization culture, assessment and evaluation, and building interaction among colleagues. Teachers who can speak second languages should transfer knowledge through communication continually. Teachers in the institution would be able to use a second language to communicate in their daily lives. In addition, teachers should develop student learning through research, supervision by other teachers, administration, and the education service area. The supervision should focus on professional community development and improve institutional management systems internationally. Teachers should use their abilities to develop a professional learning community which can lead to the process of teacher leadership. They can then become professional leaders who can provide supervision, counsel, and transfer knowledge to their colleagues. Kanokorn Somprach and Nichanan Khaorat (2015) studied the effects of distributed leadership affecting the professional learning community in educational institutions. The results showed that the process of collaboration between teacher and administrator towards superior practices focuses on student learning. It helps to build a school culture that develops teacher leadership and institution continually. Pim-on Sod-iun (2012) claimed that the aim of the institutional development that the teacher and administration continuously focuses on is to promote student learning by having a shared vision and goal, working collaboratively, learning and applying knowledge, creating an organization culture, and exploring new ideas through action and research. Teacher, administrator, students, and parents work collaboratively to find the best way to develop the institutions. This will lead to teacher leadership, aiming at sustainable school development. Vicharn Panich (2011) defined the professional learning community as the presence of admiration to other professionals who have a shared vision. The community learns cooperatively and applies their knowledge creatively. This consolidation encourages both the motivation to learn and to improve as a professional in order to meet the learning standard of other learners, with help from the learning community.

In terms of value, this is called professional development. The aim is to develop colleagues and relevant sectors until they are able to manage the institution effectively and sustainably.

Recommendations

1. Suggestions for research implementation:

1.1 The current study can be used as data for The Office of the Basic Education and Educational Service Area for the evaluation of professional teacher development for World-Class Standard School. Factors retrieved from confirmatory factor analysis will be used for the evaluation of teacher efficacy. It can also be used as criteria for master teachers in World-Class Standard School.

1.2 According to the results of the confirmatory factor analysis of teacher leadership in World-Class Standard School, there are six factors that influence quality teacher leadership. They are ranked from highest to

lowest factor loading as follows: the professional learning community, the child-centered instruction, the participation in development, the role model in teaching, the transformational leaders, and the self development. These factors were consistent with empirical data, affecting teacher leadership for World-Class Standard School. Hence, directors of World-Class Standard School and relevant sectors should pay attention to or set policy for teacher development in accordance with the findings from this study in order to improve teacher leadership for World-Class Standard Schools.

1.3 The results of this study can benefit educational service areas, training institutions, or teacher training institutes by presenting information and guidelines for course development for teacher leadership to reach desired characteristic goals. Six factors were used in course design for teacher training.

2. Suggestions for further research:

2.1 Qualitative research on teacher leadership for World-Class Standard School should be conducted since the current study focused on variables that show the level of behavior of teacher leadership in World-Class Standard Schools. Therefore, qualitative research would be beneficial in terms of offering an explicit explanation of teacher leadership in World-Class Standard Schools.

2.2 Further research and development on teacher leadership in World-Class Standard Schools should be executed since it was revealed that factors related to teacher leadership, such as the professional learning community and child-centered instruction, have a high factor loading. If the above factors are implemented in teacher leadership, the effect of World-Class Standard School on students will enhance, and World-Class Standard School's evaluation will improve, according to Thailand Quality Award.

2.3 The current study investigated teacher leadership in World-Class Standard Schools. Data was only collected from teachers in World-Class Standard Schools. Data from other sample groups, such as directors and educational personnel in World-Class Standard Schools, would be worth collecting, in order to acquire other useful information.

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Flipped Classroom Methodology For The Development Of Competences In Higher Education: An Ict Experience At The University Of Granada, Spain

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Abstract

Flipped Classroom methodology has strongly introduced in the classrooms of different educational levels, but above all in the University. This methodology could be defined as the reversal of roles in the classroom, where the student acquires theoretical knowledge outside of the classroom and becomes a space for resolving doubts and cooperative work. Thus, this paper analyzes the experience carried out at the University of Granada with students of the Master's Degree in Secondary School Training where Flipped Classroom methodology has been applied. The research methodology used is quantitative, so that an ad hoc questionnaire on a Likert scale was used to obtain the data. Among the obtained results, it is observed that the students perceive an improvement in their academic performance and the improvement of the different personal and social skills. Finally, it can be concluded that this kind of experiences where the Flipped Classroom methodology is applied favors the development of skills depending of subject taught and the field of knowledge.

Keywords: *Flipped Classroom, Higher Education, ICT, Teaching Methodology.*

Introduction

In recent years, the Flipped Classroom methodology is being implemented in the classrooms of different educational levels, which it is defined as the flipped of roles in the classroom, where the student acquires the theoretical knowledge outside and the classroom becomes a propitious space for resolving doubts and cooperative work (Castilla et al., 2015). Therefore, the student previously works the contents outside the school context from the use of digital tools to develop them later in the classroom.

On the other hand, the origin of this methodology born in the concern of two teachers to oppose school absenteeism, likewise they began to record their presentations with audio to offer as support material to students (Sánchez, Solano, & González, 2016). From this experience they realized that this teaching method favored the development of certain benefits, among them those highlighted by the pioneers Bergmann and Sams (2012) and collected in Gértrudix and Rivas (2015), Zainuddin and Hajar (2016) and Rincón (2016): development of a collaborative learning environment, dynamizes the role of students, actualization of the teaching role, allows autonomous learning, fosters student skills and facilitates the deployment of interactive participatory tasks. These advantages associated with the Flipped Classroom methodology can be verify in different investigations carried out (Huesca, 2016; Opazo, Acuña, & Rojas, 2016; Díaz, Martín, & Sánchez, 2017; Sacristán et al., 2017; Mingorance et al., 2017) in which its acquisition becomes evident.

In keeping with Miragall and García-Soriano (2016) among the features of Flipped Classroom we find:

- The content is previously worked.
- Students acquire an active role in their learning. This methodology is based on in constructivism and in the social learning theory (González et al., 2017).
- Significant learning occurs.
- The teachers acts as a guide and is aware of the students' knowledge.

Therefore, taking into account these considerations there is a change of roles in relation to the traditional master class model, in which students are merely a receiver of contents and the teacher is limited to transmitting

information. On the other hand, the Flipped Classroom change this situation around and the students acquire a leading role in their learning, while the teachers act as a guide facilitating the learning content. So that in its implementation the teacher selects a series of videos that can be coupled with questions that the students consult outside the classroom, with the possibility of writing down the individual doubts to take them later to class. In the same way, previously working on the subject, it is possible to form cooperative groups in class to reinforce the content among equals.

Finally, it should be noted that the relevance and effectiveness of this methodology depends largely on the type of content of the subject taught, so Barao and Palau (2016) emphasize that in the mathematics subject it is complicated to implement the Flipped Classroom in all teaching units. Consequently, it is the teacher's task to know how to apply this methodology to combine it with face-to-face and extensive explanations in those contents that present difficulties in the autonomous learning of the students.

Methodology

In this paper, a descriptive quantitative methodology has been used (Hernández, Fernández, & Baptista, 2016), with the purpose of knowing the experience on the implementation of the Flipped Classroom methodology. The sample was composed by two groups of students of the Master's Degree in Compulsory Secondary Education and Baccalaureate, Vocational Training and Language Teaching, specialty of Mathematics and Geography and History of the University of Granada, to which the Flipped Classroom methodology has been applied in the development of class sessions on the subject of "Society, Family and Education" during the 2017-2018 academic year.

Thus, it has been used a questionnaire, prepared ad hoc, based on a Likert scale of 4 levels as a data collection instrument: Items 1-8 (1 = Totally disagree, 2 = Disagree, 3 = Agree, 4 = Totally agree) and item 9 (1 = Very unsatisfactory, 2 = Unsatisfactory, 3 = Satisfactory, 4 = Very satisfactory). Although the original questionnaire consists of 26 items, for this paper we have selected the 9 items corresponding to the development of skills and satisfaction of the experience developed, where it is revealed the degree of student accordance with this methodology [Table 1]. In relation to the reliability of the questionnaire the analysing of the 9 items show a reliability index of 0.91 (Cronbach's alpha coefficient).

The sample was composed of 82 students in total, 42 from the specialty of Mathematics and 40 from Geography and History. The data were analysed with the statistical program SPSS in its version 24, which has allowed to perform various statistical-descriptive operations to obtain the percentage of response in each item according to the Likert scale.

Table 1: Questionnaire items on the development of skills and student satisfaction with the Flipped Classroom experience.

Q1	Academic performance
Q2	Development of creativity and innovative ideas in teaching
Q3	Development of metacognitive skills
Q4	Development of social and personal skills
Q5	Greater knowledge and learning through teamwork
Q6	Increase of my interest and personal motivation towards the subject
Q7	Acquisition of a comprehensive knowledge, practical, transferable to other subjects and to reality
Q8	I prefer to work through active methodologies such as Flipped Classroom as opposed to traditional teaching methods (master lesson)
Q9	The global assessment of my learning experience with this teaching methodology

Results

In relation to the characteristics of the sample ($n = 82$), if we look at the gender it has been composed of 55% (male) and 45% (female). On the other hand, the age of the participants is diverse: among the 19-23 years is 32% of the students, 24-28 years (44%), being the age where the largest population is concentrated, 29-33 years (13%), 34-38 years (5%) and more than 39 years (6%) [Figure 1].

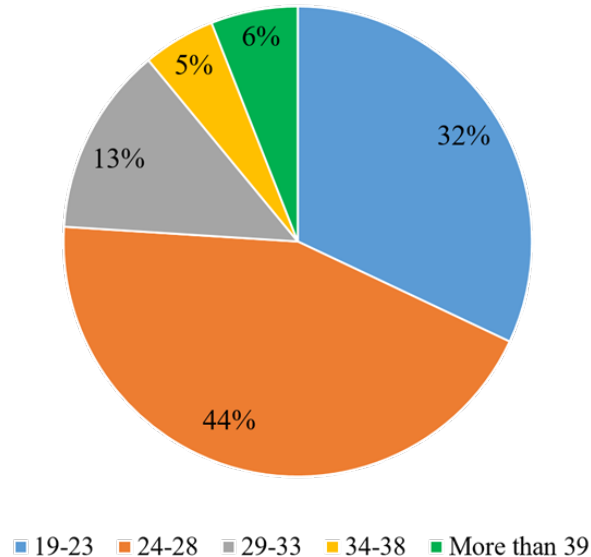


Figure 1: Percentage of age of the students.

Regarding the answers to the questionnaire, each item obtains its own scores that, although they vary among them, are similar percentages in the different values [Figure 2 and Figure 3]. Thus, in the question about "Academic performance" (Q1), the answers have been totally disagree (4.9%), disagree (26.8%), agree (61%) and totally agree (7.3%). With measures of central tendency referring to the mean: 2.71, media: 3, mode: 3 and a standard deviation of 0.67 points. In the "Development of creativity and innovative ideas in teaching" (Q2), totally disagree (4.9%), disagree (15.9%), agree (62.2%) and totally agree (17.1%). Mean: 2.91, media: 3, mode: 3 and standard deviation: 0.72 points. In "Development of metacognitive skills" (Q3), totally disagree (6.1%), disagree (25.6%), agree (52.4%) and totally agree (15.9%). Mean: 2.78, median: 3, mode: 3 and standard deviation: 0.78 points. In "Development of social and personal skills" (Q4), totally disagree (4.9%), disagree (13.4%), agree (64.6%) and totally agree (17.1%). Mean: 2.94, median: 3, mode: 3 and standard deviation: 0.70 points. In relation to "Greater knowledge and learning through teamwork" (Q5), totally disagree (2.4%), disagree (25.6%), agree (54.9%) and totally agree (17.1%). Mean: 2.87, median: 3, mode: 3 and standard deviation: 0.71 points. In "Increase of my interest and personal motivation towards the subject" (Q6), totally disagree (6.1%), disagree (23.2%), agree (59.8%) and totally agree (11%). Mean: 2.76, median: 3, mode: 3 and standard deviation: 0.73 points. Following with the data obtained, in the question "Acquisition of a comprehensive knowledge, practical, transferable to other subjects and to reality" (Q7), totally disagree (2.4%), disagree (17.1%), agree (64.6%) and totally agree (15.9%). Mean: 2.94, median: 3, mode: 3 and standard deviation: 0.65 points. And finally, in "I prefer to work through active methodologies such as Flipped Classroom as opposed to traditional teaching methods (master lesson)" (Q8), totally disagree (3%), disagree (20.7%), agree (51.2%) and totally agree (24.4%). Mean: 2.96, median: 3, mode: 3 and standard deviation: 0.77 points.

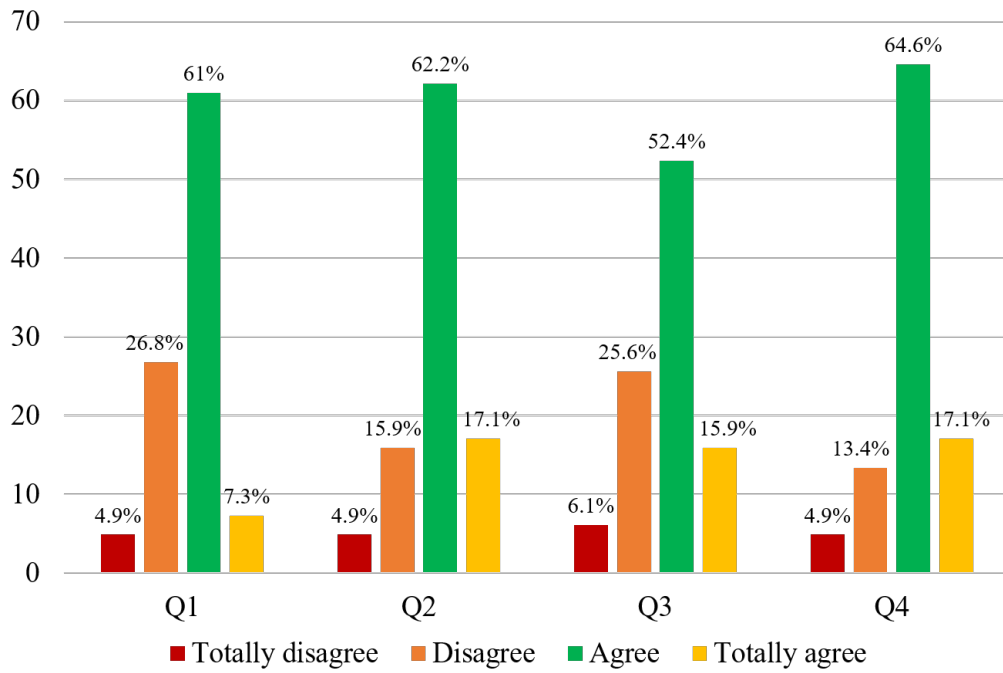


Figure 2: Percentage of responses based on the Likert scale of question 1-4.

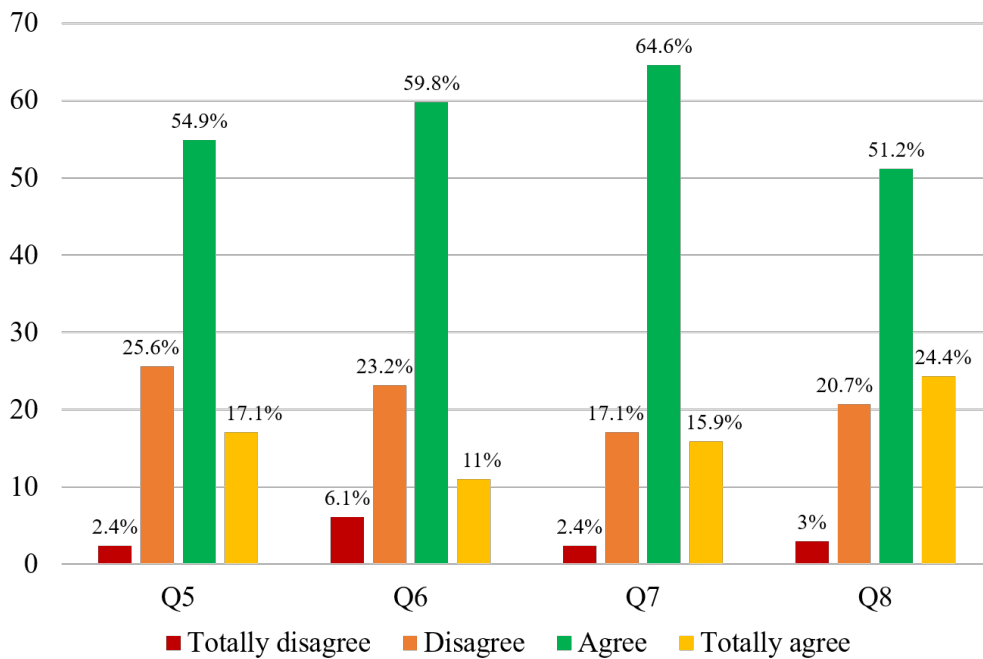


Figure 3: Percentage of responses based on the Likert scale of question 4-8.

Finally, in the final question about "The global assessment of my learning experience with this teaching methodology" (Q9), the results have been very unsatisfactory (2.4%), unsatisfactory (15.9%), satisfactory (62.2%) and very satisfactory (19.5%) [Figure 4]. With a mean: 2.99, media: 3, mode: 3 and standard deviation of 0.67 points.

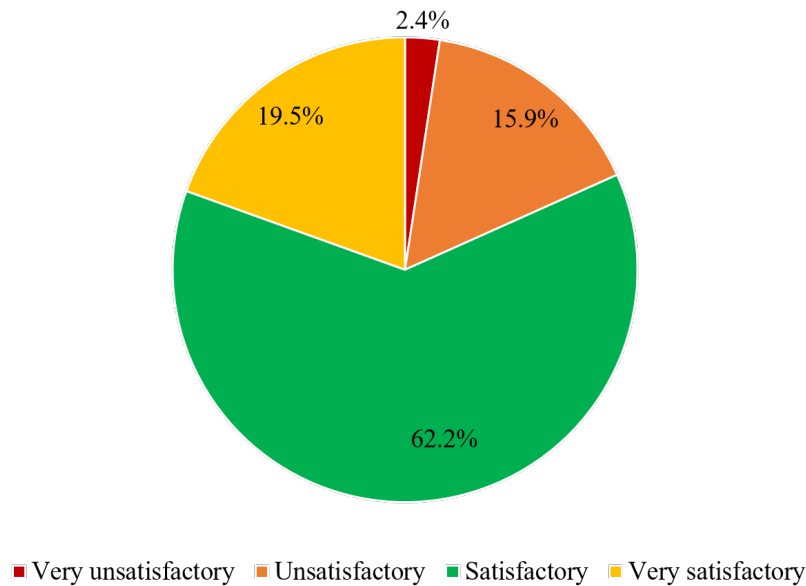


Figure 4: Percentage of student satisfaction with respect to the Flipped Classroom experience.

Discussion And Conclusions

In relation to the answers of the participants, these are homogeneous in all the items as it reflects the low standard deviation, less than 0.8 points in all of them. Therefore, according to the median and mode, the answers are accumulated in the value 3 (agree), thus highlighting a positive perception in the application and development of the Flipped Classroom methodology. Thus, the participants consider the improvement in academic performance in the same line as the pioneers Bergmann and Sams (2012), which highlight the Flipped Classroom as a method for improving learning.

Likewise, the fact of giving the students autonomy in carrying out the tasks (Miragall, & García-Soriano, 2016) affects the development of creativity, as confirmed in this experience. Regarding the development of personal and communication skills, these are enhanced by teamwork that favours the Flipped Classroom (Huesca, 2016, Mingorance et al., 2017), in the same way that the percentage of student agreement is 81.7% (social and personal skills) and 72% (teamwork).

On the other hand, the fact that the Flipped Classroom methodology promotes the active role of students and the flipped of roles, displacing the teacher to a secondary level, incurs the student's intrinsic motivation (70.8% of agree), as González et al. (2017) indicates. In this sense, the acquisition of knowledge is amplified due to the combination of the motivational and significant learning components developed by the student (Díaz, Martín, & Sánchez, 2017) and is perceived in this experience (80.5%).

Finally, the general assessment of the students is satisfactory with an agreement percentage of 81.7%, where the students' preference is shown for working with an active methodology such as the Flipped Classroom versus the master class. In short, the students' general perception of the experience and skills developed with the Flipped Classroom, both in this paper and in those previously done (Opazo, Acuña, & Rojas, 2016; Sacristán et al., 2017), make this methodology a powerful resource for improving the teaching-learning

In consideration, with the development of this work on the implementation of the Flipped Classroom methodology has responded to the objective raised about knowing the experience of the Masters' degree students on this methodology. Likewise, the different items raised provide relevant data of the Flipped Classrooms' virtualities to enhance diverse personal, academic and social skills. So that not only the academic dimension of the student is affected, but the experienced skills are transferred transverse to other facets of life. However, it is important to highlight the importance of working with future teachers on innovative methodologies such as the Flipped Classroom, since experiences of this type empower and provide teachers with resources so that in the future they can be implemented in their classrooms. However, it is of vital importance to know the didactic content of the subject, since as indicated by Barao and Palau (2016) some disciplines require a more deliberate and directed treatment, as in this case the specialties of Mathematics and Geography and History. Therefore, in these subjects it is necessary to combine the Flipped Classroom with other resources that help to understand the key concepts

and favour the autonomous learning of the student.

In summary, the Information and Communication Technologies (ICT) converge in teaching methodologies that place the focus of attention on the student and foster their autonomy in learning. The Flipped Classroom methodology is found in this line, incurring multiple benefits for teaching, such as those cited in the previous studies of other authors and those collected in this experience.

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Future Directions And Practices Of Lifelong Education Support System For Individuals With Developmental Disabilities

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Abstract

The Purpose Of This Study Is To Find A Component And Support For The Development Of Lifelong Education Support System For Adults With Developmental Disabilities. The Research Method Was Delphi Survey, And 22 Experts Participated Twice. The Result Of Delphi Research Are As Follows. First, Vocational Education Programs For Adults With Developmental Disabilities Should Be Centered Around Independent Living Skills, Community Life Skills, Working Posture, Work Safety, And Interpersonal Relationships In The Workplace. Second, Vocational Education Programs For Adults With Developmental Disabilities Should Utilize On-The-Job Training And Internships. Third, Support Measure For The Lifelong Education Support System Is To Establish A Delivery System For Lifelong Education For The Disabled, Which Is Unified Among The Relevant Ministries And Agencies, To Expand The Practice And Internship For The Disabled, And To Secure Additional Budget For The Disabled.

Introduction

Lifelong Education Means That All People Receive Education Throughout Their Lives(Jo & Park, 2015). It Is Even More Important In Modern Society, Where It Is Required To Adapt To Rapidly Changing Cultural, Technological And Social Phenomena Every Day. In The Sense That It Supports The Ability Of Individuals Who Have Not Been Acquired In The School Curriculum To Continuously Develop Their Ability To Play A Social Role In Adulthood, It Is More Necessary Education For Persons With Developmental Disabilities Who Still Have Cognitive, Psychological And Social Limitations In Adulthood(Cho & Kim, 2016). In Other Words, Lifelong Learning For People With Developmental Disabilities Can Function As A Foundation For Promoting Vocational And Social Participation, Beyond Mere Personal Ability Development.

In The Republic Of Korea, The Percentage Of People With Disabilities Participating In Lifelong Learning On Job Skills Is Very Low, At 1.4%(Ministry Of Health & Welfare, 2012). Because There Are Many People Who Want To Participate, But It Is Impossible To Participate Because Of Lack Of Related Programs, Facilities, Infrastructure And Budget(Yoon. Et Al., 2010). To Improve This, It Is Necessary To Develop And Operate A Lifelong Education Program For The Disabled By Area Of Lifelong Education. In Particular, Career-Related Lifelong Education Programs For People With Developmental Disabilities Can Be A True Meaningful Program When It Includes Self-Management Skills Such As Job Skill Skills, Personal Treatment, Mobility, Sociality, Self-Advocacy, And Self-Determination(Song & Yoo, 2015). The Purpose Of This Study Is To Provide Support For Vocational - Related Lifelong Education For Adults With Developmental Disabilities And Provide Them As Basic Data To Support The National And Local Community. Specific Research Issues Are As Follows.

1. What Are The Specific Measures For Basic And Occupational Programs For Lifelong Learning For Adults With Developmental Disabilities?
2. What Are The Specific Measures For The Job-Lifelong Education Support System For Adults With Developmental Disabilities?

Research Method

We Used The Delphi Method To Gather Opinions From Expert Panels. The Panel Consisted Of Experts In Special Education, Vocational Rehabilitation, Social Welfare(Master's Degree Or Above, 3+ Years Experience) And Parents Of Adults With Developmental Disabilities. Based On The Focus Group Interview (Fgi) Of The Expert Group And The Previous Research, The First Questionnaire Consisting Of 128 Items Was Prepared. A Total Of 2 Surveys Were Conducted And E - Mail Was Used. The Contents Of The Collected Data Were Categorized And Analyzed Using The Spss 21.0 Program. Results Were Examined By Frequency, Percentage, Mean, Standard Deviation, Skewness, Interquartile Range, And Content Validity Ratio.

Results

Basic Vocational Education Program

Among The 11 Areas(Independent Living Skills, Academic Skills, Self-Esteem, Community Life Skills, Assistive Technology Device Utilization, Interpersonal Relationships, Work Posture, Work Safety, Work Practice,

Occupational Hygiene, Employment Success Stories) And 32 Items Related To Basic Vocational Education, The Items That Showed High Necessity Are Health Care, Money Management, Stress Management, Interpersonal Relationship, And Asking For Help From Others. The Details Are Shown In <Table 1>.

Table 1: The Distribution Of Responses To The Needs Of Elementary Vocational Education Program Components

Items		M	Sd	Conver gence	Agree ment	Cvr
Independent Living Skills	Health Care	4.90	.32	1.00	.00	1.00
	Money Management	4.60	.70	.80	.50	.80
Self-Esteem	Stress Management	4.70	.48	.80	.50	1.00
Community Life Skills	Interpersonal Relationship	4.80	.42	.95	.13	1.00
	Asking For Help From Others	4.60	.52	.80	.50	1.00

Professional Vocational Education Program

Among The 13 Areas(Reading And Writing Documents, Computing Ability, Self-Management Skill, Job Function, Computer Utilization, Job Aptitude And Employment Counseling, Employment Support, Job Preparation, Preparation For Certification Acquisition, Field Practice And Internship, Resource Utilization Education, Fund Management Education) And 30 Items Related To Professional Vocational Education, The Items That Showed High Necessity Appeared As Conflict Management, Stress Relief, Time Management, Field Practice, And Support Through Related Organizations. The Details Are Shown In <Table 2>.

Table 2: The Distribution Of Responses To The Needs Of Professional Vocational Education Program Components

Items		M	Sd	Conver gence	Agree ment	Cvr
Self-Management Skill	Conflict Management	4.10	.57	.94	.13	.8
	Relieve Stress	4.20	.63	.75	.50	.80
	Time Management	4.20	.63	.75	.50	.80
Field Practice And Internship	Field Practice	4.40	.84	.75	.63	.60
Resource Utilization Education	Support Through Related Organizations	3.90	.57	.94	.13	.60

Establishing Lifelong Education Support Systems

Among The 16 Measures For Establishing Lifelong Education Support Systems For The Job, The Items That Showed High Necessity Are Unified Lifelong Education Delivery System, Dedicated Manpower Deployment, And Budget Securing. The Details Are Shown In <Table 3>.

Table 3: The Distribution Of Responses To Appropriateness Of The Measures To Support Lifelong Education

Items	M	Sd	Conver gence	Agree ment	Cvr
Establishment Of A System For Lifelong Education For Disabled People With Unified Administrative Departments And Agencies	3.90	.32	1.00	.00	.80
Placement Of Vocational Education Personnel In Existing Lifelong Educational Institutions For The Disabled	4.00	.67	.88	.25	.60
Additional Budget For Vocational Education For The Disabled	4.00	.00	1.00	.00	1.00

Conclusions

The Essential Job Skills Are Required For Employment, But Additional Skills Related To Social Adjustment Are Also Required To Maintain A Career. In Particular, Adults With Developmental Disabilities Have A Large Gap Between Life Age And Cognitive/Social Age, So Technology Related To Social Adaptation Should Be Supported By Lifelong Education For The Whole Life. Therefore, Vocational Education For Adults With Developmental Disabilities Can Lead To Longer-Term Employment Retention If They Are Combined With Contents That Improve Basic Social Skills Such As Cooperation With Colleague At Work And Interpersonal Relationships.

Developmental Disabled Have A Limited Ability To Generalize, So It Takes A Lot Of Time And Effort To Apply The Skills Acquired In The Classroom To The Field. Therefore, It Is Necessary To Actively Consider The Internship And On-The-Job Training As A Way To Learn And Apply The Technology Directly In The Field.

Even If Measures Are Taken To Revitalize Vocational Education At The Level Of Lifelong Education For Adults With Developmental Disabilities, It Would Be Difficult To Guarantee The Effect If Lifelong Education Is Provided With Temporary Support. Therefore, Policies, Laws, And Research That Ensure Continuous And Gradual Support Need To Be Implemented In Parallel. Finally, It Is Necessary To Educate And Arrange A Highly Specialized Workforce, As It Is An Education To Teach A Professional Area Of A Job To A Person Who Has A Special Support Requirement Called A Developmental Disabled Person. Through This, A Concrete Curriculum And Support Measures Will Be Developed, And The Know-How Can Be Systematically Communicated.

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Gender-Related Effects Of Video Games On English Vocabulary Learning *

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Abstract

In this study, the effects of the use of video games on English vocabulary learning were investigated by utilizing the video game “Trace Effects”. The study was implemented through the participation of 60 students (31 female, 29 male) who were enrolled in a private high school in Diyarbakır/Turkey, in 2015-2016 academic year. In this research, quasi-experimental research design was used for the quantitative part of the study and experimental and control groups were formed by using cluster convenience sampling method. The test which was used as pre-test and post-test in this study was prepared by using the vocabularies which were selected from the first four units of the video game “Trace Effects”. Data obtained from the test were analyzed by using parametric and non-parametric tests in SPSS statistical program. In addition, the qualitative data of the research were collected through semi-structured interviews. The results of the research showed that the video game application had a significant effect in favor of female students in terms of academic achievement on English vocabulary learning when the gender variation is taken into consideration.

Introduction

The use of technology in teaching English in classrooms has become widespread in recent years. The concept of digital game-based learning using video games in foreign language teaching has also become a topic of interest to educators and researchers all over the world. The use of video games and other digital technologies in language environments by associating with language learning has created the discipline of “educational technology” by combining education and technology disciplines. “The study of every level of linguistic system has changed because of the technology” (Chapelle, 2003, p.20). Vocabulary learning has also changed by the help of the technology use in educational context. Since the first years of CALL (1970s-1980s), vocabulary learning has always been “a favorite subject in computer assisted language learning (CALL) programs” (Ma, 2009, p.173). With the development of technology and its use in the classes, vocabulary learning with technology has been popular with CALL (computer assisted language learning) and CAVL (computer assisted vocabulary learning), Blended Learning and also digital-game based learning.

The use of computer technology in foreign language learning has many advantages for both teachers and students. The main advantages are increasing their academic achievement (Panourgia, 2000; Lee, 2000), strengthening language acquisition (Galavis, 1998), increasing self-confidence of learners (Lee, 2000), lowering anxiety levels (Chapelle, 2001; Levy, 1997; Siskin, 1999) and enabling student-centered, collaborative learning (Lee, 2000). But motivation is at the forefront of the most expressed advantages of the technology use in educational environment. Lee (2000) indicates that students can become motivated to the classes through entertainment and games. When Warschauer and Healey (1998, p.60) express the advantages of computers for teaching foreign languages, they use the term “fun factor”; this “fun factor” is the main source of student motivation.

One of the most fundamental sources of “the fun factor” is the games. With the developing technology, the use of games and teaching in different educational environments has also led to the emergence of digital game based learning model. Educational games are “software that enables students to learn lessons by using the game format or develop their problem solving skills” (Demirel, Seferoğlu and Yağcı, 2003, p.141). The change of the game sector and the technology and the games also provided new concepts related to games. Some of them are used in place of each other, others have different meanings on their own, and video games, digital games and computer games are seen to be used interchangeably in the literature.

Because of the theories of education and the familiarity of the students with technology, nowadays technology and language teaching are increasingly focusing on the fact that learning can also take place in virtual reality video games. Particularly the games that have been specifically developed for language learning purposes have attracted more attention and offer greater success (Bikowski, 2012, p.4).

The vocabulary has a great proposition in terms of language learners as it forms the basis of language (Coady & Huckin, 1997; Nation, 2001, Read, 2000). Specializing in vocabulary learning means specialization in a foreign language and it is the most important determinant of this specialization (Nation, 2001; Read, 2000). Linguists tend to describe vocabulary knowledge either according to the “breadth/dept” dimension or the “reception/production dimension. Breadth and depth essentially concern declarative knowledge whereas reception and production are fundamentally concerned with procedural knowledge. The learner is consciously increasing the number of words and the features needed in order eventually to be able to use them automatically both receptively and productively (Ma, 2009, p.50). Vocabulary learning is one of the most important aspects of second language learning; however “it is the learning for L2 lexical items (individual words or multi-word items) that requires so much effort, considerably more, in fact, than grammar” (Ma, 2009, p.173).

Gender differences and English language learning has also been a research topic in literature. Many studies show that female learners use more language learning strategies than male learners. However; it is not clear “whether females and males perform differently in terms of language comprehension”. In some studies it is seen that there is no significant differences between genders while in some studies there is (Bacon, 1992; Brantmeier, 2003 cited in Saidi & Al-Mahrooqi, 2012).

The aim of this study is to investigate possible effects of video games in terms of gender variable on English vocabulary learning by the application of "Trace Effects" video game which is specially designed for English learning. In addition, it was aimed to investigate the views of the students according to the gender about the use of video games in EFL classes.

To be able to reach these aims the following research questions are answered in this study:

- 1) Is there a meaningful difference between vocabulary test scores of female and male learners who learn English vocabulary with
 - a. video games?
 - b. traditional methods?
- 2) From an emic perspective, how do learners of EFL view the use of video games as a language learning tool?

The Study

In this study, gender-specific effects of the use of video games on English vocabulary learning were investigated by the help of the video game “Trace Effects”. In addition, it was aimed to investigate the views of the students according to the gender about the use of video games in EFL classes. In order to be able to achieve these aims a mixed research method was used as the research method of the study. Mixed methods research is a method that focuses on “collecting, analyzing an mixing both quantitative and qualitative data in a single study or serious of studies” (Creswell & Plano Clark, 2011, p.5).

The quantitative study group of this study consist of 60 (31 female, 29 male) students enrolled in the 9th grade in 2015-2016 educational year of a private school in Diyarbakır. The students from two different classes were divided into experimental and control groups by cluster convenience sampling. In Table 1. participants of the study can be seen in detail.

Table 1.
The participants of the study

	Experimental Group		Control Group	
	(f)	(%)	(f)	(%)
Gender				
Female	15	50	16	53.3
Male	15	50	14	47.7
Total	30	100	30	100

As the tool game of the study “Trace Effects” video game was used. This game is a video game developed specifically for English learning for 12-16 year-old students by the US Department of State. It was used in this study as an educational tool. This game was chosen in this study as the educational tool because it was free to use and there was a few studies in the literature that used this game in their research studies in other countries. The doctoral dissertation of Bado (2014) with the title of “Video Games and English as a Foreign Language Education in Burkina Faso” is one of the first detailed study using Trace Effects video game as an educational research tool.

This study focused on the pedagogical integration of Trace Effects into the EFL classroom and perceptions of teachers and students about Trace Effects video game in EFL classes. The perceptions of the teachers and students in this study showed that the design of the Trace Effects video game is motivating and it can improve EFL listening, speaking, vocabulary and pragmatic skills.

In this research study the first 4 units of the game was played in experimental group with individual computers/laptops of the school. For the experimental group, the video game was used and video-game based activities were applied. For the control group, vocabulary teaching was done with traditional techniques. The words of the first four units were given to the students with their Turkish equivalents and then the vocabularies were practiced with memorization methods and various exercises. The application, took 2 hours a week, lasted a total of 8 weeks. As a pre-test and post-test in the research, a test which was prepared from the words in the video game was applied. The data was analyzed by SPSS statistical program and interpreted according to the gender.

As can be seen in Table 2., in the quantitative part of the study, pre-post test quasi-experimental design was used and the quantitative data was analyzed with parametric and non-parametric tests with SPSS statistical programme. In the qualitative part of the study semi-structured interview was used and qualitative data was analyzed by using content analysis technique.

Table 2.
The Methodology of the Study

	Quantitative	Qualitative
Instruments	Quasi Experimental Design Pre-Post Test (61 words 25 questions)	Semi-Structured Interview (6 principal questions) Female =6, Male = 9 (n=15)
Data Analysis	t-test (parametric) Mann Whitney U (non-parametric)	Content Analysis Technique

In the preparation of the pre-post test, 61 vocabularies were chosen from the first 4 units of the game. A vocabulary achievement test with 25 questions was prepared and it was piloted before the main study. Item difficulty indexes (p) were 0.29-0.88, item discrimination indexes were all >0.20, KR-20 internal consistency was calculated as 0.87 and mean difficulty was 0.51. According to these results, as can also be seen in Table 3 and Table 4, it can be indicated that the test is reliable, valid and serves the purpose.

Table 3.
Descriptive Statistics (According to Gender)

Gender	Test	Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	Df	Sig.
Female	Pre-Test	,123	31	,200*	,978	31	,748
Male	Pre-Test	,116	29	,200*	,941	29	,107
Female	Post-Test	,133	31	,175	,961	31	,312
Male	Post-Test	,274	29	,000	,751	29	,000

Table 4.
Normality Distribution (According to Gender)

		Mean	Median	Std. D.	Range	Skewness		Kurtosis	
						St. Error		St. Error	
Female	Pre-test	6.2258	6	2.12	9	0.219	0.421	-.219	0.821
	Post-test	20.7419	21	2.04	10	-0.522	0.421	1.101	0.821
Male	Pre-test	5.8966	6	2.07	7	0.251	0.434	0.679	0.845
	Post-test	19.8966	20	2.71	14	-2.511	0.434	8.618	0.845

The Findings

The findings of the study are illustrated under the related research questions. Pre-test scores are normally distributed and to analyse them t-test was used. Post-test scores are not normally distributed ($p=0,00<0,05$). Therefore, Mann Whitney U was used as a non-parametric test to analyse the data.

The first research question is:

Is there a meaningful difference between vocabulary test scores of female and male learners who learn English vocabulary with video games?

To answer this question we analyzed whether there is a meaningful difference between pre-test and post-test achievement scores of the experimental group students who learn English vocabulary with the video game or not. The mean pre-test achievement scores ($X = 6.26$) of the female students in the experimental group were higher than the pre-test achievement scores of the male students in the experimental group ($X = 5.60$), but there was no significant difference between them ($p = .53$; $p > .05$). Accordingly, it can be stated that the students in the experimental group formed a homogeneous group and that the readiness levels of the groups of students (female and male) were similar before the application phase.

Table 5.
Experimental Group Pre-test (t-test)

Gender	N	X	SS	Sd	t	P
Female	15	6.26	1.83	28	.97	.53
Male	15	5.60	1.91	-	-	-

$P>.05$

When the results of the Mann-Whitney U test of the post-test scores were taken into account according to the gender, it was concluded that female students in the experimental group had a higher rank average of post-test achievement scores than male students, and this difference was statistically significant ($U = 63$; $P < .05$). According to this, when the gender variation of video game application in this study is taken into consideration, it has been seen that the video game application has a significant effect in favor of female students in English vocabulary learning.

Table 6.
Experimental Group Post-test (Mann-Whitney U)

Gender	N	Sum of	Mean Rank	U	Z	P
Female	15	282	18.80	63	-2.185	.029
Male	15	183	12.20			

As the second research question the following question was tried to be answered:

Is there a meaningful difference between female and male learners who learn English vocabulary with traditional methods? To answer this question first of all it was tried to be answered whether there is a meaningful difference between the pre-test and post-test achievement scores of the control group students who learn English vocabulary with the traditional method or not. The pre-test scores of the control group were normally distributed. Independent groups t-test was used to analyze the pre-test scores. However, post-test scores were not normally distributed. Mann-Whitney U test was used to analyze the post-test scores of the control group.

Table 7.
Control Group Pre-test (t-test)

Gender	N	X	SS	Sd	T	P
Female	16	6.18	2.42	28	-.031	.76
Male	14	6.21	2.25			

$P>.05$

As can be seen in Table 7., there is no significant difference between the groups ($p = .76$; $p > .05$). Female and male students of the control group were homogenous at the beginning of the study. When the post-test scores of

the control group students were taken into consideration that can also be seen in Table 8., there was no statistically significant difference between the achievement scores of male and female students ($U = 96.5$; $P > 0.05$). Taking into consideration the average of the rankings, it can be said that the female students have a higher rank average in the traditional method than the male students (16.47) but this difference is not enough for a statistically significant difference.

Table 8.
Control Group Post-test (Mann Whitney U)

Gender	N	Sum of	Mean Rank	U	Z	P
Female	16	263.50	16.47	96.5	-.669	.504
Male	14	201.50	14.39			

With the following research question quantitative data was supported with qualitative data:

From an emic perspective, how do learners of EFL view the use of video games as a language learning tool?

The views of the experimental group participants were investigated with a semi-structured interview. The answers of the participants to the questions of semi-structures interviews were analyzed with content analysis technique by coding the common points.

First of all it was asked to the students whether they play video games outside the school or not. 10 learners (2 females, 8 males) answered this question as “yes” and 5 of the learners (4 females and 1 male) said “no”.

Table 9.
Do you play video games outside the school?

	Frequency (f)	Learners
Yes	10	(2 Females, 8 Males)
No	5	(4 females, 1 male)

Following this question students were asked “If yes, what kind of video games do you play?” It can be seen in Table 10. that female learners prefer playing games outside school less than males. Male learners prefer playing more action games outside the school.

Table 10.
What kind of video games do you play?

Female (f)	Male (f)
Trivia Crack (1)	World of Warcraft (5)
Candy Crush Saga (1)	Street Fighter (4)
	GTA (3)
	Call of Duty (2)
	Trivia Crack (1) ; Knight Online (1); Marvel
	Contest of Champions (1); Assassin’s Creed (1);
	Far Cry (1); Shadow Fight (1);
	Batman: Arkham (1)

Students were also asked “What are the most important advantages of using video games in your English lessons?” They replied that video games “increase motivation (f=4), make learning easier (f=4), enable audio-visual learning (f=3), provide a fun learning environment (f=3), improve english knowledge (f=2), improve self-confidence in learning (f=1) and understandable (f=1). It is clear that both female and male learners think that there are advantages of using video games in EFL classes.

Table 11.
What are the most important advantages of using video games in your English lessons?

Codes Used	Frequency	Learner
Increase Motivation	4	1 Female, 3 Males
Makes Learning Easier	4	3 Females, 1 Male
Enables audio-visual learning	3	1 Female, 2 Males
Provides a fun learning environment	3	3 Males
Improve English Knowledge	2	2 Males
Improve self-confidence in learning	1	1 Female
Understandable	1	1 Female

Some of the quotations that learners uttered according to the advantages of using video games are as follows:

"We can learn more easily. Lessons are fun and time passes fast "(S8, female)

"Since games can also be played individually, it helps students learn autonomously and each student can learn according to their own pace" (S12, male)

"There is no loss of motivation while learning a language with a video game. Without going to another country, you can discover word patterns by replacing yourself with the character in the game. "(S3, male)

As another interview question students were asked "Are there any disadvantages / obstacles of the use of video games in English lessons?" The defined codes from the answers of the students are lack of technological infrastructure (f=7), time problem (f=3), may cause health problems (f=1) and may cause habits (f=1). Both female and male learners indicated disadvantage or barriers of the use of video games in English lessons.

Table 12.
Are there any disadvantages / obstacles of the use of video games in English lessons?

Codes Used	Frequency	Learner
Lack of Technological Infrastructure (hardware, software problems)	7	1 Female, 6 Males
Time Problem	3	3 Males
May cause health problems	1	1 Female
May cause habit	1	1 Male

Some of the quotations related to the disadvantages/obstacles of the use of video games in English lessons are as follows:

«It may cause health problems in our eyes. If I look at the screen al lot, my eyes are aching» (S15, female).

"Although there is no disadvantage, I can say that there is technological insufficiency as an obstacle. The computers sometimes do not work well to play the game"(S11, male).

Learners were also asked "Is it effective to learn English with video games?" and if yes, "how is learning with video games effective? It is obvious in Table 13 that all of the interview participants answered this question as "yes". Their answers to the question "how is learning with video games effective? were coded as "increase motivation (f=8), enable autonomous learning (f=6), improve vocabulary knowledge (f=4), facilitate using the language in a practical way (f=4), improve learning and pronunciation skills (f=3), enable audio visual learning (f=2), enable permanent learning (f=2), increase curiosity (f=1), and enable learning with fun (f=1). Both female and male learners demonstrated similar views about the effectiveness of learning English with video games.

Table 13.
Is it effective learning English with video games?

	Frequency	Learners
Yes	15	6 Females, 9 Males
No	-	-

Table 14.
If yes, how is it effective learning with video games?

Codes Used	Frequency	Learners
Increase motivation	8	1 Female, 7 Males
Enables autonomous learning	6	4 Females, 2 Males
Improves vocabulary knowledge	4	2 Females, 2 Males
Make easy using the language in a practical way	4	2 Females, 2 Males
Improves learning and pronunciation skills	3	1 Females, 2 Males
Enables audio visual learning	2	1 Female, 1 Male
Enables permanent learning	2	2 Males
Increase Curiosity	1	1 Male
Enables learning with fun	1	1 Female

Some of the quotations participants' answers about the effectiveness of learning with video games are as follows:

"When we used this game in the class, I participated in a more motivational way. Because learning English with the game made me have more fun "(S10, female).

"This game has developed my pronunciation. When I finished playing the game, the speeches and pronunciation of the characters were still in my mind "(S5, female).

"I think it's very effective. You can learn on your own easily. I also think that learning is more permanent"(S6, male)

"Improving my vocabulary knowledge is enough. It is definitely a positive effect " (S9, male).

Students were also asked some questions about the video game application and vocabulary knowledge. As an interview question students were asked "Do you think that your English vocabulary knowledge increased with "Trace Effects" video game application? If yes, how your English vocabulary knowledge increased with "Trace Effects" video game application. According to the answers of the participants except for 1 (S12), all of the other participants of the interview (f=14) said that their English vocabulary knowledge increased with "Trace Effects" video game application. Common codes that were defined are as follows: increasing permanent learning (f=9), recalling vocabulary better (f=7), creating easy and practical learning environment (f=4), enabling learning more vocabularies (f=3) and fostering continuous learning (f=1).

Table 15.
How your English vocabulary knowledge increased with "Trace Effects" video game application?

Codes Used	Frequency	Learners
Increased permanent learning	9	3 Females, 6 Males
Made easier recalling vocabulary	7	7 Males
Created easy and practical learning environment	4	4 Females
Enabled learning more vocabularies	3	2 Females, 1 Male
Continuity made easier learning	1	1 Male

Some quotations related to these interview questions are as follows:

"By playing the game, you get lost after a while. At that moment the vocabularies are starting to be familiar. You realize that English is not difficult to understand and it is not difficult to speak. "(S1, female)

"A game with simple words. I had my vocabulary knowledge. It did not affect me in this regard, but for the beginners I think they are very appropriate words. "(S12, male)

"A very useful game, makes learning easy and my vocabulary knowledge has improved a lot. " (S2, female)

"English is not difficult to understand and it is not difficult to speak. " (S1, female)

"It made it easier for us to learn the same words constantly by playing the same game and seeing and hearing similar words and phrases from the same character." (S6, male)

"I learned more vocabulary with this game and I remember almost everything." (S9, male)

Conclusion

In this study, the effects of the use of video games on English vocabulary learning were investigated based on gender variable. The results of this study show that both control and experimental groups and both female and male students were successful. However, when the gender variation of video game application in this study is taken into consideration, it has been seen that the video game application has a significant effect in favor of female students in English vocabulary learning in experimental group. In addition it was also observed that there is no significant difference between female and male learners of the control group who learned English vocabulary with traditional methods.

In this study the views of the students about the use of video games as a language learning tool was also investigated. With semi-structured interview questions the views of the volunteer participants of experimental group were investigated. According to the results of semi-structured interviews, female learners do not seem to like playing video games outside school while male learners prefer playing video games outside school more and they also like adventurous action games.

The advantages of the video game use in English classes that were uttered by interview participants are "enabling autonomous learning, increasing vocabulary knowledge, increasing motivation and making learning easy". The disadvantages and obstacles that the interview participants indicated are "lack of technological infrastructure, time problem, maybe causing health problems and maybe causing bad habits". The effects of "Trace Effects" video game on vocabulary learning were also asked. They indicated that this video game application increased permanent learning, made recalling vocabulary easier, created easy and practical learning environment, enabled learning more vocabularies, and continuity in the game made learning easier for students.

Both female and male learners perceive that video game use in EFL classes enable autonomous learning, increase vocabulary knowledge, increase motivation, make learning easier, enable audio-visual learning, provide a fun learning environment, improve English Knowledge, and improve self-confidence in learning. These perceptions cannot be generalized because they are restricted only to the research group of this study. Other qualitative and quantitative research is needed in order to substantiate these findings.

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High School Students' Opinions About Using The Flipped Classroom In Physics Teaching

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Abstract

Flipped classroom model is an instructional and pedagogical strategy which aims to make the time spent in the classroom productive. Learners in this model are engaged in basic level activities such as getting information at home, and they practice in the classroom under the guidance of the teacher. The aim of this study is to determine high school students' opinions about the use of flipped classroom. This is a case study in a qualitative research design. This study was conducted with 10 10th-grade high school students in a public high school in the west of Turkey's Black Sea Region in the 2017-2018 academic year. The study data were collected using a structured interview form which included open-ended questions. High school students' verbal explanations to the open-ended questions were analyzed using content and descriptive analyses. Results of the present research show that a majority of high school students had positive opinions about flipped classroom model. According to the students, the flipped classroom model has increased their learning, attention and persistence of the information. Students have indicated that their motivation and self-confidence are high. As a result, the flipped classroom model should be used in high school physics courses.

Keywords: *Flipped classroom model, physics teaching, high school students.*

Introduction

The rapid and innovative changes experienced in the technological and scientific fields in the 21st century have caused important changes in societies and individuals' perspectives towards education and their expectations from education. Advancements in the fields of knowledge acquisition and communications also influence the way of providing education, and the use of information communication technologies, such as computers, in learning environments becomes a necessity (Niess, 2005). Learning is completely achieved in learning environments where communication is effectively used and a communication-learning environment, along with the use of communication technologies, can also be effectively used outside the classroom environment. For example, the use of information communication technologies particularly in courses that are difficult to grasp, such as mathematics, is argued to be useful (Jones, 2000; Laborde, 1993; Marshall, Buteau, Jarvis, & Lavicza, 2012). New methods and models should be developed for more effective use of such technologies which are considered to be learning-assistive.

Considering the level of the information and communication technologies that have arrived in recent years, an innovative teaching model has gained popularity. This model, termed as the "Flipped Classroom Model" (Flipped Classroom), "flips" the traditional classroom paradigm and online educational tools. Flipped Classroom model enables students to learn the topics out of the classroom time with the help of previously recorded videos and various course materials, and also saves time to carry out activities in the classroom. Despite the fact that educators put to use this new teaching approach in countless different ways, the essential idea is to carry the basic teaching outside the classroom and subsequently to use the lesson hour for activities deepening the knowledge. As a result, students can be involved in group activities, laboratory practices or other active learning types in the classroom (Bergman & Sams, 2012, Lage, Platt, & Treglia, 2000, Stone, 2012; Tucker, 2012, Bishop & Verleger, 2013, Zownorega, 2013). This model is a learning-teaching method enabling students to carry out, mostly individually or as a group, problem solving activities on the topics they have studied individually in the classroom environment and to focus on the problems that most of them encounter in their individual learning. This method also gives an opportunity for teachers to deal with the learner one to one. Students are provided with an omnipresent opportunity to reach any knowledge by means of taking video records of the theoretical knowledge of the courses and transferring them to the internet environment (Gencer et al., 2014). The literature review showed that studies had been carried out in different fields to determine the effect of Flipped Classroom model on the learning process. In a high school located in Detroit, the US, Flipped Classroom model was applied in the courses of Math and English,

regarding the need for a change of model in order to support and enhance students' education. Teachers prepared three videos, each lasting 5–7 minutes, per week, required their students to watch these videos at home, and asked the students, who do not have the internet connection at home, to watch them at school. The teachers carried out interactive activities and implementations, and enriched the content in the classroom. The results showed that students' problem of not doing their homework was eliminated, the teachers were able to include more explanatory examples on the content, and helped their students about the topics they did not understand rather than reviewing the lesson. Moreover, the percentage of the students who failed in English decreased from 19% to 13%, and in mathematics from 50% to 44% (Strayer, 2011). Stone (2012) conducted a study with 400 university students in a biology course and 30 university students applied Flipped Classroom in the genetic disorders model by using short videos, reading, animations, and simulations and carrying out activities such as jigsaw implementations and case studies. This study found that the students in the flipped classroom had better exams scores and higher attitudes towards learning compared to those whom the same course was provided in the traditional way. Marcey and Brint (2012) compared the traditional and flipped classroom approaches in two different classrooms attending the introduction to biology course. Their results revealed that the students in the flipped classroom had higher scores on the exams and quizzes than their counterparts in the traditional classroom.

This study aimed to investigate the opinions of 10th-grade students on the implementation of Flipped Classroom model in the “pressure and buoyant force”, a 10th-grade physics course subject. In the traditional teaching methods which have been frequently used from past to present, the necessity to present the theoretical knowledge to students in the classroom environment leads to the lack of sufficient time for experiments and activities. Therefore, the teacher and students are unable to sufficiently communicate in the school environment and the students' opportunities to learn by doing-thinking is limited. A resistance is developed in students' minds in cases of encountering all concepts and events which they are not able to relate to their daily lives and thus maintain a negative attitude towards the course. This study is thought to contribute to the literature by setting forth how students' opinions regarding the physics course will change by Flipped Classroom model.

Method

This study was designed as a case study using a qualitative research perspective. The most essential characteristic of qualitative case studies is to investigate one or multiple cases in-depth (Yıldırım & Şimşek, 2008). In addition, case studies are the researches where a circumstance is defined and specialized based on space and time (Büyüköztürk et al., 2012).

Study Group:

In the present study, 10th-grade students (n=57) from a public high school in the Ereğli district of the province of Zonguldak, Turkey during the 2017–2018 academic year consisted the sample. The students were 16 years old, 33 of them were female and 24 were male. The data of the study were collected using the interviews of 10 students, 6 of whom were female and 4 were male. All the students took the physics course as a compulsory school subject for the first time.

Data Collection Tool:

A structured interview form developed to determine students' opinions on Flipped Classroom model was used to collect the data. The content validity of the form was ensured through consulting expert opinions, and the interviews were carried out with 10 students from the group where Flipped Classroom model was applied. Interview questions (four questions), which were developed within the scope of the study, were asked to the students in face-to-face interviews, then the data were collected. One of the interview questions was: What are the advantages of Flipped Classroom model over the traditional methods?

Implementation Stages:

In the study, a website which the students can make use of was primarily built. Tabs related to the course content, questions and announcements were added to the website. All of the students in the classroom were provided to access to this site. The recommended period for the unit of Pressure and Buoyant Force is five weeks in the 10th-grade Physics curriculum. Therefore, the sub-headings in the topic were determined and lesson plans were developed accordingly. In addition, course materials on the topic (lecturing videos, pictures) were prepared and added to the website. The students were reminded of the importance of watching the videos, which should be watched at home according to each lesson plan, prior to the lessons. Short quizzes consisting of three questions on each video watched were made before at the beginning of the lessons. In the classroom environment, students were asked about the points in the video which are unclear or curiosity-evoking to them, and these points were clarified. In lesson hours, the students were taken to the laboratory. Since the theoretical lessons watched in the web environment, previously planned experiments were carried out in the laboratory environment, which were performed as group studies ensuring each students' participants, rather than the teacher's performance by demonstrations. The students developed experiment reports while doing the experiments and handed them to the teacher at the end of the lesson. Following the experiment, daily life problems regarding the topic were discussed in the classroom environment and the topic was reinforced by recapping the points that were watched and applied.

Data Analysis:

A structured interview form was used to collect the data. The form consisted of five questions was applied to some of the students (n=10) who were taught according to Flipped Classroom model. The interviews were verbally made and the students' responses were recorded with an audio recorder. The data of the study were collected within the scope of the questions presented in the form. The data, subsequently transcribed, were analyzed using content and descriptive analyses. In the content analysis, expressions used were included according to the frequency of students' responses and the frequency values were calculated according to the frequency of the repetition of these expressions independently of the number of the students.

Results

In this part, the results obtained using the structured interview form were investigated within the scope of the questions presented in the form, the content analysis was made and presented through tables and direct excerpts of the students' opinions.

1. Investigation of the opinions on whether Flipped Classroom model contributes to learning

Table 1: Opinions on whether Flipped Classroom model contributes to learning and related frequency values.

OPINIONS	f
I felt that knowledge became catchier with the experiments and that I learned better.	3
I could understand the topic better through experiments.	2
I better understood since I had the opportunity to listen to the information in a quiet environment.	2
The information was permanently stored in my memory since we observed the experiments.	2
It became of great use to support the information with implementations.	1
I could understand the relationship between other topics.	1

According to Table 1, the students expressed that they were able to learn the topics in a more permanent and meaningful way and to better grasp the information they listened to in a quiet environment through video records within Flipped Classroom model. The students particularly touched upon the positive influence of carrying out the implementations by themselves and expressed that they were, therefore, able to relate the topics with others. Student S1 expressed his or her opinion on the contribution of Flipped Classroom model as follows: *"I can listen to the parts where I do not understand again and again. If I like, I can listen ten times. I can see, understand the topic better through experiments. We solve the questions altogether in the classroom. Performing activities is very good, I can understand better by observing."* In addition, Student S2 put forward his or her opinion on the contribution of lesson videos to learning as follows: *"This method is better compared to traditional methods. From my point of view, you see me sleepy in the lessons; however, this is not because I am uninterested in the lesson but I feel something holds me back. This does not happen when I listen to the lesson at home. Implementations are good but the friends in the groups should study in harmony."*

2. Investigation of the opinions on the advantages of Flipped Classroom model

Table 2: Opinions on the advantages of Flipped Classroom model over the traditional methods and related frequency values.

OPINIONS	f
The experiments were visual and this helped me to understand the topic better.	4
The things I have learned recently became more permanent since we were able to make more experiments.	3
I could study my lesson with full of my attention in a quiet environment when I felt completely ready.	3
The lessons became more interesting and curiosity-evoking due to visual experiments.	3
Flipped Classroom model made the lessons less boring.	2
Learning the lesson on our own made us feel special and boosted our motivation.	2
We were able to listen to the lesson over and over again and found the opportunity to think by pausing the video.	2
The irrelevant conversation in the classroom negatively affected our motivation in the traditional methods. This did not happen in this model.	1
	1

I held myself back from asking unclear points in the classroom and asking the teacher to review these points. I did not experience this in Flipped Classroom.

According to Table 2, the students, mostly underlined, conducting experiment, in other words, implementation, regarding the advantages of Flipped Classroom model. According to the students these implementations led to a better understanding of topics, a more permanent learning, more appealing lessons and, therefore, an increased motivation to the course. The online theoretical courses were considered as another advantage by the students. Student S3 expressed his or her opinions on the lesson videos as follows: *"I can pause the video while watching it at home and have the chance to think why even if there is a point unclear to me. It was quite beneficial. It is not possible for me to forget something I have seen. What I have learned became really permanent. This method was very good for me."* Furthermore, Student S4 highlighted the contribution of the model to motivation as follows: *"The biggest advantage is that I can watch the video at home when I am ready. We sometimes reluctantly have to listen to at school."*

3. Investigation of the opinions on the disadvantages of Flipped Classroom model

Table 3: Opinions on the disadvantages of Flipped Classroom compared to the traditional methods and related frequency values

OPINIONS	f
Irrelevant things can intervene while listening to the lectures from the records; therefore, I had some difficulties to focus my attention.	2
I was unable to ask questions while listening to the lecture from the records in Flipped Classroom model.	1
I had some problems to access the video records due to technical problems.	1

According to Table 3, the students mostly underlined the lesson records which were previously prepared and included theoretical knowledge regarding the lesson as the disadvantages of Flipped Classroom model. They expressed that they had difficulties in staying focused while listening to the records and did not have the opportunity to ask their questions to the teacher face to face. They also pointed out the technical problems they encountered while accessing these records as a disadvantage of the model. However, students did not state any negative opinions on the implementation dimension of the model carried out in the classroom.

4. Investigation of the opinions on whether it is appropriate that the students make the implementations in Flipped Classroom model

Table 4: Opinions on whether it is appropriate that the students make the implementations in Flipped Classroom model and related frequency values.

OPINIONS	f
Doing experiments by ourselves made our knowledge rather permanent	3
Doing measurements and calculations in the experiments by ourselves made me understand the topic better.	3
During the implementations, I understood that I could also do something and what I was and was not capable of.	2
We were able to overcome some difficulties by discussing and cooperating within the group.	2
A sense of responsibility regarding studying at home was developed since we make the experiments by ourselves	2

Table 4 show that the students were of the opinion that doing experiments by themselves, rather than performing them by demonstration was significant for the permanence of their knowledge. They noted that doing measurements and calculations in the experiments by themselves was beneficial in terms of their better understanding of the topic. In addition, the students expressed that they were able to set their boundaries regarding the topic and to span these boundaries with the group studies, and added that their sense of responsibility and habits of studying had regularly improved. Student S5 stated his or her opinions on the gains of the implementations by students as follows: *"Studying the topic at home first developed a sense of responsibility. Carrying out activities as groups was quite beneficial and will also contribute to our future group studies. It is better to study as groups; we can cooperate a lot better. Instead of asking every unclear point to the teacher, we can express each other. This is good for us."* Another student (S6) expressed his or her opinions as follows: *"Previously, everything had been limited to what the teacher taught. In this model, I observed that I could also do something and learn on my own. We, together with our friends, built small images of events taken place in our lives and benefited from them a lot. We did our own measurements and calculations. This also improved us*

mathematically.” A different student (S7) mentioned that implementations made them disciplined: “The implementations yielded many advantages. We saw how to carry out an experiment, the implementation stages, and the possible results that can be obtained.”

Conclusion And Recommendations

In this study determining the opinions of 10th-grade students on the implementation of Flipped Classroom model in the “pressure and buoyant force”, a 10th-grade physics course topic, a vast majority of the students expressed positive opinions on this model. These opinions indicated that the topics were learned more permanently since the students made the implementations by themselves in the classroom, which could also lead to a boost in their motivation. The students also expressed that this model increased their interest in and curiosity towards the lesson and that they learned how to comfortably establish the relationships between the topics. The students had the opinion that making group studies in the implementations carried out in the classroom enhanced their sense of responsibility. The students had previously learned the theoretical knowledge by watching video recordings, which, therefore, provided the students to attend the course in a ready manner and offered the students an opportunity to make a review and gain knowledge in a comfortable environment. The inability to focus the attention, ask questions immediately and the face technical problems were among the few negative opinions on these recordings.

The results of this study were corroborated by the results of other studies. Davies et al. (2013) compared three different approaches in a study they carried out with 301 students. These approaches were the traditional teacher-centered teaching, simulation-based teaching and flipped classroom model approach. Their results indicated that the flipped classroom model approach is more effective than other approaches. Since this approach allows different teachings, it boosted students’ motivation and facilitated their learning. Aşıksoy and Özdamlı (2016) conducted a study with university students within the scope of the physics course and found that the success of the students taught in a flipped classroom was significantly higher than that of their counterparts who were taught in traditional classrooms. They attributed the students’ ability to watching lecturing videos anytime they liked at their own pace as the factor creating this difference. In the same study, significant differences were found in students’ motivation and self-efficacy and a vast majority of the students expressed that the useful aspects of the technologies had been more frequently used through this model, and that performing lessons in this way had made them happy and the lesson less boring.

In light of the results of the study, the followings can be recommended:

1. Flipped Classroom model can be applied to other physics topics by developing topic contents and more interesting activities.
2. Flipped Classroom model can be used in different course contents at every stage of formal education from middle school to higher education. At this point, it can be recommended that in-service teachers receive training on the model.
3. STEM activities can be used at the in-class implementation stage of the model.
4. Lesson videos, visuals, and pictures prepared by the experts on the topic and activities that can be performed can be uploaded to Educational Informatics Network (EBA) and can, therefore, be made available to all teachers. Therefore, problems stemming from the differences related to teachers, regions, teaching techniques, environments and schools can be minimized.
5. Further studies can be conducted to evaluate the effectiveness of the model at different grade levels and courses, and results of related qualitative and quantitative data can be collected.

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Higher Education Students' Dropout Intention: Relational Factors And Life Management

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Abstract

School dropouts are a problem with which educational systems have been struggling over the last years. This issue, that may jeopardize the quality of the school institution and of the education system itself, tends to get more and more serious and may be related to the students' Quality of Academic Life (QAL) and to the formal nature of the learning processes. To identify the relationship between the Quality of Academic Life and higher education students' dropout intentions and to analyse the impact of some socio-demographic variables on higher education students' dropout intention were the main objectives that were defined for this study.

A quantitative, cross-sectional, descriptive and correlational study was conducted. In order to collect the data that will be used in our study, we used a questionnaire that allowed us to gather information about the demographic characterization of the students and of their parents and the Brazilian *Reasons for Higher Education Dropout Scale* (M-ES; 2015). The sample consists of 891 students from polytechnic higher education institutions who were attending courses in different scientific fields. Participants are mostly female (68.2%), with a mean age of 19.68 years (± 2.34 years). Students who are ≤ 19 years old are those who show a better quality of life in dimension that involve their personal and interpersonal lives, their study conditions, their institutional life and their overall quality of life. Female students exhibit higher ratings when they refer to the quality of their personal life, their career, their study conditions, to their institutional and their overall quality of life, while male students reveal a better interpersonal quality of life. The causes of school dropout in higher education are multiple and the implementation of interventions that can provide students with an easier and better academic and institutional integration are increasingly important, a procedure that will involve the strengthening of the support provided by the academic services in order to better monitor and optimize processes and to provide more information about the requirements of academic life.

Introduction

According to Azevedo and Faria (2001), the transition from secondary education to higher education is one of the most important phases in the whole cycle of academic experiences. This phase provides students with an environment which is very different from what they have already known throughout their lives so far, and may constitute a challenge and, at the same time, may represent some sort of a threat, since it requires the adoption of work strategies and personal time management strategies that often represent potential stress and emotional tension-inducing factors (Azevedo & Faria, 2006). These changes may represent the first step that will lead to the autonomy of a young person who is on his way to adulthood, since he/she will be expected to show responsibility in situations that will involve the management of their residence, of their meals, of their allowance and they will still have to be responsible enough to find time for their studies (Lucas, 2014). This is a complex phase in students' lives, mainly due to external factors: the fact that they had to leave their parents' house and find a new place to stay, the fact that the level of difficulty they will meet is much higher and that their lifestyles have gone through great changes. These factors can often lead to depression and emotional *distress* problems, among others (Brites Ferreira, Seco, Canastra, Simões-Dias & Abreu, 2011).

Lifelong training and the enrolment that will allow students to attend a new place of formal learning (usually far away from home) transform their academic experience into a phase that will favour the acquisition of a range of transversal skills that will contribute to the enrichment of the students' personal and academic growth, as long as the quality standards are ensured (Pedro, 2013).

The structures of the institution, the education policies, the curricular and programmatic units, the services and the environments themselves are regarded as determining factors that may have an impact on the students' cognitive and affective changes (Ferreira, 2009).

A higher education institution should provide its students, both at an academic and at a social level, with a feeling of well-being and a quality of life that will surely contribute to their happiness and overall well-being. That way, other contexts of life should be valued as well, namely all those that involve leisure, training, work, sports, culture and science, because the quality of academic life depends, above all, on the quality of the experiences and of the conditions provided by the academy, both at a pedagogical and at an institutional level. (Barros, 2002) regards well-being as one of the dimensions of life that will play a crucial role in determining general happiness, satisfaction with life or subjective well-being. The quality of academic life bears, therefore, a close relationship with the need for satisfaction and with the experiences that create positive emotions throughout students' academic journey (Pedro, 2013). It should be noted that, and according to the same author, this feeling encompasses both the cognitive assessment of the university life and the affective experiences, experiences that will positively

influence the students throughout their academic life. Students' satisfaction has a positive impact on their motivation, their school loyalty and on their enrolment and thus becomes an essential need that higher education institution will have to meet (Elliot & Shin, 2002; Schertzer & Schertzer, 2004). Academic management, learning support facilities (such as libraries and computer centres), physical facilities (such as classrooms, laboratories, social spaces), social infrastructures (cafeterias, student housing, healthcare offices, sports centres and student support offices) and other external aspects related to students (such as their economic capacity and easy access to public transportation) are dimensions of paramount importance when time comes to assess the quality of academic life. (Leckey & Neill, 2001), (Harvey, 2003).

Thus, the quality of academic life can be assessed in terms of feelings of overall satisfaction with the student's experience of university life (Sirgy et al. 2007; 2010).

Pedro (2013) claims that the increasing importance attached to the quality of academic life should not be strictly centred on the course, on the student's educational path and on the subsequent graduation, but that it must, above all, be directed towards an evolutionary process of learning that is the result of all the experiences arising from all the dynamics and from the extracurricular, associative, civic, sports, cultural, social, technical, scientific and investigative contexts and environments that took place both inside and outside the higher education institutions. This author concludes that academic life must be understood as a formal active training journey that deeply influences its protagonists learning process and life path.

Satisfaction with life is the students' subjective perception of their own life that includes the cognitive judgments and the emotional reactions to the contexts where they belong as well as the way in which they experience them. In turn, optimism is the perception of a positive vision of the future and the feeling of self-confidence that will allow students to implement their personal and collective projects.

In his study, Pedro (2013) claims that satisfaction with life correlates positively and moderately with the level of optimism, with positive self-esteem and with positive affections. Self-esteem and negative affections correlate negatively with self-esteem and satisfaction with life.

Method

The characteristics that define higher education and the students' quality of academic life are regarded as challenging factors in their academic transition and adaptation. These challenges can lead to failure or even dropout situations (Almeida, Casanova & Gonçalves, 2017). Taking these assumptions into account, our objectives were to identify the relationship between polytechnic higher education students' quality of academic life and possible dropout intentions and to analyse the impact of some socio-demographic variables on higher education students' quality of academic life.

We have developed a descriptive, correlational and analytical research, as our intention was, in addition to studying and describing the relationships between the variables, to analyze and explain the relationship between them. The articulation between the variables present in this study is displayed in a schematic/conceptual representation, where we can find the relationship between the independent variables (the students' socio-demographic variables, Almeida, Soares and Ferreira's (2002) Academic Experiences Questionnaire(QVA-R)) and the dependent variable (school dropout) (Figure 1).

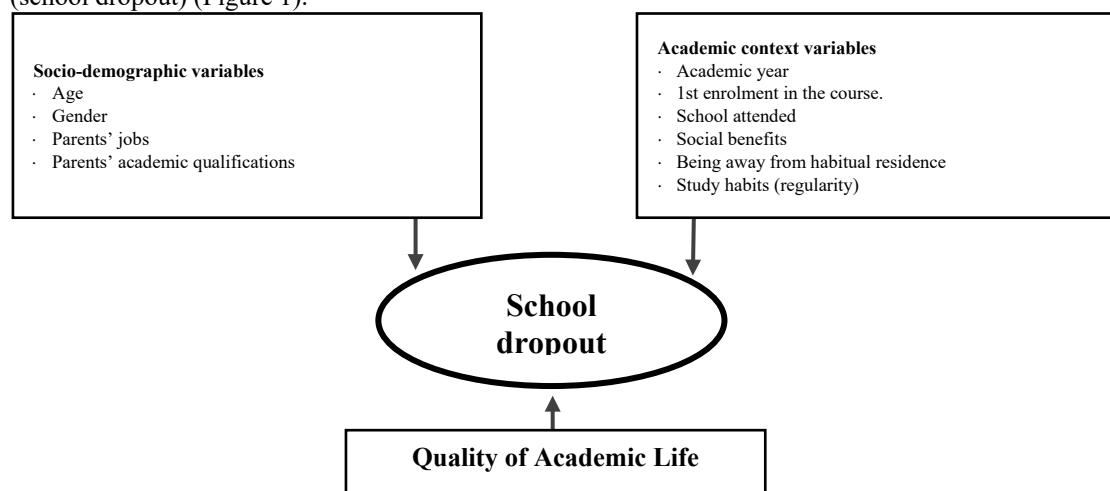


Figure 1- Schematic representation of the expected relationship between variables

For this study, we chose a purposive non-probability sample for convenience formed by 891 students who were attending polytechnic higher education institutions and research was conducted in four distinct areas: health, technology, education and agrarian studies.

To understand the personal, interpersonal and institutional processes experienced by students as they enter higher education, we used a shortened version of the academic experiences questionnaire (QVA-R), built and validated

for Portuguese Higher education students by Almeida et al. (1999). The main advantage of that short QVA version is the presence of a range of areas and items ranked according to the different dimensions that will be assessed and that stem from the answers provided by the students.

The definitive version of the shortened format of the QVA (QVA-R) consists of 60 items, in a five-point Likert-like format (1-Very untrue of me, Strongly disagree, Extremely unlikely ; 2- Untrue of me, Disagree, Unlikely; 3- Somewhat untrue of me, Neither agree nor disagree, Neutral; 4-True of me, Agree, Likely and 5-Very true of me, Strongly agree, Extremely likely) disposed in five dimensions (personal, interpersonal, career, studies and institutional).

The Personal dimension includes 13 items associated with personal perceived well-being and self-esteem and with other facets of the students' identity and *self* (Seco et al., 2005, quoted by Fernandes, 2011). The second dimension, the Interpersonal dimension, gathers items related to the building of friendship and intimate relationships, to students' involvement in extracurricular social and/or associative activities, systematized in a factor that will deal with a more interpersonal aspect of their academic adaptation and that will include 13 items (Seco et al., 2005, quoted by Fernandes, 2011). Taking into account the contents of its items, the third dimension, the Career dimension, essentially assesses the students' adaptation to the course and to their career projects. This factor consists of 13 items and describes the students' satisfaction with the choice of the course they are attending, the kind of perception they have of the socio-professional achievements they may obtain once they graduate and the existence of vocational project related to the course. The fourth dimension includes items associated with the study and with time management, in other words, the kind of behaviours that will be assessed refer to curricular and learning situations. This QVA-R dimension includes 13 descriptive items about the students' study skills and routines, about their use of the library and of other learning resources. The last dimension integrates a set of items related to the students' adaptation to the institution and to their new environment. This dimension, the Institutional dimension, includes 8 items associated with the students' interest in the institution they are attending, their interest in pursuing their studies in that institution or with their perception of the quality of the services and of the facilities the institution makes available to its students (Seco et al., 2005, quoted by Fernandes, 2011). The studies developed with the QVA-R have proven the good psychometric qualities of the scale in terms of validity and fidelity. In fact, the items' internal consistency coefficients (Cronbach's alfa) present acceptable values in a significant set of works that have been conducted to assess the difficulties experienced by students in the transition into college and/or during their academic journey (Almeida et al., 1999).

In our study the scale was composed of 35 items. It was subjected to confirmatory factor analysis and has demonstrated the validity of its structure in five dimensions: Personal (F. 1); Study (F. 2); Interpersonal (F. 3); Career (F. 4); Institutional (F. 5); (c Figure 2).

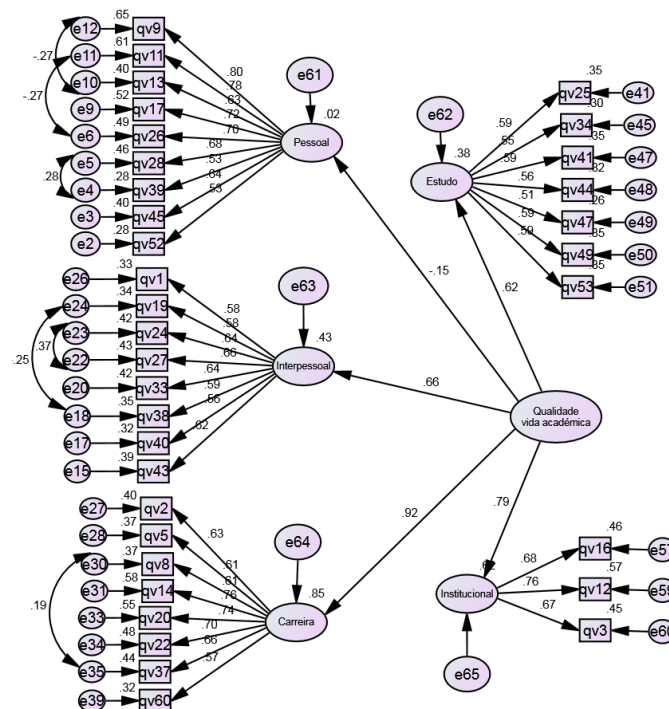


Figure 2 – Model with modification indices

Findings

The sample consists of 891 students of polytechnic higher education institutions with a minimum age of 17 years and a maximum of 40 years, with a mean age of 19.68 years (± 2.34 years), which corresponds to a coefficient of variation of 11.89%, a value that suggests low dispersion. Among male participants, who represent 31.8% of the sample, the minimum and maximum age fluctuate between 17 and 32 years, while in the group composed of female participants, who represent 68.2% of the sample, the minimum age is 17 and the maximum is 40. Men ($m = 19.97$ years ± 2.39 years) are slightly older than women ($m = 19.55$ years ± 2.32 years). The values of skewness and kurtosis reveal that the age variable doesn't exhibit a normal distribution since the skewness and kurtosis values reveal leptokurtic curves and skewed to the left, both for the global sample and for both genders.

Table 1- Statistics regarding age, according to gender

Gender	N	Min	Max	M	SD	CV (%)	Sk/error	K/error
Male	283	17	32	19,97	2,39	11,96	13,62	16,38
Female	608	17	40	19,55	2,32	11,86	36,71	98,40
Total	891	17	40	19,68	2,34	11,89	37,15	85,49

The 19 year old age group represents 28.2% of the sample (21.6% of them are male participants and 31.3% are female elements) with statistically significant differences ($X^2 = 15,242$; $p = 0,000$) among female students who are 19 and males students who are ≥ 20 years old.

As for the father's academic qualifications, the highest mean value was obtained by those who have completed basic education (43.5%), a percentage that corresponds to 37.4% of male students' parents and 46.4% of female students' progenitors. As far as the mother's academic qualifications are concerned, we found out that 36.8% have finished their basic education.

Table 2 – Sample socio-demographic characterization according to the participants' gender.

Gender	Male		Female		Total		Residual		X ²	p
Variables	N° (283)	% (31,8)	N° (608)	% (68,2)	N° (891)	% (100,0)	1	2		
Age										
≤18 years old	89	31,4	210	34,5	299	33,6	-9	9	15,242	0,000
19 years old	61	21,6	190	31,3	251	28,2	-3,0	3,0		
≥20 years old	133	47,0	208	34,2	341	38,3	3,7	-3,7		
Father's academic qualifications	N° (278)	% (32,0)	N° (590)	% (68,0)	N° (868)	% (100,0)				
Basic education	104	37,4	274	46,4	378	43,5	-2,5	2,5	11,044	0,004
Secondary education	104	37,4	219	37,1	323	37,2	0,1	-0,1		
Higher Education	70	25,2	97	16,4	167	19,2	3,0	-3,0		
Mother's academic qualifications	N° (277)	% (31,4)	N° (605)	% (68,6)	N° (882)	% (100,0)				
Basic Education	97	35,0	228	37,7	325	36,8	-0,8	0,8	6,731	0,035
Secondary Education	88	31,8	226	37,4	314	35,6	-1,6	1,6		
Higher Education	92	33,2	151	25,0	243	27,6	2,5	-2,5		

Evidence also shows that 7.3% of the students enjoy a student employee status and 43.43% have a scholarship. As for statistics regarding the quality of academic life, the minimum and maximum indices range between 0.00 and 24.29 for the overall sample. The dimensions with a higher mean value are the Institutional dimension (Mean = 69.85; ± 20 , 44Sd) and the Career dimension (M = 68.72; ± 16 , 19Sd) with moderate coefficients of variation (29.26% vs. 23.55%). The lowest mean value was found for the Personal dimension (M = 46.17; ± 20 , 09Sd) with a coefficient of variation of 43.51%, which indicates a high dispersion when compared to the average. The quality of overall academic life has a Mean value of 60.46; ± 10 , 02Sd, with a coefficient of variation which indicates a low dispersion (16.57%).

Table 3 – Statistics about the Quality of Academic Life

Quality of Academic Life	N	Min	Max	Mean	SD	CV (%)	Sk/err or	K/error
Personal Dimension	891	0,00	100,00	46,17	20,09	43,51	1,58	-0,18
Interpersonal Dimension		12,50	100,00	66,91	16,17	24,16	-2,06	-1,27
Career Dimension		6,25	100,00	68,72	16,19	23,55	-5,21	2,44
Study Dimension		3,57	100,00	57,99	14,33	24,71	0,30	4,20
Institutional Dimension		0,00	100,00	69,85	20,44	29,26	-4,63	-0,58
Quality of Academic Life (overall)		24,29	100,00	60,46	10,02	16,57	3,09	4,38

It is observed that the highest percentages found in relation to gender were obtained by female students: 61.4% show poor quality of academic life, 69.6% show intermediate quality of Academic life and 72.6% a good quality of academic life, with statistically significant differences ($X^2 = 7,454$; $p = 0,024$) between male students and with poor quality of academic life and female students with good quality of academic life.

In relation to age groups, most of the students who show low quality of academic life can be found among the participants who are 20 or over (39.8%) and among those who are under 20 (35.2%). Many of the students who are 20 or older also show appropriate quality of academic life (39.2%). The same happens with students who are 18 or less: 30.1% of them exhibit appropriate quality of academic life. In the group of students with a good quality of academic life we can find both younger students (38.0%) and older students (35.0%).

The highest mean values correspond to students who are attending technology and management courses where 35.2% of the students reveal poor quality of academic life, 34.7% of them show appropriate quality and 29.5% good quality of academic life.

In relation to the quality of academic life depending on whether or not students have a student employee status, evidence shows that the highest mean value is obtained by students who do not enjoy that status: 91.1% of those students exhibit poor academic life quality, 95.5% of them show appropriate quality of academic life and 89.5% of them seem to have good quality of academic life, with statistically significant differences ($X^2 = 9.279$; $p = 0,010$) between students who don't have their student employee status and who show intermediate quality of academic life and those who have the student employee status and who show good quality of academic life.

After carrying out an analysis of the data in relation to the students who have a scholarship, we can observe that 36.0% of them have poor quality of academic life, 43.5% appropriate quality of academic life and 43.9% of them show good quality of academic life.

It can also be noted that the most expressive mean values correspond to students who are living away from their habitual residence: 66.1% of those students reveal poor quality of academic life, 69.1% intermediate quality of academic life and 72.2% good quality of academic life.

During the data analysis carried out according to the students' study habits (namely in aspects dealing with how often/how much and how long they study) evidence shows that most of those who show poor quality of academic life admit that they don't study on a regular basis, on the contrary they state that they only study "occasionally". Students who adopt this kind of study behaviour are those who show the highest percent of intermediate quality of academic life (38.0%). The second highest percent of intermediate quality of academic life is seen among students who study "frequently" (35,9%), with statistically significant differences ($X^2 = 25,054$; $p = 0,000$) between students who study on a regular basis ("frequently") and who show good quality of academic life and those who study "occasionally" and show poor quality of academic life.

After analyzing the results according to the parents' academic qualifications (father/mother), evidence proved that the group of students with poor quality of academic life is mostly formed by youngsters whose fathers have merely completed their basic education (42.1%). Evidence also shows that the fathers of students who show good quality of academic life have graduated from high school (39.4%). In relation to the results obtained according to the academic qualifications of the students' mothers, it was clear that most of the students who show poor quality of academic life are those whose mothers have finished their secondary education (39.4%); most of the students who reveal intermediate quality of academic life are young people whose mothers have completed their basic education (38.9%) and those who express good quality of academic life have mothers who have left school as soon as they have completed their basic education (35.3%).

Table - 4 – Quality of academic life according to academic and socio-demographic variables

Quality of life	Low		Intermediat e		Good		Total		Residual			X ²	p
	N°	%	N°	%	N°	%	N°	%	1	2	3		
Variables	(236)	(26,5)	(418)	(46,9)	(237)	(26,6)	(891)	(100,0)					
Gender												7,454	

Male	91	38,6	127	30,4	65	27,4	283	31,8	2,6	-0,8	-1,7		0,024
Female	145	61,4	291	69,6	172	72,6	608	68,2	-2,6	-0,8	-1,7		
Age													
≤18 years old	83	35,2	126	30,1	90	38,0	299	33,6	0,6	-2,0	-1,7		
19 years old	59	25,0	128	30,6	64	27,0	251	28,2	-1,3	-1,5	-0,5	5,766	0,217
≥20 years old	94	39,8	164	39,2	83	35,0	341	38,3	0,6	0,6	-1,2		
School													
ESSV	18	7,6	48	11,5	55	23,2	121	13,6	-3,1	-1,7	5,0		
ESTGV	83	35,2	145	34,7	70	29,5	298	33,4	0,7	0,7	-1,5		
ESEV	44	18,6	81	19,4	61	25,7	186	20,9	-1,0	-1,0	2,2	41,802	0,000
ESAV	69	29,2	114	27,3	37	15,6	220	24,7	1,9	1,7	3,8		
ESTGL	22	9,3	30	7,2	14	5,9	66	7,4	1,3	-0,2	-1,0		
Student employee status													
No	215	91,1	399	95,5	212	89,5	826	92,7	-1,1	3,0	-2,2	9,279	0,010
Yes	21	8,9	19	4,5	25	10,5	65	7,3	1,1	-3,0	2,2		
Social benefits													
None	147	16,5	231	25,9	126	14,1	504	56,6	2,1	-0,7	-1,2		
Scholarship	85	36,0	182	43,5	104	43,9	371	41,6	-2,0	1,1	0,8	7,037	0,134
Scholarship and residence	4	1,7	5	1,2	7	3,0	16	1,8	-0,1	-1,3	1,6		
Away from home													
Yes	156	66,1	289	69,1	171	72,2	616	89,1	-1,2	0,0	1,2	2,029	0,363

No	80	33,9	129	30,9	66	27,8	275	30,9	1, 2	0, 0	- 1, 2		
Students' study habits													
Frequently	59	25,0	150	35,9	111	46,8	320	35,9	- 4, 1	0, 0	4, 1	26,05 4	0,00 0
Regularly	66	28,0	109	26,1	56	23,6	231	25,9	0, 8	0, 1	- 0, 9		
Occasionally	111	47,0	159	38,0	70	29,5	340	38,2	3, 3	- 0, 1	- 3, 2		
Father's academic qualifications													
Basic Education	96	42,1	195	47,7	87	37,7	378	43,5	- 0, 5	2, 3	- 2, 1	7,136	0,12 9
Secondary Education	90	39,5	142	44,7	91	39,4	323	37,2	0, 8	- 1, 4	0, 8		
Higher Education	42	18,4	72	17,6	53	22,9	167	19,2	- 0, 4	- 1, 2	1, 7		
Mother's academic qualifications													
Basic Education	80	34,6	162	38,9	83	35,3	325	36,8	- 0, 8	1, 2	- 0, 6	3,706	0,44 7
Secondary Education	91	39,4	144	34,6	79	33,6	314	35,6	1, 4	- 0, 6	- 0, 7		
Higher Education	60	26,0	110	26,4	73	31,1	243	27,6	- 0, 6	- 0, 7	1, 4		

The first dimension of school dropouts to be studied through multiple regression analysis is the Organizational dimension. The results indicate negative correlative values for the Career dimension ($r = -0.019$) and for the Institutional dimension ($R = -0.018$).

The second dimension to be studied is the Life Management dimension. The results point out negative correlative values for the Interpersonal dimension ($r = -0.008$). Statistical evidence is found in the Career dimension ($P = 0,000$), Study dimension ($P = 0,018$) and Institutional dimension ($P = 0,011$).

The third dimension to be studied is the Profession/Career dimension. The results indicate negative correlative values for the Interpersonal dimension ($r = -0.053$), Career dimension ($r = -0.116$), for the Study dimension ($r = -0.059$) and Institutional dimension ($R = -0.073$). Statistical evidence is found in the Career dimension ($P = 0,000$), in the Study dimension ($P = 0,039$), and in the Institutional dimension ($P = 0,015$).

The fourth dimension to be studied is the Relational dimension. The results indicate negative correlative values for the Interpersonal dimension ($r = -0.091$), Career dimension ($r = -0.125$), Study dimension ($r = -0.014$) and Institutional dimension ($R = -0.125$). Statistical evidence is found in the Career dimension ($P = 0,000$), Study dimension ($P = 0,039$) and Institutional dimension ($P = 0,015$).

Finally, school dropout intention was studied using multiple regression analysis as well as the overall dropout intention. In table 5, we can find all the correlations obtained with the different variables analysed in each of the different dimensions and whose results indicate negative correlative values for the Age ($r = -0.063$), Gender ($r = -0.078$), Interpersonal dimension ($r = -0.032$), Career dimension ($r = -0.038$) and Institutional dimension ($R = -0.036$).

School dropout intention is influenced by Age ($P = 0,030$), and Gender ($p = 0,010$), by the Personal dimension ($P = 0,025$) and the Emotional Perception ($P = 0,021$) of the quality of academic life.

Table 5-Pearson's correlation coefficient between independent variables and dropout intentions in different dimensions: organizational, life management, profession/career, relational and overall school dropout.

	Organizational		Life Management		Profession/Career		Relational		Overall school dropout	
Variables	R	P	R	P	R	P	R	P	R	P
Personal Dimension	0.051	0.065	0.016	0.318	0.052	0.061	0.115	0.000	0.066	0.025
Interpersonal Dimension	0.031	0.174	-0.008	0.402	-0.053	0.057	-0.091	0.003	-0.032	0.171
Career Dimension	-0.019	0.288	0.114	0.000	-0.116	0.000	-0.125	0.000	-0.038	0.129
Study Dimension	0.052	0.059	0.070	0.018	-0.059	0.039	-0.014	0.334	0.017	0.311
Institutional Dimension	-0.018	0.298	0.077	0.011	-0.073	0.015	-0.125	0.000	-0.036	0.143

Conclusion

Many students who enter higher education have positive expectations about academic experiences. However, the confrontation between the imaginary images and the expectations they had created and built over the last years of secondary education does not always correspond to reality. This contrast can definitely interfere with the kind of quality of academic life they will be experiencing in this new stage of their lives. It is during their first year that students tend to realize how wrong they were about this new life of theirs and that their expectations start to fall apart. This is also during that first year that the students experience the greatest difficulties in adapting to this new reality and to its requirements, that they start experiencing poorer school performance due to the new quality standards they have to meet. These newly found difficulties often lead to school dropouts (Nunes & Garcia, 2010). The same authors stress that those new academic and social requirements, in association with other personal concerns, support the construction of strategies that will be used to solve problems and tasks that have to do with personal, interpersonal and academic management. That way, entering higher education also represents a clear possibility of carrying out personal projects, even if the realization of such projects means that we have to overcome personal and contextual disruptions.

In this study, we have tested a structural model that allowed us to assess the impact that some dimensions of the quality of academic life, such as the Personal dimension, the Study dimension, the Interpersonal dimension, the Career dimension and, finally, the Institutional dimension, have on higher education students' dropout intentions. The studies we had the chance to analyze unanimously maintain that the transition to higher education represents a decisive moment in the students' academic journey, and may have a positive or negative impact on their academic performance, quality of life and may create negative environments that can lead to dropout situations (Ferreira; Fernandes, 2015; Moreira et al., 2015; Rabelo, 2017).

Our results show that the quality of academic life of higher education students relates to their well-being, but that this factor is only one of the many dimensions of life that will play an important role in determining their general happiness, satisfaction with life or their subjective well-being. It should be noted that the quality of academic life encompasses both the cognitive assessment of life (which has to do with the degree of satisfaction of life experienced in higher education) and the affective experiences that positively influence students throughout their academic life. School dropout intention is influenced by age and by gender and by the personal dimension and the emotional perception of the quality of academic life. Therefore, these variables should be considered when the institutions are developing intervention plans whose aim will be to promote some sort of institutional affiliation or institution loyalty among their students, or in other words, plans that will prevent students from leaving the institution shortly after they had been admitted.

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Higher Education Students' Dropout Intentions: Organizational And Profession/Career Factors

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Abstract

Background: The promotion of students' academic success has been a growing concern for higher education institutions, a responsibility that should have an impact on the reduction of failure and dropout rates, as well as on the general improvement of the students' training and on the development of their skills competencies and on the students' graduation rates.

Objectives: Our general objective was to identify the factors that interfere in the dropout intentions of the students who attend the Polytechnic Institute of Viseu. Specifically, we sought to identify socio-demographic variables, organizational and profession/career factors that may have an impact on higher education students' dropout intentions and to analyze the relationship between them.

Method: Quantitative, cross-sectional, descriptive and correlational study. A socio-demographic characterization questionnaire was applied to the students and the Brazilian "Reasons for Higher Education Dropout Scale" (M-ES; Ambiel, 2015) was also used. The sample is composed of 891 higher education students attending different organic units in a Polytechnic Institute. The elements of the sample were predominantly female (68.2%), with a mean age of 19.68 years (± 2.34 years), with a predominance of older students (≥ 20 years) (38.3%).

Results: Our intention was to know whether or not gender will influence school dropout. It was possible to find out that male students consider the organizational dimension as an inherent element of school dropout, while female students indicate the profession/career dimension as the most important dimensions.

It turns out that the 19-year-old students are those who reveal more reasons that can lead them to school dropout, especially in terms of organizational and relational dimensions.

Conclusion: In view of these results, it is suggested that more measures should be implemented in order to contribute to the prevention / reduction of school dropout among higher education students. This strategy requires that the institution should be aware of the students' personal attitude, of their interest in learning, of their commitment and determination.

Keywords: *Higher Education; School dropout;*

Introduction

In Portugal, the democratization of education that allowed everyone to get access to a complete education has placed new challenges and assigned new responsibilities to higher education institutions, namely the need to make sure that all students are granted the same opportunities to stay at school as long as they need to complete their studies and to achieve academic success (Ferreira & Fernandes, 2015). For the same authors, these challenges have been, in recent years, particularly difficult to overcome, especially because of the economic crisis that the country and the European area are going through and the changes related to the Bologna process.

Increasingly regarded as a phenomenon of significant and growing importance, school dropouts in higher education have become the subject of studies and reflections, both by government agencies and higher education institutions. The current political guidelines that have been developed by the political systems and by a wide range of academic studies to deal with this phenomenon are clear examples of that concern (Lopes & Costa, 2012).

In this context, higher education institutions had to adjust to this new reality in order to be able to respond to the requirements of the Bologna process, particularly in relation to the curriculum reorganization of their courses, to learning outcomes, to teaching and evaluation methodologies, and at the same time, make their best to prevent school dropouts and to meet the "differences between the students' difficulties/potentials, background and aspirations" (Ferreira & Fernandes, 2015, p. 178). Bearing these challenges in mind, it is clear that the students' background and aspirations are the most difficult issues to deal with, due to the fact that this kind of phenomenon has not attracted much attention until recently, particularly media attention, and because of the difficulties that stem from trying to achieve "the creation of institutional responses that will ensure that all students, regardless of their social status, have conditions (and resources) that will allow them to remain in higher education institutions and to complete their studies" (Ferreira & Fernandes, 2015, p. 179).

After analyzing the Portuguese secondary and higher education completion rates, it is evident that they are below the OECD average. This observation should lead Portugal to rethink its strategies in order to be able to respond to those challenges and to ensure that all students can complete their higher education and training and to provide everyone with a quality and inclusive education that will meet the needs of the labour market. Thus, it is important to develop and implement measures that will improve the academic learning outcomes and the students' academic success.

Although the latest OECD report suggests that there is a need for new education policy models and for intervention programmes aimed at improving all education goals, these are macro systemic measures that cannot be implemented in specific contexts such as higher education institutions. These should be programmes that will ensure the involvement of all educational agents in the promotion of academic success and performance, that will foster the improvement of the relational environment in schools and contribute to greater personal, academic and professional satisfaction and that, at a micro systemic level, will be able to implement measures that will help increase the teachers' educational and teaching skills, improve the students' motivation and understanding, their need to get educated and to foster the corresponding and inevitable ambition to engage and actively involve themselves in the process that will lead to their academic achievement.

Over the last few years, the promotion of school success in higher education has been a fundamental objective of public policies and of higher education institutions alike and school failure and school dropout have to be regarded as serious concerns both for students who have to cope with such issues and for the higher education system and for Portuguese society as a whole, especially since there are currently a number of specific circumstances that we have to bear in mind, like, for instance, the increasing importance that are attached to higher qualifications in a society and an economy that values more than ever knowledge and innovation (Costa & Lopes, 2008).

School dropout means that a student leaves school without graduating or completing the educational training offered by the institution he was attending for reasons other than a desired transfer to another institution or some other serious motives (Ferreira & Fernandes, 2015). Enguita (2011, p. 263) claims that every time a student "does not achieve his school goals", he finds himself "facing a situation of failure and of possible dropout". Santos (2010, p. 7), based on his study, concluded that "school dropout is a problem that relates to an individual's behaviour and results in the decision to leave school without completing the level of education desired." The same author also refers that this is not a sudden decision, but instead the result of a long process of tensions, failures, adjustment problems and lack of interest in school. Santos (2010) adds that the early departure from school may demonstrate, on the one hand, that students do not attach great importance to the role school plays in their personal development and in its importance to provide them with the tools that will prepare them for active life and, on the other hand, a certain rejection of school that has not been able to motivate them, an assumption that may lead them to quit school and look for a job, to choose to live an idle life or even to delinquency. With that in mind, the same author argues that "only a multifactorial, multidimensional and systemic approach can help explain the phenomenon of school dropout, an approach that should always take into account the different realities in constant interaction: society, youngsters and school" (Santos, 2010, p. 15).

The Study

This is a descriptive, correlational and analytical study. The articulation between the variables that have been part of our study is presented in a schematic representation where we can witness the kind of relationship that exists between the independent variables (students' socio-demographic variables, academic context variables) and the dependent variable (school dropout intention) (Figure 1)

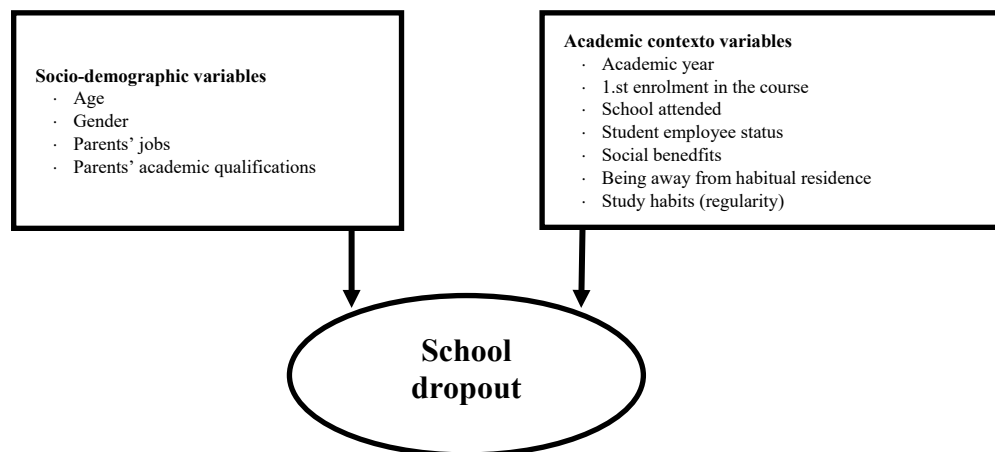


Figure 1- Schematic representation of the expected relationship between variables

For this study, we chose a purposive non-probability sample for convenience composed of 891 students who were attending a polytechnic higher education institution located in the central region of Portugal. Research was conducted in four distinct areas: health, technology, education and agrarian studies.

The data collection instruments that were selected are a demographic questionnaire applied to students and to their parents composed of 11 questions, 9 of which were used to gather information about student's personal information and 2 whose aim was to collect data related to the students' parents; a questionnaire about the students' academic characterization that included 6 questions (year of course, school attended, whether or not the student has a student employee status, social benefits, if the student had to leave his parents' house to attend this school and students' study habits); the "Reasons for Higher Education Dropout Scale" (M-ES; Ambiel, 2015), a standardized instrument in the form of an inventory that assesses the potential reasons (intention) that drive active students to leave their respective courses before graduation.

M-ES allows us to identify the reasons related to the structural and to the institutional functioning, to personal and family experiences, to the lack of financial support, to career, to academic performance, to interpersonal relationships and to autonomy that may be involved in higher education dropout intentions. Once the adaptation of the scale was concluded, we selected 4 factors: organizational factors, life management factors, relational factors and profession/career factors.

The following objectives were designed to guide our investigation: to identify which socio-demographic variables interfere with higher education students' dropout intention; to confirm how the academic variables (year of course, their 1st school year of enrolment in the course they are currently attending, their school, the students' status (student employee or not), the social benefits they are granted, whether or not they had to leave their habitual residence and their study habits) interfere in higher education students' dropout intention.

Findings

Age statistics reveal, for the whole of the sample, a minimum age of 17 years and a maximum of 40 years, with a mean age of 19.68 years (± 2.34 years) which corresponds to a coefficient of variation of 11.89%, a percent that suggests a low dispersion.

Among male participants, who represent 31.8% of the sample, the minimum and maximum age range between 17 and 32 years, while in the group of female participants, who represent 68.2% of the sample, the minimum age is 17 and the maximum is 40. Men ($M = 19.97$ years ± 2.39 years) are slightly older than women ($M = 19.55$ years ± 2.32 years). The values of skewness and kurtosis reveal that the age variable doesn't reveal a normal distribution since the skewness and kurtosis values reveal leptokurtic curves and skewed to the left, both for the global sample and for both genders.

As far as school dropout intention is concerned, data show that the minimum and maximum values for the overall scale range between 0.00 and 97.50 with a mean value of 36.84 ± 16.87 and a coefficient of variation with a high dispersion value (45.79%). The dimensions with a higher mean value are the life management dimension (Mean = 43.52 ± 22.31) and the profession/career dimension (Mean = 41.79 ± 18.97) both with high coefficients of variation (51.26% vs. 45.39%). The lowest mean value found is related to the relational dimension (Mean = 25.31 ± 18.58) and has a coefficient of variation of 73.40%. This value indicates a high dispersion compared to the average.

The students who show higher mean rank values in all dimensions, except for the relational dimension, are female. The results point out that girls seem to have a higher-than-average tendency to drop out of school, and reveal statistically significant differences in the life management dimension ($P = 0.000$) and in school dropout ($P = 0.032$) (table 1).

Table 1 –Mann-Whitney U Test between gender and school dropout intention

Gender	Male MR	Female MR	MWU	P
School dropout				
Organizational Dimension	429,73	453,57	81428,00	0,197
Life management Dimension	380,49	476,49	67493,00	0,000
Profession/ Career Dimension	429,61	453,63	81393,00	0,194
Relational Dimension	449,82	444,22	84950,50	0,762
School dropout (overall)	418,91	458,61	78366,00	0,032

Evidence shows that students who are ≤ 18 years are those who present more reasons to drop out of their course, notably in dimensions such as life management, profession/career and overall school dropout. However, 19 year-old students present a higher mean value in dimension such as organizational and relational dimensions (table 2).

Table 2 - ANOVA between age and school dropout intention

Age School dropout	≤ 18 years old		19 years old		≥ 20 years old		Total		f	p
	Mean	Sd	Mean	Sd	Mean	Sd	Mean	Sd		
Organizational Dimension	36,14	19,45	36,75	20,10	35,63	20,08	36,11	19,86	0,231	0,794
Life management Dimension	45,62	21,82	43,79	22,76	41,47	22,28	43,52	22,31	2,798	0,061
Profession/Career Dimension	42,80	19,50	41,45	18,40	41,16	18,94	41,79	18,97	0,653	0,521
Relational Dimension	24,89	17,32	25,89	18,67	25,26	19,59	25,31	18,58	0,201	0,818
School dropout (overall)	37,50	16,59	37,11	16,98	36,05	17,05	36,84	16,87	0,641	0,527

As for the relationship between the father's academic qualifications and the students' school dropout intention, evidence clearly shows that the students whose fathers have higher academic qualifications are those who reveal a lower school dropout rate. On the other hand, students whose fathers have only concluded basic education reveal higher mean values in almost all dropout dimensions except in the relational dimension and overall school dropouts dimension where the highest values are obtained by students whose fathers had graduated from high school (table 3).

Table 3 - ANOVA between the father's academic qualifications and school dropout intention

Father's academic qualifications School dropout	Basic Education		Secondary Education		Higher Education		Total		f	p
	Mean	Sd	Mean	Sd	Mean	Sd	Mean	Sd		
Organizational Dimension	36,63	20,04	35,72	19,50	35,49	20,59	36,07	19,93	0,266	0,767
Life management Dimension	43,93	22,49	43,77	22,07	41,44	22,46	43,39	22,32	0,793	0,453
Profession/Career Dimension	41,89	18,80	41,78	19,23	41,27	19,44	41,73	19,06	0,062	0,940
Relational Dimension	24,16	17,91	26,36	18,43	26,02	20,39	25,34	18,61	1,348	0,260
School dropout (overall)	36,83	16,72	37,03	16,76	36,21	17,80	36,78	16,93	0,130	0,878

Evidence shows that students who reveal higher mean values of school dropout intention in dimensions such as the profession/career, relational and overall school dropout dimensions are those whose mothers have a college degree. Students whose mothers completed secondary education show higher mean values of school dropout intention in dimensions such as the organizational and life management dimensions (table 4).

Table 4 - Kruskal-Wallis Test between the mother's academic qualifications and school dropout intention

Mother's academic qualifications School dropout	Basic Education	Secondary Education	Higher Education	X ²	p
	MR	MR	MR		
Organizational Dimension	434,76	445,96	444,75	0,364	0,833
Life Management Dimension	442,74	443,08	437,80	0,071	0,965
Profession/Career Dimension	438,32	439,52	448,31	0,244	0,885
Relational Dimension	424,60	440,57	465,31	3,573	0,168
School dropout (overall)	436,58	442,19	447,19	0,245	0,885

The results of the students' school dropout intention according to their field of study suggest that students who attend education-related courses are those who reveal higher mean rank values in all dimensions. It is important to mention that students who attend technology courses are those who have lower levels of school dropout intention.

Table 5 - Kruskal-Wallis Test between the field of study and school dropout intention

Fields School dropout	Health	Technology	Education	Agrarian	X ²	p
	RM	RM	RM	RM		
Organizational Dimension	450,33	440,37	455,73	444,65	0,480	0,975
Life management Dimension	434,38	430,90	479,37	431,35	7,082	0,132
Profession/Career Dimension	435,98	437,70	456,83	449,86	1,029	0,905
Relational Dimension	463,15	437,66	475,55	437,42	5,909	0,206
School dropout (overall)	449,20	432,45	473,99	439,90	3,179	0,528

It also became clear that students who were not granted a student employee status reveal a higher school dropout intention. They have obtained higher mean rank values in all dimensions, with statistically significant relevance in the Profession/ Career dimension ($P = 0,041$) (table 6).

Table 6 –Mann-Whitney U Test between the grant of the student/employee status and school dropout intention

Status (student/employee)	No	Yes	MWU	P
School dropout	MR	MR		
Organizational Dimension	447,88	422,15	25295,00	0,437
Life management Dimension	449,98	395,55	23566,00	0,100
Profession/Career Dimension	450,93	383,32	22771,00	0,041
Relational Dimension	444,48	465,27	25592,50	0,530
School dropout (overall)	448,85	409,81	24492,50	0,239

Students who do not enjoy social benefits seem to reveal a higher school dropout intention, with higher mean rank values in all dimensions. (table 7).

Table 7 –Mann-Whitney U Test between enjoying social benefits and school dropout intention

Social Benefits	No benefits	Enjoying benefits	MWU	P
School dropout	RM	RM		
Organizational Dimension	445,22	428,19	89852,00	0,324
Life management Dimension	438,62	437,16	93181,50	0,933
Profession/Career Dimension	442,58	431,78	91184,00	0,532
Relational Dimension	450,79	420,63	87047,00	0,080
School dropout (overall)	445,25	428,16	89840,50	0,323

The results of the relationship between students being far from their habitual residence and school dropout intention indicate that students who did not have to leave their habitual residence present higher school dropout intention rates in almost every dimension of school dropout, except for the relational dimension, in which the highest scores are obtained by students who left their parents home to study.

Table 8 –Mann-Whitney U Test between the fact that students are away from their habitual residence and school dropout intention

Away from home	Yes	No	MWU	P
School dropout	RM	RM		
Organizational Dimension	445,21	447,76	84216,00	0,891
Life management Dimension	445,95	446,10	84671,50	0,994
Profession/Career Dimension	439,77	459,96	80860,50	0,279
Relational Dimension	447,05	443,65	84052,50	0,855
School dropout (overall)	444,21	450,00	83599,50	0,756

As for the relationship between the students' study habits (how much , how often they study) and school dropout intention, results prove that students who admit that they study regularly show higher rates of school dropout intention in dimensions such as the organizational dimension, the life management dimension and the relational dimension. Students who only study "occasionally" are those who seem to have a greater school dropout intention and who show higher mean rank values in the profession/Career dimension and in the overall school dropout dimension (table 9).

Table 9 - Kruskal-Wallis Test between study habits and school dropout intention

Study Habits/Frequency	Frequently	Regularly	Occasionally	χ^2	p
School dropout	RM	RM	RM		
Organizational Dimension	439,30	458,51	443,81	0,789	0,674
Life management Dimension	455,77	456,40	429,74	2,201	0,333
Profession/Career Dimension	436,62	438,70	459,79	1,591	0,451
Relational Dimension	430,37	454,60	454,87	1,850	0,397
School dropout (overall)	441,31	452,66	454,83	0,258	0,879

Conclusions

Albuquerque (2008) states that the first year spent in a higher education institution is problematic for many students. Academic failure, dropouts and the apparent demotivation felt by many students are regarded as motives of great concern for higher education institutions and are clearly factors that raise inquietude and frustration among teachers and students alike. Bearing this in mind, the author developed a study whose main purpose was to understand how students who had been accepted in a course that was not their first option adapt to that circumstance and why they decide to accept that outcome and rule out a possible dropout situation.

Results have indicated that, through the academic activities they carry out during the course, students begin to realize the type of people they might come to work with and the profession or type of work they might choose for their future. That way, Albuquerque found out that the students' involvement in the course they are attending and the educational relationship they experience are the most relevant factors that will influence students' decision of leaving a course/higher education institution or that will, on the contrary, influence their decision of staying in the course/institution and of graduating.

The results obtained with the answers given to the first research question, through which we sought to discover which socio-demographic variables might have an impact on higher education students' school dropout intentions, reveal that male students grant a greater deal of importance to the relation between the organizational and the relational dimensions and school dropout intentions, while for female participants dimensions such as the life management and the profession/career dimensions have a greater impact on their dropout intentions.

Globally, female students are those who reveal higher indices of school dropout intentions, with a statistically significant difference obtained in the life management dimension. Our results stress how important it is to study the impact that the gender perspective might have on teaching and learning resources, an issue that was previously raised by Cavaco et al. (2015) who, in their study "Failure and School Dropout in a Gender Perspective", claimed that education and training public policies must be aware of the importance played by the gender dimension in the definition of strategies that will work to achieve educational success as a way to mitigate the risks of school dropouts.

The studies analyzed unanimously claim that the transition from secondary education to higher education represents a decisive moment in the students' academic journey and that it may have a positive or negative impact on their academic performance and create an emotional environment that may trigger situations of school dropout (Ferreira & Fernandes, 2015; Moreira et al., 2015; Rabelo, 2017).

Chickering (1969, quoted by Santos & Almeida, 2001, p. 206) emphasizes the role played by certain factors, namely "the institutional objectives, the size of the organization, the interactions established between the students and the members of the college community, teaching practices and the services and activities that are available to students".

That way, the kind of perceptions that students develop in relation to the *campus* are especially important for their academic integration and socialization and for the reduction of school dropout situations. Taking these results into account, we have to suggest the implementation of more measures that may contribute to the prevention/reduction of higher education students' school dropouts. This intervention requires that one should be aware of the students' personal attitude, their interest in learning, their commitment and determination and be ready to get involved. Being ready to provide support to students, to help them learn how to manage their academic journey and choices so they can overcome difficulties and increase their individual competencies, are great examples of such commitment.

Institutional actors should provide students with greater and more systemic monitoring opportunities. In addition, students should be granted greater financial support through scholarships, and the institutions should offer curricula/syllabus that are able to meet the requirements of the current labour market. We also suggest a greater intervention in the teaching and learning processes in order to improve students' learning, their school results and, consequently, the quality of their academic journeys. These are empowering measures that could lead to a higher education successful journey. Specific and general knowledge, study methodologies and intervention strategies must be developed and reinforced in order to allow institutions to reduce, or even completely prevent, higher education school dropouts.

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Human Rights Training for Journalists: Russian Universities Case

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Abstract

Plan of Action for the third phase (2015–2019) of the World Programme for Human Rights Education stipulates that all media professionals and journalists should be given equal human rights training opportunities. The paper presents results of research carried out through analysis of OHCHR Action Plan, Russian educational standards and survey of students of Journalism. The paper characterises current state of human rights training for journalists in Russian universities, analyses teaching experience and knowledge of human rights among future mass media professionals. The collected data allowed to identify challenges and to analyse the underlying causes. In conclusion, the authors make recommendations on the ways of modernising curricula on the given issue, including modules on contribution of journalists to the promotion and protection of human rights, in order to create a sustainable system of human rights training for media professionals and journalists able to function after the completion of the World Programme for Human Rights Education.

Keywords: *UN, human rights, education, higher education, Russian Federation, curriculum, training for journalists*

Introduction

In 2004 the UN General Assembly proclaimed the World Programme for Human Rights Education, which represents a continuously implemented global initiative, consisting of successive phases in order to provide human rights education in all sectors.

The United Nations determines human rights education as the process of lifelong learning and creation of awareness for all ages and all walks of life, disseminating knowledge, skills and behaviour to protect human rights. Education should be “directed to the full development of the human personality and the sense of its dignity, and enable all persons to participate effectively in a free society and promote understanding, tolerance and friendship among all nations and all racial, ethnic or religious groups, and further the activities of the United Nations for the maintenance of peace, security and the promotion of development and human rights” (United Nations Declaration on Human Rights Education, 2011). In the opinion of the United Nations High Commissioner for Human Rights Zeid Ra'ad al-Hussein, “education of any kind, if it is devoid of a strong universal human rights component, can be next to worthless when it should matter most” (UN High Commissioner for Human Rights, Zeid Ra'ad Al Hussein, 2015).

The principles of institutional autonomy and academic freedom underlie the strategies of all phases of the Programme. The first key strategy envisaged the inclusion of human rights in the laws on education and ensuring the merit-based equal access to higher education. The second one stipulated the inclusion of human rights as a cross-cutting theme in the process of studying all disciplines, as well as the development of interdisciplinary human rights training programmes.

The first and second phases of the World Programme envisaged the introduction of human rights education in primary, secondary and higher education. The target audience of the second phase (2010-2014) was civil servants, law enforcement officers and military personnel (World Programme for Human Rights Education, 2012; Progress Report on the Implementation of the World Programme for Human Rights Education, 2012). Summing up the results of the second phase of the World Programme, OHCHR asked states to propose initiatives on a further action plan. The third phase strategies were developed by OHCHR by examining the priority target sectors, thematic issues and target groups proposed by the states of Europe, Africa, Latin America, Asia, Australia and New Zealand. They demonstrated the diversity of respondents' approaches and priorities, reflecting national peculiarities. Opinions were received from 17 governments, 17 national human rights institutions, 6 international and regional intergovernmental organisations and 13 non-governmental organisations (Views of States, national human rights institutions, 2013).

One of the priority tasks of the third phase is the inclusion of human rights training courses in higher education programmes, especially in non-legal faculty programmes. The target group included representatives of different professions, i. e. law enforcement officers, state and municipal authorities, judges, prosecutors, police officers, investigators, security officials and the armed forces, representatives of business, members of NGOs, as well as specific groups of rights holders, especially inclusive, vulnerable groups - elderly people, people with disabilities, refugees, asylum seekers, minorities, indigenous peoples, indigent people, female victims of violence. Teachers and heads of educational institutions were in a particular focus.

The majority of respondents pointed to media employees, journalists and users of social networks as a new target audience, paying attention to their potential impact on society. They noted that it was necessary to improve the quality of journalistic work and awareness of journalists about their public duty. The respondents reported that according to surveys, people rarely had a clear idea of human rights and did not understand how they related to the injustice in their daily lives. Therefore, it was important that journalists and media workers who deal with information for the general public were included in the new target group.

In addition, the target audience is closely linked to the issue of human rights and the Internet. On the one hand, today the Internet is a platform for human rights violations, e. g. cyber bullying, the spread of hatred and intrusion on people's privacy. On the other hand, the Internet can be used as a powerful tool for human rights education and social change. Access to the Internet and technological literacy of the population are important for taking advantage of the Internet space for the dissemination of the Human Rights Education Programme (Third phase (2015-2019) of the World Programme for Human Rights Education, 2013).

Thus, the goals and strategies of the Action Plan for the third phase (2015-2019) were worked out after consultations with states. Its key goal is the human rights training of journalists and media professionals. It was noted that "journalism is constantly evolving" and today journalistic functions are performed by a wide range of individuals. It is not limited to professional reporters and analysts, but also bloggers and others who are "published in print, on the Internet or elsewhere." The third phase strategy stipulates that all journalists should be provided with equal opportunities to get human rights training and all journalists should have basic knowledge of human rights. The Plan details the human rights training programmes, which may include modules with information on the role of journalists in the promotion and protection of human rights (Plan of Action for the third phase, 2015).

Human rights training for journalists and media professionals should emphasise issues of equality and non-discrimination, combating violence, respect for diversity, tolerance, intercultural and interconfessional dialogue, as well as promotion of the universality, indivisibility and interconnectedness of all human rights.

Methodology

This research is descriptive, combining both qualitative data analysis and a quantitative survey. The authors analyse strategic documents of UN Programme for Human Rights Education, Russian federal educational standards, Bachelor's programme curricula and literature on education.

A student survey was undertaken in order to identify students' perceptions of the quality of human rights education and importance of this knowledge in their professional activities. The survey results were presented in table form and interpreted. The target group of the survey was made up of students enrolled in Bachelor's programmes in Journalism at Ural Federal University in Ekaterinburg, Russia.

The Study

Analysis of educational standards and study programmes

The principle of academic freedom enshrined in modern federal state educational standards for higher education allows every university to develop and decide on the content of educational programmes and curricula. However, as the researchers repeatedly noted, the freedom to choose disciplines led to the fact that courses related to human rights were excluded from the curricula, that had a negative impact on the implementation of the World Programme for Human Rights Education (Pavlenko, E. 2010. Glushkova, SI, 2014, Bogatyreva, 2016). The study of the Russian standards for Journalism programmes showed that they are not directly aimed at forming competencies related to the knowledge of human rights and freedoms and the ability to use it to protect the rights. Nevertheless, the standard provides for the formation of such important and necessary competences as the ability to "work in a team, to tolerate social, ethnic, religious and cultural differences", "to carry out the public mission of journalism", "to understand the meaning of freedom and social responsibility of a journalist and to follow them in professional activities". Special attention is paid to journalistic ethics. These competencies coincide with the main directions of the third stage of the World Programme for Human Rights Education (Order of the Ministry of Education and Science of Russia, 2014).

The study of Journalism curricula in Russian universities revealed that there was no special course on human rights, despite of their importance and value in the training of journalists. This course is not either mandatory or elective discipline.

Nevertheless, there are courses related to the topic of human rights. The Moscow State University and St. Petersburg State University teach a wide range of legal disciplines that touch on issues of tolerance, freedom of speech and information, the protection of dignity and intellectual property. These topics are covered by such disciplines as "The Right of the Mass Media", "Professional Ethics of Journalists", and "Foundations of Law", etc. In the course "Fundamentals of International Humanitarian Law", important professional topics are studied - journalist and war, journalist's rights in covering contemporary armed conflicts, features of media coverage of armed conflicts, as well as journalist's work in the zone of armed conflict.

All Journalism curricula include the course "Legal Studies" or "Fundamentals of Law", which provides a brief overview of the current Russian legislation. This discipline is taught for one semester and is designed for 36 hours of classroom hours (2 hours per week). Future journalists study directly human rights issues only within the framework of the topic "Constitutional Law of Russia". Such a limited approach to the study of human rights leads to the fact that students do not possess sufficient knowledge of the second chapter of the Constitution of the Russian Federation entitled "Human and Civil Rights and Freedoms", and they find it difficult to formulate European and international human rights standards and to name the main international documents on human rights..

The Journalism curriculum of the Ural Federal University includes a number of professional disciplines aimed at forming such important competencies for the journalist as tolerance for social, ethnic, cultural and confessional differences, social responsibility, understanding of the need for freedom of speech and information, e. g. courses on "Legal basis of journalism", "Law and the media", "The basics of the journalist's legal culture", "Tolerance in the media". It is worth highlighting the course "Journalism on the Internet", which is important for the training of a modern journalist. However, opposed to the above-mentioned universities, the course "International Humanitarian Law" is not taught in UrFU, although the survey of students showed their interest in the problems of modern international conflicts and their coverage in the media.

Student Survey

For the successful implementation of the third phase of the World Programme for Human Rights Education and the introduction of special courses for journalists in Russian universities, it is necessary to take into account the needs of the target group for which it was designed. It is important to investigate the level of knowledge of human rights on the part of students in Journalism, to find out the students' opinion on the need to study human rights for their future professional work. What human rights problems do they consider relevant? How do they relate human rights issues to the content of their future publications, TV programs, and projects? Which vulnerable groups need special protection and assistance from the journalistic community? To find out these questions, the authors of the paper carried out a survey among students in Journalism of the Ural Federal University.

Research/Study group

The survey was conducted among the selected group of students of first, second, third, and fourth years, studying Journalism at the Ural Federal University (Yekaterinburg, Russia) in 2017/2018 academic year. In total, 120 bachelor's students took part in the survey.

Data analysis

Answers to the first question showed that future journalists receive the first idea of human rights in the secondary school. The overwhelming majority of students answered that they got acquainted with the topic of human rights at school (82, 5%). At the same time, 21 respondents (17.5%) noted that the information received at school was fragmentary, and only two persons (1.6%) answered negatively. As it was noted in previous studies, in most Russian schools legal topics are included in the course "Social Studies".

The key issues for our study were questions on the human rights training of students in Journalism. It was important to find out how that knowledge changed during the studies at the Faculty of Journalism at the Ural Federal University. 79 respondents (66%) answered that human rights knowledge had enlarged, and 41 respondents (34%) gave a negative answer.

Table 1: Frequency distribution of answers to the question
‘What courses included issues of human rights and their protection?’

	Generalized groups of answers	Number of respondents (n)
What courses included issues of human rights and their protection?	Fundamentals of Law	43
	Legal Fundamentals of Journalism	25
	Laws and Mass Media	12
	Journalist Professional Ethics	12
	Fundamentals of Legal Culture of Journalist	11
	Tolerance and Mass Media (Fundamentals of Tolerance)	8
	Criminal Journalism	7
	Fundamentals of Journalism Theory	1
	History	2
	Political Studies	2
	Social Studies	1
	World Literature	1
	Fundamentals of Economics	1
	Law and Entrepreneurship	1
	I cannot name any course	1
	All courses included these issues	1
No answer		44

The majority of the respondents indicated the course "Fundamentals of Law", in which there are sections on the Constitutional Law of Russia and the constitutional and legal status of the individual. However, this course has a standard volume of 36 hours and this section takes between two and four hours. It is important to note that this question was answered only by those students whose knowledge, according to them, expanded during the time of their study at the university, and 34% of the respondents stated that they did not receive new information on protection of human rights. There was a comment, made by one of students who indicated the course "Fundamentals of Law" as a source of knowledge, that the content of the course duplicated the materials of the school course.

The diversity of these disciplines might mean that students did not receive systematic knowledge of human rights. Discipline, which widely and systematically acquaints with the topic of human rights, is absent in the Journalism curriculum. For example, in the Moscow State University, one of the mandatory disciplines is the "Fundamentals of International Humanitarian Law". At present, in the UrFU, the Journalism curriculum does not include this discipline, which, according to the dean of the faculty, has long been taught to future journalists. Unfortunately, after moving from Specialist to Bachelor degree and shortening the term of study from five to four years, this course had to be reduced. Thus, we can note a paradoxical situation. Prior to the implementation of the plan for the third phase and selection of journalists as the target group of the World Programme, the International Humanitarian Law course was present in the curriculum, and now this course has been eliminated due to a general reduction in hours.

A high percentage of students (65.8%) who responded positively to the question of acquaintance with the topic of human rights at university are not evidence of the quality of the gained knowledge. Thus, third year students of the Faculty of Journalism were invited to name the main international documents on human rights. Only five persons (7.5%) out of 65 respondents correctly identified the Universal Declaration of Human Rights of 1948 and the Covenant on Civil and Political Rights of 1966. 42 students (65%) could not name correctly the documents, and 18 persons (27.5%) left the corresponding columns blank.

The survey revealed the students' interest in the topic of human rights. For example, 78 respondents (65%) agreed that future journalists need broad knowledge of human rights and supported the inclusion of a special course on

human rights in curriculum. 16 students (13%) spoke against the introduction of the course, as many as did not answer.

The students who supported the introduction of the special course provided varying arguments for their answers. Table 2 presents their answers grouped into thematic groups.

Table 2. Frequency distribution of answers to the question
‘Why it is necessary to include special course on human rights into the Journalism programme?’

	Answers	Number of respondents (n)
Why it is necessary to include special course on human rights?	It is linked with the professional activity	30
	To be able to help people and characters of my publications	19
	Not to infringe the rights of the people I am writing about, not to trespass on the rights of other people	8
	Educational tasks	22
	It is necessary to know only rights of Journalists	5
	There is no need to introduce a special course, human rights issues should be touched upon in the framework of another courses	15
	To replace “Fundamentals of Tolerance”	1
	It is not the most urgent problem	1
No answer		28

Students associated, in one way or another, the need to introduce discipline on human rights with their future professional activities. Many questionnaires contained the idea of professional responsibility of a journalist, it was stressed that "the main object of the journalist's work is a person" and, therefore, journalist should know human rights. The ability to protect a person is a professional duty of a journalist, "it is important not to encroach on human rights" and to know "the boundaries of a journalist's professional activities". Journalists should "serve for the benefit of society and an individual", and if you do not know the human rights, you cannot help. At the same time, 38 respondents believe that the course on human rights should be mandatory, 45 respondents spoke for the elective nature of the discipline. A number of questionnaires indicated that all citizens should know about human rights, but in particular the journalists.

Most students believe that the topic of human rights protection is important and relevant on a global and national scale. Only five persons indicated other topics. Among them are global problems, hybrid war, development and conquest of space, the threat of war, international relations and migration problems. As for Russia, 110 respondents believe that the topic of human rights is incredibly relevant and necessary in Russia.

It was very important to find out students' attitude towards relevance of human rights in their professional activities. Are they ready to cover these topics in their articles, radio- and TV shows and in their publications on the Internet? 27 persons answered negatively, twelve respondents did not provide the answers and five students found difficulty to answer. Nevertheless, 76 students (63,3 %) are ready to raise these issues. Moreover, they commented their choice by indicating particular topics and social group whose rights are due to special attention. Table 3 [Table 3] presents answers to the question.

Table 3. Frequency distribution of answers to the question
'What issue related to the human rights would you choose for your professional journalist activities?'

	answers	Number of respondents (n)
Topics of publications, plots and programmes touching upon human rights issues	Protection of rights of elderly people and people with disabilities	3
	Inequality and injustice	7
	Interesting topic	12
	Infringement and protection of citizens' rights	15
	Woman rights	4
	Rights of LGBT community	3
	Unjust laws	1
	Legal education, enhancement of legal culture	30
	It is sensitive and relevant topic in Russia	17
	Social and economic problems	11
Undecided (It is hard for me to say)		5
No answer		12
I would not choose this topic		27

As shown in Table 3 the main professional task for the future journalists is the development of legal culture of citizens, their legal education. The respondents indicated in the questionnaires that journalist activities "would help to educate the audience" and contribute to the popularisation of human rights topics in the Russian society, "it is important to attract attention of the society to the human rights issues, to be independent in one's activities". It is interesting that these answers mostly coincide with the main tasks of the third phase of the World Programme, i. e. to increase quality of journalist work and awareness of journalists about their public duty, including educating and providing information to the citizens. Students who answered negatively to the question wrote that they would not choose the human rights topic, because it is not interesting for them, there are more relevant and important subject; moreover, it already gets a lot of public attention. However, only five respondents provided these comments, while the remaining 22 students only said "no".

The following question was linked with their professional activities as well. Students were asked to name the vulnerable group they would choose for coverage of human rights issues. The answers are presented in Table 4 [Table 4].

Table 4. Frequency distribution of answers to the question
‘Which vulnerable group would you choose for your journalistic plots?’*

	answers	Number of respondents (n)
Which vulnerable group would you choose for your journalistic plot	Women	39
	Children	23
	Youth	34
	Minorities	29
	Indigent people	37
	Victims of violence and war	39
	Senior citizens and people with disabilities	29
	LGBT	38
	Refugees	1
	Entrepreneurs	1
	Multi-child families	1
	Politicians and political activists	1
	Teachers	1

* multiple choice was possible

It represented interest to know which professional groups, according to the students, are needed a special human rights training. The answers were distributed in the following way:

Table 5. Frequency distribution of answers to the question:
‘Which professional groups need special human rights training?’*

	answers	Number of respondents (n)
Which professional groups need special human rights training?	Civil servants	84
	Judges, law prosecutors, investigators	91
	Policemen	70
	Parliamentarians	42
	Business Community	45
	Social welfare workers	74
	Teachers and medical staff	68

* multiple-choice was possible

It is worth noting that all students answered to the questions four and five, even those who refused to deal with human rights issues in their professional activities. The given tables reveal the awareness of the future journalists about the challenges that vulnerable groups face in Russian society.

It was important to find out the attitude of students towards World Programme for Human Rights Education. 34 respondents (28%) answered that they are aware of that Programme, while 86 persons (72 %) never heard about it. At the same time 106 students (88 %) supported the decision of the UN to choose journalists and mass media professionals as the target group for the third phase of the programme. 66 respondents (55 %) agreed with the inclusion of bloggers into the mass media professionals group.

In conclusion, students of the third year were asked to assess their knowledge of human rights on a five-point scale. This question was addressed to this category of students, because by that time they completed courses linked with human rights issue in general and journalist rights and journalists ethics in particular. 50 % of respondents assessed their knowledge as consistent, but with some gaps, 39 % believe that they possess general knowledge on human rights, 8,6 % assess it as very vague, and only one student consider it excellent. Students were asked to comment on their answers, but only 13% gave a try to explain their assessment. In our opinion, that explanation summarises the level of human rights training for journalists: "I have general ideas, because the training was «mutilated» and not consistent.

Conclusions

The research showed that the implementation of the third phase of the World Programme for Human Rights Training faces a number of challenges. Modern Russian standards for higher education do not envisage directly competences aimed at the solution of the tasks of third phase. There is no action plan for human rights education, approved by the Russian government, while there are some examples in other countries. Human rights courses are not adjusted to the Journalism curricula. Soft and hard skills of human rights protection are not directly included in Russian educational standard for Journalism studies.

As the survey results show, students do not possess enough knowledge on human rights. Only 7,5% of respondents could name the main international documents on human rights, at the same time 34% of students consider that their knowledge on human rights did no change during their studies at university.

At the same time some positive changes, linked with development of tolerance, dialogue, respect for diversity and human dignity, can be observed. The survey showed that students in Journalism are aware of public responsibility, intrinsic to their profession; they understand the importance of their future professional activities and link it with the human rights protection, as well as special role of journalists in legal education of citizens and development of their legal culture. For example, 63 % of respondents are ready to cover human rights issues in their articles and programmes. The vast majority of students were ready to protect rights of such vulnerable groups as woman, victims of violence and wars, LGBT community, etc.

Courses aimed at the development of such important skills for journalists as tolerance, respect for diversity, intercultural dialogue, fight with stereotypes and violence, are taught at Ural Federal University as it is required by the strategy of the third phase of the World Programme. Among them are "Professional ethics of journalist", "Fundamentals of tolerance", "Law in the activities of a journalist", "Journalism on the Internet". The latter course is particularly important for the implementation of the World Programme, one of the strategies of whose deals with the challenges of human rights on the Internet.

The authors of the article consider that the management of the university and the Journalism faculty in particular should use the interest of students in human rights issues and their readiness to improve their competences and knowledge in the field. The survey showed that the majority of students are ready to follow the course on human right, motivated, first of all, by their future work with people. Nowadays Russian higher education system allows creation of flexible curricula and learning paths. We believe that the use of these opportunities would allow inclusion of human rights issues in the programmes in Journalism and choosing individual learning paths by students.

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Ideas Of Vocational School Student For Accounting And Mathematic: Business Department Sample*

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Abstract

In this study, it remains meant that examining of exact ideas of vocational schools of student, the relation amid school attainment and student' choosing this schools with any program, the sense of mathematic and accounting in the school meaning for vocational school student. This search used an much used and well known study method with a deep analyse searching approach. The review remained lead by three circles of likert-type surveys aimed at the commercial section student after a vocational school in turkey. An entire 203 student remained the defendants of this education. Answers presented that there remained an essential aimed at a exact prospectus aimed at student concentrating happening rudimentary information and services and abridging the gratified of the mathematic custom-made to student. Glitches confronted through normal of the student when knowledge mathematic and accounting remain in retention mathematic gratified, reasons mathematic remains problematic, consuming trouble in sympathetic and smearing mathematic formulations.

Keywords: *vocational schools, mathematic and accounting, difficulty, school achievement*

Introduction

Vocational teaching and exercise production a dominant part in making new student aimed at effort, aimed at emerging passable services and replying toward the work marketplace wants of the cheap the development of the instructive procedure organization remains careful by way of one of the chief habits of well-organized usage of physical, methods and humanoid capitals (Kamariah, A.B., Rohani A.T., Sharifah M.N., Wan Zah Wan A., Ramlah H., Arshad A. And, Abdul Rashid, J., 2010; Kılıçaslan At All, 2018; Şeneldir At All, 2017a). The greatest real remains the growth of new procedures of group and organization founded in the world. Mathematic and accounting and remain dangerous and energetic to the communal, cheap and, consequently development of contemporary lifetime a republic. The education of mathematic and accounting wants complete preparation to safeguard excellence teaching scheme for the persons (Battal At All, 2017; Bostan, And Durmuş, 2016; Bostan, And Durmuş, 2017; Durmuş, 2016). Though concentrated labors must remain occupied toward teach altogether persons, we must not misplace vision of the attention of the vocational student. Knowledge mathematic and accounting aimed at vocational student remains a marvel aimed at certain viewpoints and does not frequently happen by clearness and ease (Kamariah, A.B., Rohani A.T., Sharifah M.N., Wan Zah Wan A., Ramlah H., Arshad A. And, Abdul Rashid, J., 2010).

The change which beginners remain obligatory toward brand after school which remains theoretic stadium toward the office which remains request part remains a multifaceted and frequently difficult procedure for student. The important inform of the gratified of the vocational teaching, heading for the calibration of prospectuses and instructive packages. The outline of the scheme of instructive praise scheme consumes large compensations, if the school flexibility of the student (Kamariah, A.B., Rohani A.T., Sharifah M.N., Wan Zah Wan A., Ramlah H., Arshad A. And, Abdul Rashid, J., 2010; Gueudet, G. 2008.; Aydin And Mutlu, 2013; Zhamuldinow, 2013). Dissimilar issues might principal to knowledge glitches in mathematic for these students. Amongst the issues remain: the exact linguistic, ciphers, problems in dispensation mathematic, certain graphic misperceptions connected to mathematic and accounting knowledge, reminiscence and order problems, and remarkably high nervousness in knowledge mathematic and accounting (Of At All, 2017; Tola At All, 2017; Dudley, U. 2010; Koparan At All, 2018; Valencia And Black, 2002). Teaching mathematic and accounting aimed at educators and knowledge mathematic and accounting aimed at vocational student remain start toward obtain care and sure teachers must intended knowledge circumstances which remain additional inspiring albeit the procedure of identifying of the glitches remain motionless on an increasing phase. Though, there remain singular wants, and this must remain assumed singular care through mathematic investigators (Kamariah, A.B., Rohani A.T., Sharifah M.N., Wan Zah Wan A., Ramlah H., Arshad A. And, Abdul Rashid, J., 2010; Görentaş And Yıldız, 1999; Yıldız And Görentaş; Şeneldir At All, 2017b; Kamariah, A.B. At All, 2010). Investigation educations aimed at vocational school student demonstration a hole amid what remains erudite and what remains obligatory (Baartman And De Bruijn, 2011).

The alliance of student' knowledge involvements attach school and repetition locations remains now of substantial attention inside the instructive school. Educational research educations for vocational school teaching lessons show that certain problems in education plans for knowledge mathematic and accounting remain

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happening in the schoolrooms (Dreyfus, T. 1991; Aydin At All, 2018; Şeneldir At All, 2017b; Wehlage & Rutter, 1989). The problems remain, for instance, inadequate pledge that student must pertinent previous rudimentary information for knowledge the example and fast degree for presenting numerous of the ideas. Also, absence of rational consistency in the performance of mathematic plans in the schoolroom and deprived message and a absence of collectivity in numerous instructional doings (Kamariah, A.B., Rohani A.T., Sharifah M.N., Wan Zah Wan A., Ramlah H., Arshad A. And, Abdul Rashid, J., 2010; Of At All, 2018; Kahraman At All, 2018). Furthermore, inadequate directed repetition of educators toward assistance the student change after the first education phase toward self-governing knowledge and inadequate appraisals toward safeguard that student recall what they must erudite on the talks (Seita, 2004). The goals of this investigation remain toward control and examine;

- *Problems connected to mathematic and accounting learning faced by student*
- *Problems connected to the teaching and learning of math and accounting*
- *Learning environments for student in learning math and accounting*
- *Effective teaching approaches frequently used by math*
- *Effective teaching strategies that are perceived not feasible to be used by math and accounting teachers in teaching math.*

Method

This study working a measurable, evocative review investigation project, connecting commercial section student in a vocational school in turkey. Vocational school student typically refers toward student by upcoming school preparation glitches and difficult school attainment. 203 students after commercial after 1st year and 2nd year class equal was used aimed at this study. The student replied two distinct 5-point likert gauge surveys representative their equal of contract toward stated substances in all survey aimed at knowledge mathematics and accounting (kamariah, a.b. At all., 2010). The statistics remained examined descriptively.

Findings

Founded happening the demographic statistics calm finished the survey, it remained originate that mainstream of the student remained male around 71% and the additional remained female 29%. The fraction of student who consumed approved mathematics and accounting examinations remained not abundant (18.52%). Moreover, albeit the amount of those who approved the examinations remained somewhat little, greatest student supposed that mathematics and accounting talks remained amusing and stimulating toward study. Answers presented that lone around 15.2% of scholar defendants unpopular mathematics (table 1) (Kamariah, A.B., Rohani A.T., Sharifah M.N., Wan Zah Wan A., Ramlah H., Arshad A. And, Abdul Rashid, J., 2010);

Table 1- student perception on mathematics and accounting

Perception	mathematics and accounting	
Category	frequency	percentage
Enjoy	132	65.0%
Moderate	40	19.7%
Dislike	31	15.2%
Total	203	100%

Scholar defendants' insights of their glitches when knowledge mathematics and accounting particularly that the topics remained existence trained theoretic somewhat than computational. For knowledge mathematics and accounting, two glitches remained tinted through mainstream of the defendants, viz., happening their 'difficulty toward recall formulae' erudite (70.0%) and 'trouble to recall mathematics content' (72.1%). As for the other problems related to the learning of mathematics and accounting by way of registered in table 2, albeit certain of the scholar defendants designated that they met the glitches, though lone a lesser amount consumed tinted that they remained consuming those glitches meanwhile mainstream of them did not highpoint the registered glitches by way of glitches they confronted when knowledge mathematics and accounting. The discovery happening stating the student' 'aversion aimed at mathematics and accounting', over lone a minor fraction designated that they aversion mathematics and accounting (16.4%) (table 2) (Kamariah, A.B., Rohani A.T., Sharifah M.N., Wan Zah Wan A., Ramlah H., Arshad A. And, Abdul Rashid, J., 2010).

Table 2: form two student' perceptions on problems in learning mathematics and accounting

Types of problems	Mathematics and accounting	
	Yes	No
Do not remember the formulae	68.0%	32,0%
Difficult to remember the math content	74.6%	25,4%
Do not understand the formulas	68.3%	31.7%
The concepts are difficult	61.9%	38.1%
Do not know how to apply the formulae	53.5%	46.5%
Do not understand what teachers are teaching	40.4%	59.6%
Teachers change to new topics very fast	20.3%	79.7%
Dislike mathematics and accounting	16.8%	83.2%
Teachers did not give enough examples to answer the questions	11.2%	88.8%
Teachers did not repeat the subject	12.7%	87.3%
Teachers did not explain clearly	12.3%	7.7%
Teachers only asked to do the exercises on the white board	13.6%	86.4%
Teachers make us copy notes	16.3%	83.7%
We were given many problems as homework	12.5%	87.5%

Student' perception towards their learning atmosphere is presented following step (table 3). Their equal of contract of the registered substances, general, student provided a optimistic reply to the knowledge atmosphere in their own schools (kamairah, a.b. At all., 2010). Founded happening the nasty notches, the article which consumes the uppermost equal of contract remained 'most of my teachers taught us with enthusiasm (mean=3.56). This discovery demonstration that smooth feeble student still would stab toward become the uppermost notch likely. Likewise, a optimistic reply to the article 'my punishment educator receipts decent upkeep of student' (42.3% decided). A optimistic knowledge weather remained reproduced founded happening replies toward numerous substances, for example 'nearly altogether of my friends in my class tried toward become the finest score' (38.8% decided). 'educators continuously poverty us toward crop decent work' (54.6% decided), 'student in my school mix healthy amongst them' (54.6% decided), and 'greatest of my educators trained us with enthusiasm' (41.8% decided). General, the answers presented that the student' insight to the knowledge atmosphere of their schools remained optimistic (table 3).

Table 3: student' perception towards their learning atmosphere

Types of problems	Mean	Strongly disagree	Disagree	Agree	Strongly agree
I like my class	3.13	12.5%	20.6%	47.2%	21.7%
Student in my school integrate well among them	3.42	7.9%	14.4%	54.6%	23.5%
I tried my best to get the highest score	3.74	4.8%	13.7%	40.0%	42.4%
Most of my teachers taught us with enthusiasm	3.56	9.2%	11.7%	41.8%	37.5%
My discipline teacher takes good care of student	3.36	8.9%	11.2%	42.3%	42.6%
Almost all my teachers are good teachers	2.23	8.1%	21.5%	50.7%	19.7%
Teachers use many methods to teach	3.87	6.6%	15.4%	55.2%	42.8%
Teachers always want us to produce good work	3.21	5.2%	18.9%	54.6%	21.3%
Almost all my friends in my class tried to get the best score	3.89	5.5%	21.3%	38.8%	33.4%
A few students in my class interrupt while in teachers are teaching	3.43	10.9%	15.2%	48.6%	25.5%
My parents did not help me to be more successful	1.63	43.7%	36.4%	11.7%	8.2%

Student in my school take good care of the school property	2.70	20.3%	45.4%	25.7%	8.6%
Almost all teachers under-estimated my class	2.27	33.8%	38.4%	25.4%	11.4%
I don't like to study	1.42	32.5%	41.8%	16.5%	9.2%
I go to school not to study but to see friends	1.75	41.0%	43.3%	11.3%	3.4%
Discipline rules are not fair to me	2.61	28.8%	43.4%	20.6%	14.2%
My class was blamed when anything bad happened to the school	1.53	33.8%	35.1%	20.6%	10.5%
Teachers always use harsh words in the class	1.74	37.2%	40.8%	11.6%	5.4%
	1.52	36.1%	38.2%	20.4%	5.3%
Almost all teachers expected that we have no future					

Results

Well-organized application of the ideals of investigation too wants that the investigation public remains eager toward employment the knowledge possible of the limits in instructive schemes toward disapprovingly appraisal the modern investigation procedures and approaches. The consequences connected toward student' insight of their knowledge air demonstrations that usually student remains optimistic method to their knowledge air (Kamariah, A.B., Rohani A.T., Sharifah M.N., Wan Zah Wan A., Ramlah H., Arshad A. And, Abdul Rashid, J., 2010). Though, when only statistics connected toward those who decided toward the bad ideas remained examined it remained originate that meaningfully little aptitude student decided toward the bad ideas likened toward the high aptitude accounting section student.

A worldwide sole vocational teaching model which container guarantees the all-out welfares and achievement remains not exists. Answers employed that student concentrating happening rudimentary information and services and abridging the gratified of the mathematics program custom-made to student. In adding, units aimed at education and repetition units must remain provided aimed at student' incentive toward the lectures. Exact education methods aimed at student remained optional that emphasis happens education for sympathetic of rudimentary information and services, educator protest by lively student's contribution, educators remain assumed extra educational exercise for education of mathematics and accounting. Lastly, education mathematics toward vocational school scholar must remain assumed stresses by respects toward prospectus and education methods.

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Ill Posed Problems And Some Methods How To Solve Them

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Abstract

The term *ill-posed problem* has been gaining popularity in modern science since the middle of the 20th century. Several decades of research in this area have shown that a great number of problems in different branches of classical mathematics (differential and integral equations, partial differential equations, functional analysis, computational algebra) can be classified as ill-posed and they belong to the most complicated ones (thanks to their unstability and usual nonlinearity). At the same time these problems began to be studied in astronomy, geophysics, medicine and other applied sciences. In this paper some examples are introduced as well as the two most remarkable methods of solving such problems are described.

Introduction

The definition of the well-posed problem was introduced by J. Hadamard in 1923 in order to figure out what types of boundary conditions are to be used for various types of differential equations. Hadamard's concept reflected the idea that any mathematical model of physical phenomena should have all the following properties:

- There exists a solution to the problem (existence).
- There is at most one solution to the problem (uniqueness).
- The solution depends continuously on the data (stability).

A problem which does not satisfy at least one of these conditions was called *ill-posed* (improperly posed) problem. Hadamard also gave the now classical example of ill-posed problem, the Cauchy problem for the Laplace equation. It became clear later that many branches of natural sciences in general involve ill-posed problem, e.g. computer tomography (see [3], p.183) and others. In 1950's a great attention was drawn to ill-posed problems. It must be mentioned the names of outstanding Russian mathematicians: A. N. Tikhonov, M. M. Lavrentiev, V. K. Ivanov and also their disciples, e.g. V. A. Morozov. They contributed much to the development of the theory and techniques which became a new and fruitful area in numerical analysis (e.g. [5]). The foundations of approximate methods for solving ill-posed problems were laid by A. N. Tikhonov. He generalized the classical Hadamard's concept of well-posedness of the problem.

Many problems of mathematical physics and analysis can be formulated as the problem of solving the equation

$$Ax = b, \quad (1)$$

where $A: X \rightarrow Y$ is an operator defined on a normed space X with values in a normed space Y , b in Y is given. Tikhonov was the first to invoke a topological theorem providing sufficient conditions for the problem (1) to be well-posed in his new sense: *Let A be a continuous operator on a non-empty compact set M in X , and suppose A is injective. Then its inverse A^{-1} considered on $A(M)=N$ is continuous.* In Tikhonov's viewpoint a certain compact set plays a basic role. Generalizations of this theorem to metric and topological spaces were obtained by Ivanov. As to the ill-posed problems Tikhonov suggested a new method which he called *regularization*. This method is based on the idea that the minimum deviation of the values Ax from the specified right hand side b is stabilized by means of some non-negative convex functional (see section 5 below).

The article is divided into the following sections:

- Examples of ill posed problems
- General concept of regularization
- Singular value decomposition
- Tikhonov regularization

Examples Of Ill Posed Problems

Example 1) If the spaces X and Y are both equal to the euclidean n -dimensional space then the operator A in (1) is represented by a matrix A . It is well-known that in this case A is always continuous (w.r.t. any norm in X and Y resp.). The well-posedness of (1) can be violated if A is singular. Then A is neither injective nor surjective. However, even if A is nonsingular the system (1) can be problematic in the numeric viewpoint. In this context the notion of the condition number is introduced: $\text{cond} A = \|A\| \|A^{-1}\|$. Let b_δ be a perturbation of b in (1), $Ax^* = b$, $Ax_\delta = b_\delta$. Then $x^* - x_\delta = A^{-1}(b - b_\delta)$. For the relative error of the solution it holds $\frac{\|x^* - x_\delta\|}{\|x^*\|} \leq \text{cond} A \frac{\|b - b_\delta\|}{\|b\|}$. One can see

from this estimate that a large condition number can result in a considerable change in the solution even if the relative change in the right hand side is small.

Example 2) Next we go to equation (1), where X and Y are Hilbert spaces and A is a compact operator. Let us recall that A is the *compact operator* if it transforms any bounded set in X to a relatively compact set (its closure is compact) in Y . The compact operator is a natural generalization of the operator in finite dimensional spaces. If X or Y are finite dimensional spaces then any linear operator $A: X \rightarrow Y$ is compact. If $Y = X$ then the compact operators form a closed ideal $\mathcal{L}_c(X)$ in the space of all continuous linear operators $\mathcal{L}(X)$ the domain of which is the Hilbert space X and their range is a subspace of X . If the Hilbert space X is of infinite dimension then a compact operator A may not have continuous inverse operator. The argument is as follows: if A^{-1} were continuous then $I = A^{-1}A$ should be compact since $\mathcal{L}_c(X)$ is an ideal. However the identity I on X is compact if and only if the space X is of finite dimension. The typical example of a compact operator is the Fredholm integral operator of the first kind:

$$y(t) = Ax(t) = \int_a^b k(t, s)x(s)ds. \quad (2)$$

In the formula (2) $k(t, s)$ is the given function lying in the space $L_2((c, d) \times (a, b))$ (this function is called *kernel of the integral operator* (2)), $x \in X = L_2(a, b)$, $y \in Y = L_2(c, d)$.

Example 3) Differentiation and integration are two problems which are inverse to each other. Even if the symbolic differentiation is much simpler than symbolic integration surprisingly the differentiation is ill-posed in the settings considered below. The differentiation turns out to be the more delicate problem from the numerical point of view. We define the operator

$$Ax(t) = \int_0^t x(s)ds, \quad (3)$$

where $t \in [0, 1]$, $x \in C[0, 1]$. The spaces $X = C[0, 1]$, $Y = C^1[0, 1]$ are regarded here as normed linear spaces, both with the supremum norm $\|\cdot\|_\infty$, Y is a subspace of X . The inverse operator to the operator (3) is defined on the space $\mathcal{R}(A)$ of those functions in Y satisfying the condition $y(0) = 0$ and it is the derivative. Let us assume that we are given certain function b in $\mathcal{R}(A)$ and noisy data b_δ for which $\|b - b_\delta\|_\infty \leq \delta$. If we have a sequence of functions $b_{\delta, n}(t) = b(t) + \delta \cos \frac{nt}{\delta}$, $\delta \in (0, 1)$, $n = 1, 2, 3, \dots$ then it is obviously $\|b - b_{\delta, n}\|_\infty \leq \delta$. On the other hand for the solutions of (1) with operator (3) we obtain $\|A^{-1}b - A^{-1}b_{\delta, n}\|_\infty = n$ since

$$A^{-1}b - A^{-1}b_{\delta, n} = \frac{db}{dt} - \frac{db_{\delta, n}}{dt} = n \sin \frac{nt}{\delta}. \text{ Hence, the error in the solution increases without bound as } n \rightarrow \infty$$

although the error in the data is bounded by δ . This shows that the equation (1) with the operator (3) is ill-posed. Let us look at the approximation of the derivation by the *central difference quotients*

$$R_h b(t) = \frac{b(t+h) - b(t-h)}{2h}, \quad h > 0. \text{ To avoid some difficulties near the boundaries 0 and 1 we suppose that } b \text{ is}$$

periodic with period 1. A Taylor expansion of the function b yields $\|A^{-1}b - R_h b\|_\infty \leq \frac{h}{2} \|A^{-2}b\|_\infty$ suppose that b is continuously differentiable of the second order (the operator of the second derivative is denoted A^2). For noisy data the total error can be estimated as follows:

$$\|A^{-1}b - R_h b_\delta\|_\infty \leq \|A^{-1}b - R_h b\|_\infty + \|R_h b - R_h b_\delta\|_\infty \leq \frac{h}{2} \|A^{-2}b\|_\infty + \frac{\delta}{h} \quad (4)$$

In this estimate we have split the total error into an *approximation error*, which tends to 0 as $h \rightarrow 0$ and a *data noise error*, which explodes to infinity as $h \rightarrow 0$. If we want to obtain a good approximation it is necessary to balance these two error terms by a suitable choice of the discretization parameter h . The minimum of the right

hand side in (4) is attained at $h = \left(2\|A^{-2}b\|_\infty^{-1}\right)^{1/2} \delta^{1/2}$. With this step h the total error is of the order

$$\|A^{-1}b - R_h b_\delta\|_\infty = O\left(\delta^{1/2}\right) \quad (5)$$

It can be shown that for higher order difference schemes the convergence rate is always smaller than $O(\delta)$. It is well-known that the operator of derivative A^{-1} is closed but not continuous operator. The convergence rate (5) reflects the fact that stability is restored due to a-priori information

$$\|A^{-2}b\|_{\infty} \leq C. \quad (6)$$

The inequality (6) guarantees the continuity of the operator of derivative A^{-1} on the set of functions b satisfying (6). It follows from inequalities

$$\|A^{-1}b\|_{\infty} \leq \|A^{-1}b - R_h b\|_{\infty} + \|R_h b\|_{\infty} \leq \frac{h}{2} \|A^{-2}b\|_{\infty} + \frac{\|b\|_{\infty}}{h} \leq 2\sqrt{C\|b\|_{\infty}} \text{ if we set } h = \sqrt{\frac{\|b\|_{\infty}}{C}}.$$

This last example exposes the typical properties of ill-posed problems:

- Amplification of high frequency errors.
- Restoration of stability by a-priori information
- Trade-off between accuracy and stability in the choice of the discretization parameter

General Concept Of Regularization

Suppose again the general problem (1) with $A: X \rightarrow Y$, X, Y are normed linear spaces, A is continuous and injective with range $\mathcal{R}(A)$, which is a proper subspace of Y , dense in Y , i.e. (1) is ill-posed problem. We first introduce approximations of the inverse operator A^{-1} (which is not continuous). A *regularizing strategy* is a family of continuous linear operators $R_{\alpha}: Y \rightarrow X$, $\alpha > 0$, for which $\lim_{\alpha \rightarrow 0^+} \|R_{\alpha}Ax - x\| = 0$ for all $x \in X$.

A regularizing strategy may not be uniformly bounded. In fact, there is a sequence of positive numbers $\alpha_n \rightarrow 0$ such that $\|R_{\alpha_n}\| \rightarrow \infty$. Assume the converse: there is c such that for all $\alpha > 0$, $\|R_{\alpha}\| \leq c$. Then for any y in $\mathcal{R}(A)$ the following inequalities hold:

$$\|A^{-1}y\| \leq \|A^{-1}y - R_{\alpha}y\| + \|R_{\alpha}y\| \leq \|x - R_{\alpha}Ax\| + \|R_{\alpha}\| \|y\| \leq \|x - R_{\alpha}x\| + c\|y\|. \quad (7)$$

The first term on the right hand side in (7) tends to zero as $\alpha \rightarrow 0$. However, it means that $\|A^{-1}y\| \leq c\|y\|$ which is a contradiction with A^{-1} is not continuous. In other words, the product $R_{\alpha}A$ converges to identity I pointwise, not uniformly.

The second matter is to deal with the noise involved in the right hand side of the equation (1). We worked with this noise in Examples 2.1 and 2.3 in section 2. Suppose again that b_{δ} is a perturbation of b in (1), $\|b - b_{\delta}\|_{\infty} \leq \delta$. We then define

$$x_{\alpha,\delta} = R_{\alpha}b_{\delta}. \quad (8)$$

Now we derive the fundamental estimate for regularizing strategy. Let x^* is the solution of (1). It holds

$$\|x^* - x_{\alpha,\delta}\| \leq \delta \|R_{\alpha}\| + \|R_{\alpha}Ax^* - x^*\|. \quad (9)$$

As α tends to zero the second term in the right hand side in (9) converges to zero (regularization effect) while the first term grows to infinity (ill-posedness effect). Thus two competing effects enter (9). These effects forces us to make a trade off between accuracy and stability. It is obvious that the choice of parameter α is of the crucial importance. In Example 3 there is $\alpha = h$. The parameter is in general dependent on the noise parameter δ as can be seen in Example 3 and again in section 5. In what follows we introduce two remarkable regularization techniques, the singular value decomposition (SVD), for compact operators, and Tikhonov regularization (TR) which can be used in more general situations.

Singular Value Decomposition

We will suppose that A is a compact injective operator on an infinite dimensional Hilbert space X . Let A^* be the adjoint operator to A and $\lambda_j > 0$, $j \in \mathbb{N}$, the eigenvalues of the self-adjoint and positive operator A^*A . Then the numbers $\sigma_j = \sqrt{\lambda_j} > 0$ are called the *singular values* of A . Since $\sigma_j \leq \|A\|$, we order the singular values so that

$$\sigma_1 \geq \sigma_2 \geq \dots \geq \sigma_n \geq \dots > 0.$$

Multiple singular values are repeated as many times as their multiplicity (the multiplicity of eigenvalues λ_j is the finite dimension of associated eigenspaces for compact self-adjoint operator A^*A). Then there exist two

orthonormal systems (u_j) and (v_j) in X such that $Au_j = \sigma_j v_j$ and $A^* v_j = \sigma_j u_j$, see [1], p. 31. The following claim is a very useful characterization of the range of the compact and injective operator:

Theorem (Picard) *The equation (1) has a solution in X if and only if*

$$\sum_{j=1}^{\infty} \frac{1}{\sigma_j^2} |(b, v_j)|^2 < \infty. \quad (10)$$

The solution is then given by

$$x^* = A^{-1}b = \sum_{j=1}^{\infty} \frac{1}{\sigma_j} (b, v_j) u_j. \quad (11)$$

Proof: Assume that $b = \sum_{j=1}^{\infty} (b, v_j) v_j$. If (10) holds true then the series $\sum_{j=1}^{\infty} \frac{1}{\sigma_j} (b, v_j) u_j$ is convergent. We denote its sum by x^* . Applying A we obtain

$$Ax^* = \sum_{j=1}^{\infty} \frac{1}{\sigma_j} (b, v_j) Au_j = \sum_{j=1}^{\infty} (b, v_j) v_j = b.$$

Vice versa, assume $Ax^* = b$. It holds $(b, v_j) = (Ax^*, v_j) = (x^*, A^* v_j) = \sigma_j (x^*, u_j)$. It follows that

$$\sum_{j=1}^{\infty} \frac{1}{\sigma_j^2} |(b, v_j)|^2 = \sum_{j=1}^{\infty} |(x^*, u_j)|^2 = \|x^*\|^2 < \infty. \text{ For details see [4], p. 13.}$$

The formula (11) clearly illustrates the ill-posedness of the equation (1) with a compact operator A . As $\frac{1}{\sigma_j} \rightarrow \infty$, the higher terms of the Fourier series (11) are amplified without bounds. The analogous effect can be observed in Example 2.3 even if it is not the case of a compact operator in this example. The faster the decay of the singular values, the more severe is the ill-posedness of the problem. An ill-posed problem with a compact operator can be classified as *mildly ill-posed* if the singular values decay to 0 at a polynomial rate, i.e. there exist positive constants C, p (p integer) such that $\sigma_j \geq Cj^{-p}$ for all $j \in \mathbb{N}$. In the other cases it is classified as *severely ill-posed* problem.

One way how to restore stability for (1) is to truncate the series (11). We define

$$R_\alpha b = \sum_{\sigma_j \geq \alpha} \frac{1}{\sigma_j} (b, v_j) u_j \quad (12)$$

The regularizing strategy (12) is known as *truncated singular value decomposition*.

One of the main drawbacks of SVD is that it is quite expensive to compute numerically once generally continuous problem has been discretized.

Tikhonov Regularization

One of the most famous regularization techniques is the Tikhonov regularization (TR), see e.g. [2], p. 99. It consists in the idea of the transformation of the problem (1) to the variational problem of minimizing certain functional. We will assume in this section that the operator A in the equation (1) is from the space $\mathcal{L}(X)$, where X is a Hilbert space, A is injective, not necessarily compact and (1) is ill-posed. We can find the solution of (1) in the sense of the least squares, i.e. we will regard the operator equation

$$A^* Ax = A^* b. \quad (13)$$

However neither this transformation is sufficient to remove the ill-posedness. Typically, if A is compact, then A^*A so is. We showed in section 2 that in the case of infinite dimensional Hilbert space we come to the ill-posed problem. Let us recall that the solution of (13) is usually denoted as the *generalized solution* of (1). Solving (1) corresponds to minimizing the functional $\|Ax - b\|$. Instead one may minimize the *Tikhonov functional* $J_0(x) = \|Ax - b\|^2$. It can be shown that if there exists the solution of (13), say \hat{x} , then it is the minimizer for this functional and vice versa. The existence of such solution can be ensured on the base of Lax-Milgram theorem but it is necessary to create a gap between zero and the low bound of the spectrum of the self-adjoint and positive operator A^*A . It may be surprising that it can be done only by adding some positive multiple of the identity. Thus we obtain operator equation

$$A^*Ax + \alpha Ix = A^*b, \quad (14)$$

where $\alpha > 0$. The idea of the Tikhonov regularization consists in this access. The adding of the term αI means that the operator $\alpha I + A^*A$ is the continuous operator with range equal to the whole space X . Its inverse is therefore continuous and

$$R_\alpha = (\alpha I + A^*A)^{-1} A^* \quad (15)$$

so is. We obtain in this way regularization strategy for computing the approximative solution \hat{x}_α to the unique solution \hat{x} of (13) (if it exists). The approximative solution $\hat{x}_\alpha = R_\alpha b = (\alpha I + A^*A)^{-1} A^*b$ is at the same time the unique minimizer for the *regularized Tikhonov functional* $J_\alpha(x) = \|Ax - b\|^2 + \alpha \|x\|^2$. For the regularizing strategy (15) it holds $\|R_\alpha\| \leq \frac{1}{2\sqrt{\alpha}}$. It can be shown by the help of polar decomposition of a continuous operator

(see [4], p. 234) and the Riesz functional calculus (see [4], p. 87). More particularly, denote $T = A^*A$. The operator T is self-adjoint and positive. By polar decomposition $T = U|T|$, where U is unitary, i.e.

$U^*U = UU^* = I$, and $|T| = T^{1/2}$. Therefore, $R_\alpha = (T + \alpha I)^{-1}|T|U$ and we denote $f(T) = (T + \alpha I)^{-1}|T|$.

Obviously $\|R_\alpha\| \leq \|f(T)\|$ and $\|f(T)\| = \sup_{\lambda \in [0, \|T\|]} |f(\lambda)| = \sup_{\lambda \in [0, \|T\|]} \frac{\sqrt{\lambda}}{\lambda + \alpha} = \frac{1}{2\sqrt{\alpha}}$. Suppose now a noise is involved

in the right side b as above. Then we obtain a noisy approximative solution to (13), say $\hat{x}_{\alpha,\delta} = R_\alpha b_\delta$. Then we gain the estimate which is in accord with the general estimate (9), i.e.

$$\|\hat{x} - \hat{x}_{\alpha,\delta}\| \leq \delta \|R_\alpha\| + \|R_\alpha A\hat{x} - \hat{x}\| \leq \frac{\delta}{2\sqrt{\alpha}} + \frac{\|(A^*)^{-1}\hat{x}\|\sqrt{\alpha}}{2}, \quad (16)$$

where the second term on the right side proves, that (15) is really the regularizing strategy. The second inequality in (16) can be derived using the current properties of the norm. At the same time we assume, that the solution \hat{x} satisfied a certain condition of smoothness: $\hat{x} \in R(A^*)$. We can notice the relationship between SVD and TR. If $A \in \mathcal{L}_C(X)$ we can verify that SVD of (15) has the form (see (12))

$$R_\alpha b = \sum_{j=1}^{\infty} \frac{\sigma_j}{\alpha + \sigma_j^2} (b, v_j) \mu_j.$$

As was mentioned in section 3 the essential problem for numerical computations is the choice of the regularization parameter α . There exist a lot of strategies for it. The most well-known is Morozov's discrepancy principle. It consists in taking $\alpha = \alpha(\delta)$ such that $\|A\hat{x}_{\alpha,\delta} - b_\delta\| = \delta$. This choice guarantees the balanced approximation and data noise errors. The numerical computation of α can be carried out by Newton's method.

The biggest drawback of TR is the repeated matrix manipulation, computation of the inverses (15).

Conclusion

The regularization methods are efficient tool for solving of the ill-posed problems. Although we introduce only two, SVD and TR, there are others as Landweber iterations for example. The choice of regularization parameters is of the main importance. It generally depends not only on the noise level but also on the data. It can be shown, that the convergence of any regularization method can be arbitrarily slow. However, as Example 3 shows the convergence rate can be determined if smoothness properties are known a-priori.

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Impact And Importance Of Support For Higher Education In Science And Technology In Mexico

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Abstract

The document studies the importance of the support granted by the National Council of Science and Technology (CONACYT) for higher education in Mexico by analyzing the resources, supports and distinctions granted in three aspects such as the number of professors who are members of the National System of Higher Education, Researchers (SNI), graduate programs that have been integrated into the National Postgraduate Program in Quality (PNPC) and the scholarships granted to study a high quality postgraduate program. The methodology is descriptive quantitative by analyzing the statistics of the support of the CONACYT. The results show the growth in the budget of the CONACYT in 43% from 2012 to 2017. Even though the investment is higher, it is low because it represented 0.126% of GDP in 2012 and in 2016 it represented 0.187% of GDP, which is below 1% of the GDP that should be invested according to Article 9 Bis of the Science and Technology Law in Mexico. The results show that it is insufficient the support for science and technology and it is necessary the support to higher education derived from the fulfillment of the commitments of the Science and Technology Law in Mexico oriented to the production of high level human resources.

Keywords: *Science and Technology, Conacyt, SNI, Posgraduate.*

Introduction

In recent years, several Latin American countries have made significant efforts to improve their performance in science, technology and innovation by increasing the resources dedicated to that end (RICYT, 2008 cited by Luchilo, 2009). This represents an eloquent indicator of the distance between the countries of the region and the developed countries. Therefore, reducing this gap becomes a clear policy objective established in several national strategic plans (PECIT, 2008, PENCTI, 2007).

By analyzing the impact and importance of support for higher education in science and technology in Mexico, it is possible to show the increasing production of knowledge in our country. Such production is created in different ways by the National Council of Science and Technology (Conacyt) which is responsible along with the public policy of the Mexican Federal Government. The objective of this article is to reflect the impact and importance of the support granted by Conacyt in higher education as well as to establish the resources, financial supports and distinctions provided in three fundamental aspects which are the number of members of professors of the National System of Researchers (SNI), the Postgraduate Programs integrated in the National Postgraduate Program in Quality (PNPC), and scholarships granted to study a high quality postgraduate program.

In order to fulfill its goal, Conacyt has ten fundamental programs with several subprograms that are really important in its operation such as the National Postgraduate Program of Quality (PNPC) and the evaluation of scientists and technologists in order to provide the distinctions which are divided into candidate for National Researcher, National Researcher with three levels and National Researcher Emeritus.

For the development of these programs, Conacyt has an amount of resources granted by the federal government. In 2017 there was a budget reduction of -14.8%, due to a cut approved by the Federal Executive derived from the decrease in the oil price, but if we compare the year 2017 with year 2012 we can highlight an increase of 42.95% in the resources given to Conacyt.

The first section of the document highlights the importance of the National Council of Science and Technology since its creation by the Federal Government as well as the design of its fundamental programs which attempt to solve the problem of the use of natural resources, implement actions to solve deficiencies in health, food, agricultural production, industrialization, education and rural development as well as to achieve the decentralization of research through the creation of foreign research centers. A key program of Conacyt is the National System of Researchers since its creation by official decree in 1984 and up to the present with the distinction of the researchers assigned to any dependency, entity, institution of higher education or center where researches are carried out all states of the country. In 2016, the SNI had 25072 members which is 7.5% more than it had in 2015 at a national level and, compared to 2004, it had an increase of 146.1% regarding 2016 (CONACYT 2017).

The next relevant point in this paper is the National Postgraduate Program of Quality (PNPC) which is a program that was created in 1991. It was initially called "Padrón de Excelencia" (Excellence Register), then it changed its name to "National Program for the Strengthening of Postgraduate Programs"(PNFP) from 2001 to 2006, and it finally became as the National Postgraduate Program in Quality (PNPC) from 2007 to the present. Its aim is to recognize the specialty, masters and doctorate programs that have the necessary elements to guarantee the relevance of its implementation and the attainment of optimal results. It is adequate to highlight that in Mexico there is an offer of 8,504 active postgraduate degrees registered between 2014-2015 with a total of 287,324 students, 14% of the programs correspond to doctorate level (1,186), 67% of the programs correspond to a masters level (5,668) and 19% correspond to specialty degrees (1,650). From these, 2155 programs have PNPC recognition for their quality. Regarding the number of students, we can also highlight that there was an enrollment of 287,324 students, 55% of them are in the private sector with 158,359 students and 45% in the government sector (128,965 students). It is important to establish that the PNPC recognizes four levels depending on the level of development of the postgraduate degree which can be newly created, in development, consolidated and international competition.

Regarding scholarships, it can be highlighted that in 2016 there were 63474 scholarship recipients, 107% more than the 30634 scholarships granted in 2009, and the amount for national graduate programs was 56.497 scholarships (89%) and 6977 recipients abroad (11%) in 2016. The cost of the scholarship program was M\$ 9,505 million pesos in 2017, 7.2% more than the M\$ 8866 million pesos that were given in scholarships in 2016.

Objective

This article attempts to make a reflection on the impact and importance of the support granted by the National Council of Science and Technology (Conacyt) in higher education as well as to establish the resources, supports and distinctions awarded in three fundamental aspects such as:

- The number of members of professors of the National System of Researchers (SNI).
- Postgraduate programs that have been integrated into the National Program of Quality Postgraduate (PNPC), and
- The scholarships granted to study a high quality postgraduate program.

Importance the National Council of Science and Technology (Conacyt)

The Conacyt is the organization that is responsible for carrying out the public policy of the Mexican federal government for the support of science and technology. Its organizational structure is the one of a decentralized public organization from the Mexican federal government dedicated to promote and stimulate the development of science and technology in the country (Márquez 1982).

On December 29, 1970, the law that created Conacyt was published in the Official Gazette of the Federation, and the organization began its work formally in 1971. At the beginning, it was proposed to design specific programs to face the problem regarding the use of natural resources, the implementation of actions to solve deficiencies in health, food, agricultural production, industrialization, education and rural development as well as to achieve the decentralization of research through the creation of external research centers (Márquez 1982).

In order to fulfill its goal, Conacyt has ten fundamental programs which are:

- National and international postgraduate scholarships.
- National System of Researchers (SNI).
- Science and Technology networks.
- Scientific investigation.
- Applied research.
- Professorship for young researchers.
- International projects.
- Infrastructure in science and technology.
- Projects with the industry.
- Regional development.

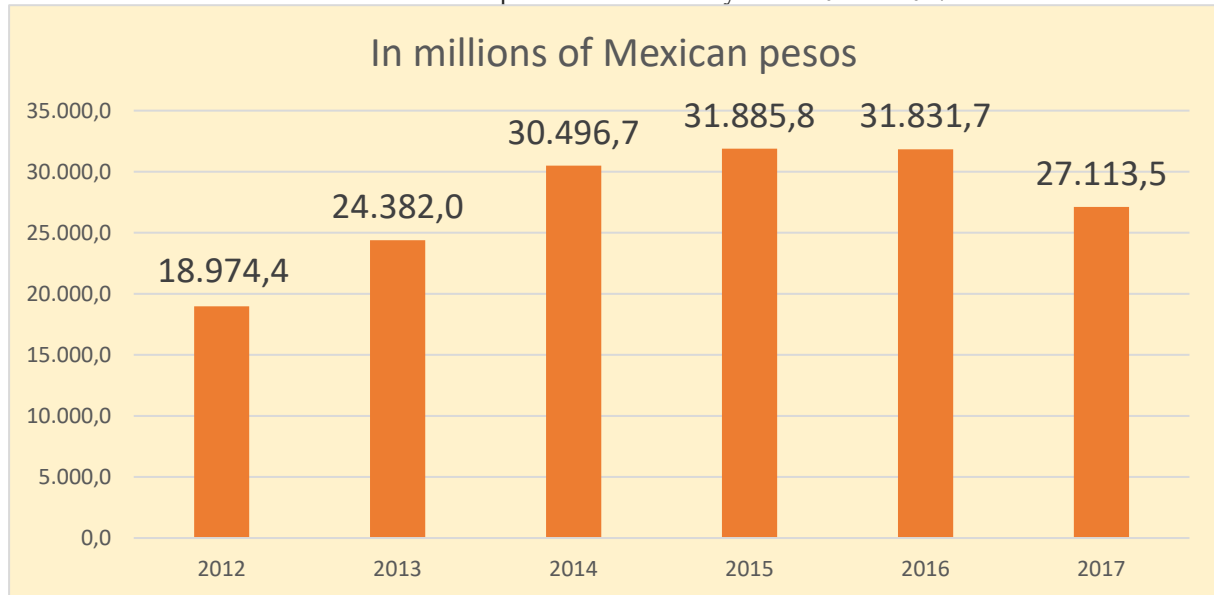
For the implementation of these programs, Conacyt has several subprograms that are very important in its operation. Some of them which we can highlight are:

- National Postgraduate Program in Quality (PNPC): postgraduate evaluation for the purpose of granting national resources and scholarships.

- SNI: Evaluation of scientists and technologists in order to grant the distinctions which are divided into candidate for National Researcher, National Researcher with three levels and National Researcher Emeritus.
- Applied research: Evaluation of the country's scientific research programs and projects.

For the development of these programs Conacyt has a budget from the federal government, which is distributed in the following way:

Table 1: Net expenses for the Conacyt from 2012 to 2017



Source: Own elaboration based in SHCP (2018).

Expressed in current Mexican Pesos.

From the previous Table we can highlight that there was a budget of \$ 31,831.7 million pesos and then there was a budget reduction in 2017 to reach \$ 27,113.5 million pesos with a decrease of -14.8%, due to an approved budget cut by the federal government derived from the drop in the price of oil, but if we compare 2017 with the first year of our 2012 analysis, we can highlight an increase of 42.95% in the resources allocated to Conacyt. In nominal terms, this is an unprecedented support to the area of science and technology in the history of Mexico. However, if we compare this data with the Gross Domestic Product (GDP), which was \$ 17,028,177 million pesos in 2016, this represents only 0.187% and in 2015 it was 0.186% of the GDP, although if we consider that in 2012 it barely represented 0.126% of the GDP, it is very far from the 1% of the GDP indicated in Article 9 Bis of the Law of Science and Technology, which should be allocated to support this area. It should be noted that this constitutional article was published on September 1, 2004 and it had to be implemented no later than 2006, which evidently has not happened.

National System of Researchers (SNI)

The SNI is the most emblematic program of Conacyt and it was created by presidential decree which was published in the Official Gazette of the Federation on July 26, 1984. The SNI is the most important distinction in research in México; its objective is to recognize the work of people dedicated to produce scientific knowledge and technology. The recognition is obtained through the evaluation by pairs and consists on awarding the category of national researcher. This distinction symbolizes the quality and prestige of scientific contributions (Flores 2012).

The economic grant is delivered in accordance to Article 59 of the Regulation of the National System of Researchers (RSNI), the amounts of the incentives and the location on the table for each category and level are:

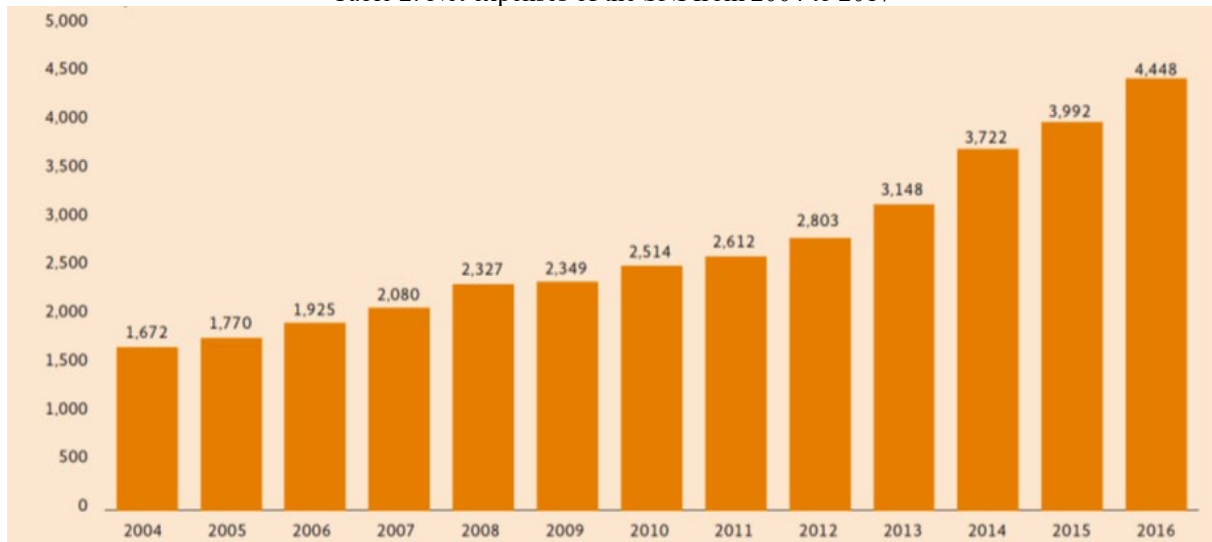
- Candidate for National Research: Three times the monthly value of the UMA (\$7,350.72 Mexican pesos);
- National Research level I: Six times the monthly value of the UMA (\$14,701.44 Mexican pesos);
- National Research level II: Eight times the monthly value of the UMA (\$19,601.92 Mexican pesos);
- National Research level III: Fourteen times the monthly value of the UMA (\$34,303.36 Mexican pesos);
- National Researcher Emeritus: Fourteen times the monthly value of the UMA (\$34,303.36 Mexican pesos).

The value of the monthly UMA as of February 1, 2018 is \$2,450.24 as a reference value which increases each year on February 1 on terms of inflation in the country.

Researchers who have obtained any of the distinctions and are assigned to a dependency, entity, institution of higher education or center where research is conducted in any of the states of the Republic will receive an additional third of the incentive that corresponds to the Candidate for National Researcher, subject to budget availability.

Table 2 shows the budget used by the SNI from SNI 2004 to 2017:

Table 2: Net expenses of the SNI from 2004 to 2017

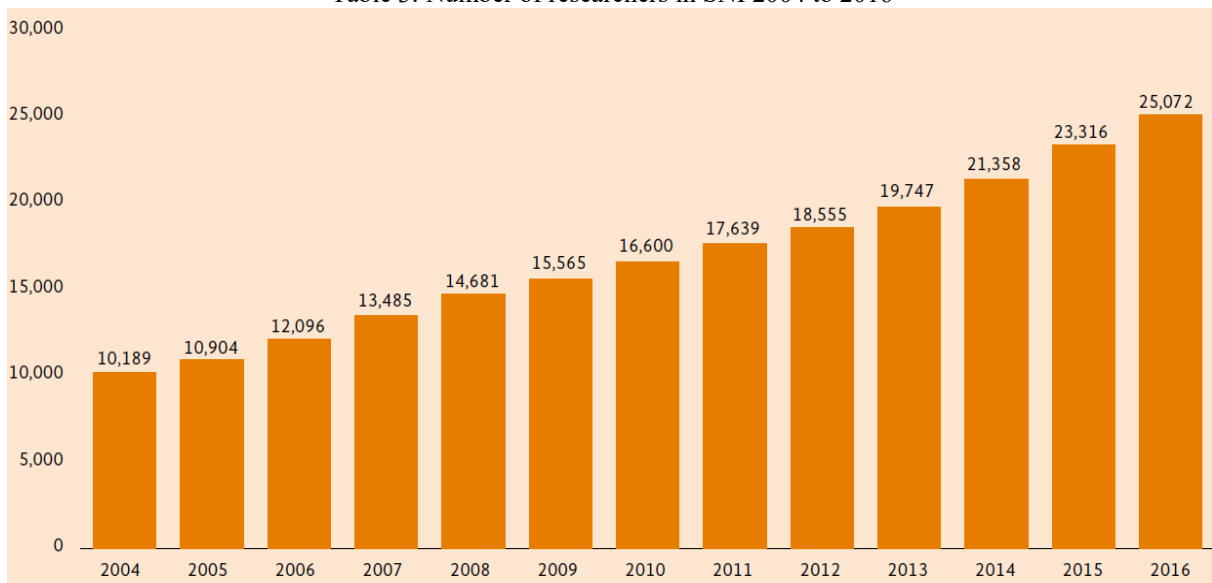


Source: CONACYT (2017).

Expressed in millions of Mexican pesos

As it can be seen in the analysis period, the budget for the SNI has increased by 166% from 2004 to 2016 and only during a six-year term there was an increase of 56.7% from 2012 to 2016. However, it has grown only 11.4 % the last year which highlights the support for this important stronghold of scientific research.

Table 3: Number of researchers in SNI 2004 to 2016

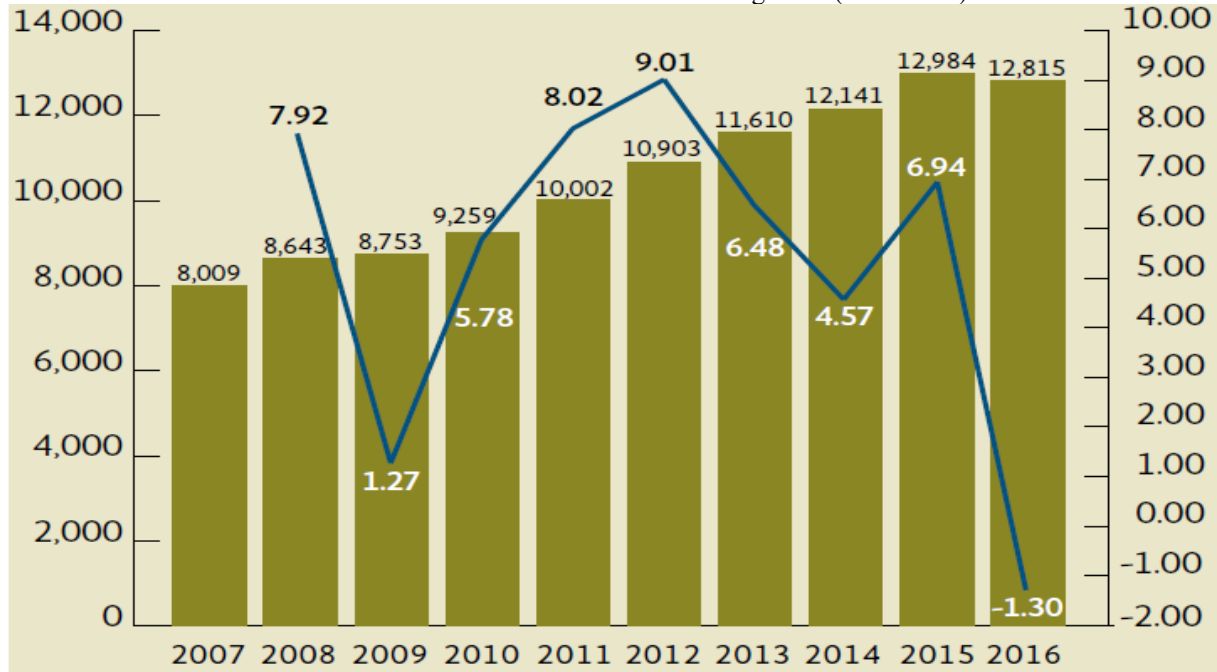


Source: CONACYT (2017).

As it can be seen, the SNI had 25072 members in 2016, 7.5% more than the 23316 members at the national level in 2015 and in 2004 there were 10189 members, which is an increase of 146.1% in comparison to 2016; and only in this six-year term there has there been an increase of 35.1% from 2012 to 2016 (CONACYT 2017).

However, one of the most important aspects for a recognized researcher is undoubtedly the publishing of their articles in indexed journals which is considered a measurement that reflects the success of the SNI supports. Consequently, it is possible to emphasize the increasing number of published articles of Mexicans which is analyzed in the following table.

Table 4: Publications of Mexicans and annual growth (2007-2016)



Source: CONACYT (2017), by query made in the databases: Database Incites Global Comparisons, Essential Science Indicators, Research Areas, Thomson Reuters, 2016, Date of access: 03/29/2017.

- Number of articles.
- Percentage variation.

As it can be seen from the previous table, the published works of Mexican increased from 8009 in 2007 to 12815 in 2016 with a growth of 60%. Just from 2012 to 2016 the published articles increased by 17.5 %, although there is a -1.3% drop in comparison to the last year of the analysis. Nevertheless it is considered that there are good figures of publications at national and international levels as well as highlighting the databases that were obtained (Database Incites Global Comparisons, Essential Science Indicators, Research Areas, Thomson Reuters), which shows that they are among the best publications.

National Program of Quality Postgraduate Studies (PNPC)

Firstly, it is necessary to establish the postgraduate distribution in Mexico where we find the following information:

Table 5: postgraduate distribution active in Mexico according to the regime, grade, and enrollment in 2014-2015.

Regime	Ph.D.	Masters	Specialty	Total of programs	% Total of Programs	Enrollment	% of the total
Private	431	3,603	833	4,867	57%	158,359	55%
Autonomous	491	1,208	580	2,279	27%	85,077	30%
Federal	203	397	180	780	9%	21,786	8%
State	48	318	36	402	5%	13,660	5%
Federal transferred	13	142	21	176	2%	8,442	3%
Total	1,186	5,668	1,650	8,504	100%	287,324	100%
% of the Total	14%	67%	19%	100%			

Source: PNPC 2017.

As it can be seen in the previous table, we can highlight that in Mexico there is an offer of 8,504 active postgraduate registered programs between 2014 and 2015 with a total of 287,324 students. 14% corresponds to doctorate level with 1,186 postgraduate students, 67% corresponds to a master's level with 5,668 students and 19% corresponds to a specialty level with 1,650 students. In this trend of ideas, we can highlight that in the private sector there are 4,867 postgraduate students (57%) and 3,637 that belong to the public sector (43%). Regarding the number of students, we can also highlight that there was an enrollment of 287,324 students, 55% of them are in the private sector with 158,359 students, whereas 45% (128,965 students) are part of the government sector.

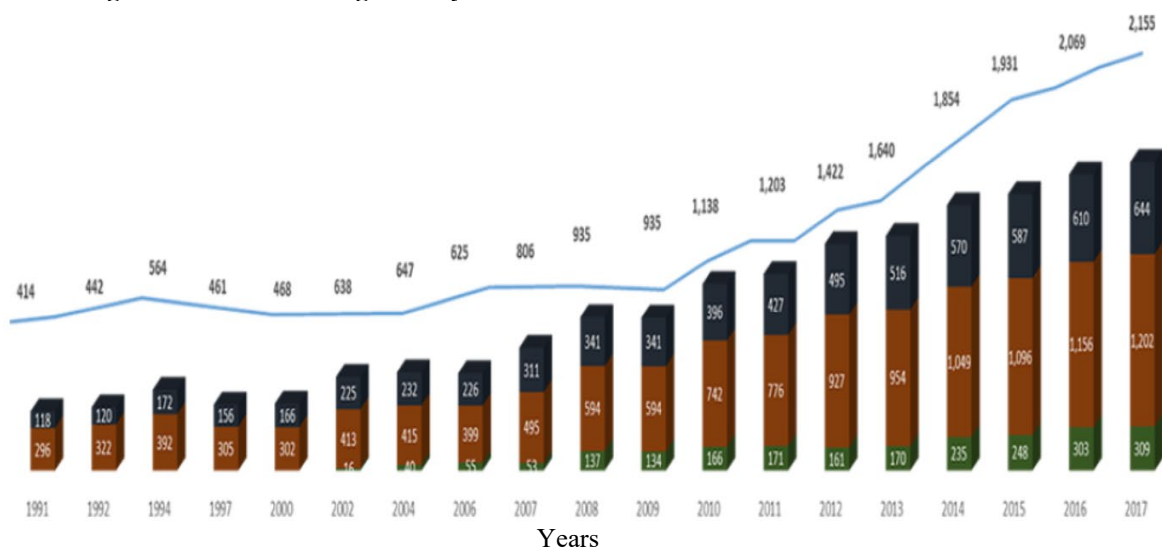
Regarding the PNPC, it is a program that was created in 1991, which was initially called "Padron de Excelencia" (Excellence Register), then it changed its name to "National Program for the Strengthening of Postgraduate Programs" (PNFP) from 2001 to 2006, emerging as the National Postgraduate Program in Quality (PNPC) in 2007, with the objective of recognizing the specialty, master's and Ph.D. programs that have the necessary elements to guarantee the relevance of their operation and obtain optimal results. To be part of the PNPC is a public acknowledgement of the quality of the program by the Ministry of Public Education and Conacyt, which derives from a rigorous evaluation process by academic peers. Additionally to the attainment of academic quality, the programs belonging to the PNPC have scholarships for full-time students, mixed scholarships for national and international research stays and provides postdoctoral scholarships to graduates of doctorate programs registered in the PNPC (CIDE 2018 and PNPC 2018).

The PNPC acknowledges four modalities for the integration of postgraduate programs which are described below (PNPC 2017):

1. "School or face-to-face. This modality recognizes the postgraduate programs in its two orientations:
The Graduate Programs with Research Orientation offered at the doctorate, master's and specialty levels in the different areas of knowledge.
The Graduate Programs with Professional Orientation offered at the doctorate, masters and specialty levels in order to promote the link with the sectors of society.
2. Medical specialties. Due to their academic-professional nature, and orientation to clinical and healthcare research, an appropriate methodology was designed for this type of postgraduate degree.
3. Postgraduate studies with the industry aim to strengthen the competitiveness and productivity of companies through the training of high-level human resources able to apply knowledge, develop technological solutions and with the ability to innovate.
4. Postgraduate courses in the out-of-school modality include a vision of context and definitions of aspects that are particularly relevant to this modality, specifying how educational quality is ensured in this type of programs taking into account: the management, evaluation of the learning, curricular and content design, organization, design of the academic core, results and cooperation with the sectors of society ".

Based on the four modalities mentioned, we can highlight the postgraduate courses that are part of the PNPC.

Table 6: Postgraduate courses recognized by the PNPC from 1991 to 2017



Source: PNPC (2017).

- Specialty
- Master's
- Ph.D.

From the previous table we can highlight that in 1991 (the year of its creation), the PNPC had only 414 registered postgraduate courses, 296 in Master's and 118 in Ph.D. There was a growth of 421% in 2017 with 2155 courses. Another noteworthy fact is the current distribution of postgraduate degrees with 309 programs of specialties which represents 14.3%, 1202 in Master's (55.8%) and Ph.D. with 644 (29.9%). Only from 2012 to 2017 there has been a global growth of 51.5% of postgraduate courses in the PNPC, but only the specialty courses grew in the same period by 91.9%. In terms of geographical distribution, we can highlight that 20% of PNPC postgraduate courses are offered in Mexico City and the remaining 80% in the states of the country.

As a fact of paramount importance, we could highlight the distribution of the different postgraduate courses in 2017, according to the institution's regime that offers it:

Table 7. Postgraduate distribution in PNPC in 2017

Regime	Ph.D.	Master's	Specialty	Total of programs	% Total of Programs
Private	33	75	26	134	6%
Center Conacyt	53	90	5	148	7%
Federal	120	183	62	365	17%
State	346	696	207	1,249	58%
Center of Research Federal	58	65		123	6%
Technological institutes	32	85	1	118	5%
Others	2	8	8	18	1%
Total	644	1,202	309	2,155	100%
% of the Total	30%	56%	14%	100%	

Source: PNPC (2017).

From the previous table we can point out that despite the postgraduate distribution in which the private sector concentrates 57% of the postgraduate students in Mexico, it only has 6% of postgraduate courses in the PNPC, which is the highest concentration in the PNPC. State institutions have 58% and, in the last place, federal institutions that represent only 17% of the PNPC.

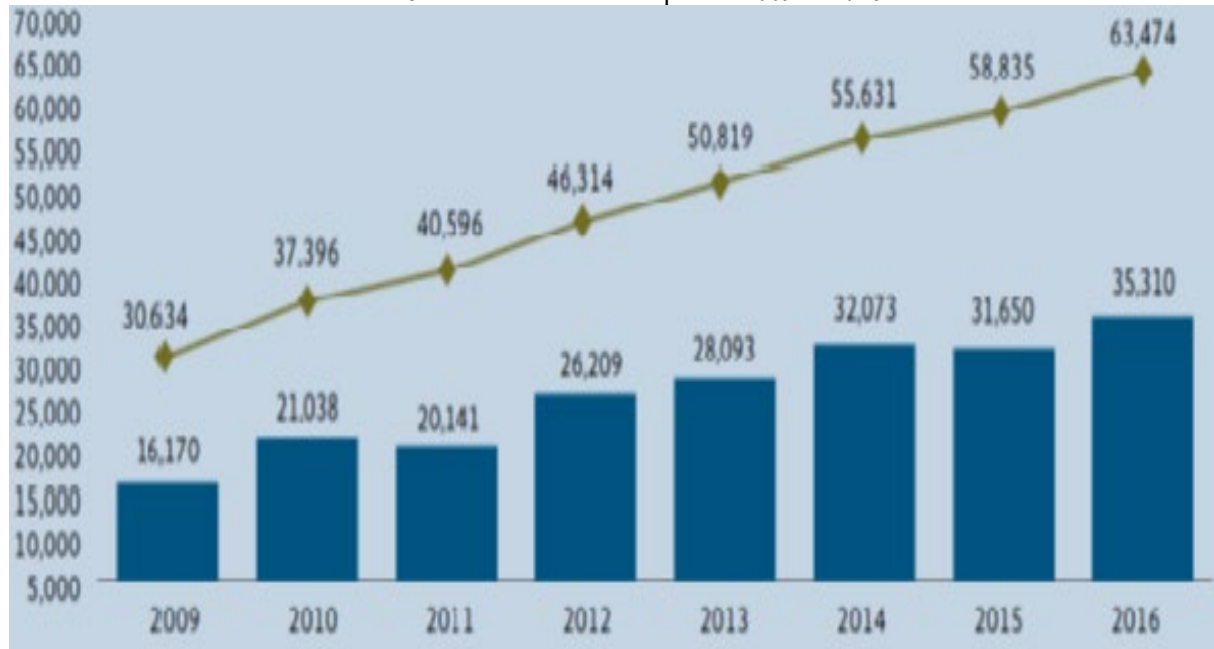
It is important to establish that the PNPC establishes four levels that depend on the level of development that the graduate program has according to the following PNPC classification (2018):

- Recently created. Programs that meet the basic criteria and standards of the PNPC reference framework.
- Developing. Programs with a positive academic prospection based on their improvement plan and on the feasible goals to achieve in the medium term.
- Consolidated. Programs that have national recognition for their relevance and impact in the formation of high-level human resources, in academic productivity and in collaboration with other sectors of society.
- International competition. Programs that have collaborations in the international arena through agreements that include the mobility of students and professors, co-management of theses and joint research projects.

Derived from the previous levels we can highlight that in 2017 there were 540 postgraduate programs of recent creation in the PNPC which represents 24% of the 2,155 programs that are part of the PNPC, 811 in Development which represent 38%, 597 Consolidated (28%) and 207 in International competition with just 10%. This highlights that the postgraduate programs are in constant development, as Recently created and Consolidated reach 62%, while International competition reaches only 10%, which requires a higher level of agreements with student and teacher mobility, joint international direction and more support with foreign universities in order to access this area.

Similarly, one of the most important factors for the entrance of institutions to the PNPC is represented by the scholarships that are awarded to students, a fact that we can verify in the following table.

Table 8: Number of scholarship from 2009 to 2016.



Source: CONACYT (2017)

■ Current scholarships
■ New scholarships

As it can be seen, the growth in the number of scholarships for postgraduate degrees is very important, as a total of 63,474 of them were awarded, 7.9% more scholarships than the 58,835 ones that were awarded in 2015. If we compare this with the 30,634 scholarships in 2009, it is possible to observe a growth of 107.2% in relation to 2016. It is worth noting that from the 63,474 scholarships granted in 2016, 56,797 were assigned to national postgraduate programs (89%) and 6,977 were assigned to abroad programs (11%).

It is worth noticing the amount received by the grantees, both national and international, as it is shown in the following two tables.

Table 9. Amount in national scholarships for 2018

Intended Level	UMA: Unit of Measurement and Update	Value in Mexican Pesos
Ph.D.	6.0	\$ 14,701.44
Master	4.5	\$ 11,026.08
Especiality	4.0	\$ 9,800.96

Source: Conacyt (2017)

It is important to mention the maintenance fee that students are entitled to have when studying a graduate degree in Mexico. The Ph.D. level has the highest value (\$14,701.44 Mexican Pesos), while a master's degree is \$ 11,026.08 Mexican Pesos and an specialty \$ 9,800.96 Mexican Pesos, in addition to having medical services from the Institute of Security and Social Services for State Workers (ISSSTE). As long as students are grantees they cannot provide services in any company for more than 8 hours a week, but the benefit is to support students who do not have a paid employment. Moreover, there is no difference between single and married grantees, which is a recognized aspect in international scholarships.

Table 10. Amount in international scholarships for 2018

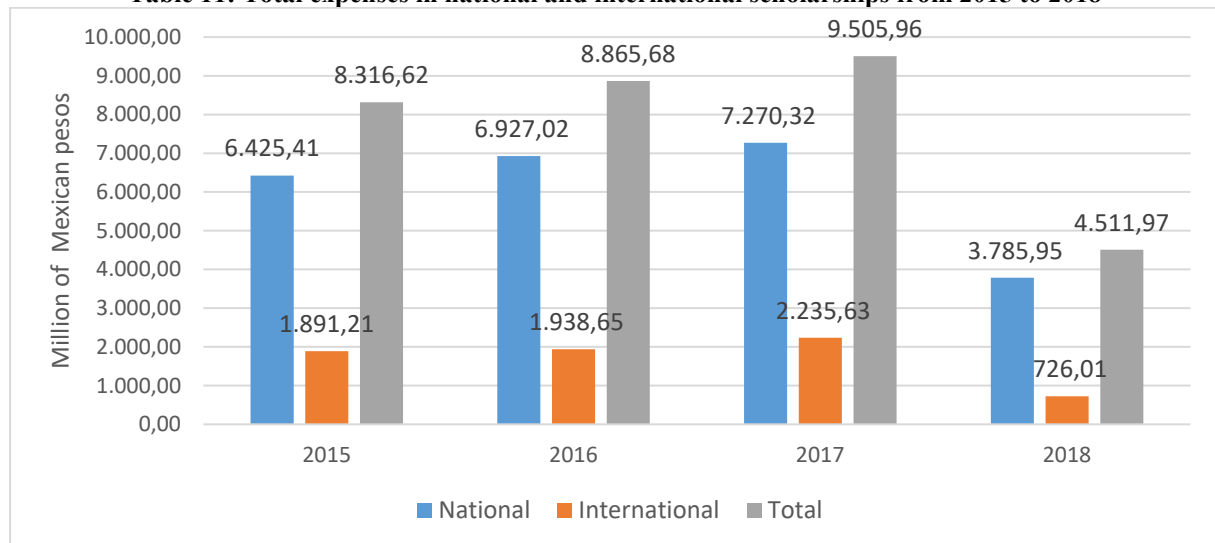
Region	Foreign currency	Single	Married
European Union	Euro	\$ 1,090.00	\$1,362.00
United Kingdom	Pound	\$ 770.00	\$963.00
London	Pound	\$ 880.00	\$ 1,073.00
Rest of the world	US Dollar	\$1,100.00	\$1,375.00

Source: Conacyt (2017)

When we talk about interns abroad there are four classifications in general that separate clearly the amount of money between single and married students who receive on average 25% more than single grantees. The fundamental difference is in the European Union and the United Kingdom, and the rest of the world, because although in the United Kingdom there are two classifications among interns in London and in the rest of the United Kingdom, there is an important difference in the cost of living in London regarding the rest of the country. Thus, for single students in the countries of the European Union the support is 1,090 Euros, 880 pounds in London and 770 pounds in the rest of the United Kingdom, and for the rest of the world the support reaches \$1,100 US dollars or its equivalent in the country where they reside.

Finally, there is the total cost of the scholarship program. The information is presented as it was mandatory to mention the cost of the various programs indicated in the Income Tax Law in its Article 90 but this information was not available for previous years, so there is only information from 2015 to 2018, the latter only for the first half of the year.

Table 11: Total expenses in national and international scholarships from 2015 to 2018



Source: Conacyt (2018).

2018: Only from January to June

We can highlight from the previous table that in 2017, \$7,270 million pesos were used in national scholarships, 4.9% more than in 2016, which were \$ 6,927 million pesos and only \$ 3,786 million pesos were applied from January to June 2018.

Regarding foreign scholarships in 2017, \$ 2,354 million pesos were spent, 15.3% more than the amount used in 2016, which was \$ 1,939 million pesos and \$ 726 million pesos were applied only from January to June 2018. The total cost of the scholarship program was \$ 9506 million in 2017, 7.22% more than the year 2016 with its \$ 8,866 million pesos.

Therefore, if we consider the \$ 8866 million pesos used in scholarships in 2016 in the 63474 granted scholarships, compared to the \$ 4448 million pesos in the SNI in its 25072 members, we can establish that the postgraduate scholarships represent 99% more of what was spent in the SNI, benefiting a total of 88,546 people. If we consider

that in 2015 there was a population of 119.5 million Mexicans (INEGI, 2018), this implies that only 0.074% of the national population obtained this benefit from these two programs. It may seem very little but it must be remembered that the financial supports in these two programs range from \$ 9,800.96 Mexican Pesos for national specialty grantees up to \$ 34,303.36, for SNI level III, which represent important economic and social supports.

Conclusions:

The importance of Conacyt is its commitment to promote and boost the development of science and technology in Mexico. It has faced the problem of the use of natural resources by implementing actions to address deficiencies in health, food, agricultural production, industrialization, education and rural development through the decentralization of research. However, their essential programs pose different challenges in their actions nowadays.

Accordingly, a challenge it faced was the budget cut approved by the federal government derived from the fall in the price of oil in 2017, which manifested itself in a reduction of -14.8%. By comparing this information with the gross domestic product. (GDP) of 2016 and Conacyt it represents only 0.187% and in 2015 it was 0.186% of the GDP. In 2012 it only represented 0.126% of the GDP and it is very far from the 1% of the GDP that the constitutional article 9 Bis states in the Law on Science and Technology which should be used to support the national cost in this area. It is important to emphasize that this constitutional article was published on September 1, 2004 and it had to be obligatory no later than 2006, which obviously has not been implemented.

The information discussed above refers to the financial data on the National Council of Science and Technology in general, but by analyzing their programs in a specific way, it can be observed that the budget for the SNI has increased 166% from 2004 to 2016 and just in a six-year period there was an increase of 56.7% from 2012 to 2016, but in the last year there was a growth of only 11.4%. This highlights the support for this important institution of scientific research. Similarly, the SNI had increased the number of members in 2016 as it had 25072 members, an increase of 7.5% more than the 23316 members who were registered nationally in 2015 and in 2004 they were 10189 members, which shows an increase of 146.1% in relation to 2004 (CONACYT, 2017). This has led to an increase in the number of publications made by Mexicans with SNI support from 8009 in 2007 to 12815 in 2016, an increase of 60% growth, reflecting the overall success of the SNI and its impact on Mexican publications.

Regarding the PNPC, it can be seen that in Mexico there is an offer of 8,504 active postgraduate courses registered between 2014 and 2015 with a total of 287,324 students. From these, 14% corresponds to the doctorate level with 1,186 postgraduate degrees, 67% of master's degree with 5,668 postgraduate courses and 19% of specialty degree with 1,650 postgraduate courses. Regarding postgraduate courses with recognition for their quality by the PNPC, the distribution in the four modalities for the integration of postgraduate programs in 2017, there were 540 postgraduate programs of recent creation, representing 24%, 811 in Development, which represents 38%, 97 Consolidated with 28% and 207 in International Competition with just 10%. This highlights that postgraduate courses are in constant development, since in Recent creation and Consolidated engulf 62%, while international competition reaches only 10%.

Regarding foreign scholarships, \$ 2,354 million pesos were disbursed in 2017, 15.3% more than the amount spent in 2016, which was \$ 1,939 million pesos, and \$ 729 million pesos were applied only from January to June 2018. It is important to increase the financial support for postgraduate internationalization, since M \$ 7,270 million pesos were used in Mexico in 2017 with a 5% increase in relation to the M \$ 6,927 million pesos spent in 2016.

It is very important to point out that the scholarships granted in 2016 were 63474, and that in the SNI there were 25072 members. We can conclude that these two programs have benefited a total of 88,546 people, if we consider that in 2015 there was a population of 119.5 million Mexicans (INEGI, 2018), this implies that only 0.074% of the national population benefited from these two programs, which are supports of great economic and social importance for an important professional development.

Under this general view we can conclude that although the support that has been given to CONACYT in the present federal administration is important, this is insufficient to achieve a harmonious development of the different programs managed by this important institution in Mexico and that it is essential that it achieves what is established in the Science and Technology Law that mentions that at least 1% of GDP must be spent in this area.

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Impact Of Digital Technologies On Pedagogical Practice In Primary Education

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Abstract

Rare are the teachers who have never used information and communication technologies (ICT) in an educational context. We intend to know the impact of the inclusion of ICT in the learning process by listening to primary teachers in service and students in an internship situation, the latter in the scope of initial teacher training. With regard to in-service teachers, a case study of a quantitative and qualitative nature was chosen in the Porto region in 2012. The analysis of a question of a questionnaire survey of about 1300 teachers, teaching in public and private institutions in the Porto region, is presented. Of these, 188 referred to perform good practices with digital technologies being eleven selected for interview, for which the analysis of the good practices referred to is presented. With regard to trainee students, in the scope of initial teacher training, 15 reflective narratives selected from two professional masters were analyzed. The analysis of the questionnaire question allowed to verify the impact of ICT in educational practices and the triangulation of data allowed on the one hand to clarify the conception of good practices and to find the principles of the same ones, on the other hand to verify the evolution of educational practices in terms of the selected resources and methodologies. We intend to contribute to a reflection on the impact of ICT in primary education and on the responses that training institutions can give on this issue.

Key Words: *Good practices with ICT, Impact of ICT in primary education, Methodological renewal.*

Introduction

Pink (2006) highlights the emergence of an era of accessible opportunities for those who develop digital skills and a new intelligence paradigm capable of adapting to the new challenges of the digital era. Castells (2000) also highlights the social movements of the network society, fostered by emerging technologies, which facilitate interactions and highlights the value of education to take advantage of these opportunities for access and development. In fact, the increasing digitalization in the world, in the most varied areas, imposes, in the field of education, the need to rethink teacher education for the implementation of practices that form the exercise of the current citizen, namely to enable students with skills to help them challenges of contemporary society, as reinforced by the OECD framework (2018). Thus, the context of education requires renewal not only at the organizational and political levels, but above all in the context of educational practices, at didactic and pedagogical level, which means methodological renewal, inclusion of new didactic resources, namely the digital ones that stimulate and reinforce the field of digital literacy important for the full exercise of citizenship

According to Portugal INCoDe.2030 (2017) and OECD (2018), the preparation of students to be responsible and conscientious in the present and in the future requires the ability to coexist with digital technologies and comprehension by the early acquisition of knowledge at the user level often intervening, which means developing logical reasoning skills, collaborative work and design, and code development skills such as programming language knowledge. It requires the ability to think critically and creatively by transforming reality through reflection, anticipation and action. It requires empathy, curiosity, resilience, adaptability, responsibility, ability to act, mobilizing knowledge with rigor and coherence, solving problems with effectiveness, trust, respect for self and others.

In this scenario, renewal presupposes the design of educational practices adjusted to the new social and technological reality. It should be noted that the lack of preparation of the teachers makes them inflexible and reproductive of more traditional practices, not being able to create a good learning environment, so it is important to know the contours of their own knowledge and their mobilization in the course of their practices, as Gomes (2018) states. The author reinforces that teacher education should not only focus on knowledge of curricular content, but also focus on didactic knowledge to guide students to learn to learn. In fact, in the past, students were

influenced by the teacher's status and knowledge, but today they devalue the school as a source of access to knowledge by questioning the teacher's competence or decisions and valuing affective and relational aspects (Jesus, 2008). This change of focus may be due to the easy access of the information, on the one hand, and to the type of methodology adopted by the teacher, on the other hand, that may not correspond to the interests of the students. Teacher training and motivation for success and professional achievement is important in the pedagogical relationship. According to the same author (idem), it is important that the teacher has a global perspective on the most appropriate working hypotheses for a given educational moment, thus reinforcing the importance of a teacher's view on the trends of education in the present and in the social future, which presupposes the need for teachers to develop their skills in the context of initial teacher training and lifelong learning, not only in the scientific dimension, but also in adaptability to the new era, so that they can respond with quality to the need and expectations of their students. The active and participatory methodologies that promote the student and his / her proximity to the teacher and the surrounding reality may motivate the students and develop fundamental basic skills in the answers to the current challenges.

A study *Future Vision +15*, developed by the Telefónica Vivo Foundation, shows the relevance of the consolidation of social and emotional competences in school curricula and in the educational processes that are increasingly close to the communities. It also highlights the inclusion of technology with special emphasis on the programming language in the learning process, from early childhood, and as a value in the personalization of education. This vision is part of a process of innovation that sees the concrete person, who values the humanist profile by placing learning as a center of educational process and inclusion as essential in the attention to differences. These same aspects are mentioned in the student profile for the 20th century XXI (Oliveira-Martins, 2017) and contribute to achieve a new model of development that, besides the utilitarian and economist view, includes the integration of multiple dimensions of human existence to build a sustainable future and a dignified life (UNESCO, 2016). This opportunity to reconsider the articulation between education and social development re-contextualizes education to ensure sustainable development in an interdependent world.

In fact, bringing schools closer to the community increases the challenges in preparing students for the multiple demands of contemporary society, so there is a need to combine knowledge, skills, attitudes and values that enable people to act in diverse contexts by making free and informed decisions, in order to participate actively and responsibly in society (Oliveira-Martins, 2017). In response to this complexity, we live a change from a curricular point of view, since enumerative encyclopedic accumulation is replaced by the deepening of the complexity of the essential knowledge, promoting qualitative gains in solidity and deep use of knowledge, emphasizing the need to implement and organize the teaching and learning within the framework of curricular, interdisciplinary and transdisciplinary articulation (OCDE, 2018; Roldão, Peralta & Martins, 2017).

Rethinking education in a changing, plural and interconnected world and for the common good imposes social inclusion and transformation of learning processes, namely the process of acquisition, validation and use of knowledge, as well as fundamental issues of knowledge creation and control (UNESCO, 2018). It also requires the inclusion of resources in supports other than conventional ones and educational practices that respond to potentialities, expectations and needs within a common and plural educational project (Decree-Law No. 54/2018, of 6 July). This requires a conscious reflection of the teacher about what children learn, how they learn, where and how they mobilize what they learn, which implies creativity and ability to select resources, ways of teaching to learn to learn, evaluation processes and dissemination of knowledge. It changes the role of the actors in education and teachers assume great challenges and responsibilities in the process of promoting learning opportunity as a collective individual and social effort.

In this article, we intend to know the impact of the inclusion of ICT in the educational practices with ICT by primary teachers in service and in the stage of training. Considering different temporal moments, we can understand the evolution of educational practices in recent times and realize the way in which higher education responds to current challenges.

Methodology

The opinion of primary school teachers, teaching in public and private schools in 2010 was recorded, as well as the opinion of trainee students in initial teacher education, who were carrying out the supervised educational practice in primary education, in the 2016/2017 and 2017/2018.

Thus, in the case of in-service teachers, a quantitative and qualitative study was carried out by questionnaire, having collected about 1300 valid answers, corresponding to 41% of the 1st Cycle teachers in the region.

Of these teachers, 188 reported having performed good practices, and 11 teachers were selected because they presented practices that were more significant in terms of methodologies, articulation of knowledge and ICT resources used.

- In our sample, 89% are female and 11% male; 14% are younger (22-28 years of age) and 25% are older (48 to 65 years of age); with ages ranging from 29 to 47 years are 61%. Regarding education, 78% are graduates, 10% are bachelors and 12% have postgraduate, master's or doctoral degrees. In addition, 87% teach in a public institutions and 14% in private institutions. The teachers interviewed fit into a teaching profile with ages between 29 and 47 years of age, 5 and 33 years of professional service.

With respect to the trainee teachers of two professional master's degrees, 15 reflective narratives carried out by them during these years, were analyzed. The sample involves young female students who practice in public schools.

For the quantitative analysis the SPSS program was used and for the interviews a content analysis was done.

Findings

(a) Impact of information and communication technologies, according to in-service teachers

We wanted to understand the opinions of teachers in service regarding the impact of information and communication technologies on some educational practices, namely: information research by students; discussion of ideas in forums; sharing of digital files; preparation of text works; preparation of a self-learning diary; presentation with multimedia; conducting research projects and problem solving; interactive exercises.

It should be noted, however, that it has been found that the evaluation of some variables related to the effect of ICT depends on the age of teachers, so that older people are more likely to consider that ICTs deconcentrate pupils and that it occupies them quite a lot of time, and that while motivating students do not notice enough differences in learning. Perhaps this result mirrors the difficulty that these teachers have in the correct integration of digital resources, since in themselves they do not guarantee success in education, especially if a traditional methodology is used. There is thus a need for ICT training, but also time to deconstruct internalized models and renew methodological strategies. On the other hand, young people are likely to recognize that ICT enables students to engage in learning and improve school outcomes. This result shows that initial teacher training has responded to the demand for ICT inclusion by providing future teachers with ICT training. It was also found that the probability of asserting that all students are involved in learning is higher in teachers who teach in private institutions and that the probability of claiming that ICT takes up a lot of time is higher in teachers who teach in public institutions. It should be noted that teachers in private institutions are younger and in public are older.

The analysis of the evaluation of the effect of ICT on the activities carried out by the students reveals that there are independent variables and others that establish a significant relation of dependence. These last variables are presented in the following tables (1, 2, 3 4, 5, 6.7 and 8), that evaluate the effect of ICT in different activities (Results according to the Chi-Square Test with 95% confidence):

Table 1 - Evaluation of the effect of ICT in information research

<i>Search Information</i>		Yes %	No %	Total %	p_value
Allows all students to be involved in learning	Anything	11,5	6,5	7,3	0,044
	Little	7,6	13,3	12,3	
	Enough	59,9	61,3	61,1	
	Much	21,0	18,9	19,2	
	Total	100,0	100,0	100,0	

Table 2 - Evaluation of the effect of ICT in debating ideas in Forums

<i>Discuss ideas in Forums</i>		Yes %	No %	Total %	p_value
Allows all students to be involved in learning	Anything	0,0	7,5	7,3	0,015
	Little	17,6	12,2	12,3	
	Enough	35,3	61,6	61,1	
	Much	47,1	18,7	19,2	
	Total	100,0	100,0	100,0	

Table 3 - Assessing the effect of ICT on file sharing

<i>Share digital files</i>		Yes %	No %	Total %	p_value
Improves school results	Anything	5,0	4,1	4,2	0,037
	Little	25,0	23,9	23,9	
	Enough	47,5	62,8	62,1	
	Much	22,5	9,2	9,8	
	Total	100,0	100,0	100,0	
It takes a lot of time	Anything	11,4	22,3	21,9	0,022
	Little	37,1	38,9	38,8	
	Enough	34,3	33,3	33,4	
	Much	17,1	5,4	5,9	
	Total	100,0	100,0	100,0	

Table 4 -

Evaluation of the effect of ICTs on writing ICT text

Table 5

<i>Elaborate text works with ICT</i>		Yes %	No %	Total %	p_value
Allows all students to be involved in learning	Anything	6,7	10,3	7,3	0,006
	Little	10,9	18,9	12,3	
	Enough	63,0	52,6	61,1	
	Much	19,5	18,3	19,2	
	Total	100,0	100,0	100,0	
Allows learning focused on understanding and participation	Anything	3,6	8,2	4,5	0,038
	Little	15,0	17,5	15,5	
	Enough	64,2	56,1	62,7	
	Much	17,2	18,1	17,3	
	Total	100,0	100,0	100,0	
Encourages collaborative work	Anything	5,2	9,9	6,0	0,000
	Little	15,3	26,2	17,3	
	Enough	63,4	47,7	60,5	
	Much	16,1	16,3	16,1	
	Total	100,0	100,0	100,0	

Evaluation of the effect of ICT in the development of a self-learning diary

<i>Elaborate a self-learning diary</i>		Yes %	No %	Total %	p_value *
Improves school results	Anything	0,0	4,4	4,2	0,010
	Little	23,8	23,9	23,9	
	Enough	52,4	62,6	62,1	
	Much	23,8	9,1	9,8	
	Total	100,0	100,0	100,0	

Table 6 - Evaluation of the effect of ICT in conducting presentation with multimedia

<i>Perform presentation with multimedia</i>		Yes %	No %	Total %	p_value
Allows all students to be involved in learning	Anything	5,0	9,2	7,3	0,000
	Little	9,2	14,8	12,3	
	Enough	62,6	59,8	61,1	
	Much	23,2	16,1	19,2	
	Total	100,0	100,0	100,0	
Distracts students	Anything	59,7	60,5	60,1	0,005
	Little	37,9	32,1	34,8	
	Enough	1,7	5,9	3,9	
	Much	0,7	1,5	1,2	
	Total	100,0	100,0	100,0	
Improves school results	Anything	2,9	5,3	4,2	0,016
	Little	20,2	27,0	23,9	
	Enough	66,7	58,4	62,1	
	Much	10,2	9,4	9,8	
	Total	100,0	100,0	100,0	
Motivates students but does not notice difference in learning	Anything	32,8	24,3	28,2	0,011
	Little	42,3	41,6	41,9	
	Enough	20,4	27,7	24,3	
	Much	4,5	6,4	5,5	
	Total	100,0	100,0	100,0	

Evaluation of the effect of ICT in developing research projects and problem solving

<i>Develop research projects and problem solving</i>		Yes %	No %	Total %	p_value
Allows all students to be involved in learning	Anything	0,6	8,6	7,3	0,000
	Little	7,8	13,2	12,3	
	Enough	62,3	60,8	61,1	
	Much	29,2	17,3	19,2	
	Total	100,0	100,0	100,0	
Improves school results	Anything	0,7	4,8	4,2	0,000
	Little	17,2	25,2	23,9	
	Enough	64,8	61,6	62,1	
	Much	17,2	8,4	9,8	
	Total	100,0	100,0	100,0	
Allows for more learning focused on understanding and participation	Anything	1,3	5,1	4,5	0,006
	Little	10,7	16,4	15,5	
	Enough	63,1	62,6	62,7	
	Much	24,8	15,9	17,3	
	Total	100,0	100,0	100,0	
Encourages collaborative work	Anything	3,3	6,6	6,0	0,003
	Little	11,8	18,4	17,3	
	Enough	60,5	60,1	60,6	
	Much	24,8	14,4	16,1	
	Total	100,0	100,0	100,0	

Table 8 - Evaluation of the effect of ICT in solving interactive exercises

<i>Solve interactive exercises</i>		Yes %	No %	Total %	p_value
Allows all students to be involved in learning	Anything	4,5	9,3	7,3	0,000
	Little	9,8	14,2	12,3	
	Enough	60,4	61,6	61,1	
	Much	25,3	14,9	19,2	
	Total	100,0	100,0	100,0	
Distracting students	Anything	66,1	55,5	60,1	0,002
	Little	30,6	38,0	34,8	
	Enough	1,9	5,5	3,9	
	Much	1,3	1,0	1,2	
	Total	100,0	100,0	100,0	
Improves school results	Anything	2,0	5,8	4,2	0,000

<i>Solve interactive exercises</i>		Yes %	No %	Total %	p_value
	Little	17,5	28,7	23,9	
	Enough	67,8	57,9	62,1	
	Much	12,7	7,6	9,8	
	Total	100,0	100,0	100,0	
Allows for more learning focused on understanding and participation	Anything	1,3	6,8	4,5	0,000
	Little	12,8	17,4	15,5	
	Enough	66,2	60,1	62,7	
	Much	19,6	15,7	17,3	
Encourages collaborative work	Total	100,0	100,0	100,0	0,000
	Anything	2,8	8,3	6,0	
	Little	16,3	18,0	17,3	
	Enough	61,7	59,7	60,5	
Motivates students but does not notice difference in learning	Much	19,2	14,0	16,1	0,006
	Total	100,0	100,0	100,0	
	Anything	32,5	25,0	28,2	
	Little	43,8	40,5	41,9	
	Enough	19,8	27,7	24,3	
	Much	4,0	6,7	5,5	
	Total	100,0	100,0	100,0	

Looking at the tables (1, 2, 3, 4, 5, 6, 7, and 8) above it is concluded that regardless of whether or not ICT activities are carried out, teachers generally have positive opinions, but those who carry out that activities that have a higher probability of recognizing better results of activities. Effectively, the correlation between the activities developed and the effects verified, shows that ICT has the potential to improve the quality of education, improving the effects of activities, which depend on the type of activity:

- (1) the probability of involving all students in learning is higher in teachers who integrate ICT in the following activities: information research; discussion of ideas in forums; preparation of text works; conducting presentations with multimedia; develop research and problem solving projects, and engage in interactive exercises.
- (2) the probability of greatly improving school outcomes is more significant for teachers integrating ICT to share files, conduct interactive exercises, develop a self-learning diary (portfolios), present content, develop research projects and solve problems. However, the probability of those who do not integrate ICT affirm that they improve a lot is high, revealing the potentiality of the activity by itself.
- (3) the probability of saying that it takes up a lot of time is higher in teachers who use ICT to share digital files.
- (4) the probability of allowing a more focused learning in comprehension and participation is quite high in the students who write text work with ICT, but very much in those who develop research projects and solve problems with ICT and perform interactive exercises.
- (5) the probability of fostering collaborative work is quite a lot in those who work on ICT (although the differences are not significant), develop research projects and problem solving, and engage in interactive exercises.
- (6) the probability of deconcentrating students is quite a lot in those who do not use multimedia in the presentations they perform and in those who do not perform interactive exercises.
- (7) the probability of feeling motivated students, but with no impact on learning, is higher in those who do not perform multimedia learning nor perform interactive exercises.

In addition, there is a higher probability of the teachers who are trained, the ones who carry out the activities most, namely to plan the work with ICT resources and to use a new working methodology, designing innovative strategies. Although most recognize that they do not use or use few times a new work methodology and self-regulating learning strategies so that the student learns to research and carry out collaborative projects. This result shows that there are factors that inhibit the inclusion of ICTs in education, as shown by Quadros-Flores, Flores and Ramos (2018).

(b) Impact of information and communication technologies on educational practices, according to in-service teachers interviewed

Of the 188 in-service teachers who reported good ICT practice, we interviewed 11 teachers. These teachers have more than five years of service and less than 33 years, which shows that it is not enough to have ICT knowledge (higher in those who complete the initial training), but also some professional experience is required. The analysis of the interviews allowed the categorization of a simple model in order to clearly translate the objectives of the lesson, the curriculum integration, the selected methodology and resources, and also the observed impact. About 90 examples of lessons that teachers believed were good practice were built. Their analysis shows that there are three categories in the design of good practices: the *context*, the *problem* and the *solution* (Figure 1), revealing that the methodology of design and problem-based learning are fundamental today and that ICTs favor the realization.

Figure 1 Categories of good



practice

In addition, the analysis of is no evidence of a practices, they do not reinforce

of methodological changes in order to recreate practices in order to form citizens who are ready for the 21st century, so that they are student-centered practices and that develop research, information selection and interpretation skills, with open knowledge and skills for continuous and autonomous learning, as highlighted by Area (2007) and Manereo and Sources (2005). Moreover, having been asked to describe good practices with ICT, it was found that the models referred to drew up practices transformed with some creativity, originality, efficiency and utility. They were practices that developed other competences, besides the curricular ones, that demanded a different role from the part of the student and the teacher. These practices also showed impacts on the educational process and on the learning outcomes, so they satisfied the actors of education.

good practice reveals that although there discontinuity between old and new traditional methods, as they manifest the birth

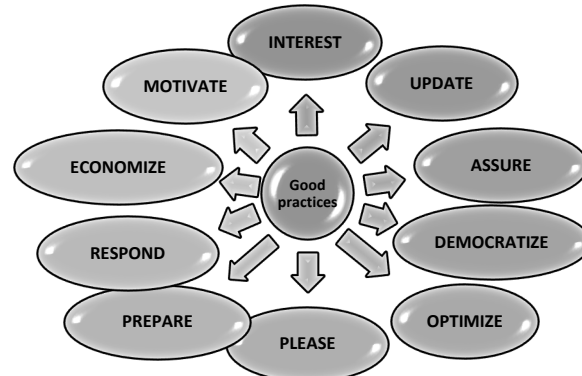


Figure 2 Impact of good practice

The content analysis of teachers' words allowed us to construct Figure 3, which shows that good practices in the learning process are current, inclusive practices that interest, motivate, respond and prepare students and which also ensure, satisfy, save, and democratize.

Based on the seven basic principles of good practice referred to by Epper (2004) and Cabero and Román (2006), we wanted to understand the frequency of these principles in the good practices mentioned by teachers in service. It was found that we could not limit ourselves to the seven principles of good practice insofar as others, also significant ones, were mentioned. Thus, we present the sixteen principles of good practice more frequent in educational practices (Figure 3). Good ICT practices encourage problem-solving, communicate high expectations, develop soft skills, respect the diversity of talents and ways of learning, promote satisfaction, increase classroom performance, improve school performance, facilitate the relationship between the school and the family, stimulate active learning, moments of cooperation / collaboration, among others.

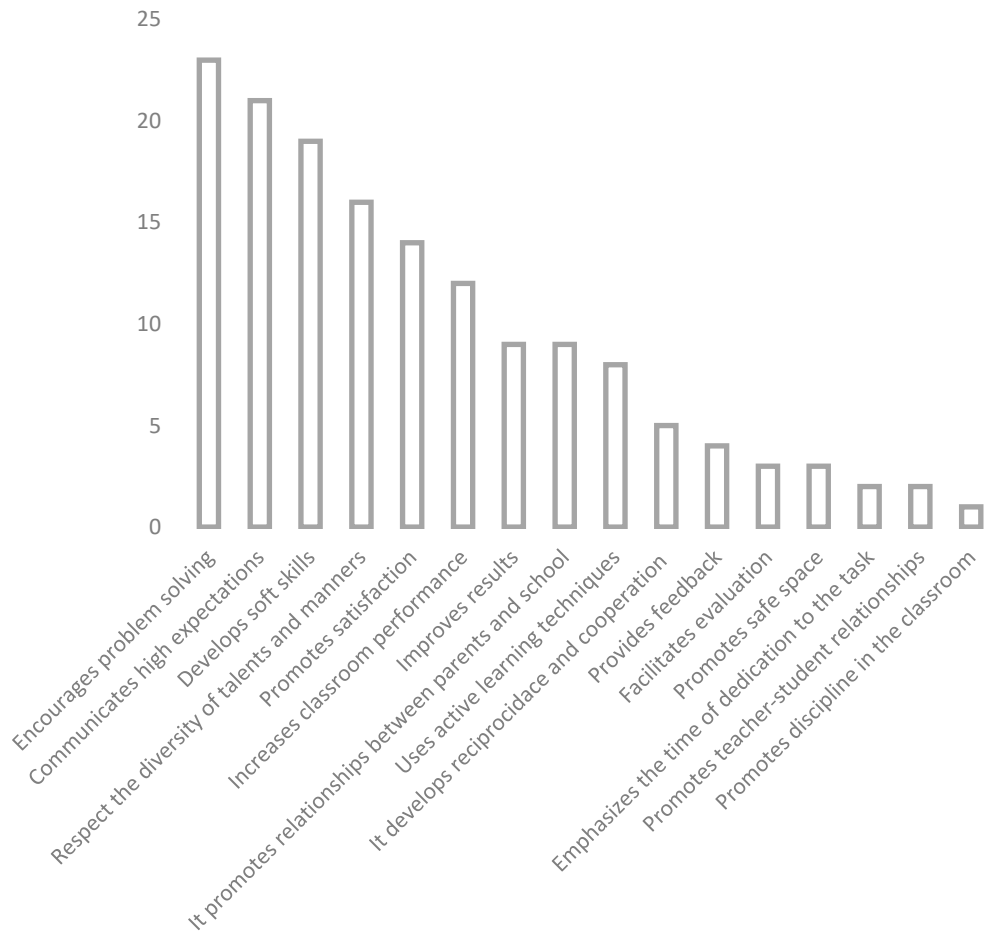


Figure 3 Frequency of good practice principles

(c) Comparing educational practices in different spaces and dimensions

According to our sample, regarding the teachers in service, the youngest ones have the most training in ICT, and we are curious to perceive what kind of practices students carry out during the supervised educational practice in order to understand the evolution of ICT integration.

- Briefly, good practices referred to by in-service teachers (the eleven teachers selected by the best practices) already revealed some methodologies, resources and practices that tried to escape from the traditional teaching. Here are some examples:
- *Methodologies* - WebQuest, curricular articulation, project learning and problem solving, ubiquitous.
- *Resources* - Word, CD Software, Internet: web sites, Moodle, Blogue, Interactive whiteboards, Virtual School, video projector.
- *Educational Practices* - "Students watch a movie, reflect critically on the subject and work collaboratively on the WebQuest in solving the problem"; "Students turn on the computer to consult, or write the summary"; "Teacher puts the ranking tests on the computer and these are discussed in the class"; "The teacher starts the lesson with a video ...", "student accesses the evaluation sheet ... solve doubts on the internet"; Interactive whiteboard (QIM) - "the teacher keeps the notes of the class and sends them by email to the student / parents"; "The teacher writes, explains in the QIM and the students perform interactive exercises"; "Students carry out projects to solve problems, research outside school"; "The teacher publishes curricular contents in the Moodle and the students access outside the school", "the teacher creates resources to stimulate the reading; guided the students in the discovery "; "The students took home the links, accessed and presented to their colleagues what they learned." In the classroom students go to the site to develop reasoning for mental calculation, take the links home, with their codes, to train, "students post to the class blog"; "the teacher teaches hypertext"; "The teacher puts stories online,

hotpotatoes in Moodle"; "The student uses CD educational software"; "Students make online dictionary"; "Read the stories and the teacher records them to correct reading"; "The teacher uses CD"; "In a group, students create stories with images from the Internet"; "Rewrite in word processor and autocorrect errors"; "Use virtual school"; "Students use Movie Maker to make video."

In a first exploratory analysis to the narratives of the trainee students they reveal common themes, although they present new dimensions. We give the example of *WebQuest* which is a web-oriented research, supported by collaborative principles. Usually used in a classroom, *WebQuest* is limited to the interaction of children with information that will make sense to them throughout the stages (Dodge, 2006), insofar as the child establishes a relationship with information to give him meaning: introduction, task, process, conclusion and evaluation. The registration of the interviews of the teachers in service, shows simple *WebQuests*, direct that involve a curricular content, that interact with other curricular areas. Ends with a group presentation to colleagues. The resources used are just the computer and the *WEB*. The registration of the narratives of the trainee teachers tells us about *WebQuest* in the same line, but they are more demanding in terms of processes and tasks, since they require the integration of several technological resources (*smartphone, iPad, QRCode, ...*), (*video, PowerPoint, Comic, eBook, Avatar ...*), hosted in *Google Drive* allowing the construction of knowledge in the form of *Wiki*. It stimulates, therefore, the triangulation of competences (creativity, literacy, research, decision, presentation, argumentation and foundation) in the execution of tasks, the possibility of interacting with the reality of the world (for example, according to a budget, to simulate the purchase of an airplane ticket, to travel in the country collecting information and images of possible memories as evidences of the culture of the country, to argue with the discussion of the theme of the lesson and resolution of the problem). Trainee teachers build *WebQuests*, more up-to-date due to technological evolution. In addition, its resolution requires the revisiting of different curricular areas in a multidisciplinary and transdisciplinary way, ending not only with the presentation by the groups and collective discussion, but also with a conclusion of the work in an online book format. This evolution also reveals another trend currently discussed and implemented in Portugal: the project of autonomy and curricular flexibility (Dispatch-Law no. 5908/2017, of July 5, 2017) articulated with the profile of the student at the end of compulsory schooling (Oliveira-Martins, 2017) that includes transversal, transdisciplinary competences in a network that mobilizes knowledge, skills, attitudes and values.

It should also be pointed out that in the narratives of trainee teachers we find more active methodologies, absent from the good practices of in-service teachers, as well as other resources that stimulated new strategies and developed other skills closer to the current reality. Due to their relevance and extension, the mentioned narratives will be object of analysis in later publications.

Conclusions

Being aware of social and technological changes means considering a problem in education that requires measures that constitute an effective intervention in order to respond to the demands of a new social, educational and economic paradigm. It was found that these measures are beginning to take shape in order to find a teaching and student profile capable of responding to the demands of contemporary society. In this scenario, emerging technologies are facilitators of opportunities and possibilities, so they are an added value in the learning processes, but require increased training for teachers for their good use in an educational context. But they require more training for teachers to be used in an educational context. What do teachers think about digital resources? What impact on the learning process? What educational practices are designed in this new educational scenario? Who prepares them?

It was found that teachers have a positive opinion about the impact of ICT on education, but it is those who include them in their educational practices who are most likely to confirm this impact. Knowing that teachers who have done good ICT practices have between 5 and 33 years of service and that the probability of the young people possess more knowledge in ICT is higher, this result reinforces the importance of professional experience in the methodological design. However, given the technological evolution and the support of the institutional supervisor in the context of the initial teacher training (character with pedagogical experience), the practices of the students in a stage of education show to be more up-to-date, robust and creative in relation to the student profile expected in this new century. It should be noted that it was also observed that the methodologies adopted are important in the results, so that ICT can facilitate the learning process and add value in education since well selected according to a set of variables and objectives of the class, as reported by Cabero (2003).

It should also be noted, too, that it was found that the contexts are potential influencers of educational practices, as these tend to solve problems by finding solutions from the reflection, anticipation and action and mobilization of knowledge and contextual and disciplinary skills, so we understand the current curriculum based in the essential learning and student profile, as well as the autonomy and curricular flexibility in the promotion of effective and meaningful learning, contextualized according to the interests and needs of all students (Order no. 5908/2017, of July 5).

It was found that the educational practices with ITC meet the needs and interests of the students, are inclusive and that the principles of good practices reveal frequencies of practices in line with current legal and guiding normatives, so we conclude that there are educational niches that preceded the guidelines. This study thus shows the importance of a perspective on practices that respond to the educational moment and to the educational, social and economic paradigm and on the guidelines of education in the new era by teachers. However, ICT practices that could promote interaction with contexts and multiple stakeholders, between schools and other formal and informal institutions, and which could stimulate the proximity of networks of learning spaces and mobilization of knowledge are still not frequent. Other dimensions were found in educational practices that reveal that these are not limited, and that they evolve according to the social and technological advances, with the available resources, education and teaching profile, needs and interests of students and societies.

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Implementation Of 2i Camp Program In Titas As Multi-Cultural Teaching And Learning Module In Higher Learning Institute: A Case Study In Sunway University

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Abstract

The Islamic and Asian Civilizations or TITAS subject at the Higher Learning Institute level in Malaysia still focuses totally on the delivery of the content, rather than the practicality and the appreciation towards the knowledge in daily life. Since TITAS is a compulsory subject for all students in order to complete their courses, it is taken for granted. There is no awareness or appreciation towards the subject which is actually a multi-cultural educational module that should be understood by students in order to strengthen Malaysia Civilization which consists of people from multiple races and religions. Thus, the 2i Camp (Interaction and Integrity) program was organized by Sunway University's lecturers in order to give an opportunity to the students who are taking the subject to practice the multi-cultural education in Higher Learning Institute. Hence, the objective of this paper is to assess and observe the level of interaction between students of different races and ethnics through the 2i Camp program. This research utilizes the qualitative method, by interviewing the students who had already participated in the 2i Camp on January 2018. This is to obtain the theme of the learning outcomes throughout the program. According to the research findings, there are four main themes in this research. Firstly, there were communications and harmony interactions between students of different races through the Ice-Breaking activity. Besides that, the students were also able to identify the cultures and lifestyles of the different races through the traditional games carried out. In addition to that, the intellectual and critical thinking skills of the students were developed through a simple game of designing and building their own replica of buildings that represented the three main races in Malaysia.

Introduction

'Islamic and Asian Civilizations' (Tamadun Islam dan Tamadun Asia or TITAS) is one of the compulsory subjects for students in both private and public higher learning institutes for their first degree. This course encompasses the introduction to civilization, the evolution and the interaction between Islamic, Malay, Chinese and Indian civilizations, and the contemporary civilization issue in Islamic and Asian civilizations. The focus of this subject is to provide the students with the educational modules of multiple cultures in their efforts to produce students, who are knowledgeable in the nation's heritage and history, to cultivate positive moral values, possess the identity of nationality and to appreciate diversity (Ministry of Higher Education, 2016).

According to Abd Rashid bin Abdul Halim (2015), most of the students consider TITAS as a subject based on Islamic studies and history. It is also perceived as a review for certain subjects that were taught in schools. These assumptions caused the students to be uninterested, lacking focus or taking the course for granted. Hence, negative perceptions and ill-advised views of the course must be corrected in order to make this subject more interesting and appealing towards students. The teaching method used for this course must be very compelling in order to achieve the learning objectives. In their efforts to successfully achieve the learning outcomes, the lecturers in Sunway University have structured a program called Interaction and Integrity Camp (2i Camp) to give equal opportunities to the students who are taking TITAS to practice multi-cultural education in higher learning institutes.

The Program's Approach

Generally, approach is usually defined as to come close or near. However, the term 'approach' used in academical context is to refer to how a subject is taught based on the objective of the subject (Yazilmiwati, 2014). According to Ahmad (1997), approach is to bridge a gap in an education field and each approach should reflect the objective of the learning process. Thus, lecturers or educators must plan, organize and carry out meaningful activities for their students in order to achieve the learning outcomes. The implementation of suitable and effective approach in learning modules will help the students to understand the subject much better and be able to achieve the learning outcomes, as explained by Omar al-Syaibani (1991). He said, the teaching methods in education is created to ease the process of teaching and learning for the students and to allow them to achieve as many learning objectives as possible.

Therefore, the 2i Camp program that relies on the multi-cultural education module focuses more on experience-based learning by making the activities included in this program compulsory to the students who took the subject. According to Carl Rogers (1969), experience-based learning focuses more on the students' necessities and wants. Rogers listed down some of the characteristics of experience-based learning, which are personal involvement, self-initiated, learner evaluation, and giving persuasive effect on learners.

In addition to that, this program was filled with lots of physical activities and active exchange of mind outside of learning session and university compound. The purpose of this program is to instill positive values among students by focusing on two main components which are integrity and interaction. The content of this program leans more towards patriotism where it will test the students' mind and knowledge of the history and the diversity of Malaysia's culture. The aspirational values that were highlighted in this activity will trigger unity and increase understanding among races. Hence, the 2i Camp program has listed down four objectives to be achieved, as follow:

- a. To apply communication and harmonious interaction between races in the effort to instill unity in order to protect the peace among Malaysians.
- b. To create the spirit of love to your country by appreciating the contributions by past national heroes.
- c. To test the physical and mental capabilities of students about the multi-ethnic cultures in Malaysia
- d. To strengthen teamwork and tolerance among students of different backgrounds, cultures and religions.

In order to achieve the objective of the program, multiple modules were constructed by combining various academic, mind test and physical activities together. These activities were carried out outside of the classroom. The activities are listed as follow:

a) Ice-Breaking Session

The ice-breaking session is of the must-do activities handled by the facilitators. The purpose of this activity is to bridge a gap between the newly formed group members among the participants and also to build relationship between the participants and the facilitators. This activity is able to create a sense of friendship and warmth between the participants and the facilitators so there will not be any kind of communication barriers or awkwardness throughout the program. One of the games usually played during the ice-breaking session is called 'This, This, That, That', where the participants are required to mimic the facilitators' actions and words quickly and correctly. The game started with a slower pace to give the participants some chance to familiarise themselves with the game. After few rounds, the facilitators will begin to pick up some pace and play the game much faster. This game can be played individually, with a partner, and even played in a group. This game enables the participants to be more active to communicate among themselves.

b) Completing the Puzzles

In this activity, participants are given a set of puzzle pieces of various national figures who have contributed mightily to the country. The participants are required to solve the puzzle and to identify the figures. Then, they are required to name the figure and what are their accomplishments to the facilitators. The purpose of this game is to introduce the nation's greatest figures to the younger generations and to appreciate their contributions and sacrifices to the country.

c) 'Magunatip' Dance

The 'Magunatip' dance is a traditional dance of the various sub-ethnic of the Murut in island Sabah. The word 'Magunatip' was taken from the word 'atip' which means to press on two surfaces (Kamus Dewan, 2000). 'Magunatip' dancers require good skills and agility to dance while stepping over bamboos that are used to create sound and rhythm for the dance. The dance does not usually require any musical accompaniment. This is because the sound made by the hitting of the bamboos produces a loud and interesting beat and melody. This dance is usually performed by the Muruts during certain ceremonies including to show respect for their guests. During the 2i Camp, all participants are required to perform and experience the dance themselves. This allows the participants to learn about one of the many cultures of the Murut ethnic in Malaysia

d) Building Game

In this activity, participants are required to design and create a building which symbolizes the three main races in Malaysia which are the Malays, the Chinese, and the Indians. Used items such as drinking boxes, straws, newspapers and masking tapes are the only materials allowed and provided for this activity. During the designing/building and also the presentation part of the activity, the participants are expected to share and exchange ideas and information regarding their build. This is to help the participants to think more creatively and innovatively while improving their intellectual capabilities.

Research Methodology

In this research, researchers utilized semi-structured interview method because this is a flexible method which allows for respondents to describe what the researchers are thinking. In addition, this method can also be used to identify the respondents' experience and background. The findings of the indirect interview will shape the theme of the research which will then be compiled in a single complete report. The report is the result of the research in qualitative format (Patton, 1990). Hence, in order to achieve the objective of the research, researchers have interviewed 15 students who have joined the recent 2i Camp. These students were chosen based on their different cultural background to help researchers to obtain as much necessary information as possible in order to deeply understand the respondents' experience joining the program.

Research Findings

In general, there were 400 students participated in the program. The researchers have chosen 15 respondents representing the three main races in Malaysia which are Malay, Chinese and Indian to be interviewed. Each race was represented by at least 5 respondents. All of the respondents participated very actively throughout the program. There were 8 male participants and 7 female participants selected as respondents. All of them are students of Sunway University, taking different bachelor degree courses. The analysis has found that there are four main themes in this research, and are listed as follows:

a) The Theme of Communication and Interaction between Different Races through Ice-Breaking Activity

The result of the interview analysis found that 100% of the respondents agreed the Ice-Breaking activity helps them to build and create a good communication and interaction bridge between the participants of different backgrounds and races. This theme is illustrated from the interview as follows:

Respondent 1:

In the Ice-Breaking activity, we were able to interact openly and politely with one another without looking at the background of their races or culture.

Respondent 2:

The Ice-Breaking activity helps us to communicate and interact with people of other races. We were able to get to know more people from different culture.

Respondent 6:

The Ice-Breaking activity encourages us to talk and interact with new friends of different races and culture.

Respondent 7:

We have to speak in Bahasa Malaysia to play the game. It helps us to sharpen and improve our Bahasa Malaysia that we rarely used in our daily life.

Respondent 11:

We rarely talked to each other in class before, but this activity helps us to build the friendship between classmates.

b) The Theme of Love to your Country by Appreciating the Contributions of the National Figures

The result of the analysis found that 100% of the respondents agreed that the appreciating the contribution of the Nations's heroes activity helps to nurture the love for their country among the participants.

Respondent 1:

We had to complete a task by making references on the contributions made by Malaysian heroes. By doing this, we are able to appreciate their contributions and strengthen our love for Malaysia.

Respondent 4:

We were able to learn more about the national figures who had contributed greatly to our country. This activity helps us to appreciate their contributions more and increase our love to the country.

Respondent 7:

We were able to learn more about the national figures and their contributions to the country. By showing appreciation to their contributions, it helps us to be more loving to our own country and homeland.

Respondent 9:

Through this activity, we were able to identify the various challenges faced by the national figures in order to protect our country. Thus, this activity helped us to appreciate our country even more.

Respondent 13:

Challenges faced by the national figures in their effort to build our country were very difficult. Hence, as a citizen, it is our responsibilities to protect our country as a symbol of appreciation towards their effort.

c) The Theme of Learning New Culture and Lifestyle of other Races through the ‘Mangunatip’ Dance

The result of the analysis showed that 80% of the respondents agreed that through the ‘Mangunatip’ dance activity; they were able to learn more about other races’ culture.

Respondent 2:

This activity gave us the opportunity to experience the culture of other races.

Respondent 5:

Through this traditional dance, we were able to learn about the culture and lifestyle of other races.

Respondent 8:

We were fortunate to be able to experience the culture of other races and this is a very fun activity.

Respondent 10:

This activity showed us a very interesting traditional dance. It helps us to experience some culture of other races in Malaysia.

Respondent 11:

By performing the traditional dance, our group which comprises of people from different races was able to work together in order to learn about a new culture and it was very fun.

Respondent 15:

This is our first time trying this dance, and it was very memorable.

d) The Theme of Creating the Intellectual Competency and Critical Thinking of Students through Building Game.

The result of the analysis found that 80% of the respondents agreed that through the building game, they were able to improve their intellectual competency and critical thinking skills.

Respondent 1:

The building activity allowed us to think critically and creatively. It also taught us to appreciate other people’s perspectives and helped us improve our friendship. For example, we built three bridges which connect three different structures to represent the unity of our group that consists of the three different main races in Malaysia.

Respondent 5:

In order to build a structure that represents the three main races in Malaysia, we need to think creatively and innovatively. The activity was very tiring and challenging, but it was also very fun and enjoyable.

Respondent 6:

The intellectual competency and critical thinking skills were shown when we were required to create a building that symbolizes the three main races in Malaysia. Each group members contributed excellent ideas in designing and creating this structure.

Respondent 9:

Critical thinking and innovation skills can be improved among students during this activity. This is because each component or parts of the structure has to bring a meaning. Most importantly, the building created has to somehow symbolize the three main races in Malaysia.

Respondent 12:

This activity gave us the opportunity to share our ideas in a creative and innovative way. This building design shows that we are united and worked together to complete the task.

Conclusion

Based on the research findings, the majority of the participants agreed that the 2i Camp program had affected them positively. The program has exposed the students to the multi-cultural education system within the higher learning institutes. Through this program, participants of different backgrounds or races were encouraged to communicate

and interact with on another. On top of that, the sense of belonging to the nation can also be instilled among the students. Moreover, students or participants are able learn to appreciate other races' cultures and lifestyles while sharpening their intellectual and critical thinking skills.

Thus, the step took by the lecturers of Sunway University in organizing the 2i Camp for the students was a very proactive move in their effort to instill interest towards TITAS among the students. This is due to the exposure through the cultural and historical modules in the program which allow the students to self-experience the cultures and lifestyles of other races and ethnics. Besides that, experience-based learning focuses more on the needs and demands of the students as compared to theoretical learning.

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Implementing System-Wide Assessments At A Multi-Campus Institution: An Impact Study

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Abstract

The paper researches the impact of a common assessment across multiple campuses of HCT for the same course, which is geographically separated across the United Arab Emirates (UAE). Final exams are conducted as the same exam across all the campuses at the same time and day. The data was collected where the final exam was done at the campus level. Also, data were collected about the same course, once system-wide exams were introduced. System-wide assessment seems to be a necessity for the modern education system as there is seen to be an improvement of teaching and learning as well as the accountability of the learning process.

Introduction

The recent decades have witnessed changes in the educational practice and culture that consist in the shift from testing and its results towards overall assessment of the higher education structures and mechanisms (Boud, 1995; Elander et al., 2006). In addition, as reported by Kimmel, Marquette, and Olsen (1998), the current higher education focuses neither on quantity nor quality, but the evidence of educational results. Learning currently occupies the centre of attention (Rust, 2002), and its assessment is “probably the most important thing [researchers] can do to help students learn” (Brown, 2004). Dinur and Sherman (2009) also stress that system-wide assessment is an efficient means for educational institutions to demonstrate their ability to produce and spread knowledge. Boud and Falchikov (2006) argue that short-term focus in higher education should “be balanced against a longer-term emphasis for learning-oriented assessment to foster future learning after graduation.”

Systematic and regular measures of learning outcomes are the primary purpose of the system-wide assessment in a multi-campus system. They are capable of demonstrating the health condition of the education system and providing the data that may be taken for further analysis in an attempt to improve the learning process, including assessment for learning, assessment as learning, and assessment of learning (MCEETYA, 2008). A number of scholars have researched the issue of system-wide assessment but still needs professional evaluation and advice. Therefore, the primary objective of the research is to consider the impact of system-wide assessments at Higher Colleges of Technology (HCT), a multi-campus system, on the learning process.

This aim is going to be reached through a number of tasks fulfilled within the paper. Thus, the literature basis considering the system-wide assessment will be discussed from different perspectives; the data available will be analysed as based on the appropriate methods and approaches; the findings of the analysis will be used to provide recommendations for the improvement of the system-wide assessment process.

To demonstrate the use of system-wide assessment in the context of HCT, the most important contributions in research are reviewed to promote understanding of the development and use of system-wide assessment through its historical and current perspectives. The main features, assumptions, and difficulties are discussed as well as the effectiveness of system-wide assessment as expressed with the factors and lessons taught. Reaching those goals demands the overview of the primary purposes of the program as well as the discussion of some examples of the system implementation. The information on the process of collection and report on the data is also of value and will be taken into consideration. Since the final step that all of those factors should lead to is the improvement of the learning process, the literature on the actual use of the collected data and concerns that have been raised is reviewed. Moreover, the research provides an insight into the use of system-wide assessment, demonstrates its perception, impact, and value. It also offers the ideas that should be taken into account while improving the process of effective assessment and higher education system in general.

Literature Review

The assessment process has long been taken for granted, but with the shift of stress to the adequacy of the education system a number of new assessment methods were developed (Boud and Falchikov, 2006). At the same time, there was research conducted by Sadler (1998), Hounsell (2003), and York (2003) that highlighted the adverse effect and inadequacy of summative assessment in the learning process. In addition, Ecclestone (1999); Knight (2002); Knight and Yorke (2003) criticise the role of the summative assessment and its influence on the students and their knowledge. Since the inappropriateness of the summative assessment was indisputable, the assessment techniques were refreshed with new notions among which there was the constructive alignment, a teaching system that is closely connected to the learning process assumed in the learning outcomes (Biggs, 2003). Simultaneously, Black and Williams (1998) debate the validity of the formative assessment, discussing the need for putting learning in the centre of assessment, differentiation between grading and feedback as well as applying to self and peer

judgments. “In managing tests, policymakers have created the illusion that test performance is synonymous with the quality of education” (Madaus, 1985). There is also a concern about the threat to turn assessment into the narrow discussion based on marks without taking into account the reality of the classroom (Dorn, 1998).

Boud (2000) tries to identify the needs of a learning society for assessment and introduces the requirements for a new way of assessment perception. He argues that the functioning mechanism of assessment cannot satisfy the needs of the students in their future professional activities, which should be the main index of the education efficiency. Boud (2000) offers the notion of sustainable assessment that manages to combine the present demands of the educational system with the future challenges that the students will face. In other words, assessment should reflect not only the current knowledge of the students but also project their ability to process and gain new insight into further learning.

Therefore, the primary emphasis in the learning process is put on the knowledge that may be used in practice and the amount of information that is valid for the future career activities. Educational outcomes, the new notion introduced in the assessment system, have become of the utmost importance in the system of assessment. The necessity of educational outcomes considering is proved by the fact that recent research has shown an increased focus on the educational outcomes that can be explained by a number of reasons. Among the most critical points, according to Meyer and Bushley (2008), there is a historical failure in proper assessment of programs and systems in higher education. Other reasons that get enough attention from the researchers are the lowered standards and expectations (Lukas and Weber, 1998) as well as the need for the national exams that will demonstrate the meaningful progress for students and teachers (Kimmel and Marquette, 1998). “High attrition rates and differential educational outcomes based on socio-economic status and factors of race/ethnicity,” according to Kimmel and Marquette (1998), have also contributed to the increased focus on the system-wide assessment. Because of the decline in the institutional effectiveness and challenges within communities that have under-prepared and uneducated populations.

Basing their assumptions on all the problems stated above, the educators have managed to offer the list of points that demonstrate the purpose of the system-wide assessment (British Columbia’s Foundation, 1999). It includes the ability to provide the data to the authorities in order for them to plan future steps in the area, deliver the information to the public in relation to expectations and trends over time; demonstrate the achievement of the students, indicate the presence of any trends in the learning process, and indicate the presence of students who fail the standards of the current educational demands. Forster (2001) stresses that system-wide assessment programs provide both policymakers and educational institutions with information that they can use while allocating resources and supporting the learning process. The same information informs parents on the performance of their children as well as students on their progress. System-wide assessment is seen as an unavoidable part of the educational reform as illustrated in Figure 1 (British Columbia’s Foundation, 1999).

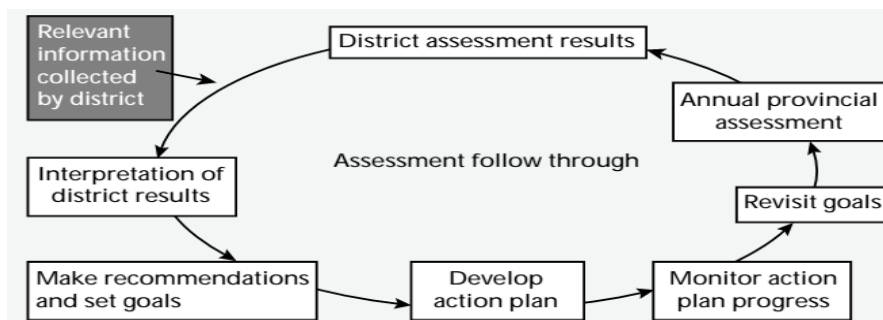


Figure 1- Educational reform (Source: British Columbia Ministry of Education)

The importance and necessity of the information reflected in system-wide assessment remain indisputable, but the means of its collection and report are currently unstable and in the process of coming with the most optimal variant. There is a debate on the most appropriate approach, choosing between full-cohort and sample assessment programs. Either of them has its pros and cons and may be reported in a number of ways (Forster, 2001). The full-cohort assessment enables interested bodies to receive the data on the individual level progress of all the students of a chosen diapason. On the contrary, sample assessment does not report on individual students, only the system-wide situation but is used to evaluate a rich set of learning goals and is less expensive than full-cohort assessment. Forster (2001) also offers a number of reporting tools, which are divided into two broad categories of system-wide and school results, both of which may be assessed in terms of averages and distributions, national norms, standard framework, performance expectations, international benchmarks, subgroups of students, background variables, curriculum areas, and item-by-item criteria.

The reports obtained in the process of system-wide assessment are used to monitor the trends in the averages, the percentage of students below and above norms, at levels of the standard framework, below or above expectations,

and changes in achievements within the student subgroups. At the same time, it is highlighted that system-wide assessment may hide a range of drawbacks that may influence the final management of the learning process. Findings received from numerous research state that system-wide assessment may involve such notions as over-interpreting improvement in test scores (Cannel, 1987; Linn, 1995) and trend data (Broadfoot, 1999), underestimating the negative impact of programs on a teacher (Masters and Forster, 2000) and influence of accountability measures (Linn, 1998; US Department of Education, 1998), assuming that summative data will inform teaching (Harlen and James, 1997; Stobart, 1999), and ignore the role of a teacher in reform (Black and Williams, 1998; Scottish Office Education, 1998).

Considering all the findings of the scholars discussed, the research is intended to observe the system-wide assessment system from the optimally objective perspective. The similar approach was taken by Forster (2001), an Australian scholar who discusses the system-wide assessment from the all possible angles, offers the table of the current practices in Australia, Canada, and the US. Also, she provides the recommendations for the system-wide assessment optimisation and meeting the needs of all parties involved. The ideas offered by Drummond and Robby (2012) who estimated system-wide assessment would also be taken into account. Their research was conducted within the HCT, as based on the survey of 80 Deans and Chairs who comment on the perception, process, and impact of system-wide assessment.

An essential source of information for the research was a collection of articles edited by Brown and Glasner (2003) that offer a wide range of material on assessment matters in higher education. First, the value of the collection can be proved by the fact that it provides a vast data on the system approaches to the assessment from the viewpoint of different scholars. Secondly, it gives a brief, but a precise review of the effectiveness of innovative assessment provides tools for practice assessment and considers the notion of autonomous assessment. As a result, the research gets an opportunity to place the phenomenon of system-wide assessment within other notions that, apparently, are connected with it to a bigger or smaller extent.

Glasner provides a closer look at the assessment from the system-wide perspective in her article "Innovations in Student Assessment: A system-wide perspective," where the scholar provides a broad overview of the system-wide assessment process in the UK since 1993. It is rather exciting research since it considers system-wide assessment not as a sum of data from different institutions scattered around the specific area but within the frame of a system of means that an educational institution can use to provide an objective and clear assessment of the students as possible.

A more traditional approach to system-wide assessment is provided by Erwin discussing some of the public policy issues addressing higher education assessment and confronting how educators can react to the result produced by the assessment. From the outset he explains the reasons for an increasing need for accountability, citing the ideas offered by Terenzini (1997) and Candy (1997) on the institutional pressures for the system-wide assessment demands. As an alternative to traditional instructions, the scholar offers a system of modern years means that may simultaneously be used in the assessment process. He also evaluates different factors that may alter the results and influence the measures taken to optimise the learning process. Among those categories, he considers methods, format, time, and the relation of the testing results with the actual learning outcomes of students. The role of the main assessors, according to Erwin, is taken by assessment centres that have a rather profound history of existence but are facing many challenges since there is a recent tendency towards computer-based assessment, including measurement, cognitive psychology, and artificial intelligence in the assessment process. He concludes that modern educational system is in an urgent need for a collective and systematic approach to the assessment. Moreover, he states that the assessment process has to be up-to-date and reflect the demand of a constantly changing education. If the curriculum and the approaches in the learning process continuously change, the assessment has to reflect all the newly introduced points. Even though the article speaks little about the phenomenon of system-wide assessment, it explains in detail the recent call for adequate assessment in general.

In fact, the system-wide assessment is perceived as an efficient means of improvement on different levels (Forster, 2001). The education system receives the data that will help decide on the resources allocation, research motivation, and updating the standards of curriculum and performance. Individual schools may benefit in terms of indicating the space for the professional development, setting goals, and allocating resources. Data provided by system-wide assessment will also provide curriculum feedback on the level of a classroom as well as inform and motivate learning of an individual student. The assessment improves the course focus informing within pre-service training and provides the community with information on educational standards. On a broader scale, system-wide assessment contributes to the research of various educational tendencies and approaches.

Currently, scholars research system-wide assessment from various perspectives and approaches, which allows somewhat a high level of objectivity and evidence. Some researchers highlight the positive influence of the system-wide assessment and are ready to sacrifice some minor point to the general beneficial outcome. Simultaneously, some disputable effects of system-wide assessment raise concerns among another part of both educators and officials, since the price of the system-wide assessment implementation may become too high and lead to unpredictable consequences. The research believes both of the approaches are worth considering while analysing the data offered by them with common sense and looking for proof of the theories.

Since all the mentioned factors concerning system-wide assessment may be shortened to its two primary purposes of accountability and improvement, the importance of the assessment cannot be questioned. Regarding the research, it is considered as a useful tool for communication between different levels of the education system and the elements that occupy the position beyond its frames. System-wide assessment is viewed as means of getting feedback and managing the practices and activities of educators. Consequently, the phenomenon will be researched as profoundly as possible, considering all potential advantages and disadvantages. The research is not limited to any assumptions or conclusions made, and its primary purpose is to interpret the concerns of system-wide assessment through the prism of both theory and actual data. This approach should allow evaluation of the gaps in the system-wide assessment scheme and offer possible solutions to the problems.

Methodology

The paper researches the impact of common assessments across multiple campuses of HCT, which are geographically separated across the United Arab Emirates (UAE). HCT was established in 1988 as one of the largest institutions of higher learning in the UAE. During the 2015–2016 academic year, there were 14,829 female and 8,644 male students enrolled at 17 campuses throughout the country. The student breakdown per campus is highlighted in table 1.

	Campus	Student Numbers (Academic Year 2015-2016)
1	Abu Dhabi Men's College	3467
2	Abu Dhabi Women's College	1736
3	Al Ain Men's College	764
4	Al Ain Women's College	1377
5	Dubai Men's College	2576
6	Dubai Women's College	2763
7	Fujairah Men's College	438
8	Fujairah Women's College	1793
9	Khalifa City Women's College	1130
10	Madinat Zayed Colleges	281
11	Ras Al Khaimah Men's College	655
12	Ras Al Khaimah Women's College	1952
13	Ruwais Colleges	458
14	Sharjah Men's College	1165
15	Sharjah Women's College	2977

Table 1- Different campuses with student numbers for HCT

Final exams are conducted as the same exam across all the campuses at the same time and day. Data was initially collected for one course, CIS 1003 - IS in Organizations and Society. This course is a semester one course taken by all students who are admitted to the Computer and Information Science (CIS) program at HCT. The data was collected where the final exam was done at the campus level. Also, data were collected about the same course, once system-wide exams were introduced.

The research analyses the data collected from 2242 first and second-semester students who studied at different campuses during the 2012-2014 period. The sample of students consisted of 964 male and 1279 female respondents who were selected randomly. There were 797 students in 2012, 992 in 2013, and 454 in 2014. The distribution according to the college is illustrated in table 2.

Colleges	Tested student numbers
Al Ain College	322
Abu Dhabi Colleges	261
Dubai Colleges	577
Fujairah Colleges	111
Khalifa City College	301
Ras Al Khaimah Colleges	236
Ruwais Colleges	23
Sharjah Colleges	412

Table 2- Data used for analysis

The results of their final assessment test are compared with their coursework mark and used for making conclusions as based on the experience of other countries that have already implemented the practices of system-wide assessment.

The system of different campuses was chosen due to the need for the data that will reflect the situation from as many angles as possible and will not be limited to territorial indexes. The sample was trying to reflect the actual distribution of number, semester, sex, and marks among the colleges and timespan that is covered. There were also some reasons that had led to giving the preference to sample assessment rather than full-cohort assessment.

The experience of the USA and the UK has shown that full-cohort assessment may produce unintended and unpredictable effects on the system of education from the perspective of both teachers and students. Griffin and Heidorn (1996) as well as Harlen and Deakin Crick (2002) state that full-cohort assessment leads to the reduction of self-esteem of students with lower achievements, and it may even trigger the lack of confidence (Stiggins, 2009). In addition, it promotes the methods of teaching that encourage students to obtain shallow and superficial knowledge (Shepard, 2008).

Another threat of full-cohort assessment is the possibility of misinterpretation of test results (Stiggins, 2007). Especially this issue becomes topical while trying to apply data from full-cohort assessment to school accountability processes since there are many cases of misclassification (Linn, 1998). Moreover, the phenomenon of the test scores attribution to the quality of teaching in schools cannot be considered as trustworthy (Popham, 2003; Stake, 2007).

Therefore, sample tests seem more precise and valid for the activities of policymakers and trends researchers. As a result, this mechanism is believed to allow more precise and accurate data for analysis. Due to this reason, the information provided by testing is believed to create the necessary basis for adequately supported findings and become a basis for further development of the educational policy.

Findings

To evaluate the impact of system-wide assessment, it is necessary to compare the coursework scores with final test scores as provided by the sample. Therefore, it was required to develop a table that reflects the analysis of the points received by the students. Table 3 shows the number and percentage of students according to a particular grade.

Grade	Coursework		Final assessment	
	Number of students	Percentage, %	Number of students	Percentage, %
A	484	21.57	514	22.91
B	470	20.95	788	33.13
C	478	21.2	545	24.29
D	254	11.3	135	6.01
F	555	24.75	257	11.45

Table 3- Number and percentage of students according to their grade.

The information provided by the table has allowed presenting a number of following findings. First, the number of students who have excellent marks has remained approximately the same, and it has even slightly grown from 21.57% to 22.91%. Nearly the same situation is observed with grade C students. At the same time, there is a vivid rise in the percentage of students who got B and, on the contrary, an obvious decline in students who failed the test. The number of those who either failed or got mark D for their coursework fell almost by half, according to the points of final assessment.

The situation seems rather positive and pledges for absolutely definite conclusions. There is no need for finding drawbacks of the experiment, but the research has to take into account the findings and concerns expressed by other scholars. Apparently, there are some points that such an improvement in the reporting and evaluation of system-wide data may indicate.

First, it is entirely possible that the results may increase without an actual improvement in the level of students' knowledge. This phenomenon is known as the Lake Wobegon Effect and is usually caused by the combination of the factors, among which there are "the use of old norms, the repeated use of the same test year after year, the exclusion of students from participation in accountability testing programs at a higher rate than they are excluded from norming studies, and the narrow focusing of instruction on the skills and question types used on the test" (Linn, 1995). Simultaneously, researchers offer the solution to the problem, stating that systematically constructed tests will limit this adverse effect (Resnick, 1999).

Moreover, the positive marks may become a consequence of sampling and/or measurement errors. This may also be caused by the change of any of the elements of the testing process, being it time allowed, test format, or exclusion policies (Forster, 2011). As a result, it is of the utmost importance to indicate measurement errors and compare the indexes that are possible and valid to compare.

When system-wide assessment results are used to monitor the trends in the education system, there is a high probability that mistaken data will misguide to wrong conclusions about the rise in the knowledge of the students. While drawing inferences, researchers need to take special care not to overlook any factors that are of value in a specific situation.

It is found that if tests are found to have gaps in design, the assessment may distort and reshape the studying program, promote superficial knowledge due to possible sanction that the test results may cause (Broadfoot, 1999; Masters and Forster, 2000). In other words, positive tendencies presented in Table 1 can be a result of teachers not including some minor topics in the curriculum and pay particular attention to spheres that will be undoubtedly important during the testing. Students gain high points in testing using a smaller amount of information. It has been demonstrated that increases in assessment rates are due to a combination of "teaching to test" and students get accustomed to the tests (Assessment Reform Group, 2006; Koretz, 1988; Shepard, 2000). In real life, the knowledge of students is significantly different from the level offered by the assessment (Harlen and Deakin Crick, 2002; Koretz et al., 1991). To avoid this, Forster (2001) claims that it seems necessary for teachers to focus not only on the formal indexes of the knowledge but try to maximally align the course curriculum with the one required by the assessment standards. Also, efficient communication between and among teachers, students, and parents may format the direction and approach of teachers in their educational activity.

Another point is that schools may manipulate the results on purpose. There was a situation in Chile when schools indicated much higher rates of poverty to boost their position (Linn, 1998). Therefore, all the factors that are taken into account while doing calculations have to be considered in detail. The tests should also differ according to the final goal that they address.

Even though the results of the calculations seem rather positive, they may have both positive and negative consequences since the final result depends to a great extent on the context of the assessment. The circumstances that influence the outcome are leadership, collective responsibility, a break with the past, and professional development (US Department of Education, 1998). This shows an urgent need for close monitoring of the assessment effects on the educational system and the learning process in general.

The issue that concerns many scholars is that test results cannot reflect all the factors that have influenced the getting of this mark. On the one hand, schools are the elements that get prized for good results, even though there is no clear evidence of their primary importance. On the other side, the factors that are significant in that situation are in danger of being overlooked (Harlen, 1999; Dorn, 1998). Therefore, the limitations of the data have considerable value here and should always be mentioned.

Folkner (2001) does not forget about the fact that if the information for the analysis is gathered for a more extended period of time, its value and applicability cannot be the same as of the data presenting the most recent figures. The issue has been assessed by Gibbs and Rowntree (1999) and Thorpe (2000) who claim that “assessment becomes valid when the assessors use evidence of achievement, clearly matched against the criteria.” The point is that this data is valuable, but it should be treated cautiously while taken as a basis for current improvements. In other words, the situation may have changed since the moment when the assessment was conducted, and this fact has to be managed appropriately.

It is necessary to understand that one assessment cannot serve the functions of teaching and learning evaluation (Harlen and James, 1997), though the professional judgment of teachers is integral to assessment (Student Assessment Regimes, 2009). Summative assessment can be used as a survey of the overall result but is rarely perceived as a material for analysis and improvement by teachers. As a result, there is a necessity to show teachers how they may use the data for improving their practices.

In addition, the mere collection of system-wide assessment data is not capable of improving education standards. Indeed, the most necessary and topical issue here is that teachers can interpret this data in the beneficial for the learning process way (Wolff, 1998). The role of specific professional development in the following context comes to the foreground.

Conclusions, Suggestions And Recommendations

According to data that Table 1 contains, the improvement in the learning process is obvious, but Barton (1999) believes that “there is much that is wrong with this system, that there are signs here and there of improvement, and that there are ways to make assessment much better in serving teaching and learning.” Therefore, the research will offer a number of recommendations that may become useful while trying to implement reforms and innovations. The recommendations provided hereafter are based on the analysis of data gathered at HCT, as well as the application of the experience of other countries that were represented in the works used in the research as references.

1. System-wide assessment format should be decided due to the final purpose of the assessment. This fact may considerably influence the choice of the participants, the format of testing, and time needed, hence providing a realistic data of student comprehension.
2. The validity of the information has to be taken into account since the demands may differ because of the different final purposes of the assessment. Providing the assessment has to equip teachers with possible direction for improvement, tests have to deal with the spheres that call for improvement. In the opposite case, data will not be useful for implementing changes to the existing system.
3. Special focus has to be put on the reliability of the data that is the source for the future decisions. The choice of the students in the representative sample is to represent the smallest error possible, and the tasks offered by the assessment must discuss the target scope of learning outcomes.
4. The assessment producers have to do everything possible to ensure that they will not repeat the known mistakes, such as incorrect level of assessments, of their predecessors and eliminate the impact of potential adverse outcomes.
5. The reports of the results have to be comprehensive and with clear arguments. If there is any uncertainty about the outcomes, it should be indicated.
6. The reported results have to be easily accessible by the all the target users. In addition, there may appear a need for additional training if the assessment is a new practice or needs an updated approach.
7. In case the assessment results are openly published and can be accessed by everybody, all the limitations and possible measurement errors must be indicated and made clear.
8. There is a need for a full-fledged developmental program for teachers since the single system-wide assessment results cannot ensure the necessary improvement in specific fields.
9. The results of the system-wide assessment must be continuously monitored and taken into account.

Offering a number of recommendations for further improvement, the research is not able to reflect all the possible aspects of the problem, which, therefore, is the limitation of the paper. The data provided and used in the study demonstrates only the quantitative side of the issue while lacking the human factor. Thus, the feedback of both students and teachers would be of value and would occupy an essential place while judging the outcomes.

This limitation, at the same time, may become an additional stimulus for future research since researchers will know the gaps and have the basis for their filling. In addition, the research will equip the future research in the sphere of system-wide assessment with data on statistical results and recommendations that seem applicable to the current stage of development.

System-wide assessment seems to be a necessity for the modern education system since it fulfils a number of life-important functions that cannot be gained with other means. Among those functions, there is the improvement of teaching and learning as well as the accountability of the learning process. To reach those goals, the assessment system has to meet demands of being flexible and up-to-date.

In addition, people who are responsible for the implementation of system-wide assessment cannot allow themselves to overlook the experience of others countries. If they are willing to get higher levels of preciseness, meaningfulness, and accuracy, researchers and policymakers have to address the issue of system-wide assessment implementation starting with the evaluation of the possible drawbacks and risks. It does not imply the pessimistic approach but presupposes the notions of awareness and readiness.

At the same time, the experience of others can be too limited in order to satisfy the needs of different environment and culture. Therefore, there is a need for gathering and assessment of the information reflecting the gains and faults of the current system-wide assessment implementation. Only this data may indicate the gaps in the system and enable the necessary for improvement steps.

The research witnesses the high impact of system-wide assessment on policymakers and educators regarding regulation and adjustment of policies implemented. Thus, the accuracy and validity of the assessment tests become highly needed. Since there is a vivid connection between the quality of system-wide assessment and the following steps taken, its importance gradually occupies the central position in the assessment of students.

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In Search Of A Methodology? Conceptual Maps For Learning And Teaching Spanish As A Foreign Language (Sfl)

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Abstract

There are areas in languages that have only recently been taken into account in the teaching and learning of Foreign Languages (FL), as in the case of phraseological units (UFS) (González Rey, 2004). Similarly, we can say that theoretical research concerning the importance of Phraseology in the learning of Foreign Languages, particularly with respect to Spanish as a Foreign Language (SFL), has still not reached enough teaching professionals, especially when it comes to practical applications in the classroom. With respect to UFS, we refer to language units such as *tomar el pelo* [a alguien], [hacer algo] *a trancas y barrancas*, [ser un] *arma de doble filo*, as locutions, but there are also other types of units, like routine formulas, *las paredes oyen*, *tiene narices*, *arriba los corazones*, or more extensive units, like *Más vale pájaro en mano que ciento volando*, *A Dios rogando y con el mazo dando* (Corpas Pastor, 1996). On the other hand, the difficulties in teaching these UFS in the classroom are well known, especially those of an idiomatic nature, that is, those that come from the figurative meaning of these expressions (Navarro, 2004, Saracho Arnáiz, 2016). These factors demand that we investigate the linguistic characteristics, of form and meaning, of these units, as well as, specifically, the way we present them as an object of teaching and learning. In this work we want to demonstrate that Mind Maps are a methodological instrument (Buzan, 1993) to teach and learn UFS, since they serve to organize them by concepts or notions, that is, starting from a more general meaning (Schwartz & Raphael, 1985). We take the perspective that learning must be meaningful for students (Ausubel, 1963; Novak, 1998) and we also take into account that language acquisition is done through the human brain, which stores the words and expressions in nodes of more general meaning, creating links of different types between these, the words and other language units. For this reason, we support an onomasiological teaching of the UFS in other words, starting from the concept or notion and establishing a network of words and expressions to direct students towards the complex meaning of UFS in order to reach the difficult goal of memorizing them. In this research we will also present an example of how to apply the methodology of Mind Maps in the teaching and learning of UFS, in particular, of SFL, and we will also demonstrate its performance in the classroom.

Introduction

The objective of this paper is to explain how conceptual maps for the teaching-learning of Spanish as a foreign language (SFL) can be beneficial and profitable. For this, I first intend to explain the educational theory that is at the basis of conceptual maps (Ausubel, 1960). Then I'll briefly explain what a conceptual map entails, its most important elements and the advantages these maps have for students (Novak, 1998), as well as the reason for becoming a methodology of teaching and learning. Third, I will also make a brief reference to the teaching of vocabulary and phraseology in class of SFL and the various ways to get to the meaning of a word or expression (González Rey, 2004). In this way, by adopting an onomasiological orientation of the presentation of the phraseological units, that is, starting not from a word or unit, but from a broad concept to reach several forms that are related by meaning, creating a network of connections, we find the affinity with the structure of the conceptual maps, which gives credibility to the method. Finally, we will see an example, of a phraseodidactic activity, using a digital tool for the SFL class.

The Theoretical Basis Of Conceptual Maps

They have been called "mind maps" or "conceptual maps", or also in French "heuristic maps", but actually all make use of the same technique. We prefer to talk about conceptual maps, following Novak (1998), because we believe that the term "concept" is the one that best defines the maximum hierarchy proper of the map that will serve us for teaching-learning of phraseology.

What is a conceptual map? It is a graphic structure, as we can see here:

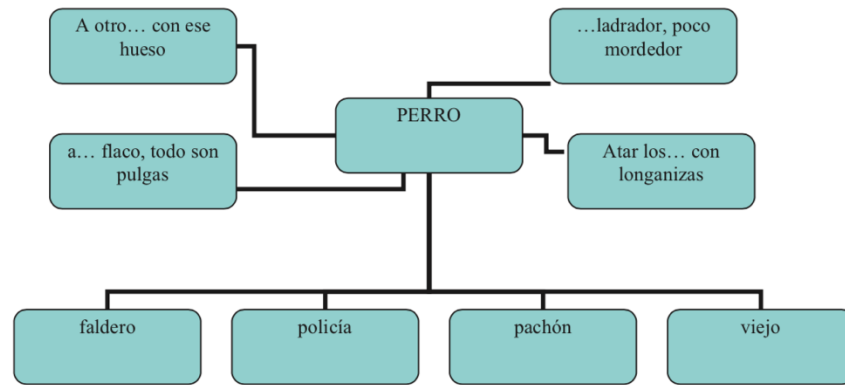


Figure 1. Example of a lexical map by Rodríguez Paniagua, (2011, p. 122)

To exemplify and explain the different versions, this map is not properly conceptual, but phraseological (Figure 1), because from the word PERRO/DOG, in a central box, the collocations are derived (1): *perro faldero*, *perro policía*, *perro pachón*, *perro viejo*, in the boxes of the base, and sayings (ps. paremias): *A otro perro con ese hueso*, *A perro flaco, todo son pulgas*, *A perro ladrador, poco mordedor*, *Atar los perros con longanizas*, placed in boxes around PERRO/DOG. However, this map, as we have advanced, does not start from the concepts, but from the PERRO form, that is, it is a classification that attends to the formal aspect of the expressions, being the connection between these the word "perro", and not its meaning. Consequently, this is not a conceptual map in a rigorous sense.

The educational theory that is at the basis of the methodology of the conceptual map is that of the meaningful learning advocated by Ausubel (1963). This theory explains the way humans create meanings through mental processes and the production of language. Thus, learning has to do with the acquisition of new words, concepts and propositions. In this way, the child begins to discover regular patterns in the world around him and associates them with lexical labels or linguistic elements that identify them. Over time, the human being creates a wide network between existing concepts, new concepts and words. I will relate this perspective in my communication with the lexical approach (Lewis, 1990; Baralo, 1997) for teaching words and expressions that I will mention later.

From a cognitive perspective, the human being is the only one of all animals with the capacity to learn the regularities of objects and events (the two elements of the universe) and to code them symbolically (human language, mathematical or physical symbols). There are events that we consider to be *facts* because they are valid records of them (for example, that water boils at 100°C), but there are events and objects that are interpretable, and the interpretations can be divergent. For Novak (1998) the concept is a regularity perceived in events, objects or records of events, designated with a label. This is how meaning and knowledge are constructed through concepts. This brings us closer to the question: What kind of learning should we promote for teachers?

The human being learns through a sequence of thought, feeling and action, and significant learning must include these three elements:

"I pretend that the central objective of education is to train students to be responsible for their own construction of meanings. The construction of meanings includes thought, feeling and action, and these three aspects must be integrated in the new meaningful learning and, particularly, in the creation of new meanings "(Novak, 1998: 2000, p. 9).

When brain structures are well organized, the higher-level, more inclusive and general concepts subordinate others that are more specific and less general.

On the other hand, our brain memorizes, that is, stores information. This occurs in three different ways: through sensory or perceptual memory, from memory to short-term and long-term memory. All of them are related and the way one organizes is going to influence the other. This is going to be decisive in the level of teaching-learning, the student will have to be exposed to new materials long enough for the sensory memory to capture new information, move to short-term and long-term memory. In this way, and more related to lexical learning, three phases have been identified: *input*, or new lexicon entry, storage and recovery (Gairns and Redman, 1995).

How To Build A Conceptual Map

Several authors point out that conceptual maps are a true cognitive technique to organize our thinking, pose a problem, memorize a structure, etc., because they are able to set in motion the two hemispheres of the brain, the left one that promotes reflective and intellectual thinking, and the right, more creative. They are called heuristic maps because they make us discover, they make the information emerge (Deladrière et alii, 2007).

In addition, they stimulate positive feelings in the affective-relational sphere of the individual, such as self-confidence and self-esteem (Ontoria Peña, 2011). Other benefits have also been pointed out, such as autonomy, easy memorization, the desire to learn, serenity in complex situations, the pleasure of using new resources, the satisfaction of having spent our time well, the ease of argumentation and the feeling of mastery of knowledge. In addition, it has the advantage of being polyvalent. They serve to organize a work meeting, to analyse a problem, and also to teach and learn lexicon and phraseology. As we have mentioned, its effectiveness is due to a psychological base that derives in a creative and pleasant work and, in addition, it is a technique that keeps the student active.

As we have already indicated, the conceptual map establishes a hierarchy between the concepts. But when working with our students in a Phraseology or Lexicon class, selecting concepts may not be an easy task. Normally, we are not used to looking for the most general idea of words or expressions. It is more common to resort to a dictionary of meanings in which we find the concrete meaning of the word or expression. We are going to use the methodology of conceptual maps that, as already mentioned, has different uses, to apply it to the specific field of teaching-learning of Phraseology in SFL. For this, we will also use other types of resources in the area of linguistics, as we will see later. What we describe next are the general steps to apply the methodology of the conceptual map, and then it will have to be adapted to each use, in our case, to the learning of Phraseology. Steps to build a conceptual map in general:

1. The first thing will be to identify a particular question or domain of knowledge and select 10 or 20 concepts (of one word or two) that are relevant to that question.
2. Next, the concepts are arranged, placing the most comprehensive and inclusive idea above, at the top of the map.
3. More concepts are added, if necessary.
4. We will start to build the map, placing the most general ones (above). They are usually one, two or three.
5. We will select two, three or four sub concepts and put this under each general concept.
6. Two concepts are joined with branches that represent the relationship between both. Each branch defines a relationship that must be expressed briefly.
7. The structure of the map is reworked. You can add or remove superordinate concepts. Work with cards or post- it is very useful.
8. Then, cross connections between concepts are sought. Many times, cross-connections can help to see new creative connections in the domain of knowledge.
9. You can add concrete examples of concepts.
10. Conceptual maps can be made in many different ways for the same set of concepts. There is no predefined way to design a concept map. As the understanding of the connections between the concepts changes, the maps also change.

As can be seen, this technique that has just been described is very general. We will explain how to put it at the service of our students so that they acquire phraseological competence.

The Importance Of Phraseological Competence In The Learning In A Foreign Language

The phraseological competence is part of the communicative competence and, therefore, its role in the SFL class must be granted. In general, teachers are aware of the role of the lexicon in learning a FL, but not so much about Phraseology. The shortage of materials for the teaching-learning of phraseological units is notorious and the reference documents for teaching and learning in general are not illuminating, in the case of Spanish, the Common European Framework of Reference for Languages (2001) and the Curriculum Plan of the Cervantes Institute (2007).

However, the dominance of the language is determined by the student's ability to engage in idiosyncratic ways and forms as a native speaker would, using the expressions and word combinations that use has perpetuated through the centuries (Castillo Carballo, 2000). In this sense, any contribution of methodologies, techniques, resources and materials for the teaching-learning of Phraseology can contribute to disseminate among the teachers the awareness of their importance in the class for the students, and the conceptual maps can fulfil their role.

As we said before, we start with the lexical approach that affects the importance of the lexicon in the learning of an FL. This new conception of the lexicon integrates parameters and criteria of psycholinguistics or lexicography, incorporating principles of neurology and psychology. The acquisition of new words implies a dynamic process of creating multiple connections with other words already acquired, reorganizing the structures to accommodate the new term (Aitchison, 1987; Higuera, 2007).

It is important to say that the delimiting line between the lexicon and the phraseological elements is not rigid, and, when working with conceptual maps, it is evident. Therefore, although our main objective is the learning of phraseological units (PUS), relationships with other units can be created, especially with the lexical units.

If the memorization of words or expressions has been pointed out as one of the fundamental difficulties of teaching FL, the conceptual map is a technique that consists in leading the student to become aware of the relationship of words to each other, helping him "to recuperate" expressions and words he knows or has heard (passive lexicon), and to build new relationships between words and groups of words that could be new (Rodríguez Paniagua, 2011)

Proposal Of Phraseodidactic Activity With Onomasiological Basis

Our proposal to use conceptual maps for the teaching-learning of Phraseology is based on an onomasiological classification of the language. We will say very briefly that Onomasiology is the science that starts from the notions or concepts and looks for the different designations for that notion. Therefore, it is the investigation of the forms from the concepts (Baldinger, 1964). It is not the usual way we use, for example, dictionaries. Normally, we look for a word or expression to know its meaning, but in any case, we must know the word or expression in advance. Despite this, the onomasiological perspective can be useful for students who are studying a foreign language, since they know the concept, but not the term. To find the term from the concept, we have to resort to thematic or ideological dictionaries. However, these are not so abundant, and, in addition, they do not present homogenous classifications. That is, there isn't a reference classification of the concepts.

To exemplify the phraseodidactic activity with a conceptual map, we have started from the concept of HABLAR/SPEAKING and its opposite CALLARSE/BE QUIET, considering that these are sufficiently broad concepts and because they are found in most of the works we have consulted (Rodríguez Vida, 2011; Bárdosi and González Rey, 2012). On the other hand, HABLAR/SPEAK (2) is a fundamental action of the human being on which there are a potentially large number of words and phraseological units.

The main activity is for students to build a concept map, which aims to activate already known units and acquire new units. The construction of the map will be proposed as an end task, since before they will have to carry out a series of previous steps. We consider that the level of the students should be from B1 onwards.

First, the teacher will expose students to the concepts of HABLAR/SPEAKING and CALLARSE/BE QUIET and will ask them to think of words or expressions that refer to these actions (nouns, adjectives, verbs, phrases, expressions). To motivate them, you can read a text or tell a short story. Then, they will brainstorm new concepts, words and expressions that will have to be reorganized again.

For example, to SPEAK/HABLAR: *hablador/-a (talkative), charlatán, hacer una ponencia (to make a presentation), ser un cotilla, decir tacos, meter la pata, mala boca, cantar las cuarenta, hablar por los codos, poner verde a alguien, abrir la boca, hablar como una cotorra, hablar largo y tendido, darle a la lengua, etc.* CALLARSE/BE QUIET: *tímido/a, reservado/a, guardar un secreto, no decir ni pío, en boca cerrada no entran moscas, callarse la boca, etc.*

If we see that our students do not produce an adequate number of units, we can propose that they consult dictionaries, which will constitute another phase of the activity. This phase can be very interesting, since we can introduce them to the search in the ideological or thematic dictionaries, that is, to search for expressions based on a concept. Another way to carry out the activity, more directed, would be to present the lexical and phraseological units that seem appropriate and ask them to find their meaning in the usual dictionaries, in this case.

When the students already have the words and the units, that is to say, their form, and they know their meanings, we ask them to make a conceptual map, explaining to them that they should focus all their attention in ordering each expression related to a certain concept. As we mentioned earlier, they will start with two concepts: HABLAR/SPEAK and CALLARSE/BE QUIET, which will be placed at the top of the map. The difficulty will be in finding the sub concepts that are underlying the words and expressions and hierarchizing them. Branches, as proposed by Novak (1998), must represent a logical link that makes sense through words. The task should be done in groups of four students, for example.

The maps can be made on paper or using a digital tool, if we have tablets, computers and internet. We can also request the collaboration of the teacher of TIC, in the case that students have any subject of this nature. We chose the *Bubbl.us* tool because it seems easy to use for teachers and students, but other digital resources can be used.



Figure 2. Example of a conceptual map created from the concept HABLAR/SPEAKING

As observed, there are two levels of generalization from the SPEAK concept, represented in a yellow box. The second level, more specific, represented in green and, finally, in pink, the expressions of the language are presented. It is very important that the arrows that join the boxes represent relationships and that they are expressed (boxes in grey) so that a meaningful reading can be made. It must be added that the tool allows us to include images and make links to pages.

Conclusions

Conceptual maps can be an effective technique for the teaching-learning of lexical and phraseological units in SFL, because:

- They present a structure and a dynamic similar to that of our brain;
- They activate the two hemispheres of the brain, making learning more motivating and satisfying;
- They help to recover the lexical units and the known expressions;
- They lead to the learning of new units, reorganizing the previous mental structure;
- They classify the lexical and phraseological units that have a hierarchy concepts, creating groups not closed language units;
- They present a coherent methodology so that teachers can apply it in the SFL class with their students.

Finally, I would like to express my belief that more theoretical and empirical research should be done on conceptual maps in order to obtain data on their validity as a teaching-learning technique in the field of FL.

Notes

(1) Taxonomy of the phraseological units of Corpas Pastor (1996).

(2) Rodríguez Vidal (2011) includes the concept of HABLAR/SPEAKING in social relationships, a broader concept, and subdivides it into: speaking clearly, talking about consideration, speaking about extension, talking about frankness, talking Regarding reflection, talking about good sense, talking about vanity, talking about knowledge and talking about the interlocutors.

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Digital Resources

Bubbl.us mind maps, <https://bubbl.us>

In The Determination Of Self-Efficacy Situations Of Information Technology Teachers' Coding For Middle School Students, Robotic Coding And 3 Dimensional Design Examples Of Sakarya Province

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Abstract

Increasing the quality and effectiveness of education and training, contributing to the social, political and economic structure of the countries is something that educators and educational policy makers are always working on. Increasing the quality of education and training nowadays can be achieved with the development of 21st century skills in the students, the integration of education with technology. The role of technological developments, which provide many conveniences for our everyday life, in education environments is getting more and more effective. In computer training, the use of coding and robotics is becoming a prevailing practice. Coding and robotics based informatics education; has the potential to unravel and shape the real world and to reveal the skills of creating innovative ideas and products through the application of the knowledge they learn to real life problems. The aim of this study is to reveal the opinions of Informatics teachers about the coding and robotics based IT teaching practices. The survey model was used and the study group consisted of 120 information technology teachers working in secondary schools in Sakarya province. These teachers were asked questions about quantitative research on whether they had received any training in robotic applications and coding in their previous lives and whether they would contribute to themselves and their students. The results were interpreted by quantitative evaluation tools.

Key words: *Information, coding, software, original product, robotics, trainer training, robotic coding, self-efficacy perception*

Introduction

We are talking about coding and robotic coding now and we are in a period where we have to talk. It is necessary to speak the same language with computerized systems in order to be able to tell them what to do and to guide them. The coding of this new foreign language of our era is among 21st century skills that are so important that it is no longer a stranger and that our children must win. Our children should meet this dill at the earliest possible age. My children should be given the opportunity to explore themselves in this area. Because at a later age our children are now starting to become more interested. A child who does not have the opportunity to meet with this skill will naturally not be able to develop such an interest. We see how games, social media, videos, and animations are all about our children. Prensky (2001) calls the new generation of individuals "digital natives" because of their clear view of their predisposition to digital technologies. This tendency is convinced that if my children are not educated in place and on time, only a society that consumes technology will remain as a shallow skill that can not go forward. Akpınar and Altun (2014) point out that the educational community can not look at this perspective from the viewpoint that the culture and the skills of the basic media literacy and basic media literacy and the skills of individuals have been developed to become typical consumers of information technology, which can only be a demand from the big commercial sector. We need to transition to a training program where we can raise individuals who produce their own technology from training programs that create a consuming society. In our country, coding education was included in the curriculum of the Secondary School and Imam Hatip Secondary School Information Technologies and Software Course (5th and 6th Grades) curriculum adopted and renewed by the Decision dated 17/07/2017 and numbered 78 of the Ministry of National Education Ministry Talim Terbiye Kurulu. This is an important step on our behalf.

Nowadays, with many block coding programs, children can take part in a more colorful, more entertaining adventure of coding out of complicated code structures that are heavy to them (Resnick et al., 2009). In addition to improving children's problem-solving and logical thinking skills, coding also supports learning in many classes such as mathematics, science and technology. Children learn to design projects and establish connections between ideas and collaborative work. These skills are not only for computer specialists but also for all ages, working people and everyone in the profession (Wing, 2006; Resnick, 2013). Must be found in 21st century individuals;

Basic skills such as problem solving, creativity, algorithmic thinking and computer thinking can be gained by teaching programming and computer science (Karabak and Güneş, 2013, Monroy-Hernández and Resnick, 2008). Thanks to robotic coding practices, they can catch up early on at the chance to observe how the codes they write come together with a piece of hardware. It has been stated that the self-efficacy perceptions of the students' performance on robotic coding activities after coding robotic coding activities significantly changed in the positive direction in the student activities (Kasalak, 2017) regarding the effects and activities of the secondary school students on the coding self-efficacy perceptions. This can be attributed to the fact that in robotic coding activities, children have the chance to see the designs they code. In addition, children's 3D design programs enable children to acquire 3D thinking and design skills at an early age.

A study on the effect of coding education and coding on educational policies as a new 21st century skill (Sayın ve Seferoğlu, 2016) investigated the effects of coding education in the world on the world location, education policies and development plans of the countries and obtained striking results. Even in the development plans that the whole world has emphasized, the encyclopedia that is included in our plans is a problem that we have to pay attention to as a country.

This important skill can be achieved with our teachers in the first place. The adequacy of our teachers to use these programs and tools to cry for children and the method-techniques of presenting them to students are extremely important. Scratch, code.org, mblock The primary purpose of coding in a similar environment is to improve learning outcomes and motivate learners by using coding as a tool to develop other skills, rather than teaching themselves (Resnick, 2013). For this reason, it is extremely important for the teacher to teach the coding, which is seen as the language to come to the competence in these subjects, to love the children and to enter the interests of the children. In this research, it has been tried to determine the self-efficacy of the knowledge teachers in coding, robotics coding and 3D design subjects. In their lectures, how much they are inclined to these topics was evaluated and their opinions about whether these topics were helpful or not were taken.

Purpose of the research

Within the scope of the study; It is to determine the self-sufficiency status of the knowledge teachers working in secondary schools in Sakarya province in terms of coding and robotic coding.

Method

In this section, information about research model, universe and sampling, data collection tool, data collection and analysis will be given.

Model of your research

Survey screening model was applied. The main purpose of screening research is to describe the situation as it exists. Everything that is subject to research is tried to be defined as if it is within its own conditions (Karasar, 2005). The data from the teachers constitute the screening part.

Working group

The universe of the research consists of 120 IT teachers working in Sakarya during the academic term of 2017/2018.

Data Collection and Analysis

In order to collect data in the survey, a questionnaire developed by the researchers was used. The questionnaire consists of two parts. Second part it consists of 30 attitude questions under 3 headings. The data obtained with the means of quantitative data collection in the study were analyzed using the SPSS 24.0 statistical program and descriptive statistics were used in the examination of the quantitative data.

Findings And Comment

Table 1. Gender Main Distributions of Respondents

Gender	Frequency	Percent
Woman	51	%43
Male	69	%57
Total	120	%100

When table 1 was examined, it was observed that the number of males was higher when the teachers participated in the survey were examined in terms of gender. It can be said that men prefer to teach IT.

Table 2. Distribution of Respondents In the Survey

The institution you work for	Frequency	Percent
Public	103	%86
Special	17	%14

Total	120	%100
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When table 2 is examined, most of the teachers who participated in the survey were working from the state schools. As the number of specials is low, participation has been realized there.

Table 3. Occupational Seniority Distributions of Respondents

Your professional senior	Frequency	Percent
0-5	52	%42
6-10	41	%34
11-15	25	%22
16-20	1	%1
Above 21	1	%1
Total	120	%100

When table 3 is examined, it is seen that most of the teachers who participated in the survey are working among 0-10 years. From here, we can say that the informatics teacher branch is a new field.

Table 4. Participants In the Survey were Divided by the Faculties They Graduated From

Your graduate faculty	Frequency	Percent
Faculty of Education	92	%77
Technical Training	25	%21
Other	3	%2
Total	120	%100

When Table 4 is examined, it is understood that the majority of the teachers who participated in the survey graduated from the Faculty of Education. We can say that the information technology teachers in secondary schools are usually graduated from education faculty.

Table 5. Distribution of Participants In The Survey On The Code.org Application

Are you trained?	Frequency	Percent
Yes	46	%38
No	74	%62
Total	120	%100

When table 5 was examined, it was observed that the majority of the teachers who participated in the survey did not receive any training from Code.org application. It can be said that teachers do not take such kind of courses in the sections they read.

Table 6. Distribution of Educational Situations In The Field of Scratch Application by Respondents

Are you trained?	Frequency	Percent
Yes	46	%38
No	74	%62
Total	120	%100

When table 6 was examined, it was observed that the majority of the teachers who participated in the survey did not receive training from any institution related to scratch application. It can be said that they do not take such kind of courses or courses in the teachers' readings and their later occupations.

Table 7. Distribution of Educational Attitudes In The Field of Appinventor Application by Respondents

Are you trained?	Frequency	Percent
Yes	30	%25
No	90	%75
Total	120	%100

When table 7 was examined, it was observed that the majority of the teachers who participated in the survey did not receive training from any institution related to appinventor application. It can be said that they do not take such kind of courses or courses in the teachers' readings and their later occupations.

Table 8. Distribution of Educational Attitudes In The Field of Arduino Practice by Respondents

Are you trained?	Frequency	Percent
Yes	35	%30
No	85	%70
Total	120	%100

When table 8 was examined, it was observed that the majority of the teachers who participated in the survey did not receive training from any institution related to arduino application. It can be said that they do not take such kind of courses or courses in the teachers' readings and their later occupations.

Table 9. Distribution of Educational Status In The Field of Mblock-Arduino Application by the Respondents

Are you trained?	Frequency	Percent
Yes	34	%28
No	86	%72
Total	120	%100

When table 9 was examined, it was observed that the majority of the teachers who participated in the survey did not receive training from any institution related to mblock-arduino application. It can be said that they do not take such kind of courses or courses in the teachers' readings and their later occupations.

Table 10. Distribution of Educational Attitudes In the Field of MBot Application of Respondents

Are you trained?	Frequency	Percent
Yes	32	%27
No	88	%73
Total	120	%100

When Table 10 was examined, it was observed that the majority of the teachers who participated in the survey did not receive training from any institutions related to MBot application. It can be said that they do not take such kind of courses or courses in the teachers' readings and their later occupations.

Table 11. Distribution of Educational Attitudes In The Field of Makeymakey Application of the Respondents

Are you trained?	Frequency	Percent
Yes	34	%28
No	86	%72
Total	120	%100

When table 11 was examined, it was observed that the majority of the teachers who participated in the survey did not receive training from any institution related to makeymakey application. It can be said that they do not take such kind of courses or courses in the teachers' readings and their later occupations.

Table 12. Distribution of educational situations in the field of game coding applications of survey participants

Are you trained?	Frequency	Percent
Yes	36	%30
No	84	%70
Total	120	%100

When table 12 is examined, it is observed that the majority of the teachers who participated in the survey did not receive training from any institutions regarding game coding practices. It can be said that they do not take such kind of courses or courses in the teachers' readings and their later occupations.

Table 13. Distribution of Educational Attitudes In The Field of TinkerCad Application by Respondents

Are you trained?	Frequency	Percent
Yes	30	%25
No	90	%75
Total	120	%100

When Table 13 is examined, it is observed that the majority of the teachers who participated in the survey did not receive training from any institutions related to TinkerCad application. It can be said that they do not take such kind of courses or courses in the teachers' readings and their later occupations.

Table 14. Distribution of survey participants' 3d design and education in 3D printer area

Are you trained?	Frequency	Percent
Yes	38	%32
No	82	%68
Total	120	%100

When table 14 was examined, it was observed that the majority of the teachers who participated in the survey did not receive training from any institution in the area of 3d design and 3d printer. It can be said that they do not take such kind of courses or courses in the teachers' readings and their later occupations.

Table 15. Distributions of Use of Code.org Application In Participant's Lessons

Do you use it in your lessons?	Frequency	Percent
Yes	52	%43
No	68	%57
Total	120	%100

When table 15 was examined, it was observed that most of the teachers who participated in the survey did not use code.org application in their lessons. The fact that teachers do not receive training on how to integrate the Code.org application into classes has caused them not to use this practice in lessons. Teachers who received training in the subject (46% of the teachers who received the relevant training) or teachers who had knowledge in their own interest achieved the course gains by using the code org application in information technology and software lessons.

Table 16. Distribution of Usage of Scratch Application In The Courses of Participants In The Survey

Do you use it in your lessons?	Frequency	Percent
Yes	63	%52
No	57	%48
Total	120	%100

When table 16 was examined, it was observed that the majority of the teachers who participated in the survey used scratching in their lessons. It can be said that the fact that the teachers were educated about the subject caused the increase in the usage rate.

Table 17: Distribution of Usage of Appinventor Application In The Subjects of The Survey Participants

Do you use it in your lessons?	Frequency	Percent
Yes	4	%3
No	116	%97
Total	120	%100

When table 17 was examined, it was observed that the majority of the teachers who participated in the survey did not use appinventor practice in their lessons. Teachers should not be trained on how to integrate appinventor practice into lessons, which can be said to have caused them not to use this practice in lessons.

Table 18. Distribution of use of arduino practice in the subjects of the survey participants

Do you use it in your lessons?	Frequency	Percent
Yes	7	%6
No	113	%94
Total	120	%100

When table 18 is examined, it is observed that most of the teachers who participated in the survey did not use arduino practice in their lessons. It can be said that the majority of the teachers do not take an education about arduino practice, so they do not use this subject in the lessons.

Table 19. Distribution of Mblock-Arduino Usage In The Subjects of the Survey Participants

Do you use it in your lessons?	Frequency	Percent
Yes	10	%8
No	110	%92
Total	120	%100

When Table 19 is examined, it is observed that most of the teachers who participated in the survey did not use mblock-arduino practice in their lessons. It can be said that the majority of the teachers do not use MBLOCK-arduino training in their lessons.

Table 20. Distributions of Using MBot Application In The Courses of Participants In The Survey

Do you use it in your lessons?	Frequency	Percent
Yes	6	%5
No	114	%95
Total	120	%100

When table 20 is examined, it is observed that the majority of teachers who participated in the survey did not use MBot application in their lessons. It can be said that the majority of teachers do not take an MBTot training and do not use this topic in their lessons.

Table 21. Usage Distributions of Makeymakey Application In The Courses of Participants of The Survey

Do you use it in your lessons?	Frequency	Percent
Yes	8	%7
No	112	%93
Total	120	%100

When table 21 was examined, it was observed that the majority of the teachers who participated in the survey did not use makmakmaki in their lessons. It can be said that the majority of teachers do not take an education on makeymakey practice, which causes them not to use this subject in the lessons.

Table 22. Usage Distributions of Game Coding Applications In The Courses of Participants In The Survey

Do you use it in your lessons?	Frequency	Percent
Yes	32	%27
No	88	%73
Total	120	%100

When table 22 is examined, it is observed that the majority of the teachers who participated in the survey did not use the game coding practices in their lessons. It can be said that the majority of the teachers do not take an education about game coding practices, so they do not use this subject in the lessons.

Table 23. Use Distributions of TinkerCad Application In The Subjects of The Survey Participants

Do you use it in your lessons?	Frequency	Percent
Yes	14	%12
No	106	%88
Total	120	%100

When table 23 was examined, it was observed that the majority of the teachers who participated in the survey did not use the TinkerCad application in their classes. It can be said that the majority of teachers do not take an education on the application of TinkerCad, which causes them not to use this subject in the lessons.

Table 24. Distributions of Using 3d Design and 3d Printer In The Subjects of The Survey Participants

Do you use it in your lessons?	Frequency	Percent
Yes	12	%10
No	108	%90
Total	120	%100

When Table 24 is examined, it is observed that the majority of the teachers who participated in the survey did not use 3d design and 3d printer lessons. It can be said that the majority of the teachers do not use these subjects in their lessons if they do not receive an education on these subjects.

Table 25. Opinion Distributions of Respondents Regarding Code.org Implementation

Do you think it will be useful to students?	Frequency	Percent
Yes	116	%96
No	4	%4
Total	120	%100

When table 25 was examined it was observed that the majority of the teachers who participated in the survey thought that the implementation of code.org was beneficial to the students. If practical training is given to teachers related to the subject, it can be said that the potential of teachers to use code.org in their lessons is very high.

Table 26. Opinion Distributions of Respondents Regarding the scratch Application

Do you think it will be useful to students?	Frequency	Percent
Yes	118	%98
No	2	%2
Total	120	%100

When table 26 is examined, most of the teachers who participated in the survey indicated that they think that scratch application is beneficial to the students. If a hands-on training is given to the teachers concerned, it can be said that teachers' scratching practice will have a very high use potential.

Table 27. Opinion Distributions of Respondents Regarding Appinventor Application

Do you think it will be useful to students?	Frequency	Percent
Yes	97	%81
No	23	%19
Total	120	%100

When table 27 is examined, the majority of teachers who participated in the survey indicated that they think that appinventor application is beneficial to the students. If practical training is given to the teachers related to the subject, it can be said that the usage potential of teachers' appinventor in their lessons is quite high.

Table 28. Participants' Opinions About Arduino Practice

Do you think it will be useful to students?	Frequency	Percent
Yes	102	%85
No	18	%15
Total	120	%100

When table 28 is examined, the majority of the teachers who participated in the survey indicated that arduino practice is beneficial to the students. If practical training is given to the teachers related to the subject, it can be said that the usage potential of the teachers in the courses of arduino training will be quite high.

Table 29. Opinion Distributions of Respondents Regarding Mblock-Arduino Application

Do you think it will be useful to students?	Frequency	Percent
Yes	112	%93
No	8	%7
Total	120	%100

When table 29 is examined, the majority of the teachers who participated in the survey indicated that they think MBlock-arduino application is beneficial to the students. If practical training is given to the teachers related to the subject, it can be said that the usage potential of mblock-arduino teachers in their lessons is very high.

Table 30. Opinion Distributions of Respondents Regarding MBot Application

Do you think it will be useful to students?	Frequency	Percent
Yes	107	%89
No	13	%11
Total	120	%100

When table 30 is examined, the majority of the teachers who participated in the survey indicated that they think MBot application is beneficial to the students. If practical training is given to teachers related to the subject, it can be said that the usage potential of the MBot application is very high.

Table 31. Opinion Distributions of The Respondents Regarding Makeymakey Application

Do you think it will be useful to students?	Frequency	Percent
Yes	107	%89
No	13	%11
Total	120	%100

When Table 31 is examined, the majority of the teachers who participated in the survey stated that they think that makeymakey application is beneficial to the students. If practical training is given to the teachers related to the subject, it can be said that the use of makeymakey in their lessons will be quite high.

Table 32. Opinion Distributions Related to Game Coding Practices of Respondents

Do you think it will be useful to students?	Frequency	Percent
Yes	115	%95
No	5	%5
Total	120	%100

Table 32 shows that the majority of the teachers who participated in the survey think that the game coding practices are useful to the students. If practical training is given to the teachers related to the subject, it can be said that the use of the game coding practices by the teachers is very high.

Table 33. Opinion Distributions of Respondents Regarding TinkerCad Implementation

Do you think it will be useful to students?	Frequency	Percent
Yes	102	%85
No	18	%15
Total	120	%100

When Table 33 is examined, the majority of the teachers who participated in the survey indicated that they think TinkerCad application is beneficial to the students. If practical training is given to the teachers related to the subject, it can be said that the use of TinkerCAD by teachers is very high.

Table 34. Participants' Opinions About 3d Design and 3d Software

Do you think it will be useful to students?	Frequency	Percent
Yes	102	%85
No	18	%15
Total	120	%100

When Table 34 is examined, the majority of teachers participating in the survey indicate that 3d design and 3d printer applications are useful to the students. If practical training is given to the teachers related to the subject, it can be said that the teachers use 3d design and 3d printer applications in their lessons.

Conclusion And Discussion

120 information technology teachers working in secondary school participated in the research. 77% of our teachers are graduates of the Faculty of Education. Approximately 70% of our teachers on programs that make children's coding learning experience more enjoyable such as Code.org, scratch, appinventor, arduino, mblock-arduino, mbot, makeymakey, oyunodlama, tinkercad, 3d design, robotics applications and 3D designs He has been receiving. Therefore, our teachers who do not have sufficient knowledge about these subjects use about 20% in their practice. It can be said that there are hardware deficiencies in the reason why these subjects are not used in the lessons. When our teachers were asked if these practices were beneficial to their students, they said that 90% would be useful. This shows to us that if our teachers take trainings on these subjects, their potential to practice in their courses will be quite high.

Suggestions

Most of our teachers do not have any training related to coding, robotics coding and 3D design for middle school students in university years and later occupations. For this reason, it can be rearranged according to the needs of today by observing the curriculums of the universities. In addition, in-service trainings can be revised again in the light of these topics. It can be planned that the trainings related to these topics will be made at a frequency that can reach wider masses because there will be an intense demand.

An average of 30% of teachers have knowledge about these topics and there are various reasons why 20% of them use them in their lessons. The absence of information classes and the inadequacy of hardware in information classes can be seen among these reasons. In addition, when these trainings are given, it can be thought that it is inadequate for the teachers to give only the contents of the topics to the teachers about how these topics can be given to children and with which activities. For this reason, such trainings need to be well organized and well designed.

We see that our teachers have very positive views on coding, robotic coding, and 3D design. According to other countries, our greatest advantage in coding is that we do not have trained teachers in this area. For this reason, the necessary infrastructure for the use of this potential in the positive direction, the design and realization of the trainings as soon as possible will be beneficial for our country and our future.

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Inclusion, Educating City And Elderly People, A Current Inclusive Challenge

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Abstract

The world population has changed spectacularly in the last decades. The growth in life expectancy is forcing a restructure in our policies and, obviously, education. For 2050, there will be 2.000 sixty plus year olds. That is mor that 20% of the world population. Besides, discrimination for ageing and, sometimes, abandonment and abuse of elderly people is a frequent and harmful attitude. The main objective of this article is to make a theoretical approach to the work that is carried out from educative cities to that effect. Local governments have an outstanding role when giving response to the challenge of a more and more aged society. One of the obligations of the cities that have joined this international movement is the fulfillment of the charter of EC. In it, it is said that cities should be aware of the mechanisms of inclusion and exclusion that affect them, and the varieties that are coated and will be developed by the needed policies of affirmative action, such as activities directed to the inclusion of that given collective.

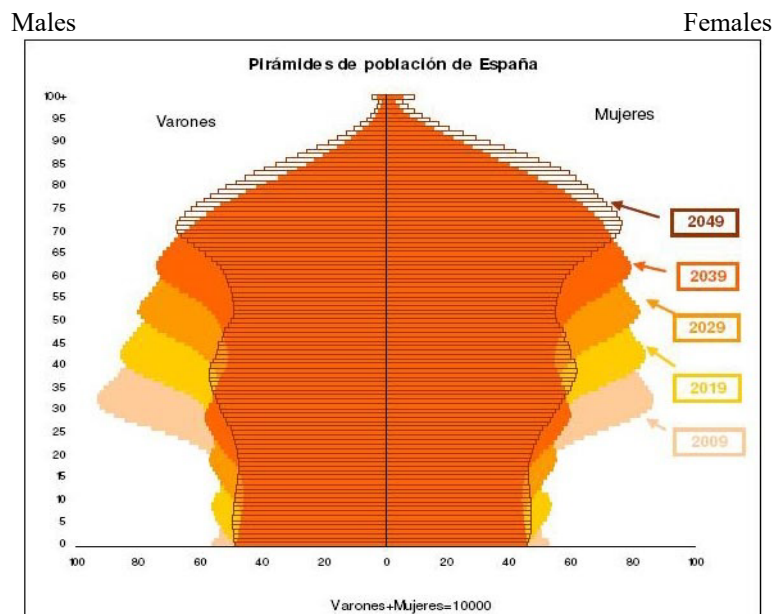
In a second part of the article, we will make a selection of the main activities with elderly people carried out in the Spanish territory, as a reference of the work towards the inclusion of vital importance for this collective around the world.

Key words: *Inclusion, elderly people, educating city, social exclusion.*

Introduction

Fernández (2015) explains that there is a continuous ageing of the Spanish population. Since the beginning of 20th century, there has been a great change in the Spanish population pyramid, with a progressive increase in 65 year old people with respect to the total. The 2014 report on statistics of elderly people in Spain shows that the future evolution of ageing points to a great growth of elderly population.

Spanish population pyramid



Males+Females=10000

Figure 1: Spanish population pyramid

Source: Instituto Nacional de Estadística (2014)

Ageing is a progressive, slow and irreversible evolution, which affects all living beings. This process starts with birth and ends with death, at fourth age. Despite being a road that every living being must fulfill, it is not a concrete or framed phase in the life of people. It is not something either homogenous or static. Every individual lives it in a unique way.

According to Martín García (2000):

the perspective of the theory of the vital cycle considers the process of ageing as a dual one of change and continuity along life, in which internal factors (biological and psychological) combine with external (social and cultural). These factors depend on our way of living and our own nature, making such process something we can change, both speeding it up and slowing it down. (p.168)

According to a research published by IMSERSO (2006), ageing successfully (actively) comes determined by four groups of factors: low probability of falling ill and with associated disability, high cognitive functioning, high physical functioning and compromise with life. Therefore, this role model of ageing is based on elements that are mainly individual. This is a clear case of multidimensional concept, where several conditions coincide: bio-medical, psychological and social. Due to this reason, the statement cannot be reduced only to some of its components (i.e. it cannot be reduced only to health or satisfaction). In the same way, this study explains that most of the conditions that define this type of ageing are:

- Psychological conditions (cognitive capacities)
- Behavioral conditions (physical competence, functional skills) and
- Psycho-social conditions (control and self efficiency, social participation, social realtions).

One of the essential aspects included in the research by IMSERSO (2008) is the Independence, where they recognize the right that elderly people have to have access to income, food, housing, medicines, as well as a suitable education and formation. And Self-realization, that highlights the need to favour free access to social resources that facilitate opportunities to develop its potential. Both aspects are key for the support of the aforementioned research. The approach to Active Ageing leans on the recognition of human rights of elderly people and the previously mentioned principles. It accepts their rights to have equal opportunities and treatment in all aspects of life as they grow older. Moreover, it backs their responsibility to participate of the political process, and any other aspects of everyday life, according to their needs, wishes and capabilities, as they give them protection, security and adequate care when the assistance is needed. It is a must for all public policies to be used as an axis of transformation in order to enable a change of paradigm on the image and value that society gives elderly people. By means of the active ageing, we pretend to enlarge both hope and quality of healthy life for everybody as they evolve into the development of their lives, and, consequently, getting older. Carrying on with the idea that is given from either national and autonomic documents, Active Ageing is understood as ageing safely, counting on all social, legal and sanitary supports that may be needed.

European Year for Active Ageing and Solidarity between Generations (2012) establishes the need for a life-long education, as a right, after all social, political, financial, sanitary and educative institutions adapt their objectives and approach to the society where they are included. According to Bedmar y Montero (2017) long-life education is an expression related to Permanent Education, and derives from the progressive need that people have to chose their own life project and personal development.

The manifestation of the right to formation and education throughout life is a need (the right to read and write, to have access to given resources, to develop and practise both individual and collective capabilities and competences, etc.). Present mankind gives a especial value to the concept of continuous education, which states that the educative process should not be limited to childhood and youth.

As García Mínguez (2009) points out:

the Universal Declaration of Human Rights proclaimed by the UN General Assembly establishes in article 26 that everybody has the right to education, noting some of its own characteristics: it supposes the integral personal development, value judgements and improvement as ideal components. (p.134)

Human beings must and can acquire formation, culture, knowledge and skills throughout our lives, as studying has no age. It is in the 90's that we first find, in the Delors report, the successful and expressive expression *life-long education* as an indication for the deviations of Permanent Education. According to Serdio (2008), what we aim with life-long education is to provide elderly people with the opportunity to develop their level of competence by assimilating new knowledge and skills, both intellectual and social.

- Improving and stimulating physical and mental welfare of elderly people, helping them defeat and eliminate solitude.
- Eliminating negative stereotypes on both old age and people, by stimulating intergenerational contact, solidarity and social support.
- Developing and/or generating skills for a better adaptation to community and social life, by stimulating social networks and social support systems.
- Developing and/or generating skills for the rise of self-confidence and self-dependence.

Educational Challenges. Educating Cities Movement

The concept of educating city was born as an ideal, a reality dreamt by Edgar Faure and a group of contributors, around 1970. The idea, in those times, was a utopia on which they based the precedents for a distant city, but with strong foundations. The idea of a city that educates, both always and well, is, by itself, contradictory. Therefore, it should be appropriately built, satisfactorily and coordinately channeling its own educative aspects (Amaro y Delgado 2003). Active citizenship implies a new culture of public education, and gives citizens a true autonomy and responsibility. Without such conscience of citizenship, it is difficult that anybody may be tempted for social participation. The term Active Citizenship is a desirable referent for coexistence as it promotes mutual respect and non-violence ensures human rights and strengthens democratic values (Moro, 2007; Trilla y Cámara, 2011; Escudero, 2014).

The beginning and germ of such active citizenship, which implies a continuous learning process, is the Educating City: “the educating city is that which, aware of the essential role of cities in the education of people, states the willingness to influence them positively” Amaro (2002, p.56). The city is, at the same time, environment, instrument and object of learning. The city is the context, the device for selfless formation. It is, at the same time, a support used by educators to create learning settings, and a consolidator of the specific content for the everyday learning of life itself. The possibilities that the EC movement offers is a referent for this present essay. Both life-long education and offering educating activities is, by all means, one of the essential pillars of the movement.

This concept offers us a new environment, with new possibilities of interaction, conveyed through projects that allow the fulfillment of the Charter of Educating Cities. Such charter arranges the 20 essential principles and aspects that should be met by the cities that take part in the EC movement.

Biece And Activities With Elderly People In Spain

The IBDEC is the International Bank of Documents of Educating Cities. IBDEC “created a computerized documentary data base, developed by the bibliographic retrieval system BRS, which contains information on initiatives or concrete achievements that are carried out in cities with an express educating will” Viladot (1994, p.18).

Currently, the experiences kept in the Bank are classified into 15 categories. The belonging cities conduct the set of actions needed for the development and formation of their citizens throughout their lives, being adjusted to their real requirements and the fulfillment of the charter of educating cities. IBDEC serves as a platform for the publication of the same, helping share them with other cities belonging to the movement. We will now detail them in the following chart:

Table 1: Categories

CATEGORIES	
Art and humanities Social welfare Citizenship and coexistence Personal development Urban development Information and documentation Policies and administration	Educating system Associations and participation Science and technology Culture and leisure Socioeconomic development Permanent formation Environment Health and sports

Source: own development from the web-page <http://www.edcities.org/banco-de-experiencias/>

Method

The general aim of the current research is to gather and analyze the main activities that are being carried out within the Spanish educating cities on elderly people and active ageing, referent for the development of the situation of our elders.

There is a selection in base to the data from IBDEC, within the category of “permanent formation and elderly people”. Starting from that, a random sample has been done for the analysis of the content in the year 2016-2017 on the main activities referred to elders and active ageing, which is the target in our research, and using for that the official webpage of Educating Cities.

The analysis of content of the activities consists in specifying and systematizing the content of the messages and the expression of that content with the help of either quantifiable or unquantifiable signs. All that with the aim of making logical and justifiable deductions to do with the resource. It is obvious that the interest of the analysis of

content is not only the description of such contents but also what these could teach us, once treated, relative to other things (Taylor and Bogdan, 1994; Buendia and Colas, 1997; Perez, Galan y Quintanal, 2012). Out of all the cataloged ones, we have focused on 4, gathering the essential aspects referred to the following aspects:

Volunteers for Madrid

Social rating, a local initiative for equal opportunities

Boost of learning-service as a tool for coexistence, social cohesion and participation

RADARS, project of community action for elderly people

Experience classrooms

Relating life

Community promotion and intervention in Los Ambitos neighborhood

Table 2: Volunteers for Madrid

Title of the experience: Volunteers for Madrid	
Topic: Citizen participation	
City: Madrid	
Description:	Volunteers for Madrid is a program from Madrid City Council, intended for the neighbors of the city interested in taking part in projects of citizen participation, designed and promoted from the local initiative in all areas (social, cultural, sportive, environmental, health. Etc.). In occasions, these projects are carried out together with different governmental areas, institutions, social entities and companies that promote solidarity, coexistence and common wealth.
Objectives:	<ul style="list-style-type: none"> - Promoting volunteering action and active participation of citizenship in actions of common interest in everyday life. - Giving civil society a main and co-responsible role in the search for solutions and alternatives to the problems in the environment. - Generating volunteering projects in all areas: social, sportive, cultural, environmental, etc. - Boosting the role of Madrid City Council as the promoter of the caring organization of the city. - Promoting work guidelines in entities and companies that support social responsibility and corporative volunteering. - Offering support for the dissemination and formation of volunteers.
Methodolgy:	<p>The axes that articulate the Program are:</p> <ul style="list-style-type: none"> - The formation aimed for volunteers. - More than 100 own projects, which are classified in permanent and occasional. Permanent projects are developed all year round. Volunteers collaborate in programs of attention towards young and elder, reinforcement of learning, and socio-educational activities, promotion and awareness towards volunteering among youngsters, accompaniment and re-habilitation of memory in order to promote health among elderly people, preventing labors, orientation and family support, promotion of healthy food habits in schools, cultural visits around the city, district projects, etc. Some of these projects are carried out in collaboration with groups of work from other entities or organizations, as, for example, the sharing of foods in social soup kitchens together with Rotary Foundation, accompaniment of homeless people together with Samur Social teams; social-sportive volunteers in the school for shanty children "El

	<p>Gallinero”, together with Fundación Real Madrid, cognitive stimulation in homes together with the. Centro de Prevención del Deterioro Cognitivo (Madrid Salud), or volunteers with animals, together with the Centro de Protección Animal (CPA). Punctual projects are carried out occasionally, and they allow the participation of people that don’t usually have the opportunity to make permanent solidarity actions. They are a channel for active citizen participation in the events in Madrid in areas such as cultural, sportive, environmental, etc. They develop the feeling of active citizenship and enable the access to more innovative forms of volunteering. Among others, these are highlighted: sports events (Carrera Popular de San Isidro, Perroton, etc.); international days (Semana Europea de la Movilidad “La Celeste”, International Day of Infant Cancer, etc.); festivals, fairs and days (Festival de Artes Escenicas de Madrid Fringe, Salon para la Adopción de Animales de Compania, etc.) local campaigns (caravan “Madrid sin filtros”, to stop throwing out cigarette ends on the floor, participative processes “Decide Madrid”, etc. and other events such as the Three Wise Men Parade, Special Olympics adapted sports activities, etc.</p> <ul style="list-style-type: none"> - Collaborations with non-profitable social entities. The Department of Volunteering provide them with volunteers for their projects. - Subsidies for non-profitable social entities and institutions that develop projects of volunteering in the city of Madrid. In order to promote transparency, such entities are regularly called to analyze the presentation, development and justification of projects. - The Foro de la Solidaridad, public participation body with a consultive character where they discuss and suggest different initiatives for the neighborhoods. It provides the local authorities with useful information for the development of policies to do with volunteering. - All projects and petitions of volunteers from the different areas of the city council or other entities are planned at length in order to determine the role of volunteers and to organize the details of the actions.
Results:	<p>The monthly average growth of volunteers is of 70 to 80 people, mainly by “word of mouth”, as there haven’t been huge broadcasting campaigns. This datum shows that both motivation and the sense of belonging of the people who form a team of caring ones, who get related, operate actively and feel useful for their city. Along 2017, Volunteers for Madrid will start two new projects: the creation of a body of junior volunteers, designed with the purpose of preventing and fighting school bullying, run in collaboration with the local police, and the setting up of a digital platform of volunteers, through which citizens will be informed about all caring projects, as well as consulting an agenda for events that count with the collaboration of the volunteers. In 2016, the City Council of Madrid granted Volunteers for Madrid with its highest distinction, the Gold Medal, for the humane, local and social transcendence of its labor</p>
Summary:	<p>This program, based on the design of active citizenship, began its evolution and development with the creation, in 2006, of its own body of volunteers. The Department of Volunteers, dependent on the Area de Gobierno de Participación Ciudadana, Transparencia y Gobierno Abierto, is in charge of making citizens aware of the importance of volunteering, and provides people interested in becoming volunteers with welcoming, information, formation and</p>

	<p>assessment. Besides, it plans and coordinates volunteers in its own projects, as well as serving social entities, providing them with volunteers who help in their projects.</p> <p>Finally, the Department cooperates with other areas and organisms in the running of solidarity projects.</p> <p>Currently, the body of volunteers of the City Council is made up of 11,500 people, who may take part in activities such as: accompanying in hospitals, sharing out foods, school support to children, supporting in sports, cultural and environmental activities, local campaigns, etc. Being part of Volunteers for Madrid means to take part in a team of citizens ready to promote positive and caring values, and enjoy collaborating with their City Council so as to turn their city into a role model for coexistence and welfare.</p>
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Table 3: Boost of service-learning as a tool for coexistence, social cohesion and participation

Title of the experience: Boost of service-learning as a tool for coexistence, social cohesion and participation	
Topic: Service Learning	
City: L'Hospitalet de Llobregat	
Description:	Service-Learning (ApS) is a pedagogical methodology that joins, in an only action, the learning of a given part of the school syllabus with the realization of a job on behalf of the community. The student learns contents and values and acquires competences and skills, developing a social compromise with the most vulnerable groups in their environment, exercising, since they were little, their right to an active citizenship committed towards the transformation of society.
Objectives:	<ul style="list-style-type: none"> - Promoting values of solidarity, social compromise and the exercise of an active and transforming citizenship among students. - Increasing students success and the interest in studying, and reducing school absenteeism. - Promoting the knowledge and appreciation of the environment among the students, getting them to feel proud of the work that they do for their neighborhood. - Improving the esteem of both the centers and students among neighbors. - Opening schools to their nearest surroundings and building alliances with social and educational entities in the neighborhood. - Strengthening the associative tissue as of the community work of youngsters, turning it into a future, into a stable either voluntary of professional compromise.
Methodology:	<p>In order to boost Service-Learning initiatives in the city, there is a permanent work group that meets every three months to coordinate, revitalize and evaluate proposals, integrated by ten people representing teachers, participating social entities, the Promotional center for Service-Learning in Catalonia, the autonomic government and the City Council.</p> <p>Alliances are set up with other local departments (culture, social services, sport...) so that they get involved in the project and push Service-Learning (currently, 40% of such initiatives are prompted by other local services different to the Education Council).</p>

	<p>At the same time, a local technical team is composed to be in charge of monitoring projects and offering both formation and assessment to teachers, educators and social activists who are willing to promote Service-Learning in their educating centers of associations. They also create meeting spaces among the educating centers and the entities that would like to receive students in their social and educating activities.</p> <p>An archive has been created, with all the projects carried out in the city, as an inventory.</p> <p>The settings that surround such activities could range from offering a service in elderly homes (motor exercises, memory games, musical performances, etc.) to supporting the learning of literacy and digital literacy among our elders, to receive the new students that join the center, to tale-tellers in libraries for the younger, to the care and embellishment of the school surroundings and of the city, to organizing bicycle routes for disable people, and even contributing in solidarity campaigns, etc.</p> <p>As a joint activity, an annual seminar is held for interchanging of Service-Learning experiences and for the reflection on methodology. Besides, at the end of the academic year, there is an act of institutional recognition from the City Council towards the youngsters who participate in the program.</p>
Results:	<p>The impact of coordination and extension of methodology of Service-Learning on the city of L'Hospitalet has been very important in the last eight years.</p> <p>During the year 2007/8, experiences of community work or of social compromise of students were under ten, and almost none of them were related to the school Syllabus. At least, not consciously. Only five educating centers practiced that activity with a hundred students on behalf of few social entities.</p> <p>Every year, new educating centers and social entities have been added to the proposals of Service-Learning in the city. Nowadays, over 100 projects have been inventoried. Stable Service-Learning projects, led by more than 2000 students from 44 primary and secondary schools that attend the needs of the different groups from some 70 social and educating entities.</p> <p>The activities gather people of different ages and cultures, these being a clear example of promotion of intergenerational and intercultural relations, of social cohesion, of bonding with the neighborhood and of education in values.</p> <p>Three books have been published, which show the main Service-Learning experiences: "Youngsters for the neighborhood", "Service-Learning in L'Hospitalet" and "The Council of Youth". Local and national newspapers and televisions have taken on board such projects in the city. And scientific researches on the impact of such programs in the city have also been promoted.</p> <p>This experience was granted in 2016 with the Premio Ciudades Educadoras a Buenas Practicas de Convivencia en a Ciudad (Educating Cities to Good Practices of Coexistence in a City).</p> <p>Key points:</p> <ul style="list-style-type: none"> - This innovative way of learning renovates the classrooms pedagogically speaking. It has got to reduce school absenteeism and also improve coexistence in schools. Proof of this is that after 52 mediations in schools during the academic year 2009/10, there were just 5 last year. - This tool is getting to increase the value of the image of both educating centers and youngsters, as well as promoting collaborative networks and reinforcing the associative tissue of the city.

	<ul style="list-style-type: none"> - Lots of social entities and entities of education in free time have also experienced an increase of young people who work either professionally or voluntarily in their centers, after having carried out their first Service-Learning experience.
Summary:	<p>In 2007, L'Hospitalet considers the improvement of education as a milestone for the city. Therefore, the City Council decides the objectives should be to rise school success, to avoid early school drop-out and absenteeism, to reduce conflicts in schools, to promote the inclusion of immigrant students in both the school and the city, to open the educating centres to the neighbourhood by supporting wide educative networks, and to get the students nearer to their closest environment for them to feel proud of it and get involved in its transformation.</p> <p>In such way, the City Council decided to include Service-Learning, boosting and extending it to the schools and centres of educational leisure, as a global strategy of a city that counts with the political support from the municipality and the implication of several areas of the local government.</p>

Table 4: RADARS, project of community action for elderly people

Title of the experience: RADARS, project of community action for elderly people	
Topic: Community action	
City: Barcelona	
Description:	<p>The growing ageing of the population shows challenges in many cities. Barcelona, like most of occidental cities, is getting older and older: life expectancy is 82.2 years of age, and, currently, 20.80% of the population (335,586 people, according to data from the City Council in 2015) is 65 or older. Note that a fourth of this population live alone, in many cases because they prefer to stay in their homes due to a feeling of belonging to the neighborhood and its environment. Social changes frequently modify the traditional system of attention and care to elderly people. For that reason, they create the Project Radars, in order to rise the degree of welfare and the feeling of security, and also to reduce the risk of isolation, loneliness and social exclusion of this population.</p>
Objectives:	<p>Promoting an active and healthy ageing of people older than 75 years of age who live either alone or accompanied by people older than 65, boosting solidarity among generations and attention to dependent people.</p> <p>Specific objectives:</p> <ul style="list-style-type: none"> * Extending and improving attention to elders, either dependent or at risk of social exclusion. * Rising awareness among citizens of the importance of the collaborative process, promoting the participation of the beneficiaries and their relatives in the design and enhancement of services, as well as the implication in the Network of volunteers. * Boosting an action and awareness plan that will guarantee the network between civil society and public administration to prevent, detect and act efficient and coordinately in front of situations of risk for elderly people, paying especial attention to the most vulnerable ones. * Enhancing social services of proximity, oriented towards providing support to elderly people in everyday life.

	<ul style="list-style-type: none"> * Optimising the available public and private resources, according to the gradual implementation of the project. * Revitalising the neighborhood's net to share knowledge and define joint actions.
Methodology:	<p>Project Radars has a standard methodology that gets adapted and implemented in every neighborhood in a different way, paying attention to the characteristics of the same.</p> <p>The five spaces that work on the Net as of co-responsibility are:</p> <p>The Team of Social Services of Primary Care in the neighborhood. It is responsible for inviting local agents to take part in the main organism of the project, the Committee of Entities, evaluating the level of risk or social exclusion of users and defining the type of required action.</p> <p>The Committee of Entities, integrated by neighbors, shops, organizations and services in the neighborhood. It is the meeting point where they decide how to develop the project, designing the strategies and actions to be carried out in an annual planning (detection of the target population, activities and the linking to the territory, etc.). The Committee is also in charge of the spreading of the project in the neighborhood.</p> <p>The Door to Door: volunteers formed and coordinated by entities of the third sector as Red Cross. They identify and interview elderly people that may need help and invite them to become users of the service. They also propose neighbors that are sensitive to the necessities of the environment to participate with "neighborhood radars".</p> <p>The Platform for telephone monitoring, integrated by volunteers from the neighborhood or collaborating entities such as the Red Cross or Avismon. It keeps regular contact with elderly people so as to keep a control of their situation, to invite the participate in the activities proposed in the neighborhood and, in the case that they are unable to leave their homes, to activate some volunteer who could give them company.</p> <p>The Neighborhood and Commercial Radars, integrated by people, associations and businesses in the neighborhood that are willing to collaborate. They do a daily follow up sensitively and respectfully. If they detect a change in the daily routine of any of the elders in the risk of isolation, and they are not able to reach that person, they will contact the Net to define the actions to be developed.</p> <p>In addition, Project Radars has both designed and implemented the "Resources and Services Portal for elderly people", a catalogue of the services for the elders that are in the city.</p>
Results:	<p>The evaluation of Project Radars is carried out in a continuous and participative way. The Committee of Entities is the main organ of the Net, in charge of evaluating actions and results every three months.</p> <p>At present, 247 entities and services, 1023 neighborhood radars, 587 commercial radars and 456 chemists' take part in the project. All these assist 764 elders who are users of the project. Social services have intervened on 184 people at risk.</p> <p>The City Council added SROI methodology (Social return on the inversion) for the evaluation of the pilot phase of Radars in the district of Gracia (2008-2011), which lets us calculate monetarily the value of the results, either they have economic value or not. Such analysis allows us to explain society the social value that gets generated for every invested euro, where monetization plays an important value, although not exclusive. In total, and for the considered period, Radars generated a positive Social Return on the inversion (SROI): for every euro that the Public Administration invested in this project, Radars returned 3.80 euros to society.</p> <p>Key points:</p>

	<p>The project is a reference of good practice to optimize human resources, both material and economic, motivating work on the net as the best organizing response: it works from prevention, boosts social cohesion and intergenerational relations, and improves the relation between Administration and Social Services with citizenship.</p> <p>The first three years of application of Radars showed that the project reduces the feeling of solitude in elderly people, and rises their feeling of security due to being accompanied by the different services (platform for telephone monitoring, radars or committees of entities). Besides, volunteers have been reinforced for their social contribution, implementing their sensitivity towards social exclusion.</p> <p>Weak points: The job, both detailed and slow, needs the participation of different agents to draft a social network.</p> <p>Elderly people show distrust with regard to some actions in their private lives.</p> <p>Proposals for the future: The future prospect is to continue implementing experience in the neighborhoods that still have not included it.</p> <p>Currently, it has also been spread to other cities in the surroundings, which receive technical and methodological support from the City Council.</p>
Summary:	<p>Radars is born in a district in Barcelona in the year 2008 thanks to the participation of both neighbors, shops, pharmacies, associations, libraries, etc. that, together with the City Council, form a Net for community prevention and action that helps elders living by themselves in the neighborhood.</p> <p>“Radars” are these voluntary people, shops and entities that are aware of the dynamic of the elderly people that they know. If they detect some change in their daily routines, their behavior or looks, they would contact the Net, this being integrated by professionals from social services.</p> <p>The elders who accept to be users of the Project benefit daily from the respectful treatment from their nearest surroundings, and the supervision that they receive from the Platform for Telephone Monitoring, where also volunteers work. Professionals from Social Services in the neighborhood are the ones that decide to intervene, in case of being necessary, and co-responsibly with entities and other services.</p> <p>Taking into account the good results, in 2012, the City Council decided to implement the Project in the whole city, spreading it to all districts.</p>

Table 5: Experience classrooms

Title of the experience: Experience classrooms	
Topic: Education	
City: Mislata	
Description:	<p>For the past few years, there has been an important increase of aged population in Mislata, which means 20.3% of people older than 60. Besides, the profile of these people is changing; most of them are active and self-sufficient, whose experienced lives enrich society. Due to this, it is necessary to insist on social policies that promote both humane and caring contribution to elderly people in the community, in order to demystify stereotypes, increase their self-esteem and sensitize and develop proposals for integration in the community.</p>

<p>Objectives:</p>	<p>General objective: improving the quality of life of elderly people by means of non-formal education, promoting community integration, participation and the associative tissue.</p> <p>Specific objectives:</p> <ul style="list-style-type: none"> - Facilitating active ageing of the elders, by stimulating both initiatives and participation in the process of development of their own community. - Promoting healthy lifestyles by means of formative proposals. - Presenting proposals that facilitate adaptation to retirement. - Fostering self-autonomy and self-esteem of elders. - Coordinating all existing resources, both from public administrations and social initiatives, in order to support caring proposals. - Creating an atmosphere of interchange of experiences, helping both group and associative work. - Facilitating access to new technologies. - Arousing concerns in elderly people.
<p>Methodology:</p>	<p>For the year 2013-2014, the formative offer aimed for the elders is wide and varied: more than 100 workshops to do with health, craft, generational interchange, expression, reading encouragement, information technology, communication, traditional games, etc. and also to be able to attend or participate in other sociocultural activities like: exhibitions, contests, seminars, talks, etc. In total, there have been more than 2000 registrations to workshops.</p> <p>Voluntary monitors belong to different associations in the city, and they are all coordinated and assessed by two technicians from the City Council, with both pedagogical and gerontological formation, and two professionals employed by the Council, with artistic formation and health education who also teach in workshops.</p> <p>The main requirements to become a monitor are, on the one hand, to either show experience in the subject or hold an academic title. However, what is more important is to have the capacity to get adapted to the essential target of the program: community integration.</p> <p>From the Oficina del Mayor (Office of the elder) they coordinate together the volunteers, the local technicians and the professionals employed by the Council, in order to develop the proposals of formation and specify the tasks to be done by technicians and volunteers:</p> <ul style="list-style-type: none"> - Coordination of functions and tasks of technicians: <ol style="list-style-type: none"> 1. Development of programs, projects and activities (definition of objectives and activities). 2. Promotion of volunteering: recruitment and motivation; formation of volunteers; monitoring of their labor through tutorial meetings; monitoring of collaboration agreements established with elderly associations in order to boost the volunteers compromise and also cover the expenses of the activities. 3. Program management. 4. Information and enrollment. 5. Monitoring and evaluation (assistance, degree of satisfaction...). 6. Elderly Homes management. - Coordination of functions and tasks of volunteers: <ol style="list-style-type: none"> 1. Fulfillment of arranged agreements. 2. Coordination of information with Oficina del Mayor (Office of the elder) (planning, schedules, groups and levels, etc.).

	<p>3. Development of workshops.</p> <p>4. Participation in meetings.</p>
Results:	<p>The program enjoys great acceptance according to the data obtained from a satisfaction questionnaire filled in by both pupils and monitors, which is justified by the rise of enrollments year after year.</p> <p>With time, the team of volunteers developed by elderly people has been consolidated, and, currently, it plays an essential role in local social policies for the elder. Such team is based upon the governing principles of citizenship and participation, cooperation, transversality, social innovation and compromise of the different agents. Together, professionals and volunteers, they make it possible to enrich experiences in non-formal education, and widen the offer of activities for the elder.</p> <p>Key points:</p> <ul style="list-style-type: none"> - Mutual understanding among participants, and between participants and monitors. - High level of satisfaction shown by participants referring to monitors and the employed methodologies. - Motivation among volunteers to carry on conducting activities of the Program. <p>Weak points: Management of material, depending exclusively on the associations, and the premises, local centers of coexistence where the activities are carried out.</p> <p>Proposals for future: Increasing the contents and carrying out transversal activities.</p>
Summary:	<p>Experience classrooms ("Aulas de la Experiencia") is a proposal coordinated by the Department of Elderly People (Concejalía de Personas Mayores) that consists in offering formative workshops aimed for the elder population, conducted mainly by elder volunteers, who work altruistically giving their knowledge out, at the same time that they learn what their partners teach them. 90% of voluntary monitors that conduct workshops are people older than 65. The program Experience Classrooms is started in 1995. In 2002, the Department activates the Office of the elder, a reference for the elders, for offering a service of information, assessment and coordination of both the Program and other sociocultural activities. Currently, more than 200 people carry out tasks of accompaniment, teaching, coordination, information and support to the Program.</p>

Conclusions

After retirement, people enjoy longer free time. Therefore, they can occupy that time with socially productive tasks, and continue with their personal formation, for the pleasure of getting integrated by means of acquiring a pluridimensional education that breaks down barriers, both spatial and temporary, embracing person and knowledge. Education without time and space limits becomes a dimension of life itself.

An active ageing brings the development of a number of conditions to age safely, by means of social, legal, sanitary and educational support. Currently, we may find a number of educating activities intended for elderly people, like, for example, university programs, cultural programs in day centers, or cultural associationism. Educating cities are an unbeatable support in this process of formation. Besides, the richness and variety of activities, like the ones gathered within this research, are a support and a reference for the present reality of a growing part of the population: our elders. The compromise of the cities belonging to the movement, acquired through the chart of EC implies a process of formation of all citizens, guarantee for rights for the most vulnerable collectives.

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Indicators Of Integrating Technology In Music Education: A General Framework

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Abstract

Schools are experiencing a new way of understanding and using technology in teaching and learning. Teachers now have at their disposal a pedagogic resource that can be used as much for learning about technology as learning with technology. Educational technology, while generating a great deal of interest among music teachers for the huge potential that technologies offer as teaching tools, they remain an under-utilised resource in many music classrooms. In this article, a brief description of a general framework proposal for integrating technology in music education will be provided. A survey was produced to identify the elements which influence the implementation of technologies in music education. 16 interviews were conducted with experts in technologies applied to music education. These elements serve as a base for formulating a proposal for a framework for the integration of technology in music education. The results of this study highlight 4 factors and 13 elements which facilitate the use of technology in primary school music education, with the aim that music teachers use technologies in teaching in a conscious way.

Keywords: *Music education, elementary schools, educational technology, curricular integration, music classroom.*

Introduction

Schools have been incorporating many different technological innovations in the classroom, albeit in a fairly informal way, since the beginning of the last century (Novelino, 2008), although it was not until the 1980s, with the arrival of the personal computer and computer-assisted teaching, that most local, regional and/or national education authorities around the world began to include technology integration initiatives in their education policies (OECD, 2009). Spain exemplifies this with the initiation in 1985 of the process of introducing computing into non-university education. Through the Ministry of Education and Science's Atenea plan, the autonomous communities with their devolved educational competencies began to implement their specific programmes. In the case of Catalonia, the Department of Education initiated the Education Information Technology Plan (Programa d'Inform tica Educativa) in 1986 to promote and co-ordinate the integration of technologies in non-university teaching ( rea, 2006; PIC, 2007). However, it is only since the implementation of the Education Act known as LOE (an acronym which stands for Ley Org nica de Educaci n) which came into force in Catalonia with the Decree 142/2007 of 26th June -containing explicit references to the development and implementation of technology in all stages mandatory education- that the majority of schools have really started to integrate it into the teaching and learning processes and different governments have instigated classroom digitalisation programmes with the goal of aiding digital literacy among pupils and improving the quality and efficiency of learning in schools. Examples of the latter include the Escuela 2.0 programme, the EduCat 2.0 project and the Cultura Digital en la Escuela plan.

As for the field of music education, the explosion in the use of technology in the classroom has opened up a whole new horizon of opportunities. Music teachers now have at their disposal technological equipment with the aim of promoting digital literacy of students and improving the quality and effectiveness of school learning (Reid, 2002; Goble, 2008). However, *"it would be a mistake to assume that simply introducing technology into the classroom will lead to innovation and changes in methodology"* (Generalitat de Catalunya, 2010, p.5). The use of technologies in the classroom is a complex process. If they are to produce a step change in the quality and effectiveness of learning at school, one needs to understand the integration process and the factors that can complicate implementation of technologies in the music classroom (Pablos, Col s & Gonz lez, 2010; Lugo & Kelly, 2008). Otherwise, theoretical approaches will remain but good intentions (Canales & Marqu s, 2007). It is against this background that the framework we provide could be useful to music teachers who wish to implement technology in their teaching and who are unaware of the factors which should be taken into account.

The Challenge Of Effectively Integrating Technologies In The Music Classroom

FITME -an acronym which stands for a general Framework proposal for Integrating Technology in Music Education- is one of the results of the research study *"The Digitalisation Of Music Classrooms In Schools In Catalonia: Study Of And Proposal For A General Framework For Integrating Technology In Music Education"*

(Masdeu, 2015). One of its objectives is to identify the elements and factors which influence the implementation of technologies in music education.

Process for drawing up the FITME framework.

Regarding the process of planning and creation of the proposed FITME framework, three stages are established:

- Ideation and design. An initial proposal of FITME is created based on the information obtained from: (a) a literature review of previous research on the digitalisation of music classrooms, (b) interviews conducted with 10 experts in music education and (c) one's own professional experience in the field of music education and educational technology.
- Validation of the initial proposal. This phase involves carrying out 6 interviews with experts in the use of technologies in the field of music education in order to share information and contrast opinions on the initial proposal of FITME.
- Review and refinement of the proposal. This phase consists of reviewing and refining the proposal based on the conclusions obtained from the two previous phases.

Presenting the framework.

The final design is the result of taking into account the education laws governing the primary education system in Catalonia, the strategies employed by education authorities for the integration of technologies in schools (Generalitat de Catalunya, 2013, Benavides & Pedró, 2007, Pelgrum & Law, 2004), the technological models for the implementation of technologies in schools proposed by Newhouse, Trinidad and Clarkson (2002), Marquès (2000a) and Radencich, McKay and Paratore (1995), previous studies related to: (a) the process of integration and convergence of technologies in schools (Lugo & Kelly, 2011, Generalitat de Catalunya, 2010, Pablos, Colás & González, 2010, ISTE, 2008, Morrissey 2008, Brunner, 2008, Hew & Brush, 2007, Tejedor & García-Valcárcel, 2006, Area, 2005, UNESCO, 2004, BECTA, 2004, Aviram, 2003, UNESCO, 2002), (b) the process of integrating technologies into teaching practices (Koehler & Mishra, 2009, UNESCO, 2008, ISTE, 2008, Jones, 2007, Perrenoud, 2007, Marquès, 2000b) and (c) the process of integrating technologies in music education (Pérez, 2011, Figueras, 2009, PRELUDE, 2007).

The FITME proposal identifies 4 essential factors to consider in the implementation of technologies in primary school music education (Figure 1): Digital-musical competences, Strategic planning, Learning environment and Teaching competence.

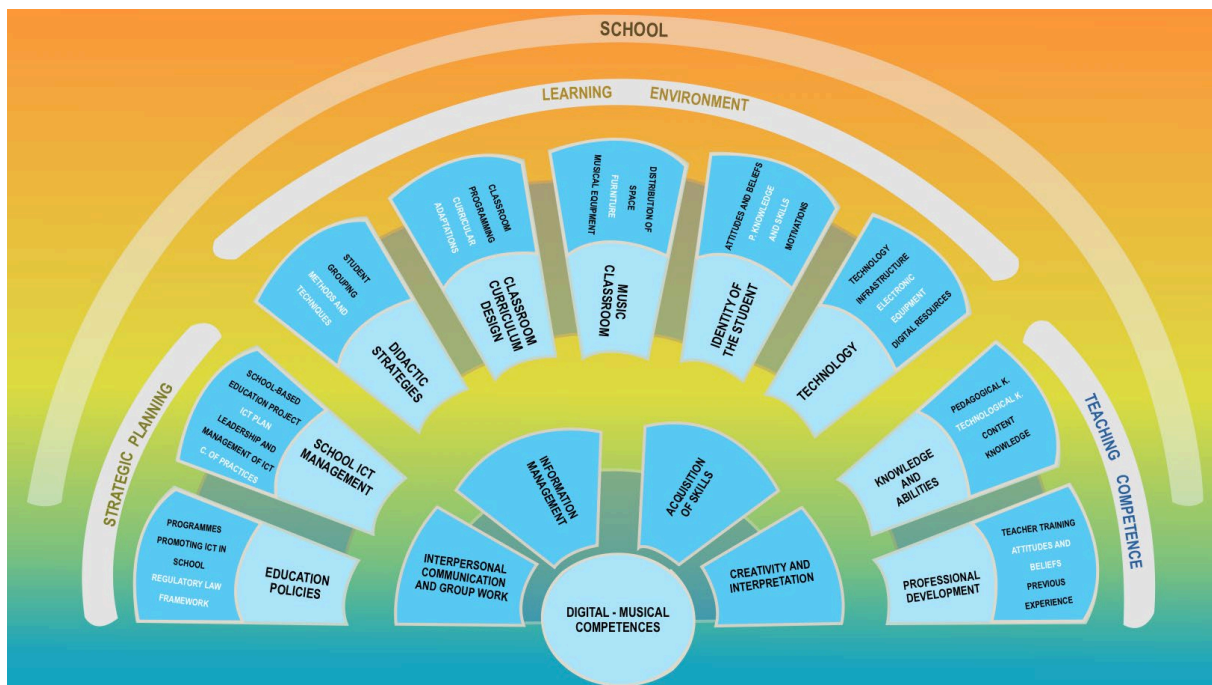


Figure 1: Framework proposal for Integrating Technology in Music Education.

As regards to the position of the factors on the design of the framework, the digital-musical competences factor is at the core of the FITME. This factor has a direct impact on three secondary hubs: (a) Strategic planning, (b) Learning environment and (c) Teaching competence. Furthermore, all the four factors come under the umbrella

of school. We opt to situate the Digital-musical competences factor at the core of the FITME because the purpose of integrating technology in education and learning is to be “*at the service of learning and knowledge*” (Generalitat de Catalunya, 2010, p.5) and to help pupils acquire the knowledge, abilities and attitudes necessary for digital competence.

Digital-musical competences.

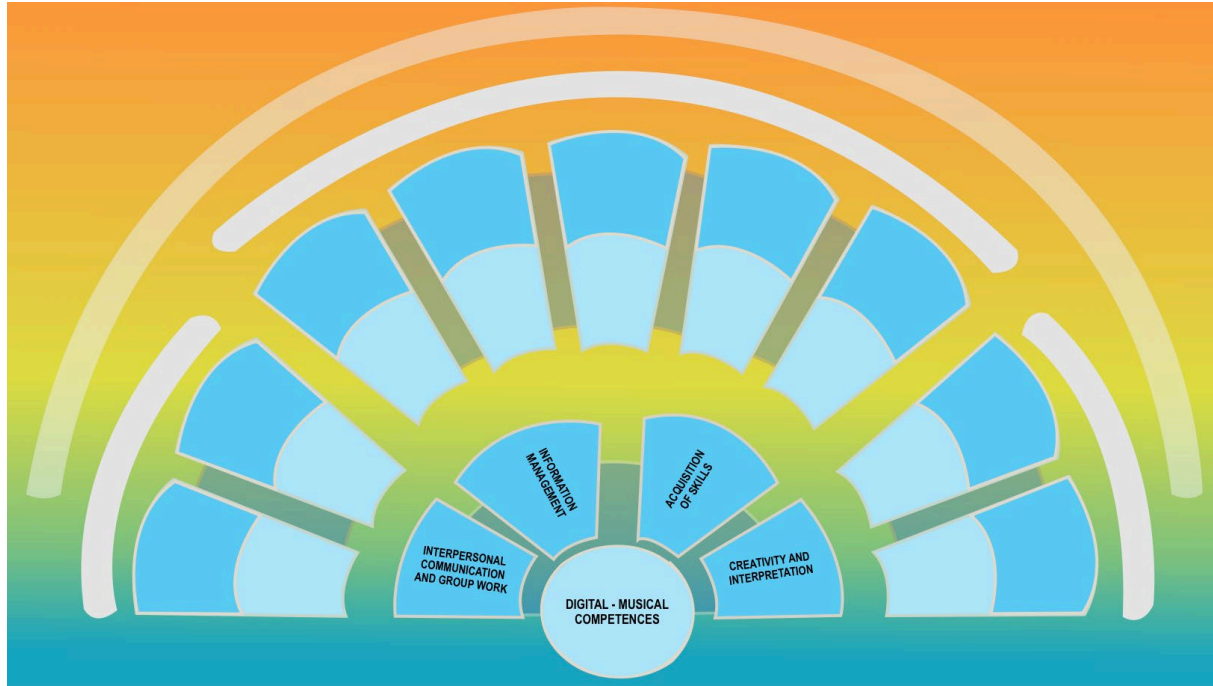


Figure 2: Digital-musical competences factor.

This factor (Figure 2) comprises four elements relating to music, which not only help in the acquisition of musical competence, but also of the knowledge, abilities, and attitudes necessary for digital competence: (a) Interpersonal communication and group work, (b) Information management, (c) Acquisition of skills and (d) Creativity and interpretation. It is important to note that the competencies included are the result of bringing together music education objectives with those associated with using technology.

- Interpersonal communication and group work. This comprises work processes based on the exchange of experiences, feelings and emotions among people or work groups: *comment, share, participate, transmit* and *use*.
- Information management. This includes tasks related to the search, manipulation, and treatment of language: *access, analyse, search, classify, store, link, investigate, summarize* and *use*.
- Acquisition of skills. This includes tasks related to perception, knowledge, and understanding of the elements of musical language: *analyse, evaluate, classify, compare, discriminate, listen, read, memorize, perceive, recognize, remember* and *use*.
- Creativity and interpretation. This includes tasks related to the expression and experimentation of the creative possibilities of the sound fact: *apply, understand, create, execute, experiment, improvise, investigate* and *use*.

Strategic planning.

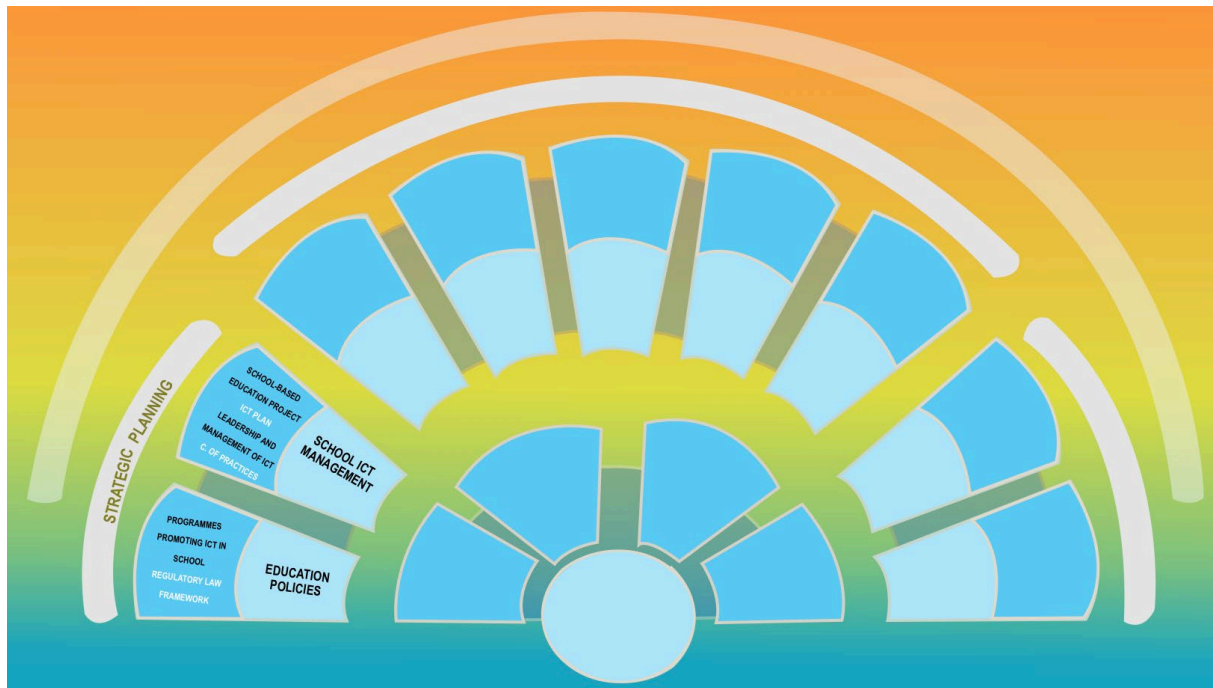


Figure 3: Strategic planning factor.

This factor (Figure 3) includes two elements connected with the regulatory framework and school management: (a) Education policies and (b) School ICT management.

The first element, Education policies, identifies aspects that refer to strategies of education administrations related to the incorporation of technologies in schools: Programmes promoting ICT in schools and Regulatory law framework.

- Programs promoting ICT in schools. Since the arrival of personal computers and computer-assisted teaching in the field of education, most local, regional and/or national education authorities around the world began to include technology integration initiatives in their education policies (OECD, 2009). The most significant education programmes currently promoting ICT in Catalan schools are the Erasmus+ programme, the Avanza II plan, Red.es, the Cultura Digital en la Escuela plan and XTEC.
- Regulatory law framework. According to the competencies provided to the Government of Catalonia for the establishment of the compulsory school education, it corresponds to the Department of Education to regulate the Primary Education considering the minimum teachings established by the Spanish Government. Thus, the Decree 142/2007 of 26th June provides the methodological guidance, the core competencies, the learning objectives, the key contents and the assessment criteria at the Primary Education and to each one of the areas that comprise it.

The second element, School ICT management, comprises those aspects that should be considered in relation to the governance of technologies in the school: School-based Education Project, ICT Plan, Leadership and management of technologies, and Communities of practices.

- The school-based Education Project. According to the Decree 142/2007 of 26th June, each school must prepare a document -called school-based Education Project- to develop and specify the Primary Education curriculum in accordance with the characteristics of their students.
- ICT Plan. Lugo and Kelly (2011) and Generalitat de Catalunya (2010) point out the importance of ensuring that the integration of technologies in schools happens following a process of reflection, discussion and planning involving the entire teaching staff.
- Leadership and management of technologies. We must promote a school climate that encourages teachers to experiment with technologies (Bitner & Bitner, 2002). It is essential that the leadership team -together with an ICT support team- promote strategic actions that advise and motivate the rest of the staff to integrate technologies into teaching and learning processes.
- Communities of practices. They are groups of teachers who meet to share problems and advice on a specific topic as well as to expand their knowledge through continuous interaction among all participants. The

participation of teachers in these spaces will motivate teachers to gain confidence and confidence in the use of technologies.

Learning environment.

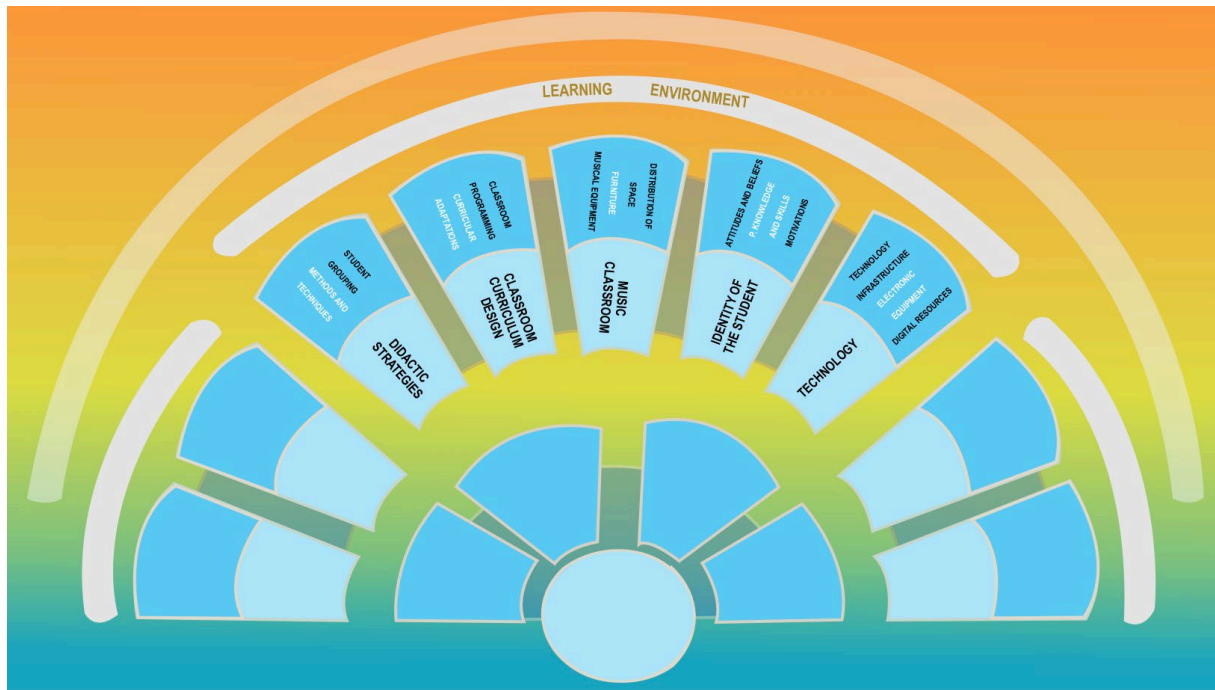


Figure 4: Learning environment factor.

This factor (Figure 4) includes five elements relating to how teaching is planned within the classroom: (a) Didactic strategies, (b) Classroom curriculum design, (c) Music classroom, (d) Identity of the student and (e) Technology.

The first element, Didactic strategies, includes aspects linked to systematic and systemic action guidelines that teacher can incorporate into the teaching processes with the purpose of being able to configure learning that involves the use of the technologies: Grouping of the students, and Methods and techniques.

- Student grouping. According to Somekh and Davis (1997), teaching competence in the use of technologies is a necessary but not sufficient condition for integrating technologies into teaching and learning processes. In this regard, Newhouse (1999) suggests considering different types of group class that can be configured in teaching and learning processes and that favour the use of technologies.
- Methods and techniques. According to Newhouse, Trinidad and Clarkson (2002), we can distinguish three basic models for using technology in education: (a) Individual, (b) Flexible groupings and (c) Whole class group.

The second element, Classroom curriculum design, includes aspects that affect the curricular concretion process carried out by the teacher from the information included in the School-based Education Project: classroom programming and curricular adaptations.

- Classroom programming. According to Ander-Egg (1993), it is the instrument that allows the teacher to organize and articulate their educational practice according to the purposes expressed in the school-based Education Project. Among the various elements that should be included in the program, we highlight the learning objectives, the key contents, the methodology, the timing, the different learning activities, the materials and resources, and the assessment criteria.
- Curricular adaptations. It consists of adapting the curriculum to the specific educational needs of the student so that he can achieve the established objectives. The adaptations may be non-significant, if the established modifications do not require adapting the capacities set in the objectives of the curricular subject; or significant, if the modifications established in the adaptation require adjusting the evaluation criteria and the degree of achievement of the area's capabilities.

The third element, Music classroom, brings together aspects that have a direct link with the organization and configuration of the specific classroom of music education: Distribution of space, Furniture and Musical equipment.

- Distribution of space and furniture. Radcliffe, Wilson, Powell and Tibbetts (2008) conclude that the design and equipment of the classroom condition the teaching and learning patterns that can be promoted within it. Thus, in order to teachers to develop different teaching styles, it is important that the classroom has a flexible distribution of space and furniture that makes possible different configurations of the space.
- Musical equipment. Apart from the physical specifications of the space and the existing furniture within the classroom, we must also pay attention to the musical equipment available in the classroom and specify the instruments that can be used in teaching and learning processes.

The fourth element, Identity of the student, includes aspects that allow identifying the distinctive features that particularize the students: Attitudes and beliefs, Previous knowledge and skills, and Motivations.

- The knowledge of aspects that singularize the students in relation to the use of technologies -such as, attitude, beliefs, previous knowledge and skills or motivation- allow the teacher to plan and adapt the use of technology according to the characteristics of the student.

Finally, the fifth element, Technology, identifies aspects related to the technological equipment available in the classroom: Technological infrastructure, Electronic equipment and Digital resources.

- It is important to keep in mind what technological infrastructure has the classroom (e.g., connectivity to the network) and what electronic equipment -both general and specific for the practice of music- and digital resources can be used by the teacher in the designed learning activities (e.g., tablet, MIDI keyboard, computer, music software).

Teaching competence.

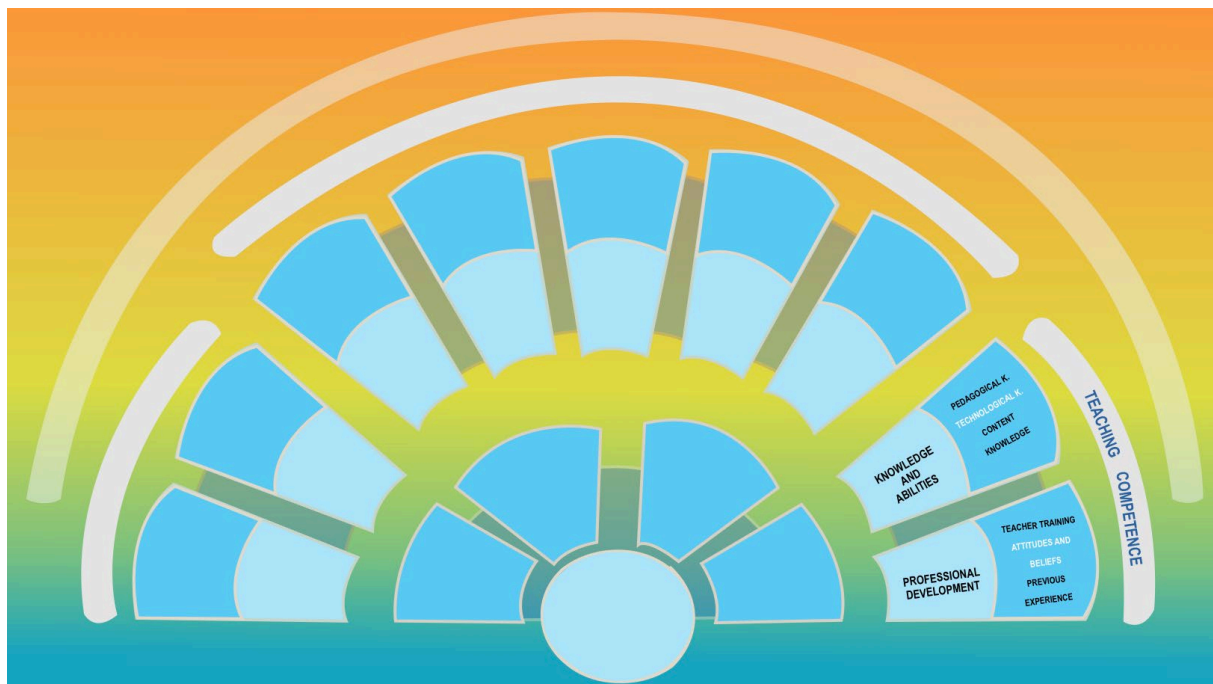


Figure 5: Teaching competence factor.

This factor (Figure 5) includes two elements directly related to the professional profile of the specialist music teacher: (a) Knowledge and abilities and (b) Professional development.

The first element, Knowledge and abilities, includes those aspects that refer to competences and skills that the teacher must have to make effective use of technologies in teaching music education: Pedagogical knowledge, Technological knowledge and Content knowledge.

- The irruption of technologies in schools has prompted the music teacher to update their knowledge and skills in the use of technologies to take advantage of the wide pedagogical possibilities offered by

technologies as learning tools. Following this line, Mishra and Koehler (2006) suggest a conceptual knowledge framework -known as TPACK (Pedagogical Content Knowledge Technology)- that identifies the types of knowledge and synergies that exist between them and that teachers must possess to be able to make effective use of technologies in teaching processes.

The second element, Professional development, includes the sections that determine the way in which the music teacher integrates the use of technologies in their professional activity: Teacher training, Attitudes and beliefs, and Previous experience.

- Although it has been identified that one of the most common reasons for which teachers decide not to use technologies in educational processes is the lack of knowledge and specific skills in the use of technologies (Hew & Brush, 2007); attitudes, beliefs and previous experiences also play a decisive role in the process of integrating technologies in the classroom. Thus, for example, Ramírez, Cañedo and Clemente (2012) emphasize that a positive attitude of the teacher towards technological resources will make the latter more willing to integrate them into their teaching work.
- Teacher training is an instrument that fosters confidence in the pedagogical use of technologies (Paraskeva, Bouta and Papagianni, 2008).

Conclusions

Pedagogic innovation through the use of technology is a complex process in which a series of factors are at play which directly impacts the implementation and use of technology in schools. So it *"would be a mistake to assume that simply introducing technology into the classroom will lead to innovation and changes in methodology"* (Generalitat de Catalunya, 2010, p.5). Successful integration, therefore, may be dependent on knowledge of the factors that can help implementation of technologies in the classroom. On the basis of these arguments, and to avoid technology becoming a mere supplementary resource for occasional use, the FITME proposal identifies 4 factors and 13 elements which facilitate the implementation and use of technology in music education:

- Digital-musical competences. This comprises four elements relating to music, which not only help in the acquisition of musical competence, but also of the knowledge, abilities and attitudes necessary for digital competence: (a) interpersonal communication and group work, (b) information management, (c) acquisition of skills and (d) creativity and interpretation.
- Strategic planning. This includes two elements connected with the regulatory framework and school management: (a) education policies and (b) school ICT management.
- Learning environment. This includes five elements relating to how teaching is planned within the classroom: (a) didactic strategies, (b) classroom curriculum design, (c) the music classroom, (d) identity of the student and (e) technology.
- Teaching competence. This includes two elements directly related to the professional profile of the specialist music teacher: (a) knowledge and abilities and (b) professional development.

From the factors and elements identified several conclusions can be drawn, of which we would highlight the following:

- Technology is not an end in itself but a means to aiding and promoting digital literacy among pupils and improving the overall quality and effectiveness of learning. When implementing it in music education, technology should be taken into account alongside the other elements in the planning of teaching activities in music classrooms in primary education.
- A shared vision among teaching staff of the use of technology in the classroom facilitates the integration of ICT in the school. According to the International Society for Technology in Education (ISTE, 2008), one factor which facilitates the integration of technology in classrooms is that this happens following a process of reflection, discussion and planning involving the entire teaching staff.
- When integrating technology in learning, teachers' proficiency in its use is not sufficient. It is clear that even if adequate training is provided, this does not guarantee that technology implementations lead to improvements in the quality and effectiveness of teaching. To achieve this, and avoid technology becoming a mere supplementary resource for occasional use, its incorporation into education processes must involve a series of methodological and organisational changes to the classroom.
- Classroom design and equipment dictate teaching practices. According to Radcliffe, Wilson, Powell and Tibbets (2008), layout, furniture, infrastructure and technology equipment all effect how children learn and are taught, and so these elements must be considered when planning teaching involving the use of technology.

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Information Access And Communication In Cancer Patients

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Abstract

Internet-based technologies have changed the way patients search for information and social support systems, allowing health services to be maintained even at remote access points. Providing communication when the patient is experiencing intense stress and need for information strengthens decision support systems, increases the effectiveness of the treatment and the quality of life of the patient. In cancer patients, who these processes are most intense, the right information about the disease and the realization of healthcare communications (health professionals, family, etc.) become even more important. The National Cancer Institute has stated that clinician communication is crucial and contributes to health care in at least seven ways. These ways: access to care, increased understanding of patient information sharing, development of therapeutic communication (doctor, patients etc.), empowerment of emotional self-management, activation of social support and advocacy resources, increased quality of medical decisions and increased patient self-sufficiency. In the literature, the right information about the diseases of cancer patients, transportation and health professionals - web based systems provided by peer communication: CONNECT™, Comprehensive Model of Information Seeking (CMIS), Interactive Health Communication System (IHCS), Interactive Cancer Communication System (ICCS), Comprehensive Health Enhancement Support System (CHESS). All of these systems have strengthened the coping methods in chronic diseases and cancer patients, improved the quality of life, strengthened the communication between the patient and the health professional and improved the effectiveness of the treatment. Cancer patients are in a difficult decision making process. Because they are often confronted with mortality, with character treatment options with uncertain outcomes and toxicity potential. In general, doctors are the primary source of medical information, and communication between the doctors and the patient is critical to both parties, but making the right decision is critical. With these web based systems it is very important to strengthen the decision support systems between doctors and patient in cancer patients.

Keywords: *Online communication in cancer, Cancer information search, Cancer and communication, Health communication, Web based communication.*

Introduction

Internet-based technologies have changed the way patients search for information and social support systems, allowing health services to be maintained even at remote access points. Providing communication when the patient is experiencing intense stress and need for information strengthens decision support systems, increases the effectiveness of the treatment and the quality of life of the patient (Coons et al., 2000). In cancer patients, who these processes are most intense, the right information about the disease and the realization of healthcare communications (health professionals, family, etc.) become even more important. The National Cancer Institute has stated that clinician communication is crucial and contributes to health care in at least seven ways. These ways are strengthening emotional self-management, enabling social support and advocacy resources, increasing the quality of medical decisions, and increasing patient self-efficacy, as well as improving patient information sharing, developing therapeutic communication (clinician, patient, etc.) (Thorne et al., 2005).

In chronic illnesses especially of cancer patients, communication and accurate information access, allows the psychosocial health of patients to indirectly improve their general health and the effectiveness of treatment. The correct information and therapeutic communication have the effect of direct and indirect on health are shown in Figure-1 (Hack et al., 2005).

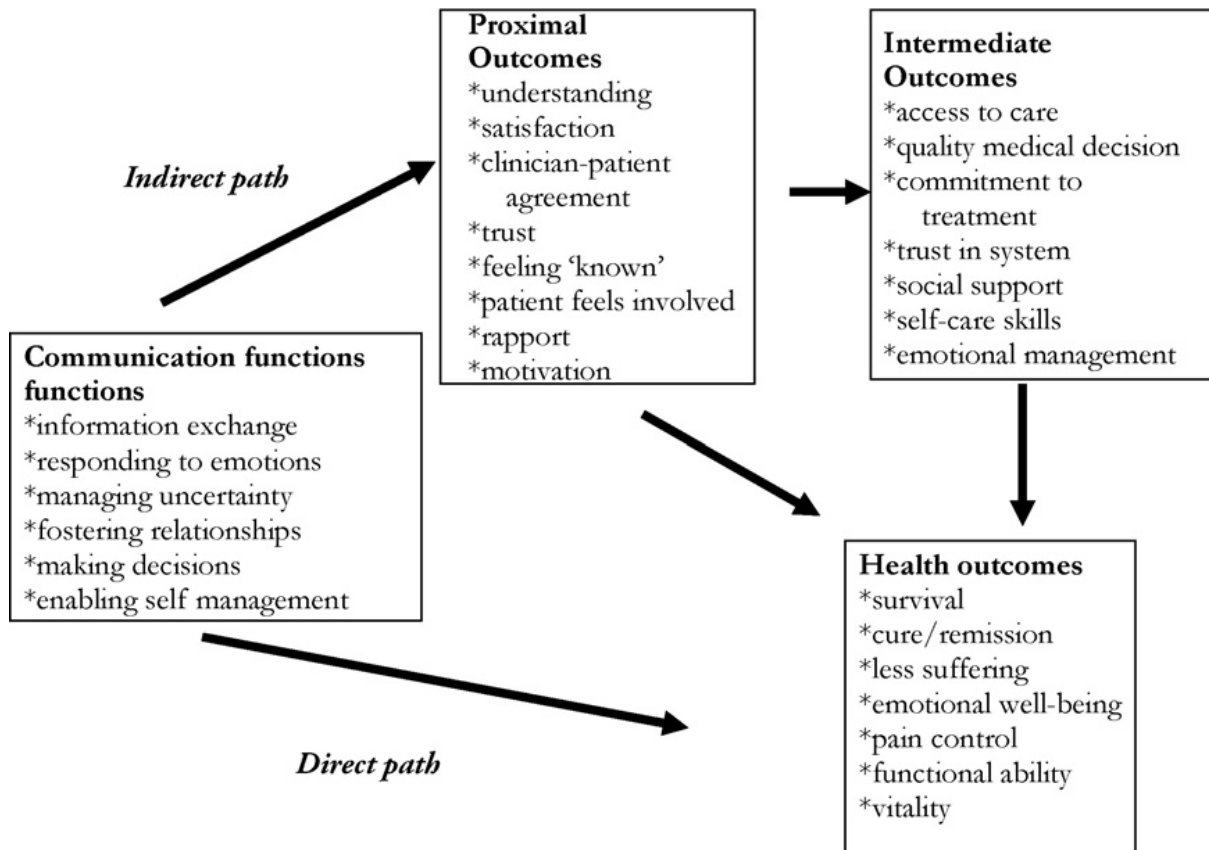


Figure 1. Direct and indirect pathways from communication to health outcomes.

Street Jr, R. L., Makoul, G., Arora, N. K., & Epstein, R. M. (2009). How does communication heal? Pathways linking clinician-patient communication to health outcomes. *Patient education and counseling*, 74(3), 295-301.

As can be seen in the figure, the ways in which clinician-patient / family communication can affect health outcomes can be direct. For example, it is stated in the studies that patients who are the psychological state of the patient of a physician who gives information about the health condition of the patient and communicates empathically is better (understanding, satisfaction, livelihood etc.) (Ong et al., 2000; Schofield et al., 2003). Communication can also affect physical symptoms. In one study, for example, empathic communication was found to reduce physiological arousal and pain in patients with irritable bowel symptoms (Kwekkeboom, 1997). In non-verbal behaviors such as touch or tone, health can be directly increased by reducing anxiety or providing comfort. In addition, communication affects health through a more indirect or mediated way with proximal consequences of interaction (eg: satisfaction with care, motivation of commitment, confidence in clinician and system, self-efficacy in personal care, shared understanding between clinician and patient). For example, a clinician's clear explanations and support statements provide more patient confidence and understanding of treatment options (proximal outcomes) (Henricson et al., 2008). Patients should be informed about the diseases, risks and benefits of various treatment options in order to make informed decisions about medical care. Treatment options given to the patient improve a specific health outcome (disease control, emotional well-being). Participation of the patient in the consultation helps the physician better understand the needs and preferences of the patient. Informing the patient about the risk factors of the patient, a high quality decision is made with the patient's decision and the mutual decision (Braddock et al., 1999).

Clinicians also need to understand a patient's health-related values, preferences and beliefs. Besides, it may be difficult to achieve a shared understanding because clinicians and patients evaluate health and disease from different perspectives (Makoul et al., 2009). Clinical evidence is typically applied to populations, not to individuals. Integrating the patient's individual characteristics, value judgments, cultural and religious beliefs and clinical evidence levels positively affects the success of the treatment, patient satisfaction and psychological well-being. (Fuentes et al., 2007). Clinician providing clear and comprehensive information to patient about clarification of health and treatment options can help patients gain a greater sense of control, be more hopeful and manage uncertainty (Makoul et al., 2009). Detecting, investigating and approving patients' feelings can reduce patient anxiety and depression (Iwamitsu et al., 2005).

It is very difficult to help cancer patients manage their negative feelings. Clinicians can strengthen their ability to manage the patient's emotions by listening attentively to the patient's life and expressing the patient's feelings and providing clear and honest information about diagnosis and treatment (Fujimori et al., 2007). Discussed issues

between clinician and patient; self-efficacy, teaches special skills in managing one's health, informs where to apply for access to self-care resources (eg, websites, groups), solves health problems, copes with complications, increases control empathy and facilitates follow. For example, it has been reported that cancer patients strengthen control over disease, emotional well-being during recovery, and coping strategies (Glasgow et al., 2005).

Method

The literature review was conducted in the Pubmed, Cochrane, Scopus, YÖK-TEZ and Google Academic databases using the keywords "online communication in cancer", "information search in cancer", "cancer and communication", "health communication" and "web based communication". The screening was done in Turkish and English and no year limit was applied.

Results

In the literature, the right information about transportation and health professionals related to the diseases of cancer patients - web based systems provided by peer communication: CONNECT™, Comprehensive Model of Information Seeking (CMIS), Interactive Health Communication System (IHCS), Interactive Cancer Communication System (ICCS), Comprehensive Health Enhancement Support System (CHESS). All of these systems are provide the ways of coping with chronic illnesses and cancer patients, improve quality of life, strengthen communication between patient and health professional, and improve treatment efficacy (DuBenske et al., 2010).

Connect™ Study

CONNECT™ is an interactive web-based communication for cancer patients and oncologists that can be used in a variety of settings, allowing for increased communication between caregiver and patient and the opportunity to use web-based technologies (Robinson et al., 1998). The integration of health communication and principles with behavioral theory and information design has been achieved through a multidisciplinary approach that shares different perspectives and approaches. CONNECT™ communication has three main components: (1) a web-based patient survey to assess values, goals and communication preferences (2) a web-based communication skills training module for patients and (3) a physician report describing the condition of the patient as a result of the general examination of the patient trying to maximize the communication of the issues compatible with patient values, and an automated question and answer button responding to the patient's problems. It is actively used on the Internet. It provides a theoretical framework for strengthening the decision-making process in cancer patients. Identify variables such as cancer knowledge, perceived vulnerability, self-efficacy beliefs, distress, values and targets, and predict individual self-management strategies so that behavioral change can be realized and provide training for individual coping mechanisms afterwards (Miller et al., 1997). Psycho-oncological trainings enhance the knowledge and well-being of individuals. In patients with prostate cancer, CONNECT™ has been shown to increase clinical decision making and effective on behavioral outcomes (Diefenbach and Butz, 2004). Health communication is among the best practices with CONNECT™ user test and feedback system (Fleisher et al., 2008).

Cmis

It is a comprehensive information search model. In the past search process of the individual, three components of the individual are defined. These three components are; (1) socio-demographic information, disease experience, needs and values, (2) information access methods, and (3) information seeking behavior. According to CMIS, the direct experience of individuals with disease predicts information needs and information seeking behaviors (Johnson, 1997). For example, the cancer stage is the key factor in treatment. Whether the cancer patient is in the early stage or advanced stage, the drug used has a great effect on side effects and prognosis (Johnson, 1997). At the same time, each stage of the cancer journey (eg treatment decision, chemotherapy, radiation) comes with its own anxieties and can influence the scope and the trend of the information (Han et al., 2010). For example, when the patient is preparing for surgery or treatment, they may choose information about the nature of their disease or treatment options; management of side effects during treatment; and then search for information about decision-making processes (Johnson, 1997). CMIS is an individual-centered information search system, and the right information appropriate to the patients' process provides easy and accessible information (Han et al., 2010).

Ihcs

Cancer patients and caregivers face many challenges, including diagnosis, treatment, remission, and the end of life in cancer orbits. Shortly after diagnosis, patients may need to make important treatment decisions. It is very important for the clinician to support patient selection, to provide information to maintain personal well-being and quality of life (Cayton, 2006). Knowledge management can be an important factor in understanding cancer diagnosis, making treatment decisions and predicting prognosis. In life-threatening diseases, clinical decisions must result from a fully informed decision-making process based on co-operation resulting from effective

communication between patient, family and clinic. Patients and family members often have differences in treatment decisions and care (Chen et al., 2003). This can create tension in their relationships, impairing the planning of decision-making and care. In clinical decisions; to create a full-fledged team, people need support for the right information at the right time and for effective use of this information (Cayton, 2006). Useful information must be an integral part of health care. Patients and caregivers should share confidence in making decisions with the clinician and communication should be central to patient care. Accordingly, the patient has a critical prescription to facilitate the exchange of information and intervention between the caregiver and the clinician - not just to direct intervention to the patient - to produce positive health outcomes (Donnelly et al., 2010).

The role of IHCS provides a channel for information and communication in this process. And IHCS provide information, support and skills training, to deal with the physical and psychosocial sequelae of the disease, to make collaborative decisions, and to communicate with the healthcare team (Donnelly et al., 2010). IHCS provides three main services to the illness (1) provides ready and regular access to information, (2) provides care between the patient and the family, (3) IHCSs act as an interactive coach, where the system retrieves the information from the user, providing feedback on the patient's status with algorithms. Patients can secretly check the recommendations of their doctors from their systems.

IHCSs are a social network that provides social support between people with the same disease and families, as well as a social network that provides information communication between the patient and the physician. Many other individuals have experienced similar conditions; wants to communicate to share information, personal experiences and support systems (Ziebland et al., 2004). IHCS is a highly developed social network in this respect. The IHCS can provide direct communication with the clinic, providing up-to-date information about the patient's condition and sharing information with the patient and family. The most important feature is that only confidential information about the patient can be presented to the patient (DuBenske et al., 2010).

Chess

CHESS is a social network as well as an information resource developed for lung cancer patients first. CHESS is a broader form of IHCS. CHESS communication services enable patients to communicate with each other and with the healthcare team. In the case of the patient and the expert, the patient gets a response within 48 hours to questions about the health status of the patient. The CHESS specialist takes into account the individuality of the patient, who is extremely sensitive to the user's private life and allows the patient to feel expert knowledge in the context of specific health and psychosocial concerns (Siegel, 2005).

Provides a forum for information sharing and support among patients in the same process as the discussion groups (Han et al., 2008). Groups are monitored by an educated facilitator to ensure that discussions are supportive and contain incorrect or harmful information. However, the facilitator does not take an active role in guiding patients and their families about what to communicate (McTavish et al., 2003). Patients do not only exchange information about their own experiences with breast cancer but also give and receive psychosocial support. Due to the severity of advanced disease, the caregiver is focused on supporting the patient as a primary goal. Thanks to the Clinician's Report, it is give information to clinic team about the needs of patient and patient caregivers and patient symptom conditions via the Website. The relationship between the patient, caregiver, clinical team, peer and social at CHESS is shown in figure 2 (DuBenske et al., 2010).

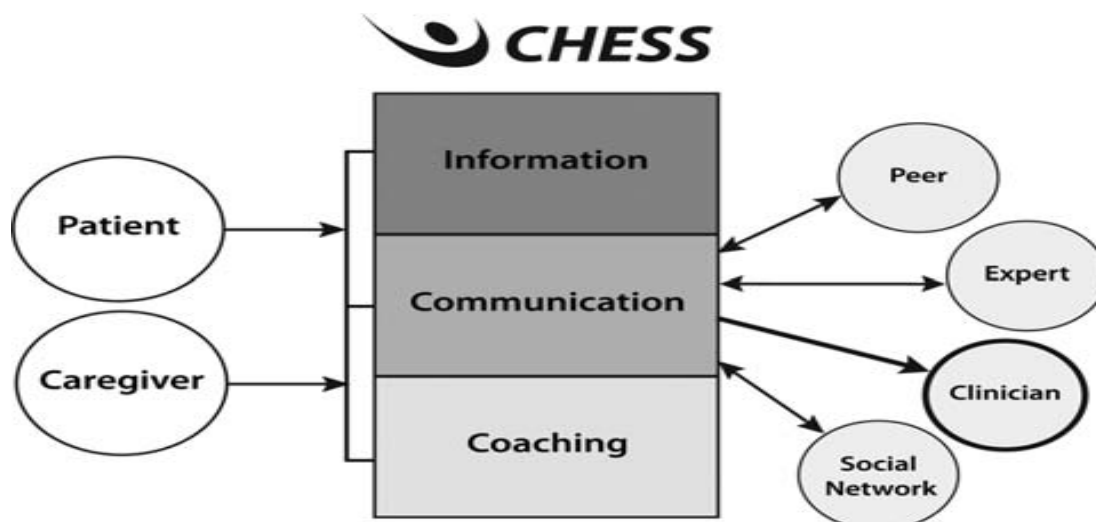


Figure 1. Model of how CHESS connects patients/caregivers to key others in cancer experience.

The "Discussion Group" and "Personal Stories" help users to explore the decision-making experiences of other patients, and to help users evaluate their own options and potential outcomes. Information services also deal with

communication with the health team and improve communication skills, such as questions to ask before deciding on treatment. In addition, CHESS can facilitate decision-making by promoting communication between the patient and his social support network. Coaching services such as "Healthy Relationships" provide training on communication techniques for difficult debates like life-long decision-making. Provides the same information and support to family members (DuBenske et al., 2010).

Table 1. CHESS Services Listed According to Service Category

Once a decision has been made about the patient's situation, users can get support for action to implement their choices, either by developing a plan for change through the "Action Plan" or by receiving support from others

Information Services	
Frequently asked questions (FAQs)	Short answers to hundreds of common lung cancer questions; e.g., "How does chemotherapy work?" or "How do I know if I have depression?"
Instant library	Full-text articles on lung cancer from scientific journals and the popular press; e.g., "Do I Have to Die in Pain?" (PBS)
Web links	Links to high-quality content in health-related and non-health-related sites
Cancer news	Summaries of lung cancer news and research; e.g., "Erlotinib Improves Survival in Stage III NSCLC," August 2009
Personal stories	Real-life text accounts of how patients and caregivers cope with cancer
Communication Services	
Discussion groups	Limited-access, facilitated online support groups for—separately—patients, caregivers, and bereaved caregivers
Ask an expert	Confidential expert responses to patient and caregiver questions
Personal Web page	Guidance for setting up a patient's own bulletin board and interactive calendar with family and friends to share updates and request help
Clinician report	Three types: <i>On Demand</i> gives a summary report on a patient to a clinician who logs into CHESS. <i>Threshold Alert</i> sends an e-mail notice to the clinician when the patient exceeds a threshold on a symptom. <i>Clinic Visit Report</i> sends an e-mail notice to the clinician 2 days before a patient's scheduled clinic visit, suggesting that the clinician look at the report
Coaching and Training Services	
Health status	Prompts users to enter data and provides graphs showing how patient health status is changing,
Decision aids	Helps patients and caregivers think through difficult decisions by learning about options, clarifying values, and understanding consequences, e.g., Treatment Decision Aid or Respite Decision Aid
Easing distress	Uses principles of cognitive-behavioral therapy to help patients and caregivers identify emotional distress and cope with it
Healthy relating	Teaches techniques to increase closeness and decrease conflict
Action plan	Guides patients and caregivers in building a plan for change, including identifying and overcoming obstacles

through the "Discussion Group" and "Personal Web Site". The dynamic nature of cancer gives many decisions in the disease orbit. CHESS provides continuity of communication and information as multiple sources allowing the user to be fully involved and to make decisions throughout a complete cancer spectrum, including diagnosis, treatment, survival or end of life and caregivers (DuBenske et al., 2010).

DuBenske, L. L., Gustafson, D. H., Shaw, B. R., & Cleary, J. F. (2010). Web-based cancer communication and decision making systems: connecting patients, caregivers, and clinicians for improved health outcomes. *Medical Decision Making*, 30(6), 732-744

Conclusion

Cancer patients are in a difficult decision making process with character treatment options with uncertain outcomes and toxicity potential. Because they are often confronted with mortality. In general, physicians are the primary source of medical information, and communication between the physician and the patient is critical to both parties, but making the right decision is critical. With these web based systems it is very important to strengthen the decision support systems between physician and patient in cancer patients.

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Information Literacy Promotion And Its Impacts In Academic Library: Case Study In Rangsit University Library

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Abstract

The purpose of this study is to investigate 1) how the library conducts the information literacy promoting programs to its users; and 2) what are the impacts of the information literacy promotions and practices. To answer those research questions, the following indicators have been monitored and analyzed: 1) number and frequency of the IL training courses; 2) number of students attending the IL training courses; 3) number of library accesses (either physical visits or online access); 4) reference service usage statistics; 5) online database usage statistics; and 6) information resource borrowing statistics. The research methodology is to do the data analysis. The Library has created the information literacy programs such as library orientation, online searching strategy and research literacy. Additionally, some literacy promoting campaigns have been running such as liaison librarians, RSU Loves to Read campaign; I love RSU Library clip competition and reading and borrowing competition. The statistics collected from 2015-2017 identify the positive trends of library usages, especially the library accesses and reference services. The information literacy courses have been customized to serve the appropriate target groups and indicate the increased number of attendees. The number of training courses is increased, whereas the number of library uses either physical visits or online accesses are increased.

Keywords: *Information Literacy, Information Literacy Promotion, library usage statistics, Rangsit University Library*

Introduction

Literacy has been defined as the ability to identify, understand, interpret, create, communicate and compute, using printed and written materials associated with varying contexts. Literacy involves a continuum of learning in enabling an individual to achieve his or her goals, develop his or her knowledge and potential and participate fully in community and wider society (UNESCO, 2005). New forms of literacy needed in modern life are also increasingly taken into account in the curriculum, in particular those related to new technologies such as digital literacy, information literacy, mass media literacy and social media literacy.

Information literacy is defined as a mean to empower people in all walks of life to seek, evaluate, use and create information effectively to achieve their personal, social, occupational and educational goals (UNESCO, 2018), whereas ACRL (2017) defines information literacy as a set of abilities requiring individuals to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information.

Recently, information literacy becomes more important when UNESCO (2007) has named it as one of the 21st Century Survival Literacies. The set of survival literacies include: basic or core functional literacy fluencies of reading, writing, orally and numeracy; computer literacy; media literacy; distance education and E-learning; cultural literacy; and information literacy.

Rangsit University is a private institution of higher education, located in Pathumthani, Thailand, with the primary aim of creating graduates in the area of study meeting the requirements of national development by focusing mainly on science, technology, design and management including independent professions which are requisites in development of one's own career.

Currently the University offers 138 programs which are 92 undergraduate programs for, 36 master programs, 1 post graduate diploma and 9 doctoral programs (Rangsit University, 2018)

Rangsit University Library serves as a knowledge center for teaching and learning process for faculty members, students and researchers. Besides the information resource acquisition for each academic programs, the information literacy skill enhancement and development is one of the Library responsibilities. Currently the Library has totally 26,116,363 titles of information resources. Those are 152,039 books, 976 journals, 1,604 archival documents, 20,138 audio-visual materials, 18 newspapers, and 11 online databases (Rangsit University Library Website, 2018).

Rangsit University Library has taken an important role on information literacy development of the University's learners. In 2013, the Library had surveyed the information behavior of the University students (Praditteera, 2013). The result found the most response are from the 1st year student (32.46 percent), female students (65.90 percent) and 25.06 percent are from the group of faculties of Economics and business students. Most of the students conduct their information seeking and searching when they need to do reports, classroom presentations and class discussion. The information sources they use most often (56 percent) are search engine websites such as Google, Bing, Yahoo, Ask.com. Most of the students assess the information from websites and library by the update. Two-third of students uses their friends and family members in order to assess and select the information. Self-collection

information resources (i.e. lecture notes, self-collection, own books) are the most often used in doing academic or class works. The 50 percent of students choose to ask their lecturers, classmates, close friends and their family members regarding to gain the information for decision making whereas only 11 percent ask librarians. Knowledge blogs, online databases, and reference librarians have been named unknown from the students. Some suggestions on creating an information literacy skill and online database training courses are mentioned.

According to the findings from the 2013 survey, Rangsit University library has taken actions in order to promoting the information literacy skill to the students and gaining more efficiency and effectiveness on information resources management and services. The library has improved and implemented the literacy skill promotions and marketing outreach campaigns.

The findings and recommendations from 2013 survey have been taken to emphasize the importance of the role of the library in developing an information literacy skill.

The Objectives of the Study

The purpose of this study is to investigate:

- 1) How the Library conducts the information literacy promoting programs to its users;
- 2) The impacts of the information literacy promotions and practices to the Library.

Research Instruction

To answer those two questions, the related library data during the Year 2015-2017 have been collected and analyzed. The two sets of data indicated the results of research questions have been categorized as following:

The first set of data included 1) number and frequency of the IL training courses; and 2) number of users attending the IL training courses.

The second set of data included 1) number of library accesses (either physical visits or online access); 2) reference service usage statistics; 3) online database usage statistics; and 4) information resource borrowing statistics.

Research Findings

1. The information literacy promoting programs which the Library provided to its users.

1.1 Number and frequency of the IL training courses

As showed in Table 1, there were 3 types of information literacy courses offering to users. There were 1) library orientation 2) Online searching strategy and 3) Research support courses. Each course varied with its content coverage and target group. For example, the first year students would take the library orientation course, whereas the graduate students took an online searching strategy course.

Table 1 Information Literacy Courses Provided by the Library

Courses	Coverage	Target group	Frequency
1. Library orientation (1hrs)	How to access library collection and use library services	1.Freshmen 2. New faculty members	-All year round -On request -Walk-in
2. Online searching strategy (2hrs)	How to search and access online databases	1.Undergrad students 2.Grad students 3.Faculty members	-All year round -On request -Walk-in
3. Research support (3hrs)	-How to access specific online databases -How to use research tools -How to find journals for research publishing	1.Grad students 2.Faculty members	-Twice per semester -On request -Walk-in

Additionally, the Library organized other services/informal activities related with information literacy development. As shown in Table 2 were some activities well-known among its library users such as liaison librarians; RSU Loves to Read Campaign; Reading & borrowing competition. Each activity was appropriate with its target group. Mostly they were organized once a year.

Table 2 Other Information Literacy Activities/services

Activities/Services	Coverage	Target group
1. Liaison librarians	Information and research literacy services	Students and faculty members
2. RSU Loves to Read Campaign	Reading community promotion	Students and faculty members
3. I Love RSU Library Clip Competition	Video clip promoting the library services and activities	Students
4. Reading & Borrowing Competition	Promoting the book & knowledge material borrowing	Students
5. RSU Library Week	Meeting with authors/reading idols, book fair, etc.	Students and all member

1.2 Frequency and Number of Students Attending the IL Courses

As shown in Table 3, the number of information literacy courses/events and number of attending students from 2015 to 2017 have been increased respectively. The data indicated the positive trends in information literacy courses and numbers of students attend.

Table 3 Frequency and Number of Students Attending the IL Courses

IL Courses	2015 Frequency and Number of Students Attending the IL Courses	2016 Frequency and Number of Students Attending the IL Courses	2017 Frequency and Number of Students Attending the IL Courses
Library & literacy orientation	134 (2,985)	138 (2,915)	140 (3,419)
Online searching course	10 (524)	12 (747)	14 (927)
Research literacy course	16 (71)	18 (189)	21 (290)
Other activities	15 (6,832)	16 (7,367)	18 (8,004)

2. The impacts of the information literacy promotions and practices to the Library.

As shown in Table 4, the statistics collected from 2015-2017 identifying the positive trends of library usages, especially the library website visits, online database accesses and reference services.

Table 4 Library Service Statistic 2015-2017

Indicators	2015	2016	2017
Physical visits	240,942	230,186	221,847
Website/Virtual visits	70,899	73,497	85,439
Information resource borrowing	28,134	26,177	22,378
Online database access	3,340,996	3,712,310	8,447,674
Reference services	4,151	4,943	5,836

Conclusion

1. The information literacy promoting activities which being implemented by the library for its users had impact to the frequencies of usage, especially online database access.
2. The IL promoting activities which fitted for the variety of user groups should be emphasized.
3. The frequency of IL promoting activities and number of participants were relatively impacted to the number of service usages.
4. While the information literacy courses have been customized to serve the appropriate target groups, the statistics indicate the increasing number of attendees

Lesson-learned

The most important benefit gained is that the librarians have developed their searching and research support skills in order to train or consult its library users.

Online or digital access becomes more challenge for the library to continue its role as a learning-teaching support center.

Suggestions for future research

1. The information literacy behavior study shall be redone in order to verify whether the information literacy promoting activities are suitable.
2. The information and research literacy courses themselves shall be evaluated whether they are fit for the objectives.

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Institutional Demands Vs. Historical Baggage: What Do Postgraduate Students Perceive Of Plagiarism?

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Abstract

While plagiarism is wily said to be common among undergraduates due mainly to ignorance, the occurrence of the academic dishonour among postgraduate students is perhaps not that unheard of either, though for reasons other than lack of awareness. Considering that plagiarism is a serious academic offence, it would logically be shunned by a mature, responsible postgraduate student in preparing written work for submission. As such, it is noteworthy that plagiarism cases among postgraduate students may be attributed to a combination of reasons at both personal and institutional levels. This paper describes an in-house study of postgraduate students' perception on plagiarism at the University, with emphasis on 2 clusters of factors, i.e. institutional demand and historical baggage. Responses from 315 postgraduate students at both master's and PhD level were analysed and discussed. From the institutional demand perspective of workload and grading exercise, it was found that excessive workload and time-consuming field trips with little impact on the assessment were considered silent factors pushing students towards the dishonest act, while seemingly unfair assessment by the lecturers was also thought to be a trigger to plagiarism. On the other hand, students do come with historical baggage of prior experiences, and largely regarded reporting the published work of others (without citation) as a form of respect and recognition, and that creating a patchwork of others' efforts to be claimed as one's own is considered acceptable. All in all, the survey results shed light on the potentially negative pull towards plagiarism caused by intrinsic values of the students as well as the University's academic system in general, highlighting the need to realign the factors examined.

Keywords: *Plagiarism, integrity, citation, awareness, postgraduate writing*

Introduction

Plagiarism is often claimed to be the most severe of academic misconduct in the realm of higher education. Students could have included others' work in his or her own writing without recording the necessary credits to the rightful owner or originator of the ideas. Whether it takes place in a conscious or unconscious manner, intentionally or unintentionally, the act would still be considered a serious offence and breach of academic propriety. Plagiarism does not only undermine one's integrity, it also affects the student's learning process as well as that of their peers (McCabe et al., 2002), while putting the validity of higher degrees in certain bad light (Ehrich et al., 2014). Hence it should be monitored where preventive or corrective measures were to be taken as when the need arises.

Debnath (2016) expostulated plagiarism of text to be most commonly encountered, and further categorized the academic theft in ascending order of severity as text-recycling or self-plagiarism, paraphrasing, literal copying and substantial copy-paste. This hints at the ease with which postgraduate students who write extensively for reports, assignments and thesis to falter on the slippery slope of plagiarism. The advent of the internet and proliferation of mobile devices have accelerated, if not complicated the matter (Boisvert & Irwin, 2006). A vast reservoir of information is not only available but readily accessible by a mere click of the mouse or tap of the finger (Wang, 2008). The ease of storage and subsequent retrieval from internet resources has also adversely encouraged the culture of copy-paste among students (Schiller, 2005). Such selective hoarding of information could encourage

students to ‘create’ reviewed papers for publications in proceedings and journals (Long et al., 2009), despite the use of plagiarism detection tools and softwares as preventive measures (Sattler et al., 2015). Also, considering that bad habits, or worse, misconception of what is acceptable and what is not acquired at the university are routinely brought to the workplace of the graduates (Martin, 2009), reflecting a flawed character building process corrigible with appropriate measures by the University.

The present study was conducted to gauge the postgraduate students’ perception on plagiarism from their own reckoning of institutional and personal aspects. The findings would lay the foundation for review and improvement of the University’s learning environment as well as provision of assistance to the students against plagiarism, to nurture scholars of good ethics, morals and professionalism.

Contents Of Survey

The survey circulated among the postgraduate students consisted of 2 clusters of 10 questions and 2 components each. The first category explores the students’ views of the University’s academic environment pertaining to plagiarism, and the second category derives from the students’ inherent values in response to the matter termed as ‘historical baggage’. The cluster of questions were designed to capture an opposing yet comprehensive review of the students’ perception on the issue of plagiarism from within themselves and with relation to the learning environment they were immersed in, i.e. the University. Further details on development of the survey can be found in Chan et al. (2014). Students were simply asked to answer ‘YES’ or ‘NO’ to the questions. Breakdown of the survey clusters and components are as follows:

INSTITUTIONAL DEMAND	
Workload	
W1	There is so much to do that I have to “copy” others’ work to pass of as my own.
W2	There are too many assignments to do for each course.
W3	The due dates for the assignments are always overlapping.
W4	Field work and site visit should be counted as part of the coursework assessment as they take up much time.
W5	The scope of each course is too wide and demanding for me to cope.
Grading System	
G1	I have to copy-and-paste to make good reports / assignments.
G2	My lecturer gives good marks for poor work too.
G3	There is not much difference between the marks given to good and poor work.
G4	As long as the report is long and wordy, I will get good marks for it.
G5	My lecturer does not have time to read through all the reports anyway.
HISTORICAL BAGGAGE	
Cultural Influence	
C1	I see reporting others’ work as a form of respect and recognition.
C2	It is disrespectful to question / criticize the work of others.
C3	I have never heard of ‘plagiarism’ before my graduate study at UTHM.
C4	Referencing and citations are new ideas to me.
C5	I do not understand why I need to cite others’ work.
Educational Background	
E1	I am used to memorizing facts to pass examinations.
E2	I search and transfer information from various sources (e.g. internet, books, journals, etc.) to my own work for good grades, with minimum alterations.
E3	I am not taught to read and think carefully before transferring others’ work into mine.
E4	It is acceptable to combine information from several sources to form my own data.
E5	My previous institution of learning is less strict about plagiarism.

THE SURVEY: RESULTS AND DISCUSSIONS

Following are the analysis and discourse on the survey results per component. The responses were categorized as ‘YES’ or ‘NO’ as decided by the 315 respondents, and presented in pie charts for ease of comparison.

Cluster #1: Institutional Demands

Workload

Note that analysis for this sub-component is more attuned to the by coursework students who were required to

attend regular classes with formative and summative assessments per semester. From Figure 1, it seems apparent that the students found the workload at postgraduate level to be rather overwhelming, with approximately a quarter of the respondents considered field trips to be burdensome with excessive semester-long assignments from the course taken, followed by almost 20% felt overloaded with the number of activities and tasks assigned. These were supported by affirmation in terms of the overlapping due dates of submission as well as the wide scope of research necessary to complete the assignments. In addition, looking at the very low 'NO's for W4, programmes with numerous field trips as part of the course contents should better incorporate appropriate assessment to make the time-consuming excursions rewarding not just in terms of exposure, but marks and grades as well. Note too that students may have the tendency to plagiarize less for tasks with higher marks assigned, and vice versa (Gómez et al., 2013), a tell-tale sign of their awareness of the consequences of the academic misconduct. Responses in the 'workload' component can be summed up as an indicator of work overload driving students towards the inadvertent copy-paste practices. While not condoning the academic misconduct, no matter how small scale it may seem, it surely raises the concern of "too much teaching but too little learning" going on in the University in postgraduate taught courses programme. Taking into account the fact that these master's by coursework programmes were meant to advance the students' knowledge and cognitive skills in the respective areas of studies, turning to plagiarism to make the grades clearly is counter-productive, if not destructive for the students' learning.

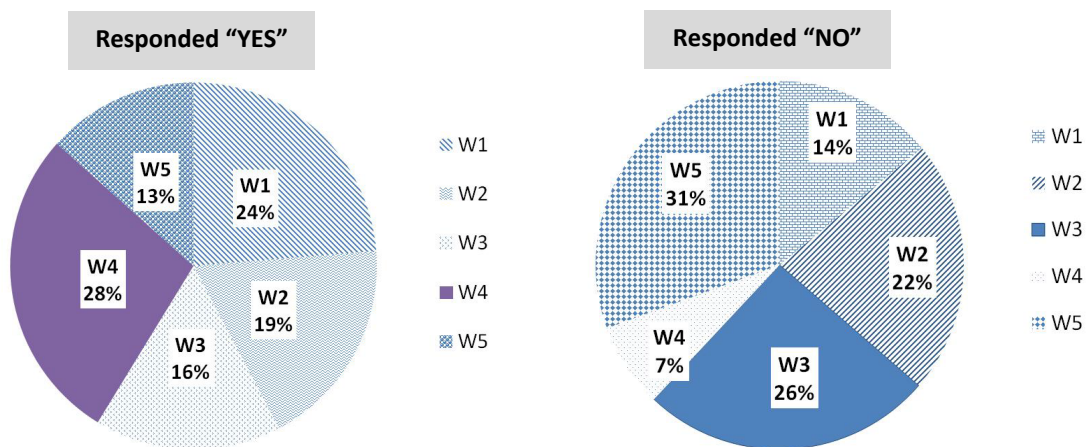


Figure 1: Summary of responses on the factor of 'workload'.

Grading System

This sub-component is also more relevant to the students enrolled in coursework programmes, where the responses are summarized in Figure 2. Clearly the 'YES' and 'NO' responses were fairly balanced for this part of the survey. The charts show approximately 20% of the respondents considered the pressure of achieving good grades made them plagiarize intentionally, and that more worryingly, their perception of how the assessment is made cause them to be reckless in this matter. 22% did not think that a well written work would necessarily be given better marks, and that this could be associated with lecturers rushing through the marking resulting in unfair assessment. Besides, 20% of the students reckoned assignments were assessed by the amount of information included in the writing, i.e. the more words there were and the more pages were bound together, the better chances of them being given high marks. Moreover students may be disheartened by peers who got away with plagiarism because of the lack of monitoring by lecturers (Sisti, 2007).

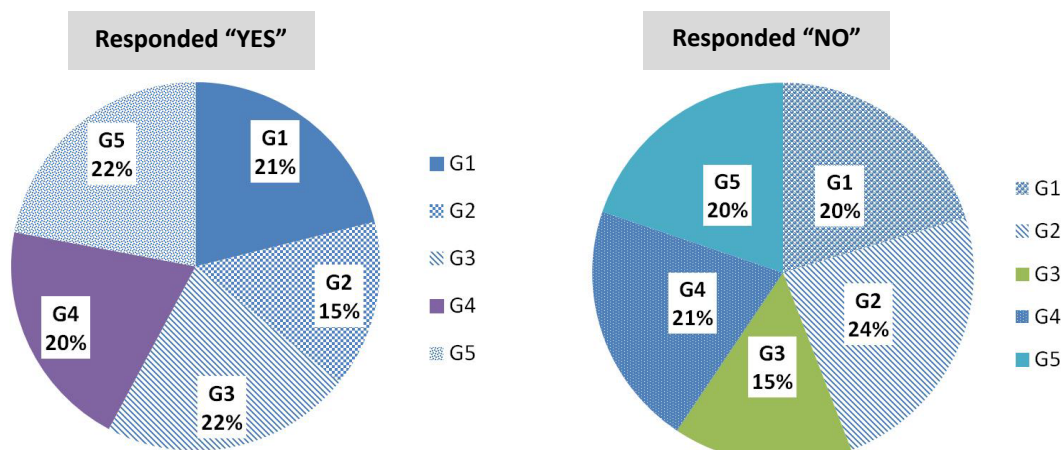


Figure 2: Summary of responses on the factor of ‘grading system’.

These notions, albeit wrong and misled, do raise the concern of the rather negative regard students seemed to hold for some lecturers. It is suggestive of a learning environment driven primarily by marks and grades but not the thirst for knowledge. The responses are also indicative of a certain lack of professionalism among the academic staff in performing their duties, causing the students to make such assumptions of counter-productive nature. Nonetheless it is perhaps a little heartening to learn that only 15% respondents made the serious presumption that poorly written work were judged the same as the deserving ones. This could be taken as a sign that in general the academic staff were dedicated in the delivery of lessons and assessment instead of passing off bad work as good.

Cluster #2: Historical Baggage

Cultural Influence

This part of the survey focused on the students’ pre-possessed views and values, with cultural influence being related with the respective student’s cultural background and beliefs. In corroboration with reports of cross-cultural studies by Egan (2008), Asian students came across as being more receptive and accommodative of plagiarism, though it may be due to genuine lack of understanding of the matter. In Figure 3, it can be observed that about a third of the students consider reference to others’ work as a form of recognition and honour, though not necessarily to be appropriately cited and recognized in their writing. About 20% each found it a little disconcerting to criticize others’ work, which could lead to mild or shallow reviews in their writing; and claimed to be ignorant of the necessity to include proper citations in their own writing when referring to the work of others. Perhaps related to the ignorance of making proper citations in academic writing (C4), 16% respondents were unsure on the importance of making such recognitions in their writing. Also of interest is the 12% who found plagiarism as an academic misconduct to be alien to them until now.

Based on the responses discussed above, it would seem that a number of students were either unaware of the need to make proper citations, where plagiarism was something novel to them until their enrolment in the postgraduate programmes, or that they simply could not grasp the need to make such references in a legit manner (C3, C4 and C5). However, whether or not ignorance should be considered a valid excuse for committing the academic theft is debatable, especially in this era of information overloading and hyper connectivity within the academia. On the other hand, the students’ reluctance to make critical remarks on the work cited could be attributed to their upbringing and cultural background of excessive courtesy, or more worryingly due to the under-developed critical thinking and analytical skills to make incisive reviews of others work with relevance to their own.

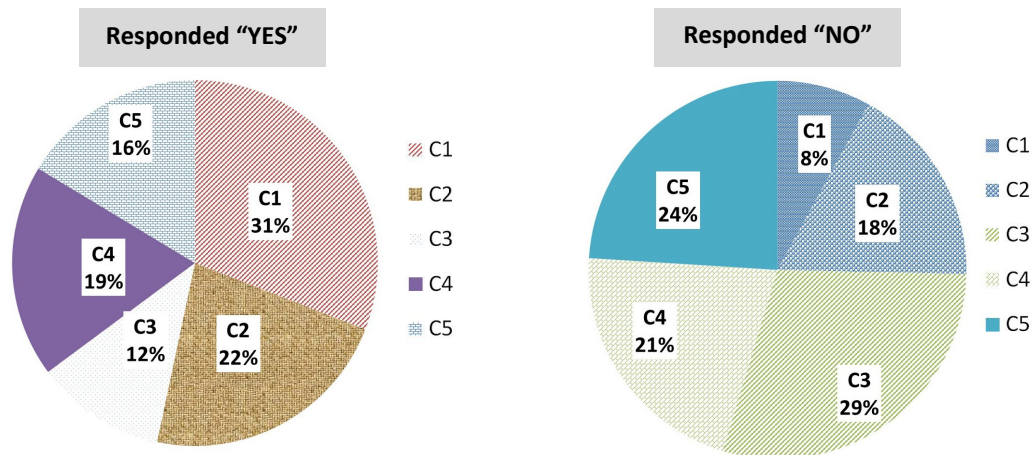


Figure 3: Summary of responses on the factor of ‘cultural influence’.

Educational Background

Educational background refers mainly to the undergraduate level education undergone by the students prior to enrolment in the postgraduate programmes at the University. Almost one third of the respondents (28%) considered the assembly of information from several sources an acceptable creative exercise, while almost a quarter of them (24%) admitted to the adoption of rote learning for passing examinations (Figure 4). Interestingly, the latter reflects the traditional teaching and learning approach commonly found in Asian institutions of learning, even at tertiary level. Corresponding to the former, 19% of the students owned up to the habit of copy-paste from different references in their written work (E2), suggesting a naïve or lackadaisical attitude towards academic propriety where written intellectual ownership is concerned. In addition, a small number of the respondents attributed their

nonchalant outlook on plagiarism to the lack of exposure (E3, 16%), as well as the less stringent monitoring of such academic misconduct in their previous respective places of learning (E5, 13%).

The responses presented above hint at the significant prior understanding and notion of plagiarism have on the students' preconceived idea of what constitute plagiarism. Nonetheless, inadequate command of the language (usually English) and other related skills for learning effectively, such as conducting a literature review, could cause students to plagiarize too (Devlin & Gray, 2007). It may not seem wrong or even mildly unethical to reconstruct randomly acquired bits of information derived from others' hard work into a coherent composition of their own, without assigning proper attributions and citations. In other words the irresponsible practice was silently condoned to the extent that it was never considered an inappropriate thing to do among these students. Arguably a certain amount of effort is required to search, review and reorganize the information gathered. Nevertheless that does not justify claiming the origin of the idea to be one's own.

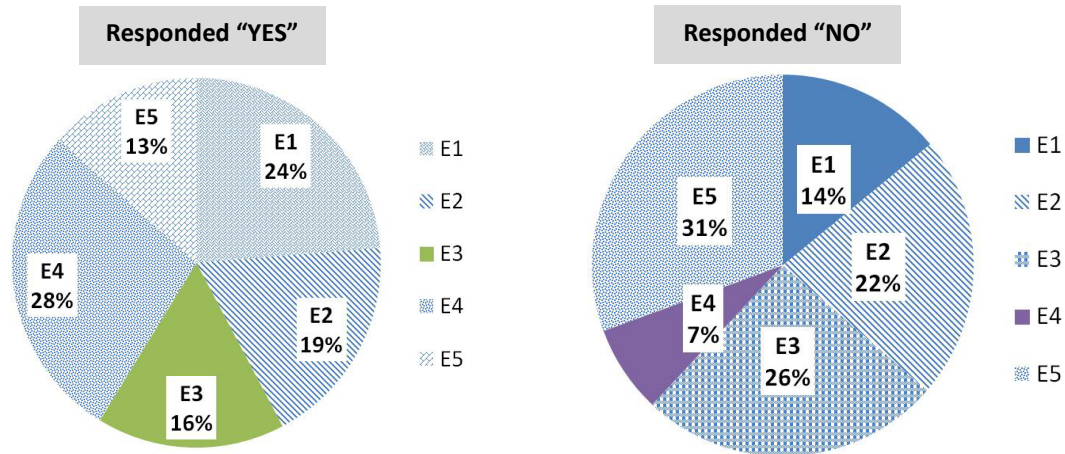


Figure 4: Summary of responses on the factor of 'educational background'.

Comparison between Factors

Distribution of the students' responses are summarized in Figure 5. Note that for every factor examined, the further apart the filled and blank circles are, the more balanced the percentage of responses were for the particular component. Taking 10% as the threshold to identify limits of the extreme ends of the spectrum, the lower limit is $\leq 5\%$ and the upper limit is $\geq 20\%$ in terms of direct difference between the numbers of 'YES' and 'NO'. Factors W2, G1, G4, G5, C4 and E2 were found to be in the range of the lower limit, i.e. these were the factors which elicited almost equal numbers of affirmation and responses on the contrary. A review of the factors revealed the claim that heavy postgraduate workload (W2) inadvertently pushes students towards sloppy copy-paste practices in preparing written reports (G1, G4 and G5) to be unsubstantiated, as the ratio of students who agreed and disagreed were about 50:50. On the other hand, justifying the practice of copy-paste with ignorance (C4 and E2) was also not necessarily the case when plagiarism is committed, as evidenced by the similarly distributed responses.

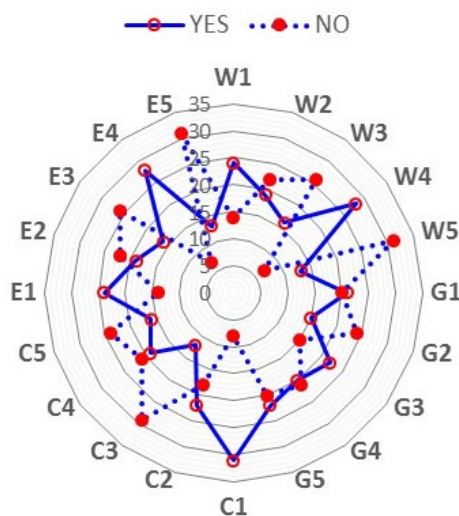


Figure 5: Distribution of 'YES' and 'NO' for all factors.

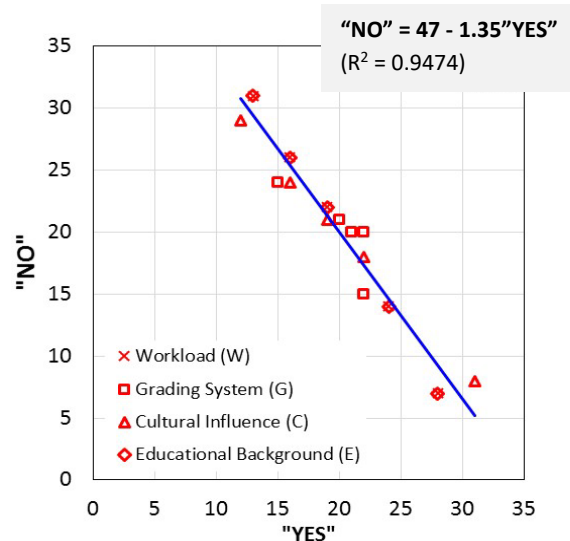


Figure 6: Correlation between 'YES' and 'NO' in terms of frequency of responses.

Also referring to Figure 5, factors W4, C1 and E4 are captured in the upper limit range, all with affirmation leading in numbers. Wanting fieldwork to be incorporated in the assessment (W4) is most probably an expected reaction from students in an attempt to gather more marks in the formative assessment of their studies. Nonetheless there appears to be a rather alarming confusion between reporting others' work as a form of respect (C1) and creating a mix-and-match piece of writing from several sources to be claimed as one's own (E4). It would seem as if the respondents considered recognition to have been rendered when the work is being referred to, without necessarily making clear ownership of the information reported.

In Figure 6, the frequency of positive and negative responses are plotted against each other with a linear trend line plotted for the data. Despite the slight scatter, the 'NO'-'YES' plot shows a consistent 75% probability of a positive response for every negative answer given in the survey. The ratio of 'YES'/'NO' = 0.75 indicates a scenario where the postgraduate students were aware of the fact it is unethical and wrong to engage in such activities, though they may not be fully conscious of the implications and impact on their learning development.

Conclusions

The study gave an interesting overview of the postgraduate students' perception on the issue of plagiarism from both the perspectives of the learning environment of the University as well as personal values based on past experiences. In the 'institutional demand' cluster, students largely considered the workload drove them to inadvertently copy-paste to make the grades, while the grading exercise was perceived to be inadequately fair in some instances. From the 'historical baggage' aspect, cultural background seemed to steer some students away from criticizing the work of others, and perhaps of more concern is the students' uncertainty of what is considered plagiarism. The students' past education experiences also had a strong influence on their perception of what constitute plagiarism, to the extent of blurring the line between copy-paste and copy-reorganized-paste, both of which make no reference to the origin of the source. A distribution analysis of the responses gave insights to the correlation between the factors examined, such as the students' apparent misconstrued idea of recognition in referencing compared to actual citations. Also, derivation of the ratio of positive : negative responses = 75:35 suggests the students' awareness of the risk for them to slip into the unethical act of plagiarism. All in all the study shed light on the postgraduate students' perception of plagiarism with respect to institutional conditioning and their personal preconceptions: the 2 clusters which do not always complement each other to prevent the occurrence of the academic dishonour.

Acknowledgement

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Instructional Supervision Model For Language Development Of Early Childhood Children

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Abstract

The main purpose of this research is to propose an instructional supervision model to prepare early childhood children's language development in Thailand. Researchers utilized qualitative method including in-depth interview, documentary analysis, and observation approaches to collect data. After reviewing the related literatures as documentary analysis, researchers identified six key factors and 21 sub-factors. The initial findings showed that there are six key factors namely planning for action, invitation for building trust, encourage, action, reflection, and evaluation. After the in-depth interviews to the seven experts to validate the key factors, sub-factors, and indicators, findings revealed that there were six key factors, 19 sub-factors, and 109 indicators as the foundation, researchers developed an instructional supervision model particularly for early childhood children's language development. Finally, researchers proposed an instructional supervision model for language development of early childhood children.

Keywords: *Early childhood children; instructional supervision model; language development; supervisor*

Introduction

The acquisition of language is one of the most remarkable achievements of early childhood children. According to Hoff (2009), five years old children are essentially master the sound system and grammar of their language and acquire a vocabulary of thousands of words. It is extremely crucial to have descriptions of normative development that allow identification of children with language impairment and to have an understanding of the mechanisms of language acquisition that can provide a basis for optimizing all children's development (Morrison, Bachman, & Connor, 2005). This is because early childhood children's language skills are important to their interpersonal and academic success. Language development is a process starting early in our lives. Typically, children develop receptive language abilities before their verbal or expressive language develops. Receptive language is the internal processing and understanding of language. As receptive language continues to increase, expressive language begins to slowly develop (Graven, Browne, Joy, 2008).

Supervision has existed in all countries worldwide for many decades and occupies a essential position in educational management, which can be understood as an expert technical service most importantly concerned with scientific study and improvement of the conditions that surrounds learning and children growth. Supervision is leadership and development of leadership within groups, which cooperatively assess educational product in light of accepted educational objectives, studying the teaching-learning situation to determine the antecedents of satisfactory and unsatisfactory children growth and achievement, and improving the teaching learning process (Essays, 2013). Most of the problems that related to instructional supervision are due to the fact that educational supervisors were inadequate and there were no cooperation between school administrators and teachers (Poonbua, 2013). In addition, the supervision in early childhood setting is expected to be more problems if we did not study the current states and needs for development. Therefore, Ninpan (2010) stated that supervisors need to have plans, alternatives, and teamwork if there were the conditions of evaluation, improvement, and development.

Research Objectives

The main purpose of this research is to propose an instructional supervision model to prepare early childhood children's language development in Thailand. To achieve this purpose the following specific objectives were formulated to guide the research:

- i. To identify the factors and sub-factors of instructional supervision model to prepare early childhood children's language development.
- ii. To propose the instructional supervision model to prepare early childhood children's language development.

Method

A qualitative method was chosen due to it is a systematic subjective approach used to describe life experiences and give them meaning. Researchers begin the study using document analysis to investigate the key factors and sub-factors by analyzing the related documents both printed and electronic materials. This document analysis requires that data be examined and interpreted in order to elicit meaning, gain understanding, and develop empirical knowledge (Bowen, 2009). This is followed by in-depth interviews to the seven experts to validate the identified key factors and sub-factors from the first phase. In-depth interviews was found suitable to employ because researchers would like to capture rich, descriptive data about the suitability of identified key factors and sub-factors as a foundation to develop the instructional supervision model to prepare early childhood children's language development. The final phase of the study was observation. A total of nine early childhood and experienced teachers were observed.

Purposeful sampling technique was employed to select the seven experts and nine early childhood teachers in this study to ensure the identification and selection of information-rich cases for the most effective use of limited resources (Patton, 2002). This is involves identifying and selecting individuals that are especially knowledgeable or experienced with this phenomenon of interest (Cresswell & Plano Clark, 2011). In addition to knowledge and experience, Bernard (2002) noted the importance of availability and willingness to participate, and the ability to communicate experiences and opinions in an articulate, expressive, and reflective manner.

The research instruments used were two types of checklists namely document analysis checklist and observation checklist as well as in-depth interview guide. The three instruments were administered in Thai language to ensure that the respondents were clear about the statements. The in-depth interview guide included a series of probes and clarification questions to maintain the consistency in questioning across participants.

Results

The initial result is the descriptive qualitative findings from literatures and related documents to identify the key factors and their sub-factors of the instructional supervision model to prepare early childhood children's language development. Results were derived from the checklist. This is followed by qualitative results from in-depth interviews about the verification of key factors, sub-factors, and indicators. Finally, the modified instructional supervision model to prepare early childhood children's language development was tried out by nine experienced teachers. Adjustments were made before the proposed instructional supervision was presented.

Qualitative results from documentary analysis

Initial results derived from document analysis checklists concluded that there are six key factors and 21 sub-factors as follow:

- Planning for action (P) consists of four sub-factors
- Invitation (I) for building trust consists of three sub-factors
- Encourage (E) consists of four sub-factors
- Action (A) consists of three sub-factors
- Reflection (R) consists of four sub-factors
- Evaluation (E) consists of three sub-factors

These six key factors would form an acronym as PIEARE.

Qualitative results from in-depth interviews and classroom observation

Researchers continued the study by interviewing seven experts to validate the six key factors and 21 sub-factors from the first phase. Results from the in-depth interviews concluded that the seven experts maintain the six key factors but reduce the 21 sub-factors to 19 sub-factor, giving a total of 109 indicators. Results from the in-depth interviews and also trial out in the classroom observation are presented in Table 1 as below:

Table 1: Six key factor, 19 sub-factors and 109 indicators of instructional supervision model

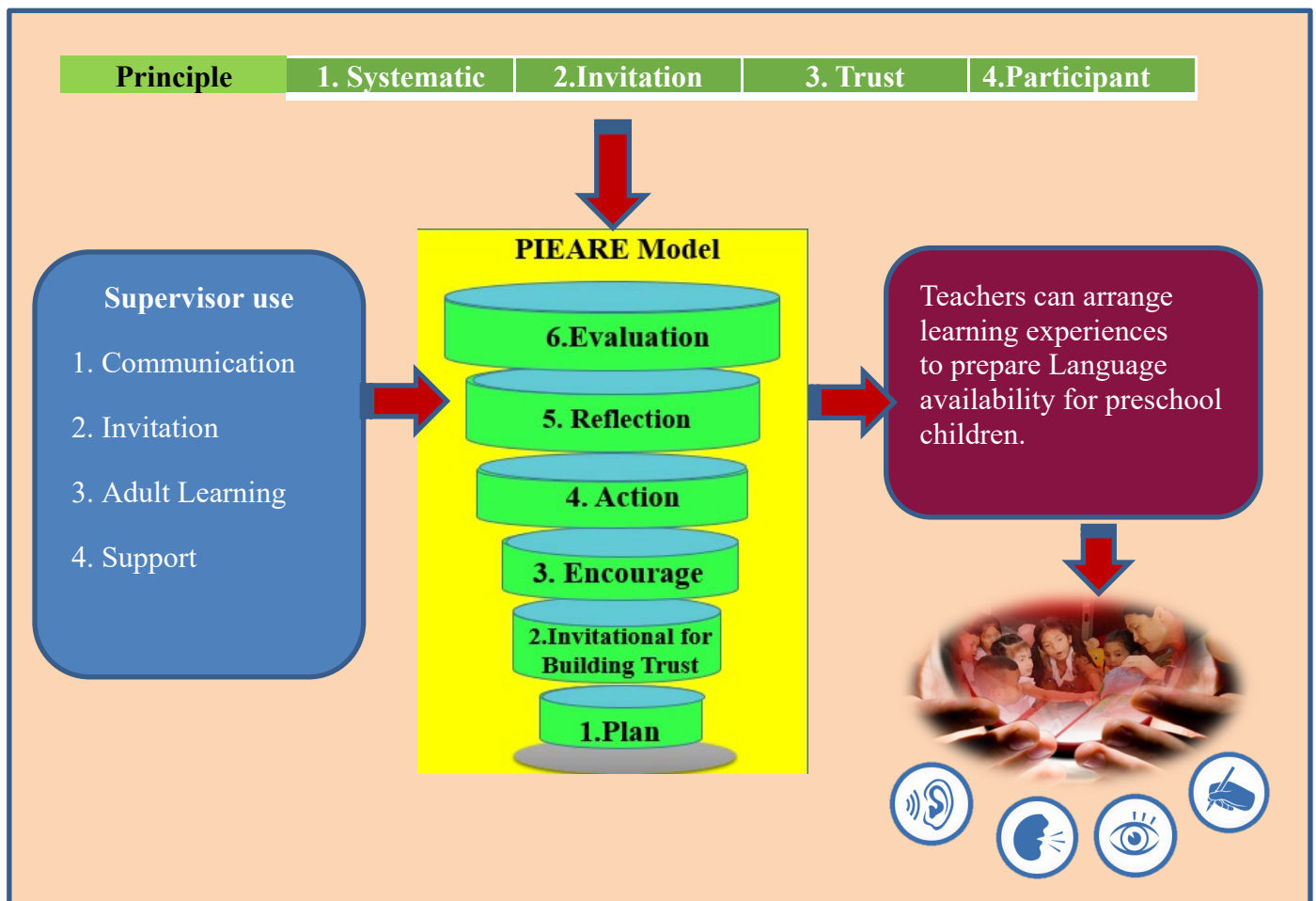
Key factor	Sub-factor	Indicator
P	1.1 Target	1.1.1 Compliance with expectations and needs.
		1.1.2 Be clear and concise.
		1.1.3 Lead to concise action planning.
		1.1.4 Lead to action.
		1.1.5 Can be measured and evaluated.
	1.2 Method and process	1.2.1 Make choices for practices.
		1.2.2 Appointment of a working group covering workload
		1.2.3 An appropriate supervision calendar based on institutional context.

Key factor	Sub-factor	Indicator
		1.2.4 Related personnel have knowledge and understand how to supervise.
		1.2.5 Related personnel understand the methodology and planning.
		1.2.6 Develop a supervision tool that consistent with the goals.
		1.2.7 The supervision plan is continuous clarity.
	1.3 Resources	1.3.1 The staff has morals.
		1.3.2 Personnel appropriate to the job and abilities.
		1.3.3 Provide facilities for operation
		1.3.4 Support material and equipment to operate.
		1.3.5 Allocate additional budget.
		1.3.6 Empower the management by appointment order.
	1.4 Participation	1.4.1 Related personnel participate to achieve supervision goals and objectives.
		1.4.2 Related personnel participated in planning, implementation, supervision operations.
		1.4.3 Related personnel understand the supervision plan in the same direction.
		1.4.4 Related personnel decided on guidelines and methods.
		1.4.5 Related personnel participate in systematic and continuous operation.
		1.4.6 Related personnel perform duties thoroughly.
I	2.1 Characteristics of supervisor	2.1.1 Trust that everyone is competent.
		2.1.2 Be responsible for the commitment.
		2.1.3 Optimistic, positive vision.
		2.1.4 Have a caring concern, help the recipients and solve the problem with sincerity.
		2.1.5 Honor and accept the opinions of others.
		2.1.6 Advice, guidance rather than command.
		2.1.7 Provide professional support.
	2.2 Communication	2.2.1 Open communication with sincerity.
		2.2.2 Use verbal, sweet, and melodious.
		2.2.3 Face-to-face and indirect communication (ICT).
		2.2.4 The use of ICT in communication makes it easier and more convenient,
		2.2.5 Communication makes the supervisor feels self-reliant (directed, valuable, and acceptance in society.
E	3.1 Emotional support	3.1.1 Confidence building with recipients in self-development.
		3.1.2 Encouraging exchanges of ideas and opinions.
		3.1.3 Listen to the information from the recipients as much as possible without contradicting or commenting further.
		3.1.4 Find a solution or common developmental approach for improvement.
		3.1.5 Acceptance, expression of kindness and concern.
	3.2 Materials, equipment, and technology	3.2.1 Provide materials and equipment to arrange adequate and appropriate experience.
		3.2.2 Provide knowledge on the use of technology for communication in schools.
		3.2.3 Provide high speed internet access to schools to connect and link in modern communication.
		3.2.4 Provide up-to-date teaching aids ready to use.
		3.2.5 Provide a Line group, Facebook or network for academic communication.
	3.3 Knowledge support	3.3.1 Consultation when the recipients' requests or have problems.
		3.3.2 Coaching to develop and provide quality learning experiences.
		3.3.3 Provide a variety of useful information.
		3.3.4 Encourage supervisors and recipients continuing self-study and ascertain.

Key factor	Sub-factor	Indicator
		3.3.5 Provide training on knowledge required.
		3.3.6 Provide a study visit to the schools and school networks.
		3.3.7 Provide academic discussion for schools and school networks.
A	4.1 Preparation before observation of teaching together.	4.1.1 Organize meetings before observing provided experiences to review operational procedures, roles, and duties.
		4.1.2 Clarification of supervisory objective and operational plans for recipient to plan ahead.
		4.1.3 Training supervisors in the field of knowledge, understanding the supervision system and technique.
		4.1.4 The recipient provide full components of the experience plan.
		4.1.5 Supervise the experience plan provided by recipients before observing the class.
		4.1.6 Schedule 2-3 days prior to observe teaching.
		4.1.7 Have varieties of supervisory tools consistent to aims, make class observation more accurate.
		4.1.8 Have supervision manuals or teaching observation tools to facilitate the recording, analysis, and interpretation.
	4.2 Classroom observation	4.2.1 Arrival classroom prior to learning experience
		4.2.2 Select seat according to the provided position.
		4.2.3 Do not interfere or disturb with the teaching of teachers and students.
		4.2.4 Observe full-time classes for one hour.
		4.2.5 Take notes of observing the behavior of teachers and students according to the tools without the sense of judgment.
		4.2.6 Record teaching and learning behavior of children every 10 minutes.
	4.3 Exchange of learning	4.3.1 Compile notes from new classroom observations.
		4.3.2 Gathering information related to the situation in the classroom.
		4.3.3 Analyze data to communicate and understand between teacher and the relevancy.
		4.3.4 Teachers analyze the results, problems, obstacles, and teaching practices.
		4.3.5 Supervisor provides information reflecting the practice to inform teacher.
		4.3.6 Supervisor and teachers interpreted valuation on teaching hours observed in previous class.
		4.3.7 Find a joint agreement from the valuation information to improve the development to the next planning.
R	5.1 View of reflection	5.1.1 Reflect on prepared experience in the previous week.
		5.1.2 Reflect on students' learning outcomes and learning behaviours.
		5.1.3 Reflect the obstacles of prepare experience and development process in the new week.
		5.1.4 Use teacher's view to share learning and learning management.
		5.1.5 Apply theoretical concepts as a framework.
	5.2 Reflecting period	5.2.1 Reflection after completion observation.
		5.2.2 Duration of reflection conversation 5 to 10 minutes.
		5.2.3 Timetable for reflection less than 5 minutes each.
		5.2.4 Reflection first during and after prepare experience.
		5.2.5 Summarize trend development to lead further planning.
	5.3 Writing reflection communication	5.3.1 Use reflection writing to review learning management.
		5.3.2 Use reflection principles based on questions.
		5.3.3 Reflects writing independent learning management.
	5.4 Spoken communication reflects idea	5.4.1 Reflection of arrange experience sharing concepts between teachers.
		5.4.2 Describe the atmosphere of teacher and children learning.

Key factor	Sub-factor	Indicator
		5.4.3 Exchange lessons to confirm arrange experiences.
		5.4.4 Discussion on the success and failure.
		5.4.5 Find new experiences arrangement for problem solving.
E	6.1 Measurement and evaluation tools	6.1.1 Measurement tools are correct and accurate.
		6.1.2 Measurement tools are of several types.
		6.1.3 Measurement tools are set the criteria and aim clear and consistent.
		6.1.4 Method and evaluation understand the same.
		6.1.5 Selection of measurement tools and quality inspection tools
	6.2 Realistic assessment	6.2.1 Evaluation done jointly
		6.2.2 Evaluation assignment for self-assessment.
		6.2.3 Measure children's work and behavior.
		6.2.4 Evaluate teaching behavior.
		6.2.5 Evaluate supervisory behavior.
		6.2.6 Evaluate continuously.
		6.2.7 Currently interpretation.
	6.3 Applying the evaluation results	6.3.1 Assessment results informed to related personnel.
		6.3.2 Provide feedback with real information.
		6.3.3 Evaluation result for development plan.
		6.3.4 Apply evaluation results for improvement.

Proposed instructional supervision model for language development of early childhood children



Discussion And Conclusion

Researchers would like to suggest to Early Childhood Education department, Ministry of Education and all kindergartens in Thailand to implement a systematic development for children to develop their language abilities with the condition that teachers are utilizing this instructional supervision model. Finally, implication of this research is encouraging the policy level agencies to focus on supervision through managing a motivation system for supervisors, school administrators, and early childhood school teachers who can conduct effective supervision.

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Interactive Activities “Technology-Based”: An Approach To Reach Self Learning Independence Of Moroccan University Students

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Abstract

The educational system in Morocco has been extensively reformed to be in line with the global movement, of adopting technology to the learning of the English language, which holds, today, a vital importance in the academic success of university students. This study aims at exploring the positive effect of adopting an effective use of technology in teaching the language to create a dynamic synergy among students. The study states a hypothesis that confirms the need of inserting the interactive “technology-based” activities into the teaching methodology to boost students’ self independence. This exploratory research uses a qualitative method, with a semi-structured interview instrument, which inductively examines the perceptions of 6 English university teachers on the positive impact of technology within interactive learning environments on the learners’ performances. The study results show that technology plays the role of a mediator in the success of interactive activities and in the trigger of students’ autonomy, motivation and connections. It also shows that the integration of technology in classrooms’ interactive activities leads to the acquisition of cognitive, communicative and collaborative skills. Hence, this study contributes in making teachers aware of the importance of integrating technology to their teaching methodology to improve the teaching quality of foreign languages acquisition in Moroccan higher education. It also shows to students the urgent need of learning digital literacy to become independent and successful in their professional life.

Keywords : *Academic success, Interactive learning, Technology-based Activities, Self-independence, Digital literacy.*

Introduction

Interactive learning prepares students to be more engaged in the learning process. They become able to understand classmates’ thinking approaches to use in real-world situations. Those students gain more knowledge through positive reinforcement and interactions with their peers, teachers and the faculty staff management. Creating learner-centered environments is the most important thing educators can do, to improve student’s learning independence, and delegate new learning roles (Doyle, 2008). Besides, cooperative activities help students becoming engaged towards the learning process that increases their critical thinking skill (Millis, 2010).

Digital interactivity, based on the interaction with smart devices, has many similarities with electronic and mobile learning. Students have the possibility to assess their work and independently learn about things they need to develop. The learning theory of e-learning often involves both out-of-classroom and in-classroom experience via technology tools, thanks to the computer and network which favour the transfer of skills and knowledge.

Junghun & Leem (2011) presented the key features of mobile learning including the mobility of learning space, flexible access to resources, simplicity of study details and interactivity. Also, this M-learning has increased students’ sense of research, Demouy & Kukulska-Hulme (2010, as cited in Boyinbode & Fasunon, 2015) expressed that:

“ the advantage of mobile learning in terms of formal and informal way of interaction among students and lecturers through their mobile devices; this supports social communication such as reviewing of contents, sending comments and comparing responses, which has proved to be a source of learning empowerment to the students and has enabled them to participate actively in collaborative learning environments.”(p.321)

The ability to learn independently has become a prior condition for living in a dynamic world of rapid change (Levett-Jones, 2005). Independent learning is related to general skills such as evaluation, reflection, and analysis, which are important for long-life-learning and living in diverse society (Warring, 2010). In such independent learning, students improve their autonomy and come up with problem-solving, decision-making and organizing learning activities (Fallows & Steven, 2000). Researchers associate the independent learning with learning skills and experiences (Wilkinson et al., 2004), group work and peer-tutoring (Houstona & Lazenbatta, 1996).

In this study, the learning theory of “connectivism” suits the interactive learning process. It may be melted with the interactive and communicative methodologies to enhance students’ knowledge and the perceptions gained through their personal network and personal life experience, “the capacity to know is more critical than what is actually known” (Siemens, 2006, para.6). In this learning theory knowledge takes the form of various digital formats, which is shared through information network and classroom interactions. Moreover, collaborative learning is favourable in such interactive environment, to exchange knowledge and enhance observation and

analysis skills. Siemens (2006, para.10) stated that “the ability to see connections between fields, ideas, and concepts is a core skill”.

The present study will seek to answer some research questions, to demonstrate the role of technology in interactive learning environments, the study will address:

- 1) How far does the use of technology devices improve the interactive learning process?
- 2) To what extent do “technology-based” activities develop students’ self independence?

This study provides a rationale for the claim that effective use of technology devices is critical to both interactive learning and students’ personal and professional success. The present study will test the validity of the hypothesis through a qualitative method of research analysis. The following hypothesis will be addressed:

H₁: the use of technology in interactive learning creates independent learners.

The answer to those research questions will contribute to the field of teaching foreign languages and to higher education in general. It will also serve at demonstrating how important technology is to enhance the needed personal skills of students to integrate the world of work.

Methods

The overarching purpose of this study was to provide insights into the dynamics involved in an effective interactive learning environment. Specifically, the study sought to examine teachers’ perceptions towards the positive impact of interactive “technology-based” activities on students’ self independence. The research population is 6 interviewees and the research environment is the Moroccan higher institutions.

Understanding teachers’ perspectives on the way they teach undergraduates students and how they observe, comment and assess their levels of improvement necessitates rich data. This requires obtaining detailed explanations of teachers’ methods, ways, activities and tools of teaching interactive activities. To obtain such data, the present study employed a qualitative interview methodology. It used a semi structured interview to elicit factors genuinely generated by the subject. This qualitative method evokes an exploratory strategy that aims at collecting and exploring teachers’ perceptions of the research questions in an inductive way, so as to confirm or reject the research hypothesis.

a) Teacher Background

In this study, interviews were conducted with 6 EFL teachers with long teaching experience, the research participants are the university teachers of the English department, 4 males and 2 females. Some interviewees were full-time faculty members at Moroccan universities, other interviewees taught at private higher schools and others were teaching in higher academic institutions.

b) Research Instrument

This study utilized a guided interview sample. In order to ensure that teachers could provide rich descriptions of their methods, techniques and new perspectives for teaching foreign language in an effective and interactive way. The questions underwent several modifications before they were asked, to increase clarity and politeness. Most interviews lasted 30 minutes.

c) Interview Procedures

Teachers welcomed the research subject. They did not hesitate in helping with their insights, visions, opinions and experiences to support and give an added value to the research analysis. An e-mail request was sent for participating and fixing the meeting dates for some of the interviewees who had a busy schedule. Most interviews were held in teachers’ offices or classrooms, all were face to face. When meeting the interviewees, several questions were asked and issues related to research subject were discussed; the interview guide helped for more concentration on the questions even if some emerging questions took place for more creativity and for a better result.

Based on this preliminary understanding, this interview was designed to accomplish the following objectives: 1) to find out the instructors’ perceptions of integrating technology devices to their teaching methodology, 2) To identify the kind of interactive activities/ tools used in classes, 3) To analyze the teachers’ assessments of the impact of interactive tasks on students’ personal development, 4) To identify the extent to which technology-based activities lead to better learning outcomes.

Keeping in mind the qualitative nature of the project, all responses were noted and accurately stated. Two lists were then created which listed the summarized interview answers. An overall summary was given for each question based upon the responses. Words and phrases were first highlighted and then pulled from the responses, in order to find common themes that would answer the research questions. The study will seek to test the research hypothesis if the use of technology in interactive learning forms independent learners.

Results

All the interviews results were satisfactory, since they gave a valuable addition and more insights to the subject. This interview is interpreted and analyzed in some emerging themes, which are related to the research questions and that explain the interview questions in order to accept or reject the hypothesis.

Theme1: The Enhancement of Interactive Learning Through Technology Tools' Use

The majority of the interviewees reported, according to their classroom observations, that interactive activities involving the use of electronic devices enhance the learning process quality and motivate both educators and students to give their best.

One of the teachers declared that the major advantage of using ICT in the ESL classes is the vast variety of interactive activities, which allow more sharing of knowledge and more acquisition of language skills. The basic difficulty; however, is that ESL students may encounter obstacles when using the internet for preparing creative assignments, such as in linguistic complexity of materials, the inability to assess materials impartially, or the misuse of information that leads to plagiarism.

One of the teachers expressed that "technology has made a huge impact on communication". Engaging the younger generations requires a greater use of technology than ever before, and with the advent of enhanced use of technology in studying a foreign language and the instant connectivity, educators enjoy the rules of what is assigned.

Interviewees agreed that the adoption of technology devices in classrooms has boosted the teaching productivity, and also students' understanding, especially with the help of the visual aids. Besides, an interviewee affirmed that e-learning now is occupying a great part in students' ways of learning. Internet keeps the connection among the school members and allows teachers to send files, homework and projects to be done. He said "technology complements the teaching and learning process". He also stated that students may be given; for example, tasks to do during holiday that necessitate some explanations or modifications that the teachers are ready to reply on and explain via internet networks.

More than 50% of the interviewees agreed that this generation of connectivity obliges the teachers to go in advance and satisfy students' interests and needs, by introducing and adopting such new and modern digital ways to the syllabus and programs. For example, several teachers remarked that their third year students pay more attention to the effective use of multimedia technology especially the use of "PowerPoint" in giving presentations, which is not the case with first year students. As one of the interviewees explained: "students talk about visual aids in the 1st year course, but usually they don't talk about PowerPoint". "I do explicitly give 1st year students some guidance in using PowerPoint, and most of my students in this course end up using laptops or video projection as part of their works and speeches". As a consequence, he added digital interaction builds students' creativity, sense of research and team working skills.

Another interviewee pointed that students may sometimes interact with multifaceted materials which sometimes the teacher cannot control. He added that it is difficult to have a safe learning environment if students are using e-devices, checking e-mails, texting, facebooking or tweeting. Being able to multitask is a positive characteristic; however, "I am still convinced that eye contact is important" another interviewee stressed.

Theme 2: Digital Interactivity Paves the Way to Independent Learning.

Most interviewees agreed on the fact that the integration of ICT into higher education generates a set of transformations, which modify all the elements that take part in the educational process. Each member affects in a way another member's role and attitudes while interacting and learning in class. A professor said: "Yes, it is a kind of interaction when using new technology; students should use it properly and in an effective way to develop their language skills".

An interviewee stated that teachers must commit to using as much technology as feasible in preparing students for the future, in order to be independent members to cope with the jobs challenges. She added that teachers should pair students' knowledge of technology with their concern for transforming their future lives through education. And, here the teacher could act as developer, adapter and creator of materials and resources in classrooms.

One of the interviewees declared: "there is no success without difficulty", he added that students of this generation "generation of connectivity" have an opportunity and chance to use e-devices and become more intellectual and autonomous. And also the use of social media has helped them enriching their educational knowledge, he declared: « Countries have changed because of Facebook! ». Hence, with the help of technology students have the chance and opportunity to change their current situations to better, and create their own network for more interaction and sharing knowledge. Finally, he confirmed "I believe that digital interactivity creates connections between the school faculty members and favors students' self independence".

Some of the interviewees pointed that the "interactive mobile learning" has facilitated for both teachers and students the task of writing or copying tasks or assignments, it could be easily sent to students' e-mail inboxes.

Students also make use of their phone cameras and take pictures of lessons in the board to save time, they also make use of “USBs” to share files and exchange works between classmates.

The art of learning stylistic devices, as stated by an interviewee, are related to classroom interaction and language use. While learning a foreign language, students are exposed to many interactive activities that create a holistic development in their personality, as developing their team work spirit and reaching the interdependence level of working for the sake of the group’s benefit.

Finally, interviewees agreed upon the fact that within or beyond classrooms students become more independent while making appropriate use of technology tools, in looking for the information and adapting them to their interests and needs. Teaching foreign languages through interactive activities is suitable for students who want to learn on a specific subject, especially with the integration of e-devices for better learning outcomes.

The interviews’ answers lead to a clear vision of the important variables to be considered in this study analysis, in which technology is the mediator element that affects the success of interactive activities and the reach of self independence.

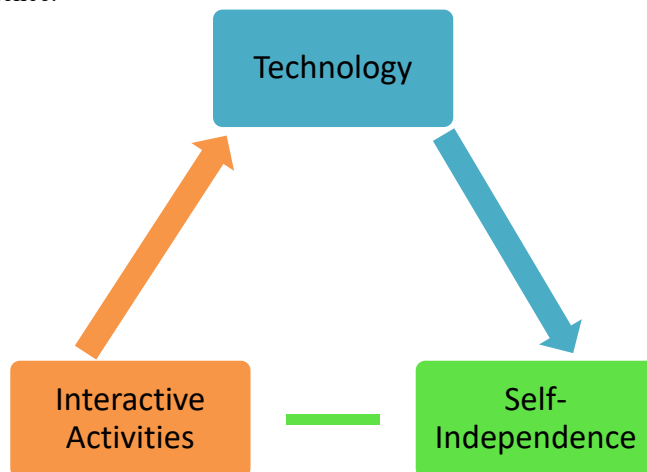


Figure1 : variables relations

Discussion

The present study seeks to explore the EFL teachers’ perceptions towards the adoption of technology in their teaching methodologies, teachers expressed how beneficial are the digital devices in teaching the English language through interactive activities. They see a strong impact of interactive activities on the students’ personal growth; they consider that technology is the key factor for students’ motivation, to give their best in the learning process. Moreover, the study results show that students develop a critical side of their personality, as acquiring self analysis and independence through classroom interactions. Social skills are implicitly enhanced, since the students start to know how and when to use appropriate words in different situations and cope with the surroundings. Teachers see a positive impact of the interactive activities on students’ communication skills, there are technology devices used in the English language classes that foster students’ analysis of performances, confidence in communicating ideas and team work spirit within and beyond the classroom.

The research hypothesis was accepted according to the research themes’ results that have answered the research questions. Findings showed that interactive “technology-based” activities improve both teaching and learning productivity. The adoption of technology offers a diverse set of activities to increase students’ motivations and facilitate the language learning process. For example, the visual aids help in better understanding and developing the visual memory that internalizes information, which improve students’ cognitive skills. Besides, students are more connected to each other, in such learning environment, in sharing knowledge, exchanging ideas, building relationships and understanding peers’ thinking approaches. Those skills are awakened through the learning theory of “connectivism” which encourages the learners to be closer to the source of information, and by creating their own networks for more interactions to occur.

Thanks to e-learning students are having an opportunity to connect via social networks with their teachers and classmates. Educators are engaged in the electronic exchange with their students in supervising and giving explanations, they may even offer a “home schooling” in some circumstances as health problems. Besides, classmates are open to share courses and assignment to help each other. As, students are often waiting for initiatives from teachers to guide and use technology, they always need more. For this reason, teachers try to meet those interests by melting different methods of teaching, to make them at the level of the learners’ expectations.

Furthermore, computer literacy is one of the skills students seek to master, in order to deal with their studies’ challenges. Teachers consider it as a complementary competency to what learners develop in their educational background. It has been raised in one of the interviews that “PowerPoint” is one of the computer techniques that

most students are asked to use in many tasks, this program among others develop students' creativity, sense of research and collaboration. Here, teachers offer a learner-centered environment to trigger students' independence. Digital interactivity is the fact of using technology devices within the teaching methodology. Educators tend to use such modern way of teaching in addition to the methodologies they use, according to the subjects and the students requirements. Through this teaching approach students might transform their future life, by acquiring the necessary skills. Moreover, teachers find the communicative approach suitable to teach language interactive activities. Educators' roles within the interactive learning environment change according to the nature of activities, as Doyle (2008) expressed about the different responsibilities that both students and teachers act and develop in class. Teachers try to lead the learners by giving instructions, positive reinforcement and letting students direct the learning process. In such interactive environment, educators simply act as the creators and adapters of the teaching materials.

While using technology in classroom activities students develop certain independence from the traditional way of learning, as taking notes and being passive towards the learning process. Warring (2010) considered the independent learning as a needed skill for a long-life education circle. In other words, students seek to search the information, select the useful ones and share knowledge. This enhances students' cognitive skills and multiple intelligences to independently assess their work; this fits Millis's (2010) consideration of the cooperative activities as an enhancement to learners' thinking skills.

Teachers find the mobile learning way of teaching as a facilitator to the interactive learning process, thanks to the mobility of the digital devices used in class. Students show certain autonomy while bringing their laptops, tablets and phones to use for academic purposes, and for time saving and for easy access to resources. Group work activities favour more interaction to take place to share thoughts, opinions and complement each other. The research results stressed the idea of Wilkinson (2004) that sometimes students may learn from their peers "peer-tutoring" and transfer knowledge. In such interactive learning process students may also develop an interdependence skill to serve the group work benefit.

The study did not raise an alarming effect of this teaching methodology that may negatively affect the educational process, apart the fact that some interviewees shed light on the decrease of using eye contact while using digital devices. And, the over dependence of students towards internet that may lead to the misuse of information and the non respect of language norms.

Finally, the present study shows the great importance of computer literacy to take part in the educational system. It contributes in promoting the necessity of integrating "technology-based" interactive activities in the teaching methodologies, for undergraduate students to know and master, in order to sharpen their long-life skills and become independent graduates to cope with the job market needs.

Conclusion

Higher education is a phase of transition from high school studies system to higher education challenges and then to the professional life. This exploratory study uses a semi-structured interview with 6 EFL university teachers, to probe their perceptions towards the integration of technology to diverse interactive activities, to teach the English language. This study shows that the interactive learning environment gives rise and improvement to many skills as cognitive, communicative and collaborative. The research findings shed light on the crucial role of technology, as a learning mediator that both improves the use of interactive activities and boosts students' self independence. The study also shows that students' autonomy is enhanced through learning experience that basically gained through digital interactivity, and the connections to faculty members' in sharing knowledge. This study makes a contribution in a way to raise the quality of teaching foreign languages, through an interactive learning "technology-based" environment. It also makes the teachers more engaged in adapting and updating their methods of teaching, to enhance students' independence to safely integrate the job market.

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Introducing Synchronous Online Courses As An Effective Way Of Delivering Online Courses

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Abstract

There are two types of online course format: an asynchronous online course and a synchronous online course. Unlike asynchronous online courses, synchronous online courses are not time-independent. In a synchronous online course, course participants including the instructor and students interact and communicate with each other in real-time by using a video conferencing tool. The most common form of online course has asynchronous format (Butz & Stupnisky, 2016). As compared with asynchronous courses, synchronous courses have received much less attention. However, over the years, educators and researchers have found several limitations of asynchronous courses. With the understanding on limitations of asynchronous course, online instructors have begun to show interest in using synchronous course elements in their class. Researchers have introduced advantages over an asynchronous course such as immediate feedback, immediate interactive clarification of meaning, high motivation, more engagement and a greater sense of presence. The number of university programs that deliver online synchronous course is increasing (Bell, Sawaya, & Cain, 2014). In this article, we will introduce the concept of synchronous online course including definition, characteristic, and history. And then we will explain the affordances of synchronous online courses that have been introduced by researchers. Affordances are the perceived and actual properties of a thing, primarily those fundamental properties that determine just how the thing could possibly be used (Norman, 1988, p. 9). By conducting systemic review on existing studies on synchronous online courses, we identified how instructors used synchronous online courses in their online courses. Instructors have used synchronous online sessions to use following affordances of synchronous online sessions: developing a sense of community, creating social, cognitive, and teaching presences, promoting interactions, enhancing engagement, increasing motivation and providing immediate feedback. We will explain each affordance with related studies. Based on the result, we will introduce a synchronous online course as an effective way of delivering online courses.

Keywords: *Synchronous online course, Online learning, Affordance*

Introduction

Online learning became one of main course delivery formats in higher education (Yamagata-Lynch, 2014). According to U.S. News Education (2018), there are 357 schools that provide online bachelor's degree programs in the U.S. There are two types of online course format: an asynchronous online course and a synchronous online course. An asynchronous online course can be defined as an online course that is facilitated by communication media, such as email and discussion boards, and that supports work relations among learners and with teachers even when participants are not online at the same time (Hrastinski, 2008, p.51). A synchronous online course can be defined as an online course supported by communication media such as videoconferencing and chat (Hrastinski, 2008, p.51). A key characteristic of synchronous courses is real-time communication and interaction through a video conferencing tool (Butz, Stupnisky, Peterson, & Majerus, 2014; Hrastinski, 2008). In synchronous courses, all participants are logged on video conferencing platform at the same time and communicate directly with each other (Shi & Morrow, 2006; Redmond, Parkinson, Mullally, & Dolan, 2007). In other words, synchronous online courses are place-independent, but not time-independent.

The most common form of online course has been in the asynchronous format (Butz & Stupnisky, 2016; Gibson, 2011; Yamagata-Lynch, 2014). Researcher have identified various benefits of asynchronous courses including flexibility, convenience, increased reflection, in-depth discussion and cost efficiency (Huang & Hsiao, 2012; Hrastinski, 2008; Hrastinski, Keller, & Carlsson, 2010; Johnson, 2006; Wang & Reeves, 2007). These benefits have contributed to the popularity of asynchronous online courses. As compared with asynchronous courses, synchronous courses have received much less attention due to various limitations such as high costs, bandwidth limitations, the difficulty of implementation, insufficient tools, and scheduling issues (Anderson, 2003; Branon & Essex, 2001; Lowenthal, Dunlap & Snelson, 2017; Park & Bonk, 2007).

Recently, the increasing bandwidth of the Internet and improvements in information and communication technologies have made synchronous online instructional delivery more popular and effective (Martin & Parker, 2014; Olson & McCracken, 2015). Increased interest in synchronous courses have motivated the development of various video conferencing tools such as Zoom, Ultra, and Acrobat Connect. There is evidence of an emerging instructor preference toward synchronous online courses (Ahmad & Bokhari, 2011). The number of university programs that deliver online synchronous course is increasing (Bell, Sawaya, & Cain, 2014; Butz, Stupnisky, Peterson, & Majerus, 2014).

The purpose of this study is to introduce synchronous online courses as an effective way of delivering online courses. In this article, we will introduce the concept of synchronous online course including definition, characteristic, and history. And then we will explain the affordances of synchronous online course based on the analysis result of existing studies.

Methodology

In this study, we developed the understanding on a synchronous online course by analyzing existing studies on synchronous online courses. We searched studies through three steps and analyzed those to have full understanding on synchronous online course. Firstly, the search terms to be used were established. Many search terms related to synchronous online course were selected: synchronous learning, synchronous online course, video conferencing, virtual classrooms, and Web conferences. Secondly, with those search terms, we searched studies at various academic databases: ERIC, JSTOR, IEEE Explorer, and Scopus. Lastly, the same searches were repeated on Google Scholar. Most of articles that we found on Google Scholar were the exact same with the articles that we found through the academic databases. However, we were able to find some articles that we were not able find in academic databases. As a result, we found 78 articles. By analyzing collected studies, we defined the concept of synchronous online course, identified its characteristics and history in online course. And then we identified how instructors have used synchronous online sessions in their online courses. Especially, a first author of this study is an experienced instructional designer who has 10 years experiences in designing online courses. He identified the affordances of synchronous online course based on his online course design experiences.

Synchronous Online Course

A synchronous online course is a format in which planned learning events take place in real-time between a remote instructor and students by employing video conferencing tools. The video conferencing tools commonly included in such course platforms are Voice over Internet Protocol (VoIP), synchronized web and shared browsers, interactive whiteboards, 2D/3D chat tools, two-way audio and videoconferencing, application sharing, presentation slide facilities, polling and feedback tools, and group break-out rooms (Butz & Stupnisky, 2016; McBrien, Cheng, & Jones, 2009).

Various video conferencing tools that consists above functions that support synchronous course have been developed such as Elluminate, Interwise, Adobe Acrobat Connect, Zoom and Blackboard Collaborate (Butz & Stupnisky, 2016). These platforms enhance the learning experiences by increasing interactions between participant and building social, cognitive and teaching presence (Barron, Schullo, Kromrey, Hogarty, Venable, Barros & Loggie, 2005; Clauzel, Sehaba, & Prié, 2011). Figure 1 and 2 show a screenshot of one video conferencing tool.

Using closed circuit television for teaching in the 1940s can be regarded as the starting point of synchronous courses, but the discussion regarding a synchronous course became more widespread in the 1980s (Johnson, 2006). In the 1980s ~ 90s, various technologies were developed that could allow students to take a lecture, ask questions, and discuss concepts by connecting to remote classrooms by means of technologies including videoconferencing and interactive television (Bernard, Abrami, Lou, Borokhovski, Wade, Wozney, & Huang, 2004). Researchers investigated the effectiveness of synchronous course lecture compared to face-to-face lecture and developed learning platforms for synchronous courses (Fetterman, 1996; Knox, 1997; Walther, 1996; Yamagata-Lynch, 2014).

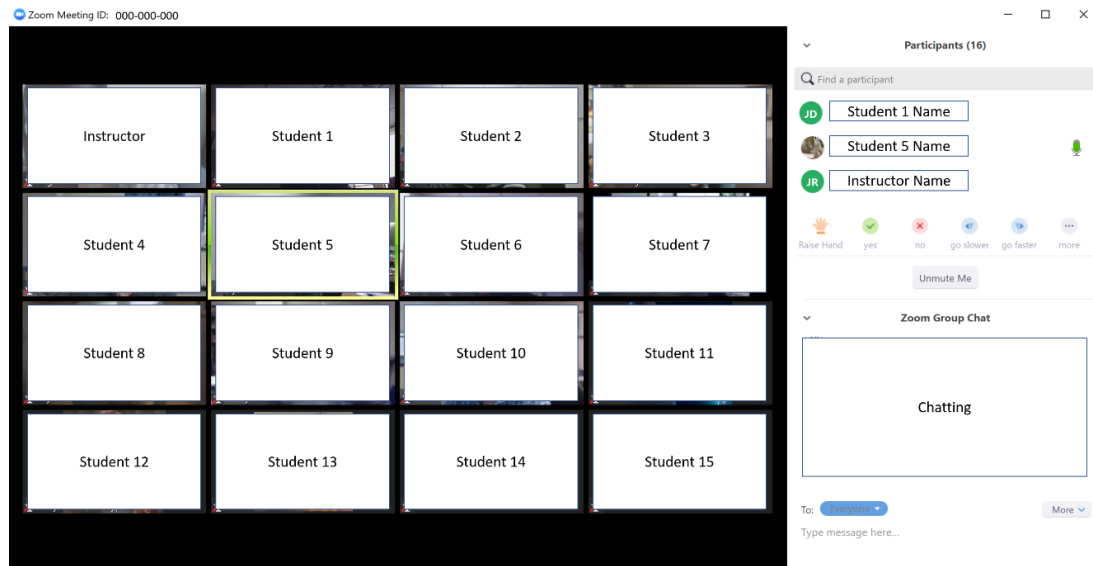


Figure 1. Video Conferencing Tool Interface 1 (Video, List and Chatting)

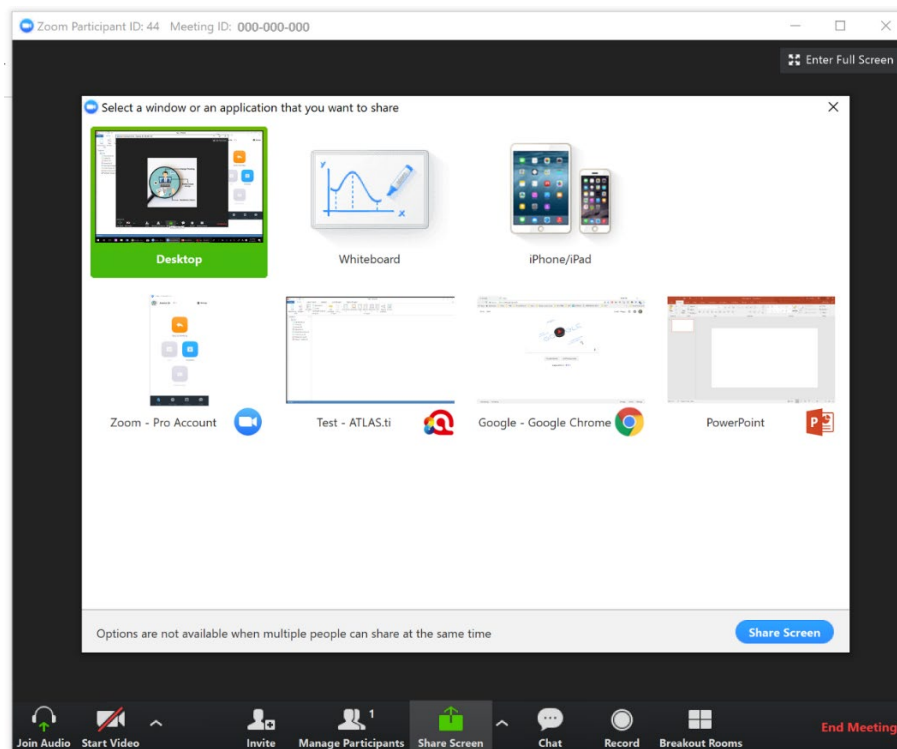


Figure 2. Video Conferencing Tool Interface 2 (Share Screen)

However, the interest in and application of a synchronous course decreased due to various limitations and constraints in implementing this course format. High costs, bandwidth limitations, insufficient tools, a lack of reflection time, and scheduling issues, inherent issues of synchronous courses, have contributed to their lack of popularity (Park & Bonk, 2007, p.245). One specific limitation was the difficulty in arranging the same time and virtual place for all students to participate (Lowenthal, Dunlap & Snelson, 2017). Branon and Essex (2001) pointed out that a limitation associated with a synchronous course was getting students online at the same time. This type of environment requires a precisely set date and time for meetings, but this contradicts the promise of “anytime, anywhere” learning that online courses have traditionally promoted (Skylar, 2009, p.71).

Additionally, in the 1990s and early 2000s, classroom videoconferencing equipment could only be used in designated classrooms. The students and instructor had to be those specific locations, directly contradicting the promise of “anywhere” (Rowe, Ellis, & Bao, 2006). Due to expenses associated with required videoconferencing equipment, it was difficult to establish learning environments for implementing synchronous courses. A lack of

network infrastructure also hampered the growth of synchronous courses and contributed it be location specific. In the early 2000s, the bandwidth of internet access was still insufficient to support an effective synchronous course (Chen et al., 2003; Lowenthal, Dunlap & Snelson, 2017). The most common form of online learning has been depended on primarily asynchronous learning format due to above limitations (Davidson-Shivers, Muilenburg, & Tanner, 2001; Gibson, 2011; Park & Bonk, 2007; Yamagata-Lynch, 2014).

Over the years, by implementing asynchronous online courses, educators and researchers have found several limitations of asynchronous courses such as the isolation students feel, delayed feedback, barriers to interpretation and the lack of bodily communication (Derks, Bos, & Von Grumbkow, 2007; El Mansour & Mupinga, 2007; Bolliger, Supanakorn, & Boggs, 2010). In asynchronous learning environments, learners are likely to report feelings of isolation because of the limited opportunities for social interaction (Cunningham, 2014). A lack of shared context and body language can lead to an interpretation of written text not intended by both instructors and students (Howard, 2012). This miscommunication may reduce a learner's connectivity and sense of belonging (Giesbers, Rienties, Gijssels, Segers, & Tempelaar, 2009; Hara & Kling, 2001). Given these limitations of asynchronous course, online instructors have begun to show interest in using synchronous course elements in their class (Levin, He, & Robbins, 2006).

Synchronous courses have several advantages over an asynchronous course such as immediate feedback, immediate interactive clarification of meaning, high motivation, more engagement and a greater sense of presence (Hastie, Chen, & Kuo, 2007; Martin & Parker, 2014; Giesbers, Rienties, Tempelaar, & Gijssels, 2013; Skylar, 2009). Researchers argue that synchronous online instruction allows students to enjoy the benefits of both face-to-face and online courses (Bower, Dalgarno, Kennedy, Lee, & Kenney, 2015; Romero-Hall & Vicentini, 2017). Students can attend class at their convenient place while also enjoying social interactions, immediate feedback, and intensive learning activities. With this understanding of the limitations of asynchronous courses and strengths of synchronous courses, a number of researchers and practitioners have started including one or two synchronous sessions as course activities in online courses with primarily asynchronous instructional delivery (Chen & Jones, 2007; Gibson, 2011; Lowenthal, Snelson, & Dunlap, 2017; Roseth, Akcaoglu, & Zellner, 2013).

Recently, the increasing bandwidth of the Internet and improvements in information and communication technologies have made synchronous online instructional delivery more popular and effective (Martin & Parker, 2014; Olson & McCracken, 2015). High quality technologies allow for teaching and learning experiences similar to face-to-face classes (Romero-Hall & Vicentini, 2017). For example, most synchronous course platforms have "Breakout Rooms" function that allows an instructor creates smaller groups within an online classroom. In a breakout room, students can engage in team-based activities by collaborating with their team members just like they do in face-to-face classroom. In addition, advanced technology adds an additional convenience to synchronous courses delivery: "any device" (Clawson, Korns, Decker, & Piper, 2016). These days, students can access a synchronous course through their computer, tablet or even cellular phone. Many postsecondary institutions now have a number of programs that deliver online courses with a synchronous format (Bell, Sawaya, & Cain, 2014; Butz et al., 2014). Increased interest in synchronous courses have prompted the development of various synchronous course platforms to be developed such as Eluminate Live, Adobe Acrobat Connect, Zoom, and Ultra.

Comparison Of Asynchronous And Synchronous Courses

The main differences between an asynchronous and a synchronous course are the nature of communication and the simultaneity of interaction (Hrastinski, 2008). In an asynchronous course, participants communicate through asynchronous computer-mediated communication tools such as email and discussion boards. They do not need to be online at the same time, and there are time gaps between action and response as well as action and feedback. In a synchronous course, participants communicate through two-way media such as chat and video-conferencing tools. Students and an instructor are logged on video-conferencing tools at the same time and interact each other.

A lot of studies that compare synchronous and asynchronous courses have been conducted, and these studies introduce 1) the difference between asynchronous and synchronous communication (e.g. Branon & Essex, 2001; Davidson-Shivers, Muilenburg, & Tanner, 2001; Hrastinski, 2008; Oztok, Zingaro, Brett, & Hewitt, 2013), 2) instructors' and students' preferences regarding particular formats of online courses (e.g. Buxton, 2014; Brierton, Wilson, Kistler, Flowers, & Jones, 2016; Johnson, 2006; Levin, He, & Robbins, 2006), and 3) advantages of particular formats over others (e.g. Baker, 2010; Brierton et al., 2016; Clark, 2015; Falloon, 2011; Han, 2013; Hrastinski, 2008; Laat, Lally, Lipponen, & Simons, 2007; Levin, He, and Robbins, 2006; Skylar, 2009; Wang, 2008).

Many studies above point out the benefits of a synchronous course over an asynchronous one. Levin, He, and

Robbins (2006) found that most people before online discussion stated that they would rather use asynchronous discussion but that afterward the majority noted that they would instead favor more synchronous discussions. Their reasons included that they received quick feedback, real-time discussion, the advantage of finishing the chat in one sitting, and the challenge of thinking critically. They stated overall that the use of synchronous discussions was more productive than asynchronous discussions (Levin, He, and Robbins, 2006). In his research, Wang (2008) compared and explored the possibilities of a synchronous communication tool building a sense of a community. Laat, Lally, Lipponen, and Simons (2007) discovered that sustaining communication and expressing emotions is easier with web videoconferencing compared to discussion forums. And Han (2013) found that implementation of video casting in courses was found to attract greater interaction between instructors and peers. Clark (2015) investigated whether asynchronous communication and synchronous communication create higher levels of social and teaching presence. The results of student interviews, surveys, and self-reported perceptions showed that social and teaching presences were significantly higher when student communicate through synchronous communication tool.

Affordances Of Synchronous Courses

Studies have presented and highlighted various benefits of synchronous courses. The identified benefits are affordances of synchronous online course. Affordances are the perceived and actual properties of a thing, primarily those fundamental properties that determine just how the thing could possibly be used (Norman, 1988, p. 9). In other words, an affordance is an object's possible uses by a user to achieve an objective. Studies have presented and highlighted the various benefits of synchronous courses. The identified benefits are affordances of synchronous online course. When instructors include synchronous sessions in their online course, they have perceived uses of those sessions which are affordances of synchronous courses. Instructors have used synchronous online sessions to use following affordances of synchronous online sessions: developing a sense of community, creating social, cognitive, and teaching presences, promoting interactions, enhancing engagement, increasing motivation and providing immediate feedback. Table 1 shows affordances of synchronous online courses along with information about related studies. Among those affordances, we will explain several affordances which are frequently mentioned in each research.

Table 1. Affordances of Synchronous Courses

Affordances	Explanations	Research
Developing a sense of community	Synchronous communications tools play a part in the development of a sense of community in a synchronous online learning environment	Butz et al, 2014; Han, 2013; Hratinski, 2008; Shield, Atweh, & Singh, 2005; Wang, 2008
Creating the presences	There are three types of presence: social, cognitive, and teaching. These are essential in successful online learning. The positive relationship between each presence and synchronous courses has been determined.	Baker, 2010; Clark, 2015; Giesbers, Rienties, Gijsselaers, Laat, Lally, Lipponen, & Simons, 2007; Han, 2013; Giesbers, Rienties, Gijsselaers, Segers, & Tempelaar, 2009; Szeto & Cheng, 2016
Promoting interactions	Synchronous courses improve interactions between student and students, students and instructors, and students and contents through various video conferencing tools.	Bower, 2011; Butz et al., 2014; Chen et al., 2005; Duemer et al., 2002; Han, 2013; Hastie, Chen, & Kuo, 2007; Vu & Fadde, 2013
Enhancing engagement	Synchronous online courses assist and enhance student engagement in learning activities by providing immediate feedback and increasing their motivation.	McBrien, Cheng, & Jones, 2009; Wang, 2005; Hratinski, 2008
Increasing motivation	Benefits of synchronous courses include immediate feedback and a strong sense of community that can enhance student motivation. This affects the incensement of enrollment positively.	Chen, Ko, Kinshuk, & Lin, 2005; Hratinski, 2008; Gijsselaers et al., 2013; Hratinski, 2008; White, Ramirez, Smith, & Plonowski, 2010, Lowenthal, Dunlap & Snelson, 2017
Providing immediate feedback	In synchronous online courses, instructors can provide immediate feedback to students. So students can immediately correct their understanding of a given topic and clarify its meaning.	Chen, Ko, Kinshuk, & Lin, 2005; Laat, Lally, Lipponen, & Simons, 2007; Levin, He, and Robbins, 2006; Schutt, Allen & Laumakis, 2009

Developing a Sense of Community

Many studies found that synchronous learning can develop a sense of community (Butz et al., 2014; Han, 2013; Shield, Atweh, & Singh, 2005; Wang, 2008). In the development of a sense of community in online learning environments, the synchronous tools play a part. Face to face learning environment provide a sense of community. Wang (2008) compared and explored the possibilities of a synchronous communication tool establishing a sense of a community in his research. Shield, Atweh, and Singh (2005) found that a sense of community was found within the use of synchronous tutorials/synchronous tools from a quasi-experimental investigation.

Creating the Presences

Palloff and Pratt (2011) said that establishing presence is the first-order task when designing successful online courses. In relation with presence, three types of presence were noted to be successful in an online course. Garrison, Anderson, and Archer (2000) presented the model with three aspects of a successful educational experience: Social Presence, Cognitive Presence, and Teaching Presence. Social presence incorporates expression of emotion, open communication, and development of group cohesion. Moreover, social Presence comments on the capability of bringing student and instructor personalities into the learning community. On the other hand, Cognitive Presence is the potential to understand and interpret meaning from educational experiences. Lastly, Teaching Presence touches upon design, delivery, and facilitation of the course content with three aspects: instructional management, creating understanding, and direct instruction (Benshoff & Gibbons, 2011).

With an importance of these presence, researchers have found the positive relationship between presence and synchronous learning. Giesbers and his collage (2009) found that social presence is heightened when participants are able to see and hear using the shared workspace in Web video conferencing, expressing themselves social and emotionally within the group. They also found that cognitive presence and teaching presence are one of the effects of using Web videoconferencing. De Laat and his collage (2007) discovered that sustaining communication and expressing emotions is easier with Web videoconferencing compared to discussion forums. In relation to teaching presence, synchronous learning is also less challenging for instructors to allot time and give feedback and instruction in synchronous communication.

Promoting Interactions

In online learning, interaction has been regarded as essential element for successful online learning (Garrison, Anderson, & Archer, 2001; Hillman, 1999). Palloff and Pratt (2007) differentiate online and distance learning environments from traditional classrooms, noting that, "Key to the online learning process are the interactions among students themselves, the interactions between faculty and students, and the collaboration in learning that results from these interactions" (p. 4). Many studies insist that synchronous learning improve interaction between student and students, and students and instructors (Bower, 2011; Butz et al., 2014; Clauzel, Sehaba, & Prié, 2011; Duemer et al., 2002; Han, 2013; Hastie, Chen, & Kuo, 2007; Shield, Atweh, & Singh, 2005; Skylar, 2009; Vu & Fadde, 2013). Han (2013) studied the effects of instructor video casting on his/her 'students' sense of connection to the instructor'. He concluded that classes that implemented video casting and those that did not differed. The implementation of video casting in courses was found to attract interactions with instructors and peers. Clauzel, Sehaba, and Prié (2011) also discovered that use of synchronous tool such as whiteboard sharing and text chatting increased students' interaction. Particularly, Vu and Fadde (2013) insisted that allowing backchannel text-based communication in synchronous course promote student interaction across attendance modes.

Enhancing Engagement

Researchers found that synchronous learning also enhance student engagement. McBrien, Cheng, and Jones (2009) placed virtual spaces and employed through synchronous online classrooms to assist and enhance student engagement in online learning discussions in their research. Wang (2005) found that using open-ended and comparison questions in a synchronous classroom was effective in engaging students and fostering cognitive development. Hrastinski (2008) proved the potential of synchronous communication to enhance students' participation through his case study research. Giesbers, Rienties, Tempelaar and Gijssels (2013) insisted that synchronous learning supported student engagement and collaborative knowledge construction through communicating with each other in synchronistic way.

Increasing Motivation

Students' motivation is crucial to academic success (Keller, 1987, 2009; Wentzel & Wigfield, 1998). According to Miltiadou and Savenye (2003), instructors should motivate online learners to ensure student success in online courses. In an online learning environment, there is the possibility that students feel isolated from the instructor and other participants due to their physical and social distance (Hrastinski, 2008; Bolliger, Supanakorn, & Boggs, 2010; Rovai & Jordan, 2004; Song & Hill, 2007). With the characteristics of an online learning environment, researchers maintained that instructors should develop new strategies and change their teaching practices in order

to maintain online learners' motivation (Bennett & Lockyer, 2004). Giesbers and his colleagues (2013) tried to understand student motivation by combining SDT with technology acceptance theory. They found that students who participated in optional synchronous web conferencing sessions had significantly higher levels of intrinsic motivation. Chen, Ko, Kinshuk, and Lin (2005) also found that synchronous online session enhanced students' motivation.

Providing Immediate Feedback

Delayed feedback, barriers to interpretation and the lack of bodily communication have been regarded as limitations of asynchronous online courses (Branon & Essex, 2001; El Mansour & Mupinga, 2007; Bolliger, Supanakorn, & Boggs, 2010). Immediate feedback can handle these limitations. In synchronous online courses, instructors can provide immediate feedback to students. So students can immediately correct their understanding of a given topic and clarify its meaning (Chen, Ko, Kinshuk, & Lin, 2005). Park and Bonk (2007) also insisted that instructors can immediately correct students' misunderstanding and misconceptions of their intent in synchronous online course and regarded an immediate feedback as one of benefits of synchronous online course. Levin, He, and Robbins (2006) found that most people before online discussion stated that they would rather use asynchronous discussion but that afterward the majority noted that they would instead favor more synchronous discussions. According to them, one of reasons why students preferred synchronous discussions was because they liked immediate feedback in synchronous online discussion.

Conclusion

There is a demand among instructors and students for synchronous courses because of the unique benefits and affordances of synchronous online courses (Bower et al., 2015; Lowenthal, Dunlap & Snelson, 2017; Romero-Hall & Vicentini, 2017). Identified affordances of synchronous online course are developing a sense of community, creating social, cognitive, and teaching presences, promoting interactions, enhancing engagement, increasing motivation and providing immediate feedback. These affordances are regarded as important values and essentials components for successful online learning to modern online instructors and researchers (Bennett & Lockyer, 2004; Cavanaugh et al., 2009; Garrison, Anderson, & Archer, 2001; Miltiadou & Savenye, 2003; Moore, 1989; Palloff & Pratt, 2007, 2011). However, most online courses designed in an asynchronous format are missing these benefits (Bower, Dalgarno, Kennedy, Lee, & Kenney, 2015; Lowenthal, Snelson, & Dunlap, 2017; Olson & McCracken, 2015). Thus, this study insists that synchronous online courses is an effective way of delivering online courses.

However, sophisticated design is required to implementing the affordances of synchronous courses into a real classroom. Instructors need to approach synchronous course design differently than the approach used in designing asynchronous courses and face-to-face courses (Anderson, Fyvie, Koritko, McCarthy, Paz, Rizzuto, & Sawyers, 2006; Bower et al., 2013; Olson & McCracken, 2015; Romero-Hall & Vicentini, 2017). Schullo and his colleagues (2005) assert that there are instructors and instructional designers of synchronous course who are considering using or implementing such aforementioned affordances, and they need to be guided in how to properly implement them in their courses. In addition, designing those affordances requires extensive preparation (Anderson et al., 2006; Bower et al., 2013; Chen, Xiang, Sun, Ban, Chen, & Huang, 2015; Piskurich, 2004).

Most previous studies of online learning examine strictly asynchronous online course delivery (Szeto, 2015). With increased interest and use of synchronous courses, researchers have started to conduct studies on synchronous online course delivery. In 2017, Martin, Ahlgrim-Delzell and Budhrani conducted a systematic review of research on synchronous online learning from 1995 to 2014. They analyzed 157 articles that met their screening criteria (e.g. articles that referred to use any synchronous online technology and were published in peer-reviewed journals). They found that the most common independent variable in the 157 articles was the "synchronous tools" (n=109), and the most common dependent variable was "perception and attitude" (n=96) followed by "interaction" (n=71) (Martin, Ahlgrim-Delzell & Budhrani, 2017). As this study shows, most of the existing studies on synchronous courses focus on the students' perception and attitude on synchronous courses and introduces a specific synchronous courses or tools. Existing studies advocate a synchronous course as a possible way to deliver online courses. However, these studies are too abstract to offer potential instructors practical strategies about how to design synchronous online courses. Thus, future studies need to investigate how to design and implementation synchronous courses to use the affordances effectively.

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Investigating The Reflective Thinking Skills Of Students For Problem Solving

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Abstract

Being part of the German didactic tradition, reflective thinking was first coined by Wilhelm von Humboldt two-century ago. Reflective thinking helps individuals to develop strategies in order to overcome the problems that they encounter. Investigating the reflective thinking skills of students for problem solving is important to identify students that may need extra assistance to develop their reflective thinking skills. In this study, the reflective thinking skill level of secondary school students is investigated. The cross sectional survey design is used in this study. The data were collected from 297 middle school students who are in 6th, 7th and 8th grades in Zonguldak city center of Turkey. The scale measuring the reflective thinking skill towards problem solving was used for the data collection. The descriptive statistic, the one-way ANOVA and the Bivariate correlation were used for data analysis. Findings revealed that secondary school students' reflective thinking skill levels are above the average. However at the same time participating students' course grades for the math course and for the science and technology course were close to the maximum score. This shows that academically successful students' reflective thinking skill level tend to be high. Another significant finding of this study is that female students' reflective thinking skills are higher than male students' reflective thinking skills. The third finding of the study revealed that there is no correlation between the math course grades and the reflective thinking skills of the secondary school students. Similarly no correlation was found between the science and technology course grades and the reflective thinking skills of the secondary school students. However a statically significant relationship is found between the questioning skill level of the students and their course grades in the science and technology course. It is suggested that reflective thinking skill level should not be used as a predictor of the course grades for investigated courses for the study population. More research studies are needed to make generalizable conclusions about the relationship between the reflective thinking skills of the elementary school students and their academic achievement. The results of the study reveal that the reflective thinking skill of secondary school students are above the average but there is a room for improvement. It is also found that female students' reflective thinking skills are higher than the male students'. Moreover a statically significant relationship is found between the questioning skill level of the students and their course grades in the science and technology course. It is suggested that reflective thinking skill level should not be used as a predictor of the course grades for investigated courses.

Keywords: *Reflective thinking, problem solving skill, secondary education*

Introduction

Reflective thinking, one of the higher-order thinking skills, has been defined by Ünver (2003) as a way of thinking that aims to determine the factors that affect the learning level and methods of the individual, positively or negatively to solve the problems. Although it was Wilhelm von Humboldt, who spoke the concept of reflective thinking for the first time two centuries ago, John Dewey advocated that the concept of reflective thinking was developed in the early twentieth century by one of the primary priorities of the society, reflecting the knowledge that learners learned in school (Alp and Taşkın, 2008). Reflective thinking is a form of thinking that is associated with a progressive movement based on pragmatic philosophy and that is developing continuously. In 1933, Dewey defined reflective thinking as "any thought or knowledge, and an information structure that supports attainment of its intended results, in an effective coherent and careful way".

John Dewey stated that the reflective thinking process is made up of five stages without a specific order. These are the five stages:

1. Suggestions: Ideas and possibilities in the mind when an individual is confused with a complex situation. As proposals grow, the need to think more and more.
2. Problem: When an individual is confronted with a complex situation, he tries to see the big picture instead of small details.
3. Hypothesis formation: It is an effort to determine what is feasible by looking at the proposal. This phase ensures that you do not think more on information, purify the problem, the proposals are testable, measurable.
4. Reasoning: Information, ideas and experiences are intertwined to provide advice, hypothesis and testing.
5. Testing: A new problem may arise as well as existing probabilistic clarification (Kızılkaya & Aşkar, 2009).

Reflective thinking begins when a problem is recognized. It ends when the problem is resolved. In addition, there is

an aim to understand the problem well and solve it better in the process. Furthermore, the analysis and restructuring of the information in this way of thinking is the subject of question (Çubukçu, 2011). Identification of reflective thinking skills that will give pupils the opportunity to improve themselves after school and, if so, clarification of the development of these skills, will contribute to the solution of problems that students will encounter in real life.

The results of the studies in the literature about reflective thinking differ. When the results of the studies done in time are summarized chronologically; Özçalı (2007) conducted a study to investigate the relationship between teacher efficacy and reflective thinking. In the study it was also investigated whether an in-service education program change teachers' reflective thinking level. Quantitative and qualitative data were collected from 25 Turkish EFL teachers. Results of the study revealed that there is no relationship between the teacher efficacy and reflective thinking. It was also found that as a result of the in-service education program, teachers' reflective thinking did not change significantly.

In another study, Alp and Taşkın (2007) completed a study to determine the perspectives of primary school teachers about reflective thinking. Data related to the study were collected from 134 teachers working in primary education using a scale developed during the study. The results showed that the teachers did not know the concept of reflective thinking, but they were aware of the reflective thinking as part of the critical thinking and problem solving dimensions. In the study, the necessity of initiating in-service programs for teachers about reflective thinking was proposed.

Also, Baki, Güç and Özmen (2012) collected qualitative data from 10 pre-service teachers in order to determine the reflective thinking skills of primary school mathematics teacher candidates for problem solving. Qualitative data were obtained through observations. In order to reach the aim of the study, reflecting reflective thinking situations were determined by monitoring the teacher candidates participating in the activity. As a result of the study, it was found that the teacher candidates were focused on solving the given problem as soon as possible and the reflective thinking skills were found to be at a low level in the dimensions of questioning, reasoning and solution stages of the problem.

In the study, Baş (2013) collected data from 254 elementary school students by using the screening model to examine the relationship between the reflective thinking skills of the elementary school students for problem solving and their academic achievement in science and technology course using the structural equation model. The results of the study showed that the sub-dimensions of the questioning, reasoning and evaluation of the reflective thinking skills scale for problem solving were an important predictor of their academic achievement.

Kaplan, Doruk and Ozturk (2017) collected data from 31 gifted students using mixed research method to investigate the reflective thinking skills of gifted students for problem solving. At the end of the study, it was found that the reflective thinking skills of the gifted students towards problem solving were at a high level, but used relatively less than the skills of inquiry and evaluation.

Furthermore, Eğmir and Ocak (2018) examined the effect of the curriculum prepared for critical thinking skills on students' reflective thinking levels. In this study, the critical thinking skill levels of the students in the experimental and control groups were compared in two classes consisting of 5th grade students. The results of the study indicated that the reflective thinking skill levels of the students in the classroom who participated in the curriculum prepared for critical thinking skills were higher than the control group.

In the study conducted by (Bakar, 2018) the effect of technology usage on reflective thinking of students was investigated. The study was carried out with 109 12th grade students by using quasi-experimental method. The results of the study showed that the level of reflective thinking of the students was higher in experimental group which used technology for teaching than the control group.

Studies carried out up to date in the field of literature are inadequate in providing information about the current reflective thinking skills of secondary school students. An examination of reflective thinking skills that helps individuals develop strategies to overcome the challenges they face is important for identifying those students who need to develop these skills. Therefore this study was designed with the purpose of examining the reflective thinking skills of middle school students.

In order to achieve the study purpose, answers to following research questions are investigated;

- What are the reflective thinking skill level of secondary school students?
- Does the level of reflective thinking skill of secondary school students change by the gender?

- Is there a relationship between the math course grades and reflective thinking skills of students in secondary school?
- Is there a relationship between the science and technology course grades and reflective thinking skills of students in secondary school?

The Study

Research Design

Being one of the quantitative research methodology, the cross sectional survey design (Creswell & Creswell, 2017) is used in this study to collect data about the reflective thinking level of the middle school students and their course grades for the math course and for the science and technology course.

Setting and Participants

The data were collected from 297 middle school students who are in 6th, 7th and 8th grades in Zonguldak city center of Turkey. 5th grade students were excluded from the study because 5th grade is the first year of the middle school. Therefore the researcher cannot collect the data from students about their math course grades and their science and technology course grades through the use of the cross sectional survey.

The math course and the science and technology course were specifically selected in the study because middle school students attend to the nationwide administered test at the end of the middle school to make selection for their high school. Students' scores on the math course and the science and technology course are the major determinants for the calculation of the nationwide exam scores.

Measure

The data were collected using the scale measuring the reflective thinking skill towards problem solving (Kızılkaya & Aşkar, 2009). There are 14 items in the scale with response options ranging between always and never. The scale measure three dimensions of the reflective thinking. These are questioning, reasoning and evaluation. With the scale, also gender, previous year's math course grade and previous year's science and technology course grade were asked to the participants for data collection purposes.

Data Analysis

The data were analyzed using the descriptive statistic, the one-way ANOVA and the Bivariate correlation. SPSS (Statistical Package for the Social Sciences) were used for the data analysis. All statistical tests were conducted with a significant level of 0.05.

Findings

What are the reflective thinking skill level of secondary school students?

The first research question investigated the reflective thinking skill level of secondary school students. 297 students involved the study by completing the scale. The reflective thinking skill of the secondary schools students is presented at the Table-1.

Table 1: The reflective thinking skill of the secondary schools students

Scale Results	N	Min	Max	Mean	Std. Deviation
Questioning	297	5,00	25,00	17,72	3,94
Evaluation	297	7,00	25,00	17,92	3,77
Reasoning	297	5,00	20,00	14,95	3,22
Reflective Thinking Skill	297	21,00	70,00	50,59	9,24

The reflective thinking skill of the secondary school students is presented at the Table-1. Findings show that reflective thinking skill of the secondary school students are above the average. Also results indicate that for all sub-dimensions (questioning, reasoning and evaluating) of the reflective thinking skill are above the average for the secondary school students. Out of 297 secondary school students, 193 students completed and shared their math course grades and science and technology course grades for the study. The mean math course grades and the mean science and technology course grade of the secondary school students are close to the maximum grade of 100 (Table-2).

Table 2: The course grades of the secondary school students

Course Grades	N	Min	Max	Mean	Std. Deviation
Math Course Grade	193	48,00	100,00	88,89	10,75
Science and Technology Course Grade	193	56,00	100,00	91,49	8,15

Does the level of reflective thinking skill of secondary school students change by the gender?

The second research question investigated whether the reflective thinking skill of secondary school students change by the gender. The results of the One-way ANOVA revealed that the reflective skills of secondary school students change by the gender ($F(1, 295) = 5.91$; $p < 0.05$) (Table 3). The female students' reflective thinking skills ($\bar{x} = 52.0$, $SD = 8.49$) are higher than male students' reflective thinking skills ($\bar{x} = 49.4$, $SD = 9.66$). The One-way ANOVA results also revealed that reasoning dimension of the Reflective Thinking Skill is different for the gender ($F(1, 295) = 6.49$; $p < 0.05$) (Table 3). The female students' reasoning skills ($\bar{x} = 15.4$, $SD = 2.8$) are higher than male students' reasoning skills ($\bar{x} = 14.5$, $SD = 3.4$).

Table 3: The reflective thinking skill of students change by the gender

		Sum of Squares	df	Mean Square	F	Sig.
Questioning	Between Groups	61,01	1	61,01	3,96	,047
	Within Groups	4540,79	295	15,39		
	Total	4601,80	296			
Evaluation	Between Groups	40,09	1	40,09	2,84	,093
	Within Groups	4159,12	295	14,09		
	Total	4199,21	296			
Reasoning	Between Groups	66,18	1	66,183	6,491	,011*
	Within Groups	3008,05	295	10,197		
	Total	3074,24	296			
Reflective Thinking Skill	Between Groups	496,31	1	496,311	5,910	,016*
	Within Groups	24773,39	295	83,978		
	Total	25269,70	296			

* $p < 0.05$

Is there a relationship between the math course grades and reflective thinking skills of students in secondary school?

The third research question investigated whether there is a relationship between the math course grades and reflective thinking skills of students in secondary school. The results of the Pearson's correlation coefficient revealed that there is no correlation between the math course grades and the reflective thinking skills of the secondary school students (Table 4). No correlation is also found between the math course grades and the other sub-dimensions of the reflective thinking skills.

Table 4: The correlation between the reflective thinking skills and the math course grades

		Questioning	Evaluation	Reasoning	Reflective Thinking Skill	Math Course Grades
Questioning	PearsonCorrelation	1	,59*	,60*	,87*	,09
	Sig. (2-tailed)		,00	,00	,00	,17
	N		297	297	297	193
Evaluation	PearsonCorrelation		1	,51*	,83*	,01
	Sig. (2-tailed)			,00	,00	,87
	N			297	297	193
Reasoning	PearsonCorrelation			1	,81*	-,001
	Sig. (2-tailed)				,00	,99
	N				297	193
Reflective Thinking Skill	PearsonCorrelation				1	,04
	Sig. (2-tailed)					,52
	N					193
Math Course Grades	PearsonCorrelation					1
	Sig. (2-tailed)					
	N					193

* The correlation is significant at the 0.05 level.

Is there a relationship between the science and technology course grades and reflective thinking skills of students in secondary school?

The last research question investigated whether there is a relationship between the science and technology course grades and reflective thinking skills of students in secondary school. The results of the Pearson's correlation coefficient revealed that there is no correlation between the science and technology course grades and the reflective thinking skills of the secondary school students (Table 5). However statistically significant positive correlation is found between the science and technology course grades and questioning skills ($r = 0,14^*$, $p < 0,05$). On the other hand for the reasoning skill and for the evaluation skills, statistically significant correlation is not found.

Table 5: The correlation between the reflective thinking skills and the science and technology course grades

		Questioning	Evaluation	Reasoning	Reflective Thinking Skill	Science and Technology Course Grades
Questioning	PearsonCorrelation	1	,59*	,60*	,87*	,14*
	Sig. (2-tailed)		,00	,00	,00	,04
	N		297	297	297	193
Evaluation	PearsonCorrelation		1	,51*	,83*	,09
	Sig. (2-tailed)			,00	,000	,19
	N			297	297	193
Reasoning	PearsonCorrelation			1	,81*	,01
	Sig. (2-tailed)				,00	,80
	N				297	193
Reflective Thinking Skill	PearsonCorrelation				1	,10
	Sig. (2-tailed)					,13
	N					19
Science and Technology Course Grades	PearsonCorrelation					1
	Sig. (2-tailed)					
	N					193

* Correlation is significant at the 0.05 level.

Conclusion

Findings revealed that secondary school students' reflective thinking skill levels are above the average. However at the same time participating students' course grades for the math course and for the science and technology course were close to the maximum score. This shows that academically successful students' reflective thinking skill level tend to be high. This finding can be used as a proclaim to support the conclusion of Baş (2013) that the reflective thinking skills are an important predictor of their academic achievement. In fact, Kaplan, Doruk and Ozturk (2017) also found that reflective thinking skills of the gifted students towards problem solving are at a high level. These findings support the idea that the relationship between the reflective thinking skill level and the academic achievement should be investigated. Another significant finding of this study is that female students' reflective thinking skills are higher than male students' reflective thinking skills. Bağçeci, Döş and Sarıca (2011) found that female students' metacognitive awareness level is higher than male students. Female students seem to be more successful in cognitive skills than males. The third finding of this study revealed that there is no correlation between the math course grades and the reflective thinking skills of the secondary school students. Similarly no correlation was found between the science and technology course grades and the reflective thinking skills of the secondary school students in this study. However a statically significant relationship is found between the questioning skill level of the students and their course grades in the science and technology course. It is suggested that reflective thinking skill level should not be used as a predictor of the course grades for investigated courses for the study population. However in a different study, Baş (2013) while investigating the relationship between the reflective thinking skills of the elementary school students for problem solving and their academic achievement in science and technology, it was found that the reflective thinking skills scale for problem solving were an important predictor of their academic achievement. Because of the contradiction between the results of this study and Bas (2013)'s finding, more research studies are needed to make generalizable conclusions about the relationship between the reflective thinking skills of the elementary school students and their academic achievement.

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Investigating The Students' Experimental Design Ability Toward Guided Inquiry Based Learning In The Physics Laboratory Course

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Abstract

The goals of this advanced physics laboratory course emphasized not only to improve students' physics knowledge but also spectrum scientific abilities in particular for preparing their future-ready competencies. One of those scientific abilities was initiated to study that was "the ability to design experiment". It was the fundamental ability in help enhance students' higher order thinking in solving problems and self-operating their own labs scientifically. Besides, this corresponds to a crucial national policy of Thailand. There has been promoted innovative thinking skills to step onward driving the Thailand economy. This study was a preliminary report on the students' experimental design ability towards the students' learning engagement in a guided inquiry lab which involved to the physics concept of heat transfer. To investigate the ability, 18 senior-physics students enrolled the course were required to work in three groups of 4 to 6. In the investigation, a guided-inquiry lab set and worksheets were substantially designed and validated by three physics university lecturers who had teaching experiences for over 10 years. The guided worksheets were straightforwardly structured by considering five sub-abilities dealing with the ability to design experiment. Those worksheets were viewed as a lab report and also used as a main research tool to help follow and collect data about the students' experimental design ability. The key format of the worksheets was that guided inquiry questions and blank spaces were contained. This aimed to actively engage the students in the experiment since (1) linking physics concept, (2) defining measurement variables, (3) clarifying an experimental procedure, (4) selecting equipment and materials, and (5) minimizing errors. In each of the five abilities, the students had to individually investigate the answers of guided-inquiry questions and then shared ideas with their groups till they could solve the main problem of the lab. Additionally, video recordings were collected to triangulate qualitative data of the students' learning engagement. From observation, we found that the students spent about 6 hours in total (3 hours for designing the experiment by working on answering the guided-inquiry questions and 3 hours for doing the experiment) to complete the experimentation. The most time-consuming (about an hour) was in the step of linking physics knowledge to formulate a situation in order to solve the problem. The result found that there were no students who could design the experiment to solve the problem correctly but all of them were able to formulate the situations relating to the solving problem. All experiments designed could be practical. The main difficulty was from the students' misunderstanding of heat transfer. They did not determine the heat transfer from all objects in the closed system. This was the most difficult point in enhancing this ability. Moreover, there were many unexpected sub-abilities: basic measurements, using scientific equipment, and also identifying variables. Besides, the students were required to self-assess their proficiency on a 4-point rubric test. The first-two lowest average scores were in items relating to the sub-abilities to link physics knowledge and to clarify an experimental procedure.

Introduction

The several goals of physics laboratory courses are to develop students' understanding underlying physics principles, laws, or conceptions together with spectrum basic skills which involve to the art of experimentation—carrying out experiments and designing investigations to solve problems, data analysis—interpretations, and collaborative learning—social exchanges and expansion of ideas (AAPT, 1998; Hofstein & Lunetta, 2004). Such those skills are viewed as scientific practice. These are processes or methods that scientists use when they construct knowledge and solve experimental problems (Etkina et al., 2006; Etkina et al., 2006; Karelina & Etkina, 2007). In addition, in this twenty-first century, science educators and researchers have awaked to disseminate a focus on preparing learners' future-ready competencies. These particularly cite to four of these—creativity, critical thinking, collaboration, and communication (Tan et al., 2017). These correlate to the competencies having been driven in Thailand. Nowadays, there has been launched a government policy concerning to enhance economics by science, technology, and innovations called Thailand 4.0 policy (Jones & Pimdee, 2017) as Thailand has been trapped in a middle-income level. This will then affect Thailand's education reform by promoting innovative thinking and problem solving abilities.

Furthermore, based on the context of this study, to monitor an advanced physics laboratory course, the goal was covered specialized skills for working on advanced physics apparatus and challenging experiments. However, many universities in which are not leading universities in Thailand have been not ready for administering advanced lab apparatus for students as they are facing budget constraints. Under this condition, we lacked any advanced physics lab sets. Therefore, this condition reinforced us to think about how to gain support student learning efficiently and mutually took into account of the national education policy of Thailand. Then, we had an agreement to arrange the course in help students prepare some abilities for their future career or future learning which aimed to enhance innovative thinking abilities. One of the crucial abilities we referred to that was the experimental design ability. This aligned with the summary of introductory physics laboratory goals of the American Association of Physics Teachers (AAPT) (AAPT, 1998). This would affect an improvement of students' higher order thinking in solving problems and self-operating their own labs scientifically.

Consequently, to get deep understanding of students' the experimental design ability that will be a useful guideline to further help improve students' scientific learning process abilities substantially. The main purpose of this study is to primarily investigate students' experimental design ability in the advanced physics laboratory course. A strategy that was selected to help track the students' ability was inquiry.

Inquiry based learning has been disseminated to several laboratory classes and viewed as an alternative approach to enhance students' scientific inquiry skills and attitudes towards science instruction (Myers & Burgess, 2003). It is an inductive approach. The inquiry learning is generally expressed as four-levels of carrying on scientific investigations. As our participants were seniors, they were considered to get involve with a high level of carrying on scientific investigations called 'guided inquiry' (Banchi & Bell, 2008; Domin, 1999). The students would be provided with a problem or a question. They would be required to plan how to solve an experimental problem or to test a hypothesis. Therefore, the students have to formulate an investigation procedure to find an undetermined outcome by themselves. This allows the students to think like scientists. Later they will acquire knowledge and develop their own understanding of concepts, principles, or even theories.

Research Methodology

Participants

The participants were 18 fourth-year physics students from a university in Bangkok. They enrolled an advanced physics laboratory course. For the four-year study curriculum, the students had not learned physics labs since they became juniors. They were enrolled two fundamental physics laboratory courses for first-year students and two electronics lab courses for sophomore students. The teaching style of these courses was in a format of cookbook labs. The experiments were mostly selected and adapted from physics Olympics labs used for training high-school physics Olympics students. The labs involved challenging physics ideas and using basic measurement tools and simple physics apparatus. In each lab, students would be given a cookbook handout and then follow the direction of the lab till they completed and sent their individual lab report.

Research Design

Defining Sub-Abilities Relating To The Ability To Design Experiment

We initiated this study by defining sub-abilities which were relevant to the experimental design ability. Reports from Hantula *et al.* (2011) and Etkina and Murthy (2006)' research about analyses and interpretations of teaching and learning in physics laboratories, we later used to clarify the relevant sub-abilities as follows:

- (1) the ability to link physics concepts, principles, or laws in order to develop an experimental situation(s) for solving a problem or testing a hypothesis. This covers applying correct physics knowledge which corresponds to the problem solving;
- (2) the ability to identify measurement variables which relate to such that experimental situation defined;
- (3) the ability to clearly clarify an experimental procedure that can be used in the real practice;
- (4) the ability to use available equipment and materials for experimentations and measurements; and
- (5) the ability to minimize errors of experimentation. This relates to techniques used for setting-up an experiment or methods designed for collecting data.

Designing the research tools for data collection: a guided-inquiry lab, worksheets, and a 4 point rubric test

After clarifying such those sub-abilities, we then developed a guided-inquiry lab underlying the concept of heat transfer. It was about finding "the specific heat capacity of a one-baht coin".

Besides, guided-inquiry worksheets were developed to employ while students conducted the heat-transfer experiment. These guided-inquiry worksheets were not only used as a guideline to assist the students' active engagement in the laboratory but also used as a survey for investigating students' the five-experimental design sub-abilities. The lab consumed 6 hours to complete: first-three hours for planning and designing their experimental situation for solving the problem and left hours for conducting the experiment, collecting and interpreting data, summarizing results, and communicating their findings and shortcomings. The students were

required to collaborate on designing an experiment in groups of 4 to 6 throughout the lab class. Then, all of the students' individual worksheets would be collected to analyze research data. Lastly, the students were required to self-assess their five sub-abilities on the 4 point rubric test.

Data Collection

To assess the students' experimental design abilities, we collected the students' individual lab worksheets and the students' self-assessment about their sub-abilities by using the four-point rubric.

The Guided-Inquiry Lab Worksheets About Heat Transfer

The guided-inquiry lab worksheets were developed to be relevant to the five sub-abilities and then validated content and wordings by three physics teachers who had experienced in teaching for many several years. To assist student learning, the guided-inquiry lab worksheets were proposed and used during the lab class with the hidden reason about the key feature of using the worksheets. They included some key questions for guiding how to design the procedure for solving the problem and information with blank spaces as well as were embedded with the guided-inquiry approach. Many reports found that this could encourage students' interactive engagement of learning, improve their comprehension, and retention of the content (Sujarittam et al., 2016; Tanamatayarat et al., 2017)

In the worksheets, the students were initially given the information about a brief physics theory, a problem, and available equipment as follows;

Part1: Short-physics theory that is *"heat gained by an object resulting a high or low temperature change depends on its own specific heat capacity"*.

Part2: Problem statement that is *"what is the specific heat capacity of a one-baht coin?"*.

Part3: Equipment and materials which consist of *"one-baht coins, a calorimeter, a mercury glass thermometer, water at room temperature, hot water, and ice"*.

After the students were given the above information. They would then have to design how to solve the given problem. Here is the structure of inquiry activities about "Heat transfer" contained in the worksheets.

Step1: Sketch and describe the experimental situation(s) that will be used to solve the problem based on the available equipment and materials.

For this step, we prepared two hint cards for the students who had no ideas and need teacher's guides. The hint cards consisted of card 1: need to set at least two objects with different temperatures and card 2: need to define which objects will be gained or lost heat.

Step 2: Connect the situation designed to a physics concept and formulate the corresponding formula which will be used to find the specific heat capacity of a one-baht coin.

The hint cards will be contributed to the students who need help. Card 1: Heat Gained is equal to heat Lost and card 2: Heat gained by object(s) will be (the black space left for the students' response) and Heat lost by object(s) will be (the black space left for the students' response).

Step 3: Share ideas with your own groups, rethink whether you will change your ideas if 'yes' please inform your reason(s), and lastly summarize the experimental situation and the formula will be used to solve the problem.

Step 4: Identify the measurement variables.

Step 5: Identify the experimental procedure and the technique(s) will help minimize the errors of experimentation. In this step, we emphasized the students to write for letting someone else duplicate their experiment exactly.

Step 6: Select the measurement tools according to the experimental procedure and give the reasons of the selections.

In this step, we allowed the students to walk around the laboratory room to search for the measurement tools they needed.

Step 7: Create a table for collecting and recording experimental data.

All students were asked to carry out each step by themselves before exchanging ideas with their groups. The experiment would be then conducted following what they had designed on the worksheets.

Four-Point Rubric Assessments

The rubric assessment had 5 items designed in line with Karelina and Etkina (2007). There were: Item 1- linking physics concept, Item 2- defining measurement variables, Item 3- clarifying an experimental procedure, Item 4- selecting equipment and materials, and Item 5- minimizing errors. Each rubric item had a 4-rating scale from 'missing', 'inadequate', 'needs improvement', to 'adequate'. Examples of criteria are "Is able to link physics knowledge to design a reliable experiment that solves the problem?" and "Is able to use available equipment to make measurements?". Each student was asked to evaluate their own sub-abilities after completing the experimentation.

Results And Discussion

The results from the preliminary study were from observations of the students' practices in the laboratory, the analysis of the students' individual lab worksheets, and the students' self-assessment about their experimental design ability. Mostly the students seemed awkward in designing the experimental situation. They took over 30 minutes to think individually about formulating the situation(s) and the formulas which linked to such that designed situation(s). About 30 minutes were consumed for brainstorming with their groups.

Summary Of The Situations Designed From 3 Groups Of The Students

For the first group, the students designed three situations and created the wrong equation for calculating the heat of a coin and water as shown in Table 1. The students planned to put a coin at the room temperature into a calorimeter containing water at the room temperature. Another one was putting a coin at the room temperature into the hot water and the last one was putting a coin into the cool water contained in the calorimeter respectively. Besides, we found that the students planned to pour out the water from the calorimeter to measure the final temperature of the coin. They did not think of the thermal equilibrium between the coin and the water.

For the second group, this group found themselves had a big problem about determining the temperature of a coin at the room temperature. They realized that it could not be measured by directly touching a glass thermometer on the surface of a coin. Even though, they could not find a way to determine that even they paid most of time to brainstorm with their group. They skipped that and moved to propose two situations for solving the problem. One was putting a coin into the cool water contained in the calorimeter and the other one was quite similar to but it was pouring hot water instead of the cool water. They also formulated two equations with misconceptions of heat transfer as follows;

$$\begin{aligned} \text{heat gained by the coin} &= \text{heat lost by the hot water;} & \text{Equation (1)} \\ \text{heat gained by the cool water} &= \text{heat lost by the coin.} & \text{Equation (2)} \end{aligned}$$

The initial temperature of the coin was calculated from these equations. The same equations also were then used to find the specific heat capacity of the coin.

Table 1: The examples of students' difficulties corresponding to the five sub-abilities

Sub-ability	Students' difficulties	Group No. (Number of students)
1. Linking to physics concepts	-Found heat of an object by using the formula $Q = mct$.	Group1 (4)
	-Do not include the calorimeter as a system of heat transfer.	Group1 (4) Group2 (6) Group3 (4)
	-Did not setup the heat transfer equation by corresponding to the created situation.	Group1 (4) Group3 (4)
2. Identifying measurement variables	-Did not consider to measure the temperature of a calorimeter.	Group1 (4) Group2 (6)
	- Defined heat (Q) as a variable to be measured from a calorimeter.	Group1 (4) Group3 (4)
3. Clarifying an experimental procedure	- Designed an incompleteness procedure.	Group1 (4) Group2 (6) Group3 (4)
	- Could not define the practical method to measure the coin's temperature.	Group2 (6)
4. Employing available equipment and materials	- Planned to measure heat directly from a calorimeter.	Group1 (4) Group3 (4)
	- Did not record data according to the resolution of equipment.	Group1 (4) Group2 (6) Group3 (4)
	Did not use ice because of the change of its state.	Group3 (4)
5. Minimizing errors	Used a coin (mass of a coin = 3 grams) with a large amount of water (e.g. 50 ml or greater) to find heat transfer.	Group1 (4) Group2 (6) Group3 (4)

	Did not repeat the experiments.	Group1 (4)
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For the third group, we found that this group had much no understanding of physics knowledge. They created the same situations as mentioned in groups 1 and 2. One was putting a coin into the water at the room temperature contained in the calorimeter and next there was pouring hot water instead of the water at the room temperature. Even all of them asked for the guided cards, they could not help recall any physics idea. They suddenly created the formula of $c_{coin} = \frac{Q}{m\Delta t}$ to find the specific heat capacity of a coin. They thought that they could measure heat (Q) from a calorimeter and a temperature change (Δt) from a thermometer. Anyway, they confused which mass of water or of coins should be substituted in the above equation. Therefore, they could not achieve a procedure for experimentation.

The Students' Difficulties In Designing The Experimental Situations For Solving The Problem

To interpret the students' difficulties according the 5 defined sub-abilities, the observations of the students' practices in the laboratory and the students' individual lab worksheets were analyzed. The examples of the students' difficulties were presented in Table 1.

Sub-ability 1: Linking to physics concepts. The result shows that all of the students still had misunderstanding of the physics concept about heat transfer. All students could not think that the calorimeter should be included in the system of heat transfer. 8 students from groups 1 and 3 could not setup the heat transfer equation s which conformed to their created situations. This implied that the students did not understand about the conservation of energy and the thermal equilibrium. Furthermore, there were 4 students from group1 had an alternative conception about calculating the heat. They believed that they could calculate the heat of an object at any temperature (See the equation in Table 1). These results informed that the students had difficulties in designing the reliable experiment in order to solve the problem.

Sub-ability 2: Identifying measurement variables. All students could list the unknown variables that they had to find out but there were 8 students from groups 1 and 3 had misunderstanding of using a calorimeter. They thought that it could be used to measure heat. In addition, 10 students from groups 1 and 2 neglected to measure the temperature of a calorimeter.

Sub-ability 3: Clarifying an experimental procedure. All group still had a missing or incompleteness procedure. We observed that students took long time to argue what they should do exactly during they conducted their experiment. For example, they did not clarify how many coins and the amount of water would be used and weighted. The students did not aware of when the system would reach to the thermal equilibrium state. Consequently, they did not mention to stirring the water in the calorimeter or estimating the time for eventually reaching to the final temperature. We found some groups took just a moment to observe the temperature change and suddenly recorded the value.

Sub-ability 4: Employing available equipment and materials. Unexpectedly, there were 8 students from groups 1 and 3 could not remember or had not ever known about the function of a calorimeter. They thought that the calorimeter could be used to determine heat of an object directly. Furthermore, the third group decided not to use ice because it would be changed the state. Besides, the second group had waited ice melting and decided to measure the temperature of cool water only. To weight water and a coin, all groups used a digital balance with the resolution of 0.1 grams but all of them recorded the mass without the decimal numbers.

Sub-ability 5: Minimizing errors. All groups used only a coin for transferring heat from or to water. Even the students found that putting a coin into the water caused a little change of temperature, they still did not increase the number of coins. The third group also provided a comment about the technique that was "we should pour just 3 grams of water into the calorimeter to cover the height of the coin in order to measure the changing of temperature. About repetition, there was only the first group who did not think of repeating the measurements.

Students' Self-Assessments About Their Experimental Design Ability

The result from the self-assessments found that the students thought themselves had quite low sub-abilities in particular for the sub-ability to link the physics concept to solve the problem (Sub-ability 1) and to clarify the experiment procedure (Sub-ability 3). This result also relates to our observation (See Figure 1).

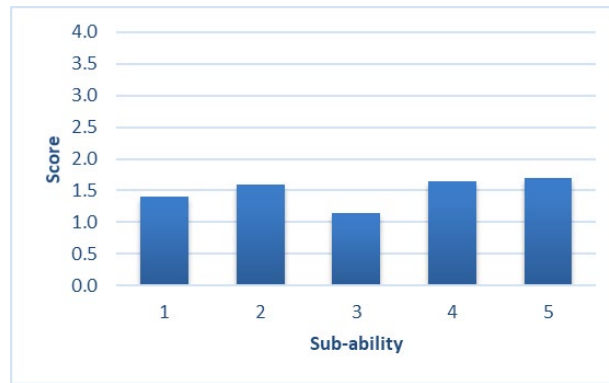


Figure 1: The students assessed their own sub-abilities after completing the experiment(s).

Conclusions And Implication

The goal of this study was to investigate the students' experimental design ability in the advanced physics laboratory course, which involved to the five sub-abilities: linking physics concept, identifying measurement variables, clarifying an experimental procedure, selecting available equipment and materials, and minimizing errors, respectively. To elicit the students' sub-abilities, a guided-inquiry lab and worksheets were substantially designed which were involved to the physics concept of heat transfer. Even all students had prior experiences in physics laboratory courses, they could not provide correct or even satisfactory responses on the worksheets. The results showed that the students spent about 6 hours to complete the experimentation. They took about 3 hours for designing the experiment by working on answering the guided-inquiry questions and left 3 hours for doing the experiment.

The step of linking physics knowledge to formulate at least a situation in order to solve the problem was the most time-consuming which took an hour to complete. This indicated that the linking physics concept was the most difficult process for the students. The major difficulty was from the students' alternative conceptions of heat transfer about incompletely determining the heat transfer in their designed system. This also led to the impractical procedures causing the unreasonable results. Furthermore, there were many unexpected difficulties such as lacking of basic measurements, using scientific equipment, and also identifying variables. Besides, the result from the students' self-assessments their proficiency showed that the lowest average scores were in items relating to the sub-abilities to link physics knowledge and to clarify an experimental procedure.

This report will be availed to the teachers and general educators in order to develop laboratory courses. Instructors can use these results to create or to develop effective instructional materials or teaching strategies for enhancing students' experimental designed ability.

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Investigation Of Computer / Computer Technology Course Teaching Programs

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Abstract

The purpose of this study is to examine the conceptual framework of the changes in the curriculums of the Information Technologies course, which was started in 2006 and redeveloped in 2012 and 2018. These three curricula approved and implemented by the Board of Education within the Ministry of National Education in the survey will be examined by taking into account the aims, achievements, educational status and test cases. In the review, content analysis method will be used from qualitative research methods and the results are presented comparatively.

Introduction

There are a number of skills for individuals must have in order to be able to keep up with the rate of increase of knowledge, to adapt to developing technology, to follow different ways of accessing information, and to provide indicators of being an "information society".

Adams (2007) has addressed these skills in seven key areas and emphasized technology literacy. Also Demirel (2009) states that successful individuals of the future are individuals who can effectively use technology in information retrieval and that every student / individual who grows up in the information age must have the ability to effectively access and evaluate this knowledge from various sources by using rapidly changing information technology.

According to this, it is clear that one of the basic ways of accessing information by using different resources of individuals who should have 21st century skills is to use the computers of today's technology correctly. In order to ensure that computers are used to access information, assimilate knowledge, and produce new information, it is essential that the courses of Information Technologies be carried out in schools and that technological skills are acquired from the right source, not just individual development but also social development; It is important to be able to catch up with the world standards and the technology age and be a productive society.

For this reason, considering that computer lectures are important in our country, it was decided by the Board of Education to take computer courses as elective courses in primary schools in 1998 (MEB, 1998). In 2006, "Elementary Computer Course (1-8th Grades) Curriculum" was prepared. This program was reorganized in 2012 after six years, and it was named "Information Technologies and Software Course Teaching Program". This program was restructured in 2018 with the same name under the scope of updating and development of all programs. In summary, although the name and content of the course between 1998 and 2013 have been changed, the course has been continued electively. After 2013, it was decided by the Ministry of National Education that the course should be held as compulsory for the 5th and 6th grades of secondary school and as elective course for the 7th and 8th grades.

In our country, the informatics technologies and the software courses are organized by the Ministry of National Education in accordance with the Standard Based Program. In order to be able to raise the 21st century needs of the appropriate individual, the education authorities of the other countries in the world are establishing this standardized framework program by determining the education standards at the national level (MEB, 2012). For this reason, programs used in Technology education in many countries are also standards-based teaching programs (Uzgun&Aykaç, 2016).

According to the taxonomy established by Tomei in accordance with the classification made as the sufficiency levels established by Schulz, Fraillon and Ainley (2011), the achievements of Information Technologies and software lessons were established in our country (MEB, 2012).

Teacher views were obtained for the formation of other program items with the achievements determined according to the levels. After this phase, the reorganized instructional technology curriculum includes important themes such as; ethical values in technology use and production, personal and socially information literacy, aesthetics, information security and cybercrime (MEB, 2012).

As you its seen, the need to update the programs in order to catch up with the social changes has been realized. The evaluation of developed programs is also important to determine how effective the program is and can be performed by many methods.

Although there are studies in our country that examined the change of the computer course teaching programs in different methods (Bayrak and Erden, 2007; Yılmaz Tanatas, 2010, Firat, Durdukoca and Arıbaş, 2011), it is seen that researches which examines all programs comparatively are needed. It is thought that determining how the curricula have changed in terms of purpose, achievement, educational status and test situation will be important to determine the way in which social needs have changed over the past 20 years.

Method

Research Method

In the research, document analysis method was used as one of the qualitative research methods. The analysis of the document includes analysis of the materials about the facts or planned phenomena (Yıldırım and Şimşek, 2011). Accordingly, in this research, educational programs related to computer which developed from elementary to secondary schools since 2006.

Data Collection

Teaching programs developed for primary and secondary school computer lessons were examined in the research. These curriculums were "Elementary Computer Teaching (1-8th Grades) Teaching Program" implemented in 2006,; "Information Technologies and Software Course Teaching Program (5th and 8th Grades)" which was put into practice in 2012 and "Information Technologies and Software Course Teaching Program (5th and 6th Grades)" which started to be implemented since 2018. By accessing the mentioned curricula, these programs have been evaluated comparatively for the aims, achievements, educational conditions and test cases.

Data Analysis

The instructional programs developed for the computer course were analyzed in terms of naming, class levels, goals, achievements, unit / learning areas, topics and measurement-evaluation topics. Descriptive statistics are used in the analysis of the data. Findings are also supported by expressions located in the curricula.

Findings

Naming of Teaching Programs

When the curriculums were examined in terms of nomenclature, it was found that the curriculum that was put into practice in 2006 was named as "Primary Computer Teaching Curriculum" and it was found that it was named "Teaching Technologies and Software Course Teaching Program" in 2012. In 2018, the name of the program has not changed. In addition, this course has become a compulsory course since 2018, while it has been elective course in 2006 and 2012.

Levels of Teaching Practices

It has been demonstrated that computer course teaching programs applied in primary and secondary schools are applied at different grade levels in different years. Findings related to this are given in Table 1.

Table 1. Distribution of Teaching Programs in Terms of Grade Levels Applied

Teaching Programs	1. Grade	2. Grade	3. Grade	4. Grade	5. Grade	6. Grade	7. Grade	8. Grade
2006 (Elective)	+	+	+	+	+	+	+	+
2012 (Elective)	-	-	-	-	+	+	+	+
2018 (compulsory)	-	-	-	-	+	+	-	-

When Table 1 is examined, the "Primary Computer Teaching Curriculum", which was put into practice in 2006, has been developed to cover all primary education from first grade to eighth grade. The "Information Technologies and Software Course Teaching Program", which was started to be implemented in 2012, was prepared for secondary schools. It is seen that the education program implemented in 2018 is directed to the fifth and sixth classes.

Aims in Teaching Programs

While the aims of the program of the computer lesson curriculums applied in elementary and junior high schools are under the heading of vision in 2006; In 2012 the program was included in the title of objectives and competences. In 2018, it was mentioned as a special purpose of the program. The table for the purposes of the curricula is given below (Table 2).

Table 2. Aims of Teaching Programs

	2006	2012	2018
Aims	<ul style="list-style-type: none"> • Correct, effective and beautiful use of Turkish Language • Competencies of Information Technologies • Critical thinking • Decision making • Being a judge in case of unexpected situations • Work within the group • Having communication skills • Very versatile enough 	<ul style="list-style-type: none"> • Informatics literacy • Communicating, information sharing and self-expression using information technologies • Researching, information structuring and working collaborative • Problem solving, programming and original product developing 	<ul style="list-style-type: none"> • Understanding of technological concepts, systems and processes as being digital citizens and creating technical know-how • Searching information by technology and internet, learning opportunities that are effective and purposeful • Acquisiting and developing the problem solving, reasoning and computational skills, • Acquiring cooperative working skills, benefit from the social environment and share what they learn as part of the learning process, • Developing an understanding of algorithm design to be able to express both verbally and visually. • Having accumulation of programming skills to use at least one of the programming languages. • Making execution on product design and management • Developing innovative and original projects to solve problems in daily life (problems faced by elderly and disabled people, etc.) • Gaining awareness about lifelong learning

When Table 2 is examined, it appears that the foremost aims are the use of information technologies, the ability to work collaboratively, and the development of problem-solving skills. 2012 and 2018 curricula are both have aims about product development. In addition, it has been determined that the 2018 curriculum includes objectives for lifelong learning.

Achievements of Teaching Programs

Findings regarding the number of achievements of curricula are given in Table 3.

Table 3. Number of Achievements in Teaching Programs

	1. Grade	2. Grade	3. Grade	4. Grade	5. Grade	6. Grade	7. Grade	8. Grade	Total
2006	19	19	19	21	23	24	17	21	163
2012	Frame Program								183
2018	-	-	-	-	75	78	-	-	153

When Table 3 is examined, it is seen that 163 in the education program in 2006, 183 in 2012 and 153 in the education program in 2018. In the curricula of 2006 and 2018, achievements were identified separately by class levels. In the 2012 curriculum, it is expressed as a framework program and the achievements without class level are mentioned. It is stated that the curriculum developed in 2012 should determine the levels of the students for different proficiencies and leave the level or subjects to the teacher's preference. The reason for not distributing the gains according to the class levels is due to the structure of the program.

Learning Areas / Units in Teaching Programs

While the learning areas were included in 2006 and 2012 regarding the computer program teaching programs applied in elementary and junior high schools, "unit based approach" was taken as basis in 2018. The distribution of learning areas and units of the programs are given in Table 4.

Table 4. Learning Areas / Units in Teaching Programs

	2006 (Learning Areas)	2012 (Learning Areas)	2018 (Units)
Learning Areas/Units	<ul style="list-style-type: none"> • Basic Operations and Concepts • Usage of Information Technologies • Advanced Practices in Information Technologies • Scientific Process in Information Technologies • Ethics and Social Values of Information Technologies 	<ul style="list-style-type: none"> • Informatics Literacy • Establishing Communication, Information Sharing and Self-Expression Using Information Technologies • Researching, Information Structuring and Collaborative Work • Problem Solving, Programming and Developing Original Product 	<ul style="list-style-type: none"> • Information Technologies • Ethics and security • Communication, Research and Cooperation • Product Creation • Problem Solving and Programming

According to Table 4, it is seen that the concepts commonly used in learning areas / units are the use of information technologies. Examples of activities and learning areas and activities related to the units are not included in the curriculum implemented in 2018, while they are included in the curricula implemented in 2006 and 2012. In 2006 and 2012, detailed lesson plans and activity examples were given.

Measurement and Evaluation Approaches in Curriculums

The data about measurement and evaluation approaches in curricula are given in Table 5.

Table 5. Measurement and Evaluation Approaches in Curriculums

	2006	2012	2018
Measurement and Evaluation Approaches	<ul style="list-style-type: none"> • Performance evaluation • Rubrics • Check lists • Interview • Self-assessment and peer review • Project • Digital product file (portfolio) • Concept maps • Short response materials • Multiple choice questions • Matching materials • Open-ended questions 	<ul style="list-style-type: none"> • Grading scale • Rubrics • Checklist • Performance evaluation • Product file (portfolio) • Peer review • Self-assessment 	<ul style="list-style-type: none"> • The curriculum does not draw definitive boundaries to the practitioners in terms of the measuring instruments and methods that can be used in the measurement process, but only guides them. • Measuring results are handled in unison with the processes being followed. • The academic development of a student can not be measured and evaluated by a single method or technique, evaluation is carried out with the active participation of the students.

The measurement evaluation tools recommended in 2006 and 2012 curricula are mentioned and examples of these tools are presented. In 2018, examples of measurement evaluation tools are not included, but only the principles to be considered in the measurement evaluation process are specified.

Conclusion And Recommendations

As a result of the examination of the programs, it is seen that informatics courses became compulsory at primary level in 2018 while it was an elective course in 2006 and 2012. Computer Teaching Program was developed for 1-8 grades in 2006 and it was developed for middle school (grades 5-8) in 2012. In 2018, it was developed to be applied in 5th and 6th grades.

When nomenclature is examined, it is seen that the name of the course was changed from "Primary Computer Course" in 2006 to "Information Technologies and Software Course" in 2012 and 2018. While the objectives of the program were placed under the title of vision in 2006; In 2012 the program was included in the title of objectives and competences. In 2018, it was mentioned as a special purpose in the teaching program.

When it is examined in terms of learning areas, while learning areas are included in curriculums of 2006 and 2012; units were included directly in 2018. When the curricula are examined in terms of achievements, the achievements in 2006 and 2018 are stated separately by class level. It was expressed as a framework program in the 2012 curriculum and includes achievements without class level. Examples of activities were included in 2006 and 2012 curricula. However, it is determined that there are no examples in this issue in 2018. In 2006 and 2012 curricula, the recommended assessment tools were mentioned and examples of these tools were presented. In 2018, examples of measurement evaluation tools are not included, but only the principles to be considered in the measurement evaluation process are specified. A comprehensive review can be conducted with different curriculum evaluation methods by considering all past curriculums that are relevant to the studies. However, in-depth examination can be made in comparison with different program evaluation methods. By examining the curriculums of computer courses abroad, it can be compared with the curriculums of computer courses in our country.

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Investigation Of Evaluations Of The 2nd Class Students In The School Of Medicine On Kahoot Platform About Anatomy Education

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Abstract

A physician must be well educated to be able to provide qualified health care. The way to be a successful and a good physician in this occupation is to learn the human anatomy correctly and permanently. Mobile devices such as mobile phone, tablet, etc. have changed the habits of young populations. These devices can be used not only for tracking social media, watching videos, taking photos, but also for education.

Different activities, such as laboratory lessons and clinical skills exercises in the medical faculty, help students understand lessons better. Examinations also contribute to student studying and learning. In the constructivist learning approach, assessment and evaluation are part of the teaching process and take place at every important point throughout the learning process, not just at the beginning and end of the learning. Web-based student response systems that can be used with mobile devices are also being used by lecturers. One of these systems, Kahoot help lecturers create, share, organize and apply multiple-choice questions. After this preparation, students can answer these questions via mobile devices or computers. It makes easier for lecturers to evaluate students. It also allows students to answer questions in the style of competition with their friends.

The aim of this study is investigating the evaluations of 2nd class students of Kocaeli University School of Medicine on Kahoot application.

At the first stage, 27 students (10 male, 17 female students) were asked to choose the names of the anatomical structures indicated by the arrows in the pictures of the models showed in the laboratories of the Nervous System and Sensory Organs Committee before. At the second stage, 6 students (4 female, 2 male) were asked to answer the questions prepared from the theoretical courses of Anatomy in the committee. After these quizzes, satisfaction or displeasure of the students with Kahoot were evaluated by 5 points with a questionnaire consisting of likert type questions.

The number of students participating in the survey is 16 (9 males, 7 females) and the mean of ages is 20.75 ± 1.238 . According to the survey, 81.3% of the participants have found Kahoot very interesting. The percentage of students who think that they have learnt any knowledge when solving the quiz is 75%. On the other hand, students get excited during these quizzes and similar exams. And also a competition may arise between them. The rate of students who are excited during the exam is 50% and the rate of students who think that they compete with their friends is 56.3%. In conclusion, Kahoot is an on-line measurement and evaluation system that the lecturer can make students repeat important parts of the lecture, that he/she can see how much of his/her teachings transmit to

learners, and detect most done mistakes. We believe that using the application of this platform in addition to normal teaching process may increase the motivation of the students, contribute to the success of them. Also, efficiency in the student assessment and evaluation can be provided for the lecturer.

Keywords: *Anatomy, education, Kahoot, assessment and evaluation*

Introduction

Today, medical education is divided into pre-graduate, post-graduate (specialization) and continuous medical education (in-service training). In our country pre-graduate education is integrated in some of the medical faculties and classical in some of them. it is taught in lecture halls in the first 3 years. However, in the second 3 years, it is taught in faculty hospital as applied and theoretical education. As is the case in the world, classical educational alternatives are becoming increasingly common in our country (Güraksın et al., 1997 ; Ögetürk et al., 2003)

A physician must be well educated to be able to provide quality health care. The way to be a successful, good physician in occupation is to learn the human anatomy correctly and permanently (Sabanciogullari et al., 2016). Different activities, such as laboratory lessons and clinical skills exercises in the medical faculty, help students better understand lessons. Examinations also contribute to studying and learning of students. Measurement and evaluation in the constructivist learning approach are part of the teaching process and take place at every important point throughout the learning process, not just at the beginning and at the end of the learning period (Gelbal & Kelecioğlu, 2007).

Smart phone, tablet, etc. mobile devices have changed the habits of youngs. The use of smartphones has become especially widespread. For example, the smartphone usage rate for the 16-24 age population in the UK increased from 86% in 2012 to 93% in 2016. (Smartphone usage in the United Kingdom (UK) 2012-2016, by age-Statista) Students use their mobile phones for viewing course related material, finding locations, checking weather forecasts, acquiring traffic updates and connecting to social networking platforms such as Facebook, Twitter and WhatsApp as well as for making voice calls. (Iqbal et al.2017)

Researchers built prototypes on student response systems (SRS) in the 60s (Judson 2002), and SRSs started to be used in education in the early 70s (Bessler & Nisbet 1971, Casanova 1971). In the recent years, game-based learning has become more common in learning environment along with the introduction of game-based student response systems (GSRS). The gamebased version focuses more on engagement and motivation by stimulating the students through multimedia. GSRS also uses score to motivate or compete against fellow students also (Wang & Lieberoth, 2016)

Kahoot!, one of the GSRSs, offers teachers the opportunity to create, share, and effectively apply multiple-choice questions to students. Students can enter the exams using a mobile device or computer without opening an account. The correct answers given by the students are scored by time. The faster true answers refer to the higher scores. This platform presenting the competition environment to the students with their friends is advantageous in that the teacher can easily evaluate the learning of students.

The aim is investigating of evaluations of the 2nd class students in the school of medicine on Kahoot platform about anatomy education

Material-Method

At the first stage, 27 students (10 male, 17 female students) were asked to choose the names of the anatomical structures indicated by the arrows in the pictures of the models showed in the laboratories of the Nervous System and Sensory Organs Committee before.

At the second stage, 6 students (4 female, 2 male) were asked to answer the questions prepared from the theoretical courses of Anatomy in the committee.

After these quizzes, satisfaction or displeasure of the students with Kahoot were evaluated by 5 points with a questionnaire consisting of 10 likert type questions. 16 surveys were collected.

Before of both these two stages, adaptation of the students was provided with a pilot test consisting two questions. All of the students voluntarily did the quizzes and filled out the surveys.

Permissions have been obtained from the Deanship of the School of Medicine of Kocaeli University for the processes.

Results

The number of students participating in the survey is 16 (9 males, 7 females) and the mean of ages is 20.8 ± 1.24 . According to the survey, 81.3% of the participants have found Kahoot very interesting. The percentage of students who think that they have learnt any knowledge when solving the quiz is 75%. On the other hand, students get excited during these quizzes and similar exams. And also a competition may arise between them. The rate of students who are excited during the exam is 50% and the rate of students who think that they compete with their friends is 56.3%.

Table – 1 – Descriptive statistics of participants of the survey

	Male	Female	Total
<i>Numbers</i>	N:9	N:7	N:16
<i>Age</i>	21 ± 1.32	20.4 ± 1.13	20.8 ± 1.24
<i>Means of Scores of Last Three Committees</i>	79.3 ± 8.75	81.3 ± 14.6	80.1 ± 11

Table – 2 – The questions and collected answers of the survey

	Male	Female	Total
<i>Interest of this quiz was fine.</i>	n:6 (%66.7)	n:7 (%100)	n:13 (%81.3)
<i>This quiz increased my concentration.</i>	n:8 (%88.8)	n:3 (%42.9)	n:11 (%68.7)
<i>The quiz was funny.</i>	n:8 (%88.8)	n:6 (%85.7)	n:14 (%87.6)
<i>My heart rate increased, I was excited during the quiz.</i>	n:5 (%55.5)	n:3 (%42.9)	n:8 (%50)
<i>I competed with my friends during the quiz.</i>	n:7 (%77.8)	n:2 (%28.6)	n:9 (%56.3)
<i>I learnt something during the quiz.</i>	n:8 (%88.8)	n:4 (%67.2)	n:12 (%75)
<i>This quiz advanced my Anatomy Laboratory motivation.</i>	n:6 (%66.6)	n:5 (%78.8)	n:11 (%68.7)
<i>This quiz may increase my Anatomy Laboratory exam success.</i>	n:7 (%77.8)	n:5 (%78.8)	n:12 (%75)
<i>I want these quizzes in Anatomy theoretical lectures also.</i>	n:6 (%66.6)	n:7 (%100)	n:13 (%81.3)
<i>If these quizzes are applied in Anatomy theoretical lectures, my theoretical exam success may increase.</i>	n:8 (%88.8)	n:7 (%100)	n:15 (%93.7)

Discussion

Wang & Liberoth (2016) made a study on 593 students. They did a survey about Kahoot. The students responded %95 positively to “I learnt something from playing the quiz” and %93 negatively to “Playing the quiz made me less motivated about the subject”. The results are similar with our study. Kahoot platform has also audio and score components. They also found that concentration, engagement, enjoyment, and motivation of students can be effected by audio and score usage in Kahoot. Students may feel as a competitor if score is used. Audio may effect hearing sense positively to focus more.

Zengin et al.(2017) made a study about Kahoot and Plickers on 15 pre-service mathematics teachers. According to the results of the research Kahoot! and Plickers software have made an important contribution to the learning and teaching process. It has become clear that the gamification of these softwares increase student interaction and participation in the learning-teaching process.

In the guidance of the teachers, students play in the role of a competitor. Kahoot!, which increases the attendance and motivation of the course, creates a visual and detailed data source for the teacher's formative evaluation and presents a detailed report at the end of the game (Wang, 2015). For example, after a question in Kahoot, teacher can see how much of students have truly or wrongly answered. If wrongs or blanks are more than true answers, teacher can repeat the subject. Therefore, lessons are taught more effectively.

McCabe (2006) found also that in such practices, the fact that the student felt compulsive at the point of responding enhances active participation. This is a crucial point. In classic course, teacher asks a question to a class. With one or more true answers, teacher can interpret wrongly as most of the class have understood the lesson. However, in

game-based learning activities like Kahoot, students mostly answer the question whether they know. In this way, teacher can realize more precisely, the understanding levels of the students.

Iwamoto et al. (2017) made a study on the 49 first year Psychology students. They split 49 students into control and experimental groups. Kahoot application was applied on experimental group. They found that Kahoot had a significant effect on academic performance of experimental group when compared with control group. Their qualitative findings also supported this result. Our results are parallel to these results.

Smith & Brauer (2018) gave some hints for effective use of Kahoot. One of them is that well designed Kahoot! questions can lead to better student engagement, motivation and learning. The other one is appropriate time limit. They told that longer time limit caused students to be bored and little time created frustration for them. They also suggested not to use long questions in quizzes. Difficulty of the questions was set optimally as for the authors. Hardworking students should do much more questions than unprepared students. Besides, they had students fill out surveys that were. %95 of students found Kahoot funny. %100 of students told that Kahoot provided them to understand concepts better in thermodynamics course. Our results show similarity with these results.

Applying Kahoot depends on Internet connection. Therefore, if there is Internet connection problem on server computer or mobile phones and tablets of students, applying Kahoot may fail. We suggest instructors to try a Kahoot quiz before the main quiz in the class.

With the use of appropriate technologies in the learning environment, the participation of students in the classroom is increasing and the learning of the students can be evaluated rapidly. (Johns, 2015)

Conclusion

Kahoot is an on-line measurement and evaluation system that the lecturer can make students repeat important parts of the lecture, that he/she can see how much of his/her teachings transmit to learners, and detect most done mistakes. We believe that using the application of this platform in addition to normal teaching process may increase the motivation of the students, contribute to the success of them. Also, efficiency in the student assessment and evaluation can be provided for the lecturer.

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Investigation Of Level Of Need Satisfaction Of Team And Individual Athletes

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Abstract

The primary purpose of this research is to investigate the level of psychological need satisfaction of team and individual athletes. The secondary purpose of the study is to determine whether the athletes are professional or amateur athletes and to examine the level of psychological need satisfaction according to gender variable. A total of 231 (Age average = $21,35 \pm 2,111$) (104 female and 127 male) athletes participated in the study voluntarily. The Basic Psychological Needs Scale and the personal information form created by the researchers were used to realize the research purpose. SPSS 21.0 computer package program was used in analyzing the data. Weighted mean, percentage, frequency, and t-test analysis techniques were used in the study. A significance level of 0.05 was used in the interpretation process of the obtained findings. When the findings of the study were examined, it was determined that the satisfaction of basic psychological needs of team and individual athletes did not differ statistically. In addition, when examined with respect to gender variable, it was found out that there is a statistical difference in the autonomy and relatedness subscales in favor of female athletes. As a result, it can be said that the whether athletes are a team sport or an individual athlete does not constitute a basis for differentiating the levels of their basic psychological need satisfaction.

Keywords: *Need Satisfaction, Team Sports, Individual Sports, Athlete*

Introduction

Athletes should have many basic psychological skills (Bozkurt, 2014). While these skills are tried to be discovered by the researchers (Mahoney, Gabriel & Perkins, 1987; Jackson et al., 2001), theoretical structure and related psychological factors are also tried to be revealed (Fletcher & Hanton, 2001, Şahin, Bayköse & Civar Yavuz, 2017b; Bayköse et al., 2017). The studies conducted based on the opinion that an athlete's having a psychological skill would contribute to his/her performance (Sheard & Golby, 2006; Thomas, Murph & Hardy, 1999) are mostly focused on soliloquy (Hardy, 2006; Theodorakis et al., 2000; Nergiz, Bayköse & Yildiz, 2015; Bayköse, N. (2018).), mental endurance (Jones, 2002; Crust & Clough, 2005), awareness (John, Verma & Khanna, 2011; Scott-Hamilton, Schutte & Brown, 2016), imagination (Şahin, Bayköse & Civar Yavuz, 2017a). Self-determination theory is one of the main hypothetic approaches which were developed for explaining how psychological factors could influence motivation of an individual (Deci & Ryan, 2000).

Basic psychological needs are accepted to be associated with many psychological needs. The theory predicts that an increase or decrease in basic psychological needs could influence many psychological structures (Deci & Ryan, 2000). Autonomy is defined as the individual's selecting his/her behaviors and experiences with his/her own free will. Deciding for the behavior and acting independently for initiating the behavior and making free choices are the main indicators for showing self determination. The individual completely accepts, approves his/her own behaviors and stands behind them (Deci & Ryan, 2008).

Competency need is defined as adaptation to environment, influencing environment, controlling events and feeling competence. Satisfaction of competency need is realized through good relations with environment and high adaptation ability (Deci & Ryan, 1985). Relatedness need is defined as being in relation with other people and individual's feeling him/herself to belong to the social environment which he/she is in (Kowal & Fortier, 1999). Basic psychological needs are required for development, maintaining life, psychological and physiologic health (Kasser ve Ryan, 1999). Individuals are psychologically durable and wellness level is high when three basic needs are satisfied (Deci & Ryan, 2000). On the other hand, three needs' not being satisfied is explained with low motivation level, higher ill-being. In other words, unsatisfied needs is accepted as relation with psychopathology (Williams, Cox, Hedberg & Deci, 2000).

Under the light of these data, the aim of the present study is to investigate psychological need satisfaction level of the athletes who do sports individually or within a team.

Method

Study group

The study was conducted with participation of the athletes who do sport actively (wrestle, taekwondo, volleyball, football, basketball etc) at 2016-2017 season. A total of 231 (104 females, 127 males) athletes with mean age of $21,35 \pm 2,111$ years were voluntarily included in the study.

Data collection tools

The Basic Psychological Needs Scale and the personal information form created by the researchers were used to realize the research purpose.

The Basic Psychological Needs Scale

This scale was created by Deci and Ryan (2000) and adapted to Turkish by Kesici et al. (2003). The Basic Psychological Needs Scale is composed of 21 items. It is a 5 Likert type scale of which options vary between "completely true" and "never true". The scale has three subscales as autonomy need, competency need and relatedness need. Internal consistency coefficient is 0.73 for autonomy need, 0.61 for competency need and 0.73 for relatedness need. Overall confidence coefficient was found as 0.76 (Kesici et al., 2003).

Personal data form

The form which was developed by the researchers includes data about age, gender, branch with the aim of inquiring personal data of the participants.

Data analysis

Skewness and Kurtosis values were tested for examining normality distribution before data analysis. Skewness (0.593) and Kurtosis (-0.503) values of both scales were found between +1 and -1 reflecting normal distribution, and parametric test techniques were planned. Data were analyzed using descriptive statistics, percent, mean and t test. Data were analyzed using SPSS 21.0 package program and a p level of 0.05 was accepted as level of significance.

Results

Table 1: Satisfaction level of the athletes according to branch variable

	Branch	N	Mean	Std. Deviation	t	p
Relatedness	Team	92	5,3164	1,06764	-0,904	0,367
	Individual	135	5,4617	1,26460		
Autonomy	Team	92	5,2888	,84342	1,012	0,313
	Individual	135	5,1587	1,01806		
Competency	Team	92	4,8413	1,21177	0,862	0,390
	Individual	135	4,7037	1,15890		

Mean score of relatedness subscale of athletes who do team sports was not found statistically significant compared to the scores of the athletes who do individual sports. Mean score of autonomy subscale of the athletes who do team sports was not found statistically significant compared to the scores of the athletes who do individual sports. Mean score of competency subscale of the athletes who do team sports was not found statistically significant compared to the scores of the athletes who do individual sports (Table 1).

Table 2: Satisfaction level of the athletes according to gender variable

	Gender	N	Mean	Std. Deviation	t	p
Relatedness	Female	104	5,6186	1,32067	2,747	0,006
	Male	127	5,1925	1,03670		
Autonomy	Female	104	5,3709	,89081	2,629	0,009
	Male	127	5,0416	,99042		
Competency	Female	104	4,8577	1,22155	1,254	0,211
	Male	127	4,6630	1,13381		

Mean score of relatedness subscale of female athletes was found statistically significantly higher compared to mean scores of male athletes. Mean score of autonomy subscale of female athletes was found statistically significantly higher compared to mean scores of male athletes. Mean score of competency subscale of female athletes was not found statistically significant compared to mean scores of male athletes (Table 2).

Table 3: Satisfaction level of the athletes according to being professional or amateur athlete variable

		N	Mean	Std. Deviation	t	p
Relatedness	Amateur	132	5,3779	1,00717	-0,094	0,925
	Professional	99	5,3928	1,40172		
Autonomy	Amateur	132	5,2219	,94979	0,585	0,559
	Professional	99	5,1472	,97436		
Competency	Amateur	132	4,7167	1,13751	-0,507	0,613
	Professional	99	4,7960	1,22881		

Mean score of relatedness subscale of amateur athletes was not found statistically significant compared to mean scores of professional athletes. Mean score of autonomy subscale of amateur athletes was not found statistically significant compared to mean scores of professional athletes. Mean score of competency subscale of amateur athletes was not found statistically significant compared to mean scores of professional athletes (Table 3).

Conclusions

The aim of the present study is to investigate psychological satisfaction level of team and individual athletes. Among satisfaction need subscales, mean score of relatedness subscale of team athletes was found not to be significantly different compared to individual athletes. Mean score of autonomy subscale of team athletes was found not to be significantly different compared to individual athletes. Mean score of competency subscale of team athletes was found not to be significantly different compared to individual athletes. When we have reviewed related literature, we have detected that results of our study are inconsistent with those of Bilge (1992) who have investigated psychological needs of athletes. Because Bilge (1992) have reported that psychological needs of team and individual athletes differ. However this conflict is suggested to result from differentiation of psychological needs that studies are based on. Our study was conducted based on self determination theory.

According to this, athletes are considered to be psychologically durable when three basic needs are satisfied and their wellness is high (Deci & Ryan, 2000). How these three basic needs are satisfied was analyzed considering that the sport which team and individual athletes do is an environmental factor. Ünlü (2009) has obtained similar results in autonomy and competency subscales with regard to gender variable.

Among need satisfaction subscales, mean score of relatedness subscale of female athletes was found statistically significantly higher compared to mean scores of male athletes. Mean score of autonomy subscale of female athletes was found statistically significantly higher compared to mean scores of male athletes. Mean score of competency subscale of female athletes was not found statistically significant compared to mean scores of male athletes. Results of the study of Ünlü (2009) conducted with physical training students were found partially consistent with ours. Ünlü (2009) has reported that need of relatedness was higher among individual athletes. However this conflict is suggested to result from sample difference.

When athletes were analyzed with regard to athletics level, mean score of relatedness was found not to be significant between amateur and professional athletes. Mean score of autonomy subscale of amateur athletes was not found statistically significant compared to mean scores of professional athletes. Mean score of competency subscale of amateur athletes was not found statistically significant compared to mean scores of professional athletes.

In conclusion, it may be stated that doing team or individual sports is not a factor for differentiation of basic psychological need satisfaction.

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Investigation Of Predictive Effects Of Athletes' Self-Esteem On The Level Of Mental Toughness

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Abstract

The primary purpose of this study is to examine the predictive effect of the athletes' self-esteem on their level of mental toughness. The secondary purpose of the study is to examine the levels of self-esteem and mental toughness of the athletes according to gender variable. Mental toughness questionnaire developed by Sheard et al. (2009) was used to determine the level of mental toughness in sports environment, and self-esteem scale developed by Rosenberg (1965) was adopted to determine the levels of self-esteem. The data were obtained with the participation of 231 athletes who were actively doing sports in different cities and branches. It was announced that participation in the study is in a volunteer basis, and after then the study was practiced to those who volunteered. Data that was left blank or not found to be filled seriously during the application was not included in the analysis. T-test, Pearson's correlation test and regression tests were used in the analysis of the data. Data were analyzed with SPSS 21.0 package program, and $p < 0.05$ was used as significance level. When the research findings were examined, it was found out that the confidence subscale of mental toughness had a positive relationship with self-esteem. As a result, it can be said that self-esteem has a weak correlation role in determining mental toughness.

Keywords: *Self-Esteem, Mental Toughness, Sport*

Introduction

Self-esteem is one of the variables tested in the literature, often in research. There are many different definitions of self-esteem. In some definitions, self-esteem is taken as emotionally based while in some definitions it is defined as one's thoughts about talents and skills (Brown, 1998).

There seems to be a general consensus among researchers and sport psychologists that mental toughness (MT) is an important and multidimensional structure of successful performance and sport-specific outcomes (Crust, 2008; Jones et al., 2007; Sheard, 2010). Among the qualities that represent MT most frequently are self-doubt, self-believe and confidence, coping with pressure and distress effectively, resistance, exposure to pressure, continuation of effort and superior concentration skills (Connaughton et al., 2010; Crust, 2008; Sheard, 2010). Thus, MT represents a set of positive psychological variables that help buffer the harmful effects of stress and allow individuals to perform consistently well regardless of situational factors (Clough, Earle and Sewell, 2002). However, new researchers have suggested that MT is more than a source of resistance working at times of distress, and that MT also provides proper focus and motivation when it goes well (Gucciardi, Gordon and Dimmock, 2008).

Discussions continue as to whether MT is more stable and permanent or a set of minds that can be manipulated through education and experience (Crust, 2008, Sheard, 2010). By defining MT as a psychological boundary that may be "natural or developed", Jones et al. (2007) shows the importance of both nature and nutrition. Recent research has shown that the development of MT is a lengthy and complex process that is affected by personal qualities, environmental conditions and critical events (Connaughton et al., 2010).

In this context, the purpose of this study was to examine the athlete's self-esteem on the mental endurance levels.

Methodology

Research Model

The research was based on the relational screening model. Relational search models are research models that aim to determine the presence and/or extent of change between two or more variables. Although the relational search model does not provide a real cause-and-effect relationship, it allows the prediction of the other when an alternative state is known (Karasar, 2006). In this study, it was aimed to investigate the predictive effect of athlete's self-esteem on mental tolerance levels.

Study Group

The data was obtained with the participation of 231 athletes who are active in sports in different cities and branches and who continue active sports life. It was announced that participation in the study is in a volunteer basis, and

after then the study was practiced to those who volunteered. 103 of the athletes participating in the survey are female and 127 are male athletes. The average age of the participating athletes was calculated as 21-32.

Data Collecting Tools

Sport Mental Toughness Questionnaire

The sport mental toughness questionnaire developed by Sheard et al. (2009), consists of 14 items and 3 sub-dimensions to determine the level of mental toughness in the sport environment. In addition to the general mental toughness, the three subscales and Cronbach Alpha values are, Confidence 0.72, Continuance 0.71 and Control 0.66, and in 4-point Likert structure (1 = completely wrong, 4 = very accurate). The Turkish adaptation study of Sport Mental Toughness Questionnaire (SMTQ) was done by Altıntaş and Kuruç (2016). The Cronbach Alpha values for the subscales of the questionnaire were 0.84 for the confidence subscale; 0.51 for continuity sub-dimension; and control is 0.79 for the lower 23 dimensions. With these results, it is seen that the questionnaire is a reliable scale (Altıntaş, 2015). In this study, internal consistency coefficients were obtained as 0.56 for control, 0.57 for continuity and 0.73 for confidence.

Rosenberg Self-Esteem Questionnaire

The first 10 articles of the self-esteem questionnaire developed by Rosenberg (1965) and adapted to Turkish by Çuhadaroglu (1986), were used to measure self-esteem. The original form of the questionnaire consists of 63 articles and 12 sub-tests. These subcategories are; self-esteem, continuity of self-concept, trust in people, sensitivity to criticism, depressive affect, imagination, psychosomatic symptoms (persistence in sleep, shivering in hands, nervousness, paleness, nail-biting, shortness of breath, sweating in hands, headache, nightmare) threatening, participating in discussions, parental interest, relationship with father and psychic isolation. In addition, Rosenberg also stated that these subscales could be used separately in research if requested (Balat & Akman, 2004). In the self-esteem subscale, there are ten articles with positive and negative meanings. Articles 1,2,4,6,7, evaluate the positive self-esteem whereas 3,5,8,9 and 10 evaluate the negative self-esteem (Çuhadaroglu, 1986). The validity and reliability of this measure on the Turkish sample was first obtained by Çuhadaroglu (1986). In this study, the self-esteem questionnaire was assessed on 7-step questionnaires (1 = not at all, 7 = strongly agree) and high internal consistency coefficient (Cronbach alpha = 90). The first 10 are used to assess self-esteem. In this research, the first 10 articles of the questionnaire were used to assess self-esteem, and Cronbach's alpha is = 0.73. The answers were given through a 4-point Likert-type scale. A study was conducted by Schmitt and Allik (2005), with the aim of assessing the universal and cultural specificities of the questionnaire. In this study, the questionnaire has been translated into 28 languages and has worked with 53 nations consisting of 16.998 participants. For the factor structure of the scale, when a nation-wide compatibility analysis was conducted, it was found that there was an average of 0.99 compatibility coefficient in 52 nations and that this coefficient dropped below 0.95 in only 5 nations. For all these nations, the average reliability coefficient was 0.81. The results show that this questionnaire has universal values and has an international validity in harmony with different cultures (Akt. Hamurcu, 2014).

Personal Information Form

The Personal Information Form developed by the researcher includes questions about gender and age.

Data Analysis

The data were obtained from 528 athletes who were active in sports in different cities and branches. It was announced that participation in the study is in a volunteer basis, and after then the study was practiced to those who volunteered. Data left blank or defined it has not been seriously filled during the implementation were not included in the analysis. In the analysis of the data, t test, Pearson's correlation test and regression tests were used. Data were analyzed with SPSS 21.0 package program and $p < 0.05$ was used as significance level.

Finding

Table 1: The relationship between the level of self-esteem and mental toughness of the athletes

	Self-esteem	Confidence	Toughness	Control
Self-esteem	Pearson Correlation	1	,173**	,006
	Sig. (2-tailed)		,009	,934
	N	230	230	230
Confidence	Pearson Correlation	,173**	1	,087
	Sig. (2-tailed)	,009		,191
	N	230	230	230
Toughness	Pearson Correlation	,006	,087	1
	Sig. (2-tailed)	,934	,191	

	N	230	230	230	230
Control	Pearson Correlation	-,027	,032	,160*	1
	Sig. (2-tailed)	,685	,628	,015	
	N	230	230	230	230

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The relationship between self-esteem and confidence ($r: .173$) was significant ($p: 0.05$), the relationship between self-esteem and toughness ($r: .027$) were not significant ($p > 0.05$) and the relationship between self-esteem and control was not significant. A correlation between control and toughness was found to be statistically significant in the relationship between mental toughness subdivisions ($r: .160$).

Table 2: Regression Analysis Results Regarding the Role of Athletes in Determining Mental Toughness (Confidence) Levels of Self Esteem Levels

Model	β	t	p
Self-Esteemed	,173	2,646	,009
R=0,173; R ² =0,030; Adjusted R ² =0,026; F(1,228)= 6,999; p=0.009			

When the simple linear regression analysis model was examined, a significant relationship was found between self-esteem and mental toughness subscale and confidence subscale ($R = 0,173$, $F = 6,999$, $p < 0,01$). There was a positive and significant relationship between self-esteem level and mental toughness subscale and confidence subscale ($\beta = 0,173$; $p < 0,01$). The self-esteem scores of the athletes participating in the study, account for 3% of the total variance of the confidence component of the athletes' mental toughness components ($R^2 = 0.030$, $p < 0.01$).

Table 3: Regression Analysis Results Regarding the Role of Athletes in Determining Mental Toughness (Toughness) Levels of Self Esteem Levels

Model	β	t	p
Self-Esteem	,006	0,083	,934
R=0,006; R ² =0,000; Adjusted R ² =0,000; F(1,228)= 0,007; p=0.934			

When the simple linear regression analysis model was examined, it was observed that there was no significant relationship between the self-esteem and the toughness subscale from mental toughness subscale ($R = 0.006$, $F = 0.007$, $p < 0.01$). There was no correlation between the self-esteem level and the mental toughness subscale of the athletes participating in the study ($\beta = 0.006$, $p < 0.01$).

Table 4: Regression Analysis Results Regarding the Role of Athletes in Determining Mental Toughness (Control) Levels of Self Esteem Levels

Model	β	t	p
Self-esteem	,032	0,407	,685
R=0,027; R ² =0,001; Adjusted R ² =0,004; F(1,228)= 0,165; p=0.685			

When the simple linear regression analysis model was examined, it was observed that there was no meaningful relationship between self-esteem and toughness subscale from mental toughness subscale ($R = 0.006$, $F = 0.007$, $p < 0.01$). There was no correlation between the self-esteem level and the mental toughness subscale of the athletes participating in the study ($\beta = 0.006$, $p < 0.01$).

Table 5: Levels of self-esteem and mental toughness of the athletes according to gender variable

	Gender	N	Mean	Std. Deviation	t	p
Self-esteem	Female	103	1,9117	,42295	-1,290	0,198
	Male	127	1,9858	,44235		
Confidence	Female	104	3,1554	,62459	1,361	0,175
	Male	127	3,0420	,63689		
Toughness	Female	104	2,7476	,43019	0,856	0,393
	Male	127	2,6890	,57968		

Control	Female	104	3,1346	,64980	4,113	0,000
	Male	127	2,7402	,77562		

When Table 5 was examined, it was observed that there was no statistical difference between the self-esteem levels of male and female athletes participating in the study ($p > 0,05$). In addition, there were no statistically significant differences in the confidence and toughness subscales of the mental toughness subscales of the male and female athletes participating in the study ($p > 0,05$). As seen in Table 5, it was observed that there was a statistically significant difference in the control subscale from the mental toughness subscales in favor of female athletes ($p < 0,05$).

Discussion

The aim of this study was to examine the role of the athletes' self-esteem levels in determining their level of mental toughness. In line with the objective, research data was obtained with the participation of 231 athletes who were active in sports in different cities and branches. Participant athletes were notified that the participation to this study is in volunteer basis and after it has been practiced to the athletes who wanted it. 103 of the athletes participating in the survey were female and 127 were male athletes. The average age of the participating athletes was calculated as 21-32.

When the findings we obtained in our study were examined, it was determined that the relationship between self-esteem and confidence was significant, the relationship between self-esteem and toughness was not significant, and the relationship between self-esteem and control was not significant. The relationship between mental toughness subscales itself is statistically significant only between control and toughness. When the findings obtained within the scope of the research are examined, it is determined that the relations are low level relations. When the simple linear regression analysis model was examined, only a significant relationship was found between self-esteem and mental toughness subscale and confidence subscale. The relationship between the self-esteem level of the athletes participating in the study and the mental toughness subscale to the confidence subscale is a positive and significant relationship. The self-esteem scores of the participating athletes explain 3% of the total variance of the confidence component of the athletes' mental toughness components. When examined in the literature, (Pruessner, Hellhammer and Kirschbaum, 1999) high cortisol levels are associated with anxiety, depression and neuroticism in individuals with low self-esteem (Anisman & LaPierre, 1982). It seems that it requires more effective coping with stress, suppression of cortisol response and resistance to catecholamine depletion (Dienstbier, 1989). Evidence suggests that the cortisol response to standardized stressors may be attenuated by cognitive behavioral interventions (Clow, 2004). In the sence of this information, the increase in mental stability can mediate the relationship between self-esteem and mental endurance by affecting individuals physiologically. In this context, a positive relationship between self-esteem and mental toughness is available in the relevant field. But the findings we have obtained partially overlap with the literature. In addition, there is much evidence that mental toughness is related to self-belief and self-esteem (Bull et al., 1996, Favre & Benzel, 1997, Goldberg, 1998, Gould et al., 1987, Graham & Yocom, 1995, Luszki, 1982, Pankey, 1993, Taylor, 1989, Woods, Hocton, & amp; Desmond, 1995).

It was observed that there was no statistical difference between the self-esteem levels of male and female athletes participating in the survey. In addition, it was observed that there was no statistically difference in the confidence and toughness subscales of the mental toughness subscales of the male and female athletes participating in the research. It was observed that, there was a statistically significant difference in the control subscale in favor of female athletes from the mental toughness subscales. When the literature was examined, it was reported by Masum (2014) that there was a significant difference in the level of mental toughness in terms of gender variation in a sample of Pakistani tennis athletes. When the findings obtained by Masum (2014) are examined, it is reported that there is a significant difference between gender and MT, and male athletes have a higher arithmetic average in terms of MT average scores than female athletes. But this research does not overlap with our findings. In another study, Yazıcı (2016) reported that, female basketball players had higher mental toughness than male basketball players. This research findings in our country supports our research.

As a result, it can be said that self-esteem has a role in determining mental resilience due to a weak correlation. Moreover, limited research results in the sample of our country with respect to gender variable suggest that, female athletes may have higher mental toughness.

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Investigation Of Teacher Candidates' Family Communication Patterns According To Different Variables (Turkey: Kastamonu University Example)

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Abstract

This study aims to investigate the communication patterns of teacher candidates. For this purpose, 577 teacher candidates were examined (420 women, 157 men). A Demographic Information Form and the Revised Family Communication Pattern Instrument were used to collect the required data. Paired-samples t-test was used to investigate whether there was a difference between participants' conversation-orientation and conformity-orientation scores, and independent-samples t-test was used to investigate whether there was a difference in scores across the genders. Further, one-way ANOVA was used to determine whether there was a relationship between the parent's level of education, the region where the teacher candidates grew up in, and the size of these places. Least significant difference (LSD) test was used to follow up on the significant results. The results revealed a significant difference in conversation- and conformity-orientation average scores across the genders. According to these results, female teacher candidates were found to have higher conversation-orientation scores, whereas male candidates were found to have higher conformity-orientation scores. Additionally, it was found that as parents' education level increase, the conversation-orientation in the family communication also increases. In the framework of family communication, it has been determined that the teacher candidates with the highest conversation-orientation scores were from Marmara Region, whereas the teacher candidates with the highest conformity-orientation scores were from Black Sea Region. A positive relationship was found between the region where teacher candidates grew up and the conversation-orientation scores. Moreover, their conformity-orientation scores were found to be negatively related with the size of the place where the teacher candidates grew up.

Keywords: *Family communication patterns, teacher candidates, communication*

Introduction

Wambolt and Reiss (1989) defined the concept of family as "as a group of intimates who generate a sense of home and group identity, complete with strong ties of loyalty and emotion and an experience of history and a future," Although "the perception about the concept of family" continues to be an important unit of demographic and social analyses, it varies according to different groups and communities. In the framework of social norms and values, a family unit may comprise a married couple and their children, two sisters living together, a single mother with her children, a married couple with their children and grandchildren, an unmarried couple, a divorced couple, a remarried couple and their children, or a family network (Tillman et al., 2008). Martha Minow (1998) "argued that it is not important whether a group of people fits to the legal definition of family; instead, what is important is whether this group of people functions as a family." Accordingly, Martha Minow (1998) indicated that there are important questions to understand whether a group of people functions as a family, such as "do they share affection and resources?" and "Do they think of one another as family members and present themselves as such to neighbors and others?"

Although a family carries the general elements of a society, it carries extremely different social, economic, psychological, structural, interactive, and communicative elements as well. Moreover, no family is identical with one another even though a family constitutes the building blocks of society. This unique structure of a family stems from the fact that household rules are established and applied by the family members themselves (Pembecioğlu, 2006). One of the most important instruments for the establishment and application of household rules is communication.

Communication is a concept that cannot be easily defined. Therefore, defining human communication is as much complex as defining the institution of a family. Academicians have made various attempts to define communication, but they concluded that finding "the best" definition of communication is impossible and

unfortunately this is not a desirable conclusion (Fitzpatrick & Ritchie, 1993; Littlejohn & Foss, 2010). In the Oxford Dictionary, 1200 words have been used for defining communication (Adler & Rodman, 2006). According to Cüceloğlu (2012), communication is a process that is both individual and social. In other words, communication is a psychosocial process that establishes a relation between at the least two people. Furthermore, Adler and Rodman (2006) categorized communication as internal communication, interpersonal communication, small group communication, public communication, and mass communication. In addition, they explained the function of communication as fulfilling physical, identity-related, social, and practical needs.

Family communication can be defined as the communication between spouses, between mother and her child or children, between father and his child or children, between children and parents, and between siblings (Şahin & Aral, 2012). We can specify the duties for constructing an effective family communication as accepting and listening to the individual who is being communicated with, developing empathy toward the individual who is being communicated with, being honest, and using “I language” in the communication.

The traditional aspect of families is gradually diminishing, and different family styles are developing due to the increase in the number of lone-parent families, stepfamilies, and adoption (Galvin et al., 2015). Different variables are used to classify families. Two mass media specialists, McLeod and Chaffee (1972), at Wisconsin University, developed a new model by classifying families according to their communications. According to this model, there are two models of family communication patterns—socio-oriented and concept-oriented. While concept-orientation explains how the arguments between parents and children affect children’s information processing mechanisms, socio-orientation explains how parents use authority to persuade their children to interpret their social environments (Horstman et al., 2018). Regarding this, McLeod and Chaffee suggested that the use of these two strategies by parents varies systematically and predictably to establish an agreement and constructing a social reality with each other. This process aims to predict diverse ways of the socialization of children in processing and interpreting the information in media messages. Some families prefer concept-orientation over socio-orientation; others may prefer vice versa (Koerner & Schrod, 2014). McLeod and Chaffee underlined how mass media and families process or interpret television shows and other media messages. Their studies about the concept- and socio-orientation of families are still widely used in media-effect studies (Koerner & Schrod, 2014).

Ritchie and Fitzpatrick (1990) again addressed family communication patterns for more general purposes. They renamed “concept-orientation” as “conversation-orientation” in order to reflect the degree of encouragement of interactions about different subjects among family members. Conversation-orientation is about the subjects discussed in a family, sharing of expectations, how decisions are made, open discussions, and how freely opinions are discussed (Horstman et al., 2018). Further, socio-orientation was renamed as “conformity-orientation” in order to better explain how family members approach to the conflicts in common beliefs, values, child obedience, and conformity. Families with high conformity-orientations encourage family members for independence by promoting shared values and beliefs (Koerner & Fitzpatrick, 2002).

Koerner and Fitzpatrick (2004) divided the institution of family according to communication patterns into four categories—consensual, pluralist, protective, and non-interventionist—according to the high or low levels of conversation- and conformity-orientation of families.

It should be assumed that, although family communication patterns are affected by culture, there are fundamental and universal communication behavior patterns that do not stem from culture and therefore are independent from the western culture as such in the many other family communication theories (Koerner & Schrod, 2014). The universal applicability of this theory is supported by its successful applications in cultures different from western cultures such as the Chinese (Zhang, 2007), Iranian (Koroshnia & Latifian, 2008; Hashemi et al., 2015), Japanese (Shearman & Dumlao, 2008), Malay (Omar, Mustaffa, & Nordin, 2007), and Indonesian cultures (Pramono et al., 2017).

Studies on family communication have a long history; some of the most influential works were done on this subject during World War II, and these works are influencing thoughts of present-day academicians. In recent years, there have been exciting developments happened in the domain of family communication, which fundamentally restructured the way of thinking about functional and dysfunctional family interaction. Lately, academicians, therapist, clergymen, and communication students have started understanding that subjects such as divorce, child abuse, domestic violence, and mental health problems were actually communication problems. Accordingly, by understanding the patterns, functions, and processes of family communication, people hope to start taking steps for understanding the reasons behind these problems and maybe for preventing them in the future (Segrin & Flora, 2005).

Method

Objective

This study investigates teacher candidates' family communication patterns in Turkey according to various variables in order to understand which types of families these Turkish teacher candidates are coming from. Additionally, the study aims to shed a little light on the similarities or discrepancies between Turkish family structures and family structures of other cultures. The research questions of the study are listed below.

Q1. Is there a difference between the family communication patterns and the conversation- and conformity-orientation of teacher candidates?

Q2. Is there a gender difference between the family communication patterns and the conversation- and conformity-orientation of teacher candidates?

Q3. Do the family communication patterns and conversation- and conformity-orientation of teacher candidates vary according to their fathers' education levels?

Q4. Do the family communication patterns and conversation- and conformity-orientation of teacher candidates vary according to their mothers' education levels?

Q5. Do the family communication patterns and conversation- and conformity-orientation of teacher candidates vary according to the geographical region where they grew up?

Q6. Do the family communication patterns and conversation- and conformity-orientation of teacher candidates vary according to the size of the region where they grew up?

The Research Design

To investigate the family communication patterns of teacher candidates, a survey was conducted. Survey research provides a quantitative definition of tendencies, attitudes, or opinions by investigating a sample of a population. It contains cross-sectional or longitudinal studies that employ questionnaires or structured interviews to collect data by representing a population with a sample (Fowler, 2009).

Population and Sample

The population of this study comprised 577 teacher candidates studying at Kastamonu University's Faculty of Education. The sample size of the study was 17.4 % of the population. Teacher candidates voluntarily participated in the present study. Turkey is divided into seven geographical regions. The city of Kastamonu is located in northern Turkey; namely, in the Black Sea Region. There were 420 female (72.8%) and 157 male (27.2%) participants. Participants were students of mathematics teaching (66, 11.4%), science teaching (47, 8.1%), Turkish language teaching (81, 14.0%), computer and instructional technologies teaching (80, 13.9%), psychological counseling guidance (45, 7.8%), preschool teaching (96, 16.6%), primary-school teaching (76, 13.2%), social sciences teaching (73, 12.7%), and art teaching (13, 2.3%). Participants' ages were between 18 and 35 years, and the mean age was 20.16.

Data collection

To collect data, legal permissions were obtained from the Deanship of Kastamonu University's Faculty of Education. A Demographic Form and the Revised Family Communication Pattern Instrument (RFCPI) developed by Ritchie and Fitzpatrick (1990) were utilized. The participants voluntarily filled the surveys on computers under the supervision of the experimenter.

Materials

The materials used in the research were a Demographic Form and the RFCPI.

Demographic Information Form

To determine the demographic profile of the teacher candidates, a demographic information form comprising 13 questions was used. The questions were about age, sex, grade, program, high-school type, parent's level of education, number of siblings, birth order among siblings, family type, geographical location and the size of region where the participant grew up, and the number of divorced first-degree relatives.

Rfcpi

The RFCPI is a five-point Likert-type scale that contains 26 items. The scoring is ranked between "I strongly disagree" (1) and "I strongly agree" (5). In the scale, there are two sub-dimensions—"conversation-orientation"

and “conformity-orientation.” By using the scores from these two sub-dimensions, family communication patterns were determined.

As presented in Figure 1, the families with high scores on both the sub-dimensions are defined as consensual; families with high conversation-orientation and low conformity-orientation scores are defined as pluralist; families with low conversation-orientation and high conformity-orientation scores are defined as protective; and families with low scores on both the sub-dimensions are defined as non-interventionist. The original scale was translated under the supervision of two linguists and then the data was collected. Ritchie and Fitzpatrick (1990) gave the internal reliability value (Cronbach alpha) for conversation-orientation as 0.84 and for conformity-orientation as 0.76. In the present study, Cronbach alpha values were found to be 0.89 and 0.84, respectively. Per these findings, it was concluded that the adapted version of the scale was reliable to measure family communication patterns.

Analysis

Parametrical statistical methods were preferred to analyze the data. Paired-samples t-test was used to investigate whether there was a significant difference between conversation- and conformity-orientation scores, and independent-samples t-test was used to test whether participants significantly differed according to gender. One-way ANOVA was used to investigate the relationship between parents’ education levels, region in which they grew up, and the size of this region. Lastly, least significant difference (LSD) test was used to follow up on the significant results.

Result And Discussion

In this section, findings regarding teacher candidates’ conversation- and conformity-orientation scores in their family communication patterns, considering gender, father’s education, mother’s education, region in which they grew up, and the type of this region are presented in tables and discussed.

Table 1: Results of the paired-samples t-test on conversation- and conformity-orientation scores of the teacher candidates.

Score	<i>f</i>	\bar{X}	<i>d.f.</i>	<i>t</i>	<i>p</i>
Conversation-orientation	577	3.5321	576	15.829	.000*
Conformity-orientation	577	2.8324			

* $p < .01$

Paired-samples t-test results investigating the difference between conversation- and conformity-orientation scores of teacher candidates were presented in Table 1. The mean conversation-orientation score (3.5321) was significantly higher than the conformity-orientation score (2.8324), $t = 15.83$, $p < .01$. Therefore, it may be interpreted that teacher candidates have higher conversation-orientation than conformity-orientation in their family communications. These findings conform with the previous findings of High and Scharp (2015) (3.46 and 2.69), Hashemi et al. (2.94 and 2.03), Koerner and Fitzpatrick (2002), Zhang (2007) (3.18 and 2.69), Huang (1999), Curran and Allen (2017) (3.81 and 3.12), and Koerner and Fitzpatrick (1997) (3.77 and 2.47).

Table 2: T-test results of the Revised Family Communication Pattern Instrument scores according to gender.

Dimension	Gender	<i>f</i>	\bar{X}	<i>d.f.</i>	<i>t</i>	<i>p</i>
Conversation-orientation	Female	420	3.60	575	3.771	0.000**
	Male	157	3.38			
Conformity-orientation	Female	420	2.79	575	-2.460	0.014*
	Male	157	2.94			

* $p < .05$, ** $p < .01$

In Table 2, independent-samples t-test results on RFCPI scores according to gender were presented. These findings suggest that female teacher candidates have significantly higher conversation-orientation mean scores (3.60) $p < .01$, whereas male teacher candidates have significantly higher conformity-orientation scores (2.94) $p < .05$. Çakmak and Koçyiğit (2017) indicated a similar result in their research, and their results suggested that female teacher candidates have higher conversation-orientation scores, whereas male teacher candidates have higher conformity-orientation scores. The findings of Çakmak and Koçyiğit (2017) support the point that female teacher candidates have higher conversation-orientation scores and male teacher candidates have higher conformity-orientation scores in their family communication patterns.

Table 3: Results of the one-way ANOVA on the conversation- and conformity-orientation scores of the teacher candidates according to father’s level of education.

Conversation-orientation

Father's level of education	<i>f</i>	\bar{X}	<i>SD</i>	Source of variation	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
1. Literate	11	3.109	.952	Between	4.601	4	1.150	2.963	.019*
2. Primary-School Graduate	198	3.445	.623	Within	222.069	572	.388		1-3
3. Secondary-School Graduate	141	3.576	.950	Total	226.670	5676			1-4
4. High-School Graduate	132	3.594	.562						1-5
5. Bachelors or higher	95	3.604	.618						2-4
									2-5
Conformity-orientation									
Father's level of education	<i>f</i>	\bar{X}	<i>SD</i>	Source of variation	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
1. Literate	11	2.686	.845	Between	2.154	4	.539	1.233	.296
2. Primary-School Graduate	198	2.911	.680	Within	249.944	572	.437		
3. Secondary-School Graduate	141	2.788	.687	Total	252.099	5676			
4. High-School Graduate	132	2.777	.584						
5. Bachelors or higher	95	2.823	.662						

* $p < .05$

The results of the one-way ANOVA on conversation-orientation scores according to father's level of education are presented in Table 3. They show that father's level of education was significantly related to the conversation-orientation scores of teacher candidates ($p < .05$). However, father's level of education was not significantly related to the conformity-orientation scores of teacher candidates ($p > .05$). To follow up on the significant results, LSD post-hoc test was used. The results showed that there was difference between literate fathers and primary-school graduate, secondary-school graduate fathers and between primary graduate fathers and high-school and bachelor graduate fathers. Accordingly, it can be concluded that as father's levels of education increases, his conversation-orientation in communication with his children increases.

Table 4: Results of the one-way ANOVA on conversation- and conformity-orientation scores of the teacher candidates according to mother's level of education.

Conversation-orientation									
Mother's level of education	<i>f</i>	\bar{X}	<i>SD</i>	Source of variation	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
1. Literate	74	3.385	.667	Between	7.885	4	1.971	5.154	.000**
2. Primary-School Graduate	290	3.490	.615	Within	218.785	572	.382		1-4
3. Secondary-School Graduate	97	3.513	.637	Total	226.670	576			1-5
4. High-School Graduate	84	3.780	.550						2-4
5. Bachelors or higher	32	3.532	.627						3-4
Conformity-orientation									
Mother's level of education	<i>f</i>	\bar{X}	<i>SD</i>	Source of variation	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
1. Literate	74	2.882	.683	Between	5.052	4	1.263	2.924	.021*
2. Primary-School Graduate	290	2.901	.676	Within	247.047	572	.432		2-3
3. Secondary-School Graduate	97	2.706	.571	Total	252.099	576			2-4
4. High-School Graduate	84	2.732	.655						
5. Bachelors or higher	32	2.832	.662						

* $p < .05$, ** $p < .01$

The results of the one-way ANOVA on the conversation-orientation scores according to mother's level of education are presented in Table 4. They show that mother's level of education is significantly related to the conversation- ($p < .01$) and conformity-orientation scores ($p < .05$) of the teacher candidates. To follow up on the significant results, LSD post-hoc test was used. The results showed that the difference in conversation-orientation was between literate mothers and high-school graduate, bachelor (or higher) graduate mothers and between primary graduate mothers and high school, secondary-school graduate mothers. Additionally, the difference in conformity-orientation was found to be between primary and secondary-school graduate mothers and high-school

graduate mothers. Similar to the results of father's level of education, mother's level of education was positively related to conversation-orientation in communication.

Table 5: Results of the one-way ANOVA on conversation- and conformity-orientation scores of the teacher candidates according to the geographical regions where the candidates grew up.

Conversation-orientation									
Geographical region	<i>f</i>	\bar{X}	<i>SD</i>	Source of variation	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
1. Marmara	89	3.701	.546	Between	7.426	6	1.238	3.218	.004*
2. Aegean	59	3.578	.537	Within	219.244	570	.385		1-4
3. Mediterranean	67	3.513	.623	Total	226.670	576			1-5
4. Eastern Anatolia	33	3.283	.775						1-7
5. Southeastern Anatolia	43	3.366	.697						2-4
6. Central Anatolia	145	3.560	.635						4-6
7. Black Sea	141	3.455	.615						5-6
									6-7

Conformity-orientation									
Geographical region	<i>f</i>	\bar{X}	<i>SD</i>	Source of variation	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
1. Marmara	89	2.670	.698	Between	2.177	6	.363	.827	.549
2. Aegean	59	2.868	.714	Within	249.922	570	.438		
3. Mediterranean	67	2.851	.628	Total	252.099	576			
4. Eastern Anatolia	33	2.788	.771						
5. Southeastern Anatolia	43	2.867	.624						
6. Central Anatolia	145	2.840	.651						
7. Black Sea	141	2.885	.627						

* $p < .01$

The results of the one-way ANOVA on the conversation- and conformity-orientation scores according to the geographical region where the candidates grew up are presented in Table 5. The results showed that there is a significant relationship between the conversation-orientation scores of the teacher candidates and the geographical region in which they grew up ($p < .01$). However, there was no significant relationship between conformity-orientation and the geographical region where the teacher candidates grew up. To follow up on the significant results in conversation-orientation scores, the LSD post-hoc test was used. The results revealed differences between Marmara, Eastern, Southeastern, and Black Sea regions; Aegean and Eastern Anatolia regions; Eastern Anatolia and Central Anatolia regions; Southeastern Anatolia and Central Anatolia regions; and Central Anatolia and Black Sea regions.

Teacher candidates who grew up in Marmara Region had the highest conversation-orientation scores (3.701), while those who grew up in Black Sea Region had the highest conformity-orientation scores (2.885). Further, candidates who grew up in Eastern Anatolia Region had the lowest conversation-orientation score (3.283), whereas those candidates who grew up in Marmara Region had the lowest conformity-orientation scores (2.670).

Table 6: Results of the one-way ANOVA on conversation- and conformity-orientation scores of the teacher candidates according to the size of the region where they grew up.

Conversation-orientation									
Region	<i>f</i>	\bar{X}	<i>SD</i>	Source of variation	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
1. Metropolitan city	62	3.700	.671	G.Arasi	3.902	4	.975	2.505	.041*
2. City	248	3.546	.618	G.İci	222.768	572	.389		1-5
3. County	157	3.538	.622	Toplam	226.670	576			2-5
4. Small town	17	3.502	.685						
5. Village	93	3.381	.627						

Conformity-orientation									
Region	<i>f</i>	\bar{X}	<i>SD</i>	Source of variation	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
1. Metropolitan city	62	2.764	.751	Between	4.738	4	1.185	2.739	.028*
2. City	248	2.774	.656	Within	247.361	572	.532		1-5

3. County	157	2.888	.658	Total	252.099	576	2-5
4. Small town	17	2.594	.621				4-5
5. Village	93	2.984	.662				

*p < .05

One-way ANOVA results on the relationship between the type of orientation (conversation-orientation and conformity-orientation) and the size of the region where they grew up are presented in Table 6. Accordingly, the results showed that both conversation-orientation and conformity-orientation scores of the participants are significantly related with the region in which they grew up ($p < .05$). To follow up on these results, the LSD post-hoc test was used. The results showed that the significant difference in the conversation-orientation was between village, metropolitan city, and city. Besides, the significant difference in conformity-orientation was between village and metropolitan city and between city and town. The teacher candidates who grew up in a metropolitan city had the highest conversation-orientation scores (3.700), while those who grew up in a village had the highest conformity-orientation scores (2.984). Furthermore, the candidates who grew up in a village had the lowest conversation-orientation scores (3.381). Per these findings, it can be interpreted that individuals who grew up in bigger locations have higher conversation-orientation in their family communication patterns, whereas those who grew up in smaller locations have higher conformity-orientation in their family communication patterns.

Findings And Suggestions

The present study investigated the family communication patterns of teacher candidates in order to understand from what kinds of families the teachers of tomorrow will be coming. The findings of the present study, which was conducted with teacher candidates of Kastamonu University's Faculty of Education, are summarized below. Gender was a significant predictor of the conversation-orientation and conformity-orientation scores. Accordingly, it has been shown that female candidates had higher conversation-orientation scores than male candidates in their family communication patterns, whereas male candidates had higher conformity-orientation scores in their family communication patterns.

Moreover, it has been found that the education levels of fathers affected teacher candidates' conversation-orientations in their family communication patterns. Accordingly, it has been shown that as fathers' education levels improve, the conversation-orientation in family communication increases and that as mothers' levels of education improve (apart from mothers with bachelors or higher level of education), the conversation-orientation increases. In addition, a non-linear relationship between conformity-orientation and mothers' levels of education was found. It has been determined that teacher candidates with primary-school graduate mothers had higher conformity-orientation scores.

Furthermore, it has been found that teacher candidates who grew up in Marmara Region had the highest conversation-orientation scores and those who grew up in Black Sea Region had the highest conformity-orientation. The candidates from Eastern Anatolia Region had the lowest conversation-orientation, whereas those with the lowest conformity-orientation scores were from Marmara Region.

Accordingly, it was found that as the size of the location where the teacher candidates grew up increases, their conformity-orientation decreases. The candidates who grew up in metropolitan cities had the highest conversation-orientation and the lowest conformity-orientation in family communication, and those who grew up in villages had the lowest conversation-orientation. Therefore, it has been found that the family communication patterns of teacher candidates vary according to the size of the region in which they grew up.

Future studies may be conducted with teacher candidates from different universities, so that comparisons can be made. The sample of the present study included only teacher candidates. However, future studies can include students from different disciplines and thus the findings can be compared in terms of family communication patterns. Lastly, future studies can investigate whether family communication affects parental attitudes.

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Investigation Of The Effect Of Peer Pressure Levels On The Risk-Taking Tendency Of Teacher's Candidates

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Abstract

The aim of this research is to examine the relationship between the peer pressure levels of prospective teachers and their risk-taking tendencies. In order to achieve this aim, 503 students at Erciyes University studying in the physical education and sports, mathematics, physics, chemistry, classroom, biology, geography and Turkish teaching departments were selected by coincidental methods for this research. To collect data, the students filled out, the 'Peer Pressure Scale' for Peer Pressure Levels (UOI) developed by Kıran Esen (2003), the Risk-Taking Scale developed by Bayar and Sayıl (2005), and the "Personal Information Form" prepared by the researcher. The survey data were used to determine the students' risk-taking tendencies. The data obtained from the Personal Information Sheet were analyzed via the SPSS 20.0 package program. The personal information and inventory total scores and factor scores for the candidates were determined by determining the frequency (f) and percentage (%) values. Multiple regression analysis (β) was used to determine whether Pearson Moments Multiplication Correlation analysis (r) and their scores were predictive of each other in order to reveal the relationship between the scores obtained from the scales. Indirect peer pressure and direct peer pressure have significant effects on the risk-taking tendencies of teacher candidates. At the same time, when looking at the general dimension of peer pressure, it was found that it increased the risk-taking tendency significantly and accounted for 38.1% of the total variance.

Key words: *Peer Pressure, Risk-Taking Tendencies, Teacher Candidates*

Introduction

Today's candidate teachers, who will train future generations, face many different situations in universities where they are educated. Some of these experiences are undesirable. It tends to take risks without thinking in a way that is an important one.

Taking risk is the act of putting an individual's health at risk and creating life-threatening behaviors. In other words, risk-taking means that the individual evaluates the current situation and chooses the direction with a high hazard ratio (Kıran, 2002). Davidsson (2010) defines the likelihood of encountering undesirable outcomes and the fact that these probabilities are used as a numerical phenomenon. Fisherman (2009) is the risk; the probability of occurrence of an undesirable event or effect. On the other hand, risk-taking; (Wakkee et al., 2010), without knowing what the consequences will be, in an unknown territory or on unknown conditions. Risk is actually used to draw attention to the possibility of losing more in daily life, although it is a word that points to uncertainty (Yılmaz, 2002). According to another definition, risk is defined as behaviors that may include threats to the life of the individual or of the later life (Machamer and Gruber, 1998). There are variables such as socioeconomic status, peer groups, sexual identity, educational status, perceived success of the individual, which may affect risk-taking behavior. Especially when considering the age range, it covers the university education; it also coincides with periods of isolation and gaining identity against adulthood, corresponding to adolescence. From this point of view, one of the first factors that comes to mind about risk-taking tendency may be a group of friends or peers. It is thought that peer pressure may affect the tendency to take risks in college to start from high school years.

The risk-taking behaviors that are thought to be related to peer pressure are, in general, health, and life-threatening behaviors that are likely to result in disease or death (Smith, 2001). Psychosocial consequences of risky behaviors

are claimed to be as damaging as biomedical consequences. Peer pressure is often perceived by adults as a cry of fear. The peer pressure was loaded with negative associations as a word. Young people feel comfortable sharing their problems with their peers and feel their peers understand their feelings better than adults. (Kiran, 2002). Clasen and Brown (1985) defined peer pressure as pressure from peers, whether or not they want to, or avoiding doing something or doing something (act Aktuğ, 2006).

The aim of our work in the light of the above statements is to determine if the level of peer pressure of university students influences the tendency to take risks, and if so, what level. When the literature is examined, it is possible to find out about studies related to childhood and adolescence period, but it is seen that the number of studies done to university level people is very low. Particularly this work on teacher candidates can guide the next studies and authorities in the faculty who teach the teacher.

Material And Method

Studying Group

This research is in the relational screening model. This screening model can be defined as "... research models aimed at determining the presence and / or degree of exchange between two and more variables" (Karasar 2007). Research; Erciyes University in order to examine the peer pressure levels and risk-taking tendencies of the students who are studying in various teaching areas. In addition, these people were applied with socio demographic information form

Creation of Voluntary Groups:

The research will be conducted through the working group. Working group Erciyes University; 503 students selected by coincidental methods studying in the 4th grade in physical education and sports, mathematics, physics, chemistry, classroom, biology, geography and Turkish teaching departments.

Data Collection Tools

During the application of the questionnaires that will be applied to the students in the research, besides the researcher, the academic staff working at the university tried to create a healthy evaluation process for the candidates by making the necessary explanations in a timely manner without rushing to each of the candidates. 'Peer Pressure Scale' for Peer Pressure Levels (UOI) was developed by Kiran Esen (2003) and is a likert type of 5. The Risk-taking Scale developed by Bayar and Sayıl (2000) as a 5-point Likert type and the "Personal Information Form" prepared by the researcher were used to determine the risk-taking tendencies of the students.

Socio-demographic Information Form

While creating the socio-demographic information form of the study, the socio-demographic information forms of the personality traits and achievement orientations studies were examined and a pool consisting of the characteristics to be examined in the students was created. Later on, sociodemographic information form was created by help of statistical experts. This socio-demographic information form created contains 6 questions in order to obtain participants' age, gender, department, general academic grade average, mother and father education status.

Table 1. Socio-Demographic Characteristics of the Participants

	Variables	N	%
Gender	Male	259	51,5
	Female	244	48,5
Age	18-21	125	24,9
	22-25	267	53,1
	26-29	111	22,1
Department	Physical Education and Sports	86	17,1
	Class	81	16,1
	Math	57	11,3
	Chemistry	50	9,9
	Biology	52	10,3
	Physics	70	13,9
	Geography	57	11,3
	Turkish	50	9,9
General Academic Average	1.25-1.99	32	6,4
	2.00-2.99	240	47,8
	3.00-4.00	231	45,8
Mother Education Status	Primary education	290	57,7
	High school	163	32,4

Father Education Status	University	50	9,9
	Primary education	190	37,8
	High school	207	41,2
	University	106	21,1

Peer Pressure Scale

Developed by Kiran (2002), the Peer Pressure Scale (SIS) is a five-point likert type measure aiming to measure the peer pressure experienced by adolescents. There are two sub-scales of the SOP. For the whole scale, the Cronbach alpha coefficient (34 items) is .90, for the Direct Peer Pressure Subscale (19 items) .89, for the Indirect Peer Pressure Subscale (15 items) .82. In addition, the test-retest reliability coefficient was .82 for the entire scale, .74 for the Direct Peer-Pressure Subscale, and .79 for the Indirect Peer-Pressure Subscale. In the validity study of the SFA, factor analysis was conducted to determine the validity of the structure. The total variance explained by the two factors obtained is 40, 527%. Only one score is obtained from the scale. High scores on the scale indicate that peer pressure is high and low peer pressure is low.

Risk-taking Tendency Scale

Risk Assessment Scale (RAD): Risk-taking behavior was developed by Bayar and Sayıl (2000) to determine the frequencies and types of risk-taking behaviors. The one-dimensional scale consists of 25 items and is a self-report scale. Each item is scored as a 5-point Likert, "never," "rarely," "sometimes," "frequently," or "very often." Internal consistency coefficient of your scale. (Bayar and Sayıl, 2000). In this study, the first six items (more than 50%) were identified in the frequency analysis in order to make the scale suitable for the university period (Uludağlı and Sayıl, 2009), taking into consideration another study using the same scale crossing over, spending too much money, coming home late at night, friendship with people not approved by the family, wearing seat belts in the car); The analyzes were carried out using the values calculated on the scale of 19 items. The Cronbach Alpha internal consistency coefficient obtained from this study sample in this state of the scale. 88 (n = 199)

Analysis of data

Data from the Personal Information Form, Peer Pressure and Risk-taking Tendency scale were entered into the SPSS 20.0 package program and analyzes were conducted through this program. The personal information and inventory total scores and factor scores for the candidates were determined by determining frequency (f) and percentage (%) values. Multiple regression analysis (β) was used to determine whether Pearson Moments Multiplication Correlation analysis (r) and Achievement scores were predictors of relationship between the scores obtained from the scales.

Findings

Table 2. Descriptive statistics of the students' responses to the questionnaire

	N	Minimum	Maximum	X \pm SS
Direct Peer Pressure	503	19.00	69.00	25.07 \pm 8.97
Indirect Peer Pressure	503	15.00	54.00	21.94 \pm 7.81
Peer Pressure Total	503	34.00	123.00	47.02 \pm 16.01
Risk-taking Tendency	503	18.00	75.00	30.28 \pm 11.48

When Table 2 was examined, the mean scores of the direct peer pressures of the volunteers were 25.07, the mean of the indirect peer pressures was 21.94, the average of the peer pressure scores was 47.02 and the average of the risk-taking tendencies was 30.28.

Table 3. Correlation Coefficients Between the Students' Peer Pressure and Risk-taking Tendency (n=503)

		1	2	3	4
Direct Peer Pressure ¹	r	1			
	p				
	n	503			
Indirect Peer Pressure ²	r	.852**	1		
	p	.000			
	n	503	503		
Peer Pressure Total ³	r	.967**	.957**	1	
	p	.000	.000		
	n	503	503	503	
Risk-taking Tendency ⁴	r	.563**	.629**	.617**	1
	p	.000	.000	.000	
	n	503	503	503	503

When Table 3 was examined, it was found that there was a significant positive risk-taking tendency between the risk-taking tendency and the direct peer pressure ($r = .563$ $p = .000$) was found to be positively correlated in the positive direction.

Table 4. Regression Table for Students' Peer Pressure to Predict Risk-taking Tendency

		B	T	P	R	R ²	F	P
Direct Peer Pressure	Risk-taking Tendency	.563	15.162	.000	.563	.317	229.896	.000
Indirect Peer Pressure	Risk-taking Tendency	.629	18.057	.000	.629	.396	326.071	.000
Peer Pressure Total	Risk-taking Tendency	.617	17.475	.000	.617	.381	305.375	.000

F(1,497)

When Table 4 is examined, the model between the direct peer pressure and the risk-taking tendency presents a meaningful relationship ($t = 15.162$ $p = .000$) when the t-test results of the significance of the regression coefficient are examined ($R = .563$ $R^2 = .317$; $p < .005$) peer pressure predicted a tendency to take risks and explained 31.7% of the total variance. $F(1,497) = 229.896$ $p < .005$

When the results of the t-test on the significance of the regression coefficient are examined ($t = 18.057$ $p = .000$), indirectly the relationship between the indirect peer pressure and the risk-taking tendency presents a meaningful relationship ($R = .629$ $R^2 = .396$; $p < .005$) peer pressure predicted a tendency to take risks, and the total variance explained 39.6%. $F(1,497) = 326.071$ $p < .005$

When the results of the t-test on the significance of the regression coefficient are examined ($t = 17.475$ $p = .000$), the model shows a significant relationship between the peer pressure sum and the risk-taking tendency ($R = .617$ $R^2 = .381$; $p < .005$), peer pressure predicted a tendency to take risks and explained 38.1% of the total variance $F(1,497) = 305.375$ $p < .005$.

Discussion And Result

In this study, the peer pressure as a predictor of the risk-taking tendency, which is closely related to the sociability and personality development of the teacher candidates, was examined and whether or not their relations were examined.

Both general peer pressure and sub-dimensions; there was a high level of positive correlation between positive and indirect peer pressure and risk-taking tendency. When study findings are examined, it is seen that tendency to take risks increases as peer pressure increases. Regression analysis reveals that peer pressure explains the risk-taking tendency by 38.1%.

Pearl, Bryan and Herzong (1990) stated that young men have more peer pressure and are more likely to participate in risky behaviors. Kıran-Esen (2003) found that there was a significant relationship between peer pressure and risk-taking in a study conducted by high school students. Uludağlı and Sayıl (2009) reported an increase in the frequency of risk-taking behaviors in girls' high school and university students according to all university, high school first class; an increase in risk-taking behaviors with the transition to university in men and a decrease in college in the last year. When studies on age differences in risk-taking behaviors are examined, it is seen that young people show higher risk behaviors due to increased autonomy in the adolescence period compared to the middle adolescence period (Byrnes et al., 1999, Shucksmith, Glendinning and Hendry, 1997). According to the findings of the study on dusty (2014) university students, after leaving the high school environment, they form young and new groups of friends who enter a new university in the university, which can cause them to spend less time on groups of old friends. Along with the changing environment, the agenda and occupations are changing, and they are experiencing similar processes to the group that they created with their new friends who share the same environment. This makes it more than necessary to spend more time with colleagues in college. Research findings show that college students' groups of friends are influential on themselves and that sometimes it is negative and sometimes negative. Morsünbül (2013) found that university students showed higher risk behaviors than high school and non-student groups in their study of high school students, university students and non-student individuals comparing them in terms of identity dimensions and risk-taking behaviors.

As a result, in our study, the results of the teacher candidates reading at university have been reached, expressing that they might be affected by their friends and take risks. It can be said that not only in adolescence but also in youth and higher education era, teacher candidates are influenced by their peers. In the teaching departments, field activities such as the intense social relations, the availability of practical courses and the internship for the curriculum have made the teachers closer to the groups of friends. It is thought that the reasons such as fear of

humiliation in the group, need for belonging, showing themselves and living away from the family lead the people to submit to negativities of peer groups and to take negative risks.

Suggestions

- Families can communicate with their children more intensively and in a healthy way, preventing them from going to inappropriate places to meet their needs, such as love, devotion.
- Higher education institutions may plan for self-esteem improvement activities.
- How students can distinguish situations where risk is planned and beneficial from negative situations can be given as a course in the curriculum
- When parents need it, they can teach their children that they can say no and that they can decide for themselves.

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Investigation Of The Family Fat Talk Levels Of University Students Who Do And Do Not Do Sports

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Abstract

To examine family fat talk levels of university students who do and do not do sports. The study was conducted by adopting a screening model. The research group consists of 284 (23,10 + 9,103) volunteer participants who do and do not sports (170 women (22,94 + 11,351) and 114 men (23,35 + 3,835). In accordance with the purpose of the research, "Fat Talk Scale in Family" and the "Personal Information Form" prepared by the researcher in accordance with the research design has been determined as means of data collection tools according to the research purpose. Besides descriptive statistics, t test and ANOVA tests were used during the analysis of the research data. The obtained data were analyzed by using SPSS 21 Package program. The level of significance in the analysis process was determined as $p < 0,05$. There was no statistically significant difference in the results of the analysis of the family fat talk subscale to the family subscale according to gender variables. There was a statistically significant difference in the results of the analysis of the family fat talk sub-dimensions to the self sub-dimension according to gender variables. When the averages were examined, there was a significant difference in favor of women. As a result, it is reflected in the results of research that obese individuals are more exposed to family fat talk. In the context of this information, positive and negative effects of obese individuals can be assessed in future researches as well as what psychological conditions they are exposed to, as determined in the research results.

Keywords: *Fat Talk, Exercise, friend support*

Introduction

Today, obesity is among the most critical health problems of developed and developing countries. Obesity can be defined as an increase in the ratio of fat mass to lean mass and an increase in body weight over the desired weight according to height. Nutrition is necessary for us to be able to start our lives in our mother's womb and continue to live our lives. For a person to grow, to develop, to be healthy and productive, food items must be taken in a sufficient and balanced manner and used in the body. Satisfying your stomach, eating what you want, appease hunger is not nourishment. The energy needs of the individual depend on the work, age, sex, physiological condition, and disease. To live healthily, the energy intake and the energy consumption should be balanced. Developing technology together with developing society makes life easier, but it limits the activeness of humans. This inactivity is also one of the most important problems that cause obesity. In genetically predisposed children, it is known that obesity has emerged with environmental factors (Donohoue, 2004).

Physical inactivity and sedentary lifestyles continue to be a primary public health problem. Technological and economic factors tend to isolate children from the activity. Technology does this by reducing the amount of energy needed for daily life activities, while the economy is doing this by paying more than sedentary work for active work. For these reasons, while technology makes our life comfortable, it prepares the environment for the obesity of future generations and pushes our children to an inactive lifestyle (Haskell, 1996).

Anorexia nervosa, which is an eating disorder and an unhealthy method of weight control due to an eating disorder, an intense dietary pattern or desire for being too thin, is defined as a fasting diet; bulimia, another one, is to avoid gaining weight by eating like crazy and then vomiting. Eating disorders are understood by obvious cultural components; 95% of those who suffer from anorexia nervosa or bulimia are women, most of them white and from rich families. For women, the slimness in American culture is synonymous with being successful and attractive to men. In contrast, stereotypically overweight women (it reflects men lesser) are viewed as lazy, rude, and even stupid (Becker & Burwell, 1999; Levine, 1987).

Research shows that most teenage girls believe that "men love slim girls", that slimness is the prime attraction for men, and that men don't want girls if they are not thin. In fact, many college girls want to be even thinner than men

want them to be. Men, on the other hand, typically express more satisfaction in their own body forms (Fallon & Rozin, 1985).

In the light of this information, it is vital to recognize the wider sociocultural pressures that may be associated with the tendency to engage in negative body speech (Arroyo & Harwood, 2012).

In this context, the family factor is included in this research as a socio-cultural factor. The purpose of this study was to examine the family fat talk levels of university students who do and do not sports.

Method

Research Design

The research was carried out by adopting a screening model. Screening patterns are descriptive research approaches that reflect the past or present situation (Büyüköztürk et al., 2008). Within this framework, it is aimed to determine the differences in the family fat talk levels of university students by gender, sports branch, age, and BMI. Furthermore, regarding the research design, in this study, convenient sampling method was chosen from the purposeful sampling methods to determine the research group (Karasar, 2014).

Research Group

The research group consists of a total of 284 ($23,10 \pm 9,103$) volunteers who do and do not sports, including 170 women ($22,94 \pm 11,351$) and 114 men ($23,35 \pm 3,835$). The distribution of the participants by their sports branches is given in table 3.2.1. In addition, the distribution of the participants by their gender is given in 3.2.2.

Table Sports Branch Distribution of Participants in the Study

<i>Branch</i>	<i>n</i>	<i>%</i>
<i>Yes</i>	<i>178</i>	<i>62,7</i>
<i>No</i>	<i>106</i>	<i>37,3</i>
<i>Total</i>	<i>284</i>	<i>100,0</i>

When the table was examined, 62,7% ($n = 178$) of the participants participated in the study had branches, 37.3% ($n = 106$) had no sports branch.

Table 3. Gender Distribution of Participants in the Study

<i>Gender</i>	<i>n</i>	<i>%</i>
<i>Women</i>	<i>170</i>	<i>59,9</i>
<i>Men</i>	<i>114</i>	<i>40,1</i>
<i>Total</i>	<i>284</i>	<i>100,0</i>

When the table was examined, 59.9% ($n = 170$) of the participants participated in the survey were female, 40.1% ($n = 114$) were male participants.

Data Collection

For the purpose of this study titled "**Investigation of the Family Fat Talk Levels of University Students**" within the scope of the dissertation course of the Faculty of Sports Sciences of Akdeniz University, scales were applied by face to face interviews with the participant students.

The "Fat Talk Scale in Family" and the "Personal Information Form" prepared by the researcher in accordance with the research design were determined as data collection instruments in accordance with the research purpose.

Fat Talk Scale in Family

"The Fat Talk Scale in Family" is a measure developed by McDonald, Dimitropoulos, Royal, Polanco and Dionne (2015) and consists of two sub-dimensions as the family fat talk sub-dimensions and the self fat talk sub-dimension. The scale consists of 16 items. The adaptation of the scale, which is of the Likert type of 5, was made by Bayköse and Bal-Turan (2016).

Data Analysis

Descriptive statistics, as well as t-test and ANOVA, were used in the analysis of the research data. The obtained data were analyzed by entering it into SPSS 21 Package program. The level of significance in the analysis process was determined as $p < 0,05$.

Findings

T-Test Results of Fat Talk Levels of Participants by Gender Variable

Gender						
	Gender	N	Mean	S.s	t	p
Self Sub-dimension	Women	169	1,8476	,86897	2,707	0,008
	Men	114	1,5680	,84110		
Family Sub-dimension	Women	168	1,8951	,86173	1,109	0,269
	Men	114	1,7774	,88322		

When the table was examined, there was no statistically significant difference by gender variables in the results of the analysis of the family sub-dimensions of the family fat talk sub-dimension ($p > 0.05$).

When the table was examined, there was a statistically significant difference by gender variables in the results of the analysis of the self sub-dimensions of the family fat talk sub-dimension ($p < 0.05$). When the means were examined, there was a significant difference in favor of women.

T-Test Results of Fat Talk Levels of Participants by Sporting Situation Variable

Sporting Situation						
		N	Mean	S.s	t	p
Self Sub-dimension	Do sports	178	1,6903	,84750	-1,112	0,268
	Do not do sports	106	1,8107	,89890		
Family sub-dimension	Do sports	178	1,7935	,83406	-1,326	0,186
	Do not do sports	106	1,9399	,92727		

When the table was examined, it was found that there was no statistically significant difference by sports branch in the results of the analysis of the self and family sub-dimensions of the family fat talk sub-dimension ($p > 0.05$).

Anova Test Results of Fat Talk Levels of Participants by BMI Variable

ANOVA						
			Sum of squares	df	Mean Square	F
Self Sub-dimension	Between Groups		21,158	4	5,290	7,700
	In Group		190,965	278	,687	
	Total		212,124	282		
Family Sub-dimension	Between Groups		20,911	4	5,228	7,535
	In group		192,189	277	,694	
	Total		213,100	281		

1: 18,5 and below (Low Weight), 2: between 18,5-24,9 (Healthy Normal), 3: between 25,0-29,9 (Overweight), 4: between 30,0-39, 9 (Obese), 5: 40 and over (Morbid Obese)

When the table was examined, it was observed that there was a statistically significant difference by the BMI variable in the results of the analysis of the self and family sub-dimensions of the family fat talk sub-dimension ($p < 0.05$). When looking at which groups have these significant differences, the mean scores of obese individuals were found to be higher in both the self and family sub-dimensions of fat talk in family sub-dimension comparing to the low-weight, healthy, normal, and overweight individuals.

Conclusions

The aim of this study was to examine the family fat talk of students according to some demographic variables. 62,7% ($n = 178$) of the participants in the study consist of individuals who do sports and 37,3% ($n = 106$) of them did not participate in sports. 59.9% ($n = 170$) of the participants in the study are women and 40.1% ($n = 114$) of the participants are men. The average age of participants was calculated as 23.10, and the standard deviation is calculated as 9.103.

According to the gender variable, there was no statistically significant difference in the results of the analysis made on the family sub-dimension from the family fat talk sub-dimension. Statistically significant difference was found by gender variable in the analysis of the self sub-dimension of the family fat talk sub-dimension. When the means were examined, there was a significant difference in favor of women. According to the sports branch variable, there was no statistically significant difference in the family and self sub-dimension from the family fat talk sub-dimension. When the related literature is examined, women are reported to have greater body dissatisfaction than men of all ages (Esnaola & Goñi & Madariaga, 2008). Although the importance given to the physical appearance, especially due to body size and weight, decreases with age, women's dissatisfaction with their bodies remains unchanged for life (McCabe, & Ricciardelli, 2004). Older women reported "cognitive control" (reduction of reassessment and expectation) to their bodies (Montepare, 1996). Although it is less documented than it is among women, men and male children are increasingly dissatisfied with their body, it is observed that but gender differences in adulthood are less prominent than in adolescence and old age (Feingold & Mazzela, 1998; Janelli, 1993; Webster, & Tiggemann, 2003). Due to this information, the fact that the age ranges of participants in the study are close to each other may be a cause of statistical indifference.

It was observed that there was a statistically significant by BMI variable difference in the results of the analysis of the self and family sub-dimensions of the family fat talk sub-dimension. When looking at which groups have these significant differences, the mean scores of obese individuals were found to be higher in both the self and family sub-dimensions of fat talk in family sub-dimension comparing to the low-weight, healthy, normal, overweight, and morbidly obese individuals. When the relevant literature field was examined, research findings by Martz et al. (2009) in the sample of American college students support our research. In another study, Gapinski, Brownell & LaFrance, (2003) reported that talking about obesity is associated with BMI.

In conclusion, it is reflected in the research results that Obese individuals are more exposed to family fat talk. In the light of this information, what kind of psychological conditions obese individuals are exposed to as determined by the results of the research, or the positive and negative effects of this situation can be evaluated in future studies.

Author Note

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Is Married Individuals' Stress Coping Style The Predictor Of Their Marital Adjustment?

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Abstract

The purpose of this study was to examine the relationship between stress coping styles and marital adjustment in married individuals. To this end, 274 (158 female, 114 male) married individuals selected by convenience sampling were included in the study group. The participants who composed the study group answered the Locke-Wallace Marital Adjustment Test and the Ways of Coping Questionnaire. The Pearson correlation coefficient and regression analysis were used in the data analysis. The analysis results showed that the desperate approach and the search for social support are related to marital adjustment. Psychological counselors who want to improve marital adjustment can teach married people how to get social support to cope with stressful situations and give information about the ways in which they cope with nonfunctional stress such as a helpless approach.

Keywords: *Marital adjustment, stress, ways of coping, Turkey.*

Introduction

The concept family has taken part in every society from the past to the present day. Family is a social cluster based on emotional attachment, with vital characteristics for its members and a framework of solidarity that cannot be passed on to others (Ersanlı & Kalkan, 2008). The structure of family changes over time with the change in the general structure, functioning, and functionality of societies. If expectations are not satisfied for various reasons while making a marriage decision, it has an adverse effect on the marital relationship.

Marriage is described by qualities such as freedom of choice in partner selection and bilateral relations, equality in sexual life, and close relations (Tutarel-Kışlak, 1999). A marriage that begins when a woman and a man come together forms the basis of the family life. In marital relationships, people struggle to maintain their psychological, physical and social existence and well-being (Erişti, 2010). Marriage is an institution that is the product of the most important contract that ensures continuity in human life from beginning to end and this contract leads to the birth of the family considered the cornerstone of society (Taşbaş, 2010).

Marriage adjustment refers to one's perceived marital satisfaction. A marriage can be defined as harmonious in case of happiness with the relationship, sexual satisfaction, positive communication, and the desire to marry the same person if they had to do it again (Eskin, 2012). Marriage adjustment describes the nature of the marital relationship of couples. The quality of marriage is expressed as couples' subjective evaluation of their marital relationship. One of the most important elements in marriage adjustment is the capability of each partner to maintain a successful relationship (Erbek, Beştepe, Akar, Eradamlar & Alpkan, 2005). Investigating marital adjustment and the factors affecting this adjustment has been of great importance in recent years. Couples' perceptions of marriage, personality traits, attitudes towards each other, processes of living romantic relationships, and social interest affect marital adjustment (Erbek et al., 2005; Erişti, 2010; Taşbaş, 2010; Tutarel-Kışlak, 1999). Ways of stress coping are among many factors that may affect marital adjustment.

Stress refers to a bodily response to physical or emotional threats, feelings of being threatened, a state of compulsion, or a new situation that requires adjustment (Korkut Owen, 2015). Stress can be positive or negative; however, negative stress is necessary for people to survive. It is not stress but how we cope with it affects our health and well-being. Stress coping is defined as reactions aimed to reduce physical, emotional and psychological burdens associated with events and daily rush (Şahin & Durak, 1995). The literature includes research on marital adjustment. It has been reported that people who exhibit a destructive and less constructive communication style have low marital adjustment (Malkoç, 2001). A negative correlation has been found between negative coping style and marital adjustment (Stanley, Markman & Whitton (2002). It has been suggested that anxiety and education predict women's marital adjustment, while anxiety and working status predict men's marital adjustment and

women and men with high marital adjustment are be less likely to cheat (Gürsoy, 2004). Marital adjustment is a complex phenomenon stemmed from the combination of a large number of biological, social, and situational factors (Fıfıloğlu & Demir, 2000). The literature includes a great volume of international research on marital adjustment but lacks domestic research investigating the relationship between marriage and married people's mental state in the Turkish culture. Thus, there is a need for a research to identify factors affecting marital adjustment in the Turkish culture. Against this background, the present study aimed to explore married people's marital adjustment and ways of stress coping. Accordingly, the study attempted to determine whether ways of stress coping predict marital adjustment. Thus, the study is expected to reveal the association between marital adjustment and stress and to contribute to the comprehensive understanding of factors affecting marital adjustment. Additionally, the study is of importance in that it helps to raise awareness of marital adjustment. The results of the study can provide information to family counselors and psychologists about their work on nonfunctional behaviors affecting marital adjustment.

Methods

Research Design

This study used a correlational research design to investigate ways of stress coping as the predictor of marital adjustment (Büyüköztürk, Akgün, Demirel, Karadeniz & Kılıç Çakmak, 2015). The dependent variable is marital adjustment; the independent variables are ways of coping including optimistic approach, self- confident approach, helpless/self-accusatory approach, submissive approach, and social support-seeking.

Sample

The sample consisted of 274 people residing in the Bafra district, Samsun. The sample was selected through convenience sampling, a type of non-probability sampling (Büyüköztürk et al., 2015). The sample consisted of 158 (57.7%) women and 116 (42.3%) men. The age range was 24 to 67 and the mean age was 40.16 (SD: 8.84). Most of the participants were university graduates (n=210, 76.6%). The age of marriage range was 25 to 29 for more than the half of the sample (51.5%). Additionally, most of the participants had a free choice marriage (n=187, 68.2%) and were married for more than 21 years (n=72, % 26.3). Almost half of the participants had two children (n=133, 48.5%). A great majority had a moderate income level (n=233, 85%).

Data Collection Instruments

The data were collected using a personal information form (asking gender, age, length of marriage, educational background, age of marriage, etc.) designed by the researchers, the Marital Adjustment Test (MAT) developed by Locke and Wallace (1959) and adapted to Turkish by Tutarel-Kışlak (1999), and the Ways of Coping Questionnaire developed by Lazarus and Folkman (1984) and adapted to Turkish by Şahin and Durak (1995).

Data Analysis

The data were analyzed using SPSS 23statistics. Prior to the statistical analysis, missing values and outliers, and the assumptions of the statistics were analyzed. The correlation between marital adjustment and ways of coping was analyzed using the Pearson correlation coefficient. Multiple regression was used to analyze the extent to which ways of coping predict marital adjustment. The margin of error was accepted as .05.

Results

Table 1 shows the correlations between marital adjustment and different ways of stress coping.

Table 1. Correlations Coefficients, Means and Standard Deviations of the Variables

	1	2	3	4	5	6
1. Marital Adjustment						
2. Self-confident approach	.14*					
3. Helpless/self-accusatory approach	-.18**	-.25**				
4. Submissive approach	-.11	-.15*	.53**			
5. Optimistic approach	.09	.64**	-.09	.02		
6. Social support-seeking	.11	.11	.19**	.06	-.04	
Mean	106.47	15.00	9.26	6.33	9.72	6.95
SD	20.50	3.66	4.11	3.46	2.94	2.10

Note. p < .05*, p < .01**.

As seen in Table 1, marital adjustment had a low positive correlation with self-confident approach ($r = .14, p < .05$) and a low negative correlation with helpless/self-accusatory approach ($r = -.18, p < .05$). However, marital adjustment had no correlation with submissive approach ($r = -.11, p > .05$), optimistic approach ($r = .09, p > .05$), and social support-seeking ($r = .11, p > .05$).

A multiple regression analysis was performed to determine the extent to which ways of coping predict marital adjustment. Table 2 presents the variation statistics for the regression analysis and Table 3 presents the results of the regression analysis.

Table 2. Variations Statistics for the Variables Predicting Marital Adjustment Scores

Model	<i>R</i>	<i>R</i> ²	Adjusted <i>R</i> ²	<i>SEE</i>	Variation Statistics				
					ΔR^2	ΔF	<i>df</i> ₁	<i>df</i> ₂	<i>p</i>
Model 1	.24	.06	.04	20.07	.06	3.38	5	268	.006*

Note. * $p < .01$, SEE: standard error of the estimate, *df*: degree of freedom.

Table 3. Regression Analysis Results of the Variables Predicting Marital Adjustment Scores

Model		Unstandardized Coefficients		Standardized Coefficients	<i>t</i>	<i>p</i>
		<i>B</i>	<i>SEE</i>	β		
Model 1	(Constant)	98.93	7.24		13.65	.001**
	Self-confident approach	.22	.46	.04	.48	.630
	Helpless/self-accusatory approach	-.88	.37	-.18	-2.43	.016*
	Submissive approach	-.13	.42	-.02	-.32	.752
	Optimistic approach	.38	.56	.05	.68	.496
	Social support-seeking	1.37	.61	.14	2.26	.025*

Note. * $p < .05$, ** $p < .001$.

The analysis results showed the significance of the model developed to determine the extent to which married people's ways of coping predict their marital adjustment and the model had a small effect size ($F(5, 268) = 3.38, p < .01, R = .24, R^2 = .06, R^2_{adj} = .04$). Table 3 shows the individual contribution of each way of coping in the regression equation. As seen in Table 3, self-confident approach ($\beta = .04, t = .48, p > .05$), submissive approach ($\beta = -.02, t = -.32, p > .05$), and optimistic approach ($\beta = .05, t = .68, p > .05$) scores were not significant predictors of marital adjustment scores. However, helpless/self-accusatory approach ($\beta = -.18, t = -2.43, p < .05$) was a negative predictor of marital adjustment scores, while social support-seeking ($\beta = .14, t = 2.26, p < .05$) was a positive predictor of marital adjustment scores. In other words, one unit increase in helpless/self-accusatory approach scores while holding all other variables constant is related to a decrease of -.88 unit in marital adjustment scores. On the other hand, one unit increase in social support-seeking scores while holding all other variables constant is related to an increase of 1.37 unit in marital adjustment scores.

Discussion

The study analyzed the association between ways of stress coping and marital adjustment in married people. The analysis results showed that the self-confident approach, submissive approach, and optimistic approach were not significant predictors of marital adjustment. However, the helpless/self-accusatory approach was a negative predictor of marital adjustment, while social support-seeking was a positive predictor of marital adjustment. Accordingly, it seems that a helpless/self-accusatory approach to coping with stress has a negative effect on marital adjustment, while social support-seeking has a positive effect. To further clarify, people often using social support-seeking are more likely to have a low marital adjustment. This result is consistent with the research results reporting that preferring a helpless approach, a dysfunctional way of solving problems, adversely affect marital adjustment (Folkman & Lazarus, 1980; Yüksel & Dağ, 2015). Previous research reported that problems experienced in marriage negatively predict psychological health. To put it differently, a high marital adjustment is associated with being more psychologically healthy; the less common use of emotion-focused ways of coping such as submissive and helpless approaches strengthens the marriage relationship. Thus, ways of coping can affect the predictive power of the marital relationship for psychological health (Yüksel, 2013).

The study found that social support-seeking positively predicted marital adjustment scores. Social support resources play an important role in marital adjustment. Social support can be defined as a system that promotes the sharing of values and emotions that reduce the negative consequences of stressful situations and supports the ability to adapt to roles and novelties brought about by the life and social roles. This system may include relatives,

family or close friends. The social support system affects parents' and children's behaviors and strengthens their capabilities, thereby fulfilling educational functions (Kaner, 2010). This situation, in turn, has a positive effect on marital adjustment. Okanlı et al. (2003) reported a considerable improvement in the problem-solving skills of mothers receiving social support from their husband. Based on the analysis results, the study offers that it can be helpful to give coping skills training to married people using a helpless approach to cope with stress.

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Job Application Preparations In The Process Of Career Awareness

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Abstract

It is aimed in this action research to develop the career perception of the hearing-impaired students in the final years of the School for the Handicapped (SfH) of the Anadolu University by planning activities, designed to raise their career awareness and cause them to get to know about strategies for job seeking and application for a job. The research data were gathered through video recordings, interviews, researcher, and student diaries, audio recordings of planning and assessment meetings, course plans, course assessments, home-works and course products. When the research data were examined, it was seen that eleven sub-activities had been realized under three fundamental activities, designed for the objective. At the article, it is focused on the activities of "Job Application Portfolio (Document Portfolio) and Job Interview-Simulation" taken place under the fundamental activity of "Job Application". The Job Application Portfolio preparation activity were realized between the dates of March 22 – April 26, 2016 and Job Interview-Simulation activity, however, between April 12-26, 2016. The courses, realized between these dates, have been analysed and processes depicted accordingly. Within the direction of findings of the research, it is determined that the career perceptions of the students for graduation have been developed and they had knowledge on job application and acquired courage on job interviews.

Introduction

The education is a process for the development of individual and acquirement of necessary characteristics for the achievement of duties that he may take up during his life. In the meantime, the education is a means preparing the individuals for their future professions. When it is taken into consideration that the professional development of the individual is a long and complex process, it may be possible to say that there are many factors affecting this process. The career development theories explain the factors affecting the individual's choice of profession and rates of these factors to affect the individual in a detailed manner (Adıgüzel & Erdoğan, 2014; Brown & Brooks, 1985; Yeşilyaprak, 2016). The theories are, in the meantime, a guiding light on how the support services to be offered to the individual within the career process will be.

The foundation of these theories and pertaining applications were laid down by the book of Frank Parsons, titled as "Choosing a Vocation" in 1908-1909. The choice of career is one of the important decisions of the individual in his life. When the researches pertaining to the theories are examined, it is indicated that it is necessary to give an opportunity to the individuals to choose up their professions and the career is a lifelong continuing process and the choices of career might be changed during this process. At the same time, it is understood that the atmospheres in the childhoods of the individuals affect their choice of profession and personal characteristics and self-conception play an important role in the choice of profession (Adıgüzel & Erdoğan, 2014; Brown & Brooks, 1985; Sharf, 2006; Yeşilyaprak, 2016). It is possible to clarify the choices of professions of the individual through the theories, however, when the matter is taken into consideration from the point of requirements of our current educational and business world, it is seen that the choices of profession of individuals and their progress in their professions are affected by various numbers of factors such as economic conditions of the country concerned, available work environments in economy, employment conditions and policies of the country etc.

The career is the process of progress in profession, chosen up by the individual. The choices of profession by the individuals are generally realized in the educational process (Sharf, 2006; Yeşilyaprak, 2012). In this context, it is possible to say that the education process is a stage affecting the choice of profession and career process of the individual. Therefore, it is necessary to plan and use the education process in an effective manner for career planning (Sharf, 2006). When researches are examined, it is proposed for the educational programs to support the career developments of individuals by giving the concepts with relation to the career full play along with the provision of professional knowledge, providing communications with the guests representing various professions, offering informative platforms with those, who have career experiences and organizing courses that may imitate their career experiences (Campbell, 1997; Isaacson & Brown, 2000; Sharf, 2006; Yeşilyaprak, 2012). It is sufficiently clear that this matter will play an important role in the choices of profession of the individuals and their career planning and finding job as well after the graduation.

When it is looked at the professional training and career awareness from the point of view of the handicapped individual, it is seen that all researches so far made remained limited. When the researches are examined, it is determined that educational methods, career perception, employment policies, discrimination matters and contents

of educational programs have been handled predominantly.

It is seen in the body of literature what the applications due to be made in the professional education process for career awareness are and there are no researches where these applications are explained in a detailed manner and they are really needed in this respect.

The communication and reading-writing disabilities of the hearing-impaired persons come forth as an important disability that they face in their education process (Paul, 1996). It is also necessary for the hearing-impaired individuals to acquire fundamental skills and attributions that are required by the professional education process. In this context, the career planning activities due to take place within the professional education appear to be important for them in respect of finding place at business environment (Greinert, 1989; Gussenhoven, Anema, Witte, Goverts and Kramer, 2017). It is necessary to organize these activities to be made with the hearing-impaired students by the use of appropriate atmospheres and strategies conforming to the disabilities of the students.

The problem of finding job in our country is the common problem of all graduates whether handicapped or not. Failure to create appropriate environments at workplaces for the hearing-impaired individuals because of their special requirements and the point of view of the employer towards the hearing-impaired individual makes it more difficult for the hearing-impaired individuals to find job. Various measures are taken by way of both legal aspect and education in order to overcome these difficulties. Despite of these difficulties, when the problems of the hearing-impaired individuals, who get into a job, are focused on despite of these difficulties, however, it appears that the personal characteristics and talents of the individuals are not taken into consideration. Likewise, the problems of “discrimination” against the handicapped with relation to their promotion at workplaces are also indicated at the related studies (Erdiken, 2005; Erdiken, 2007; Kaya, Özten Anay & Girgin, 2014; Yılmaz, 2004). The communication of the hearing-impaired individual at the work environment with other individuals and employer is important. The arrangement of the education, organized with the hearing-impaired students within the professional education process, in order to increase the communications skills of the students, especially, professional communication skills, is an important requirement from this point of view.

When the hearing-impaired individuals wanted to continue their careers with the university education, they come face-to-face new obstacles that they have to overcome. Before all else, they have to achieve necessary examinations for the entry into university. The hearing-impaired students, who are placed in related university departments either by succeeding these examinations or passing from vocational high schools to vocational schools for higher education without examination, get into difficulty this time to adopt themselves to the education programs, environments and strategies that are organized for hearing students as a result of their restrictions in the language skills as well and require language support (Karasu G., 2011; Kaya, 2012; İstel, 2018; Uzuner, Girgin, Girgin, Erdiken, Karasu, Kaya, Cavkaytar & Tanrıdiler, 2011). When they do not get such support, however, it is evident that they will get into immense difficulty in reading and understanding the professional texts and set up professional communication.

Finding jobs for the hearing-impaired individuals, who complete the higher education process of the professional education, where they will work, confront them as a separate problem. It is seen that the hearing impaired individuals, graduated from the university, experience problems on the matters such as job searching-finding, setting up communication at work environment, lack of experience for application and discrimination (Erdiken, 2007; Kaya, Özten Anay & Girgin, 2014; Yılmaz, 2004). Therefore, along with the acquirement of professional knowledge with relation to the fields of the hearing impaired individuals, who will graduate from the institutions giving vocational education, it is important for the same to read and write at a level to be able to share such knowledge and express their knowledge, know about the methods of job searching and learn what to be done at a job application.

The Study

While the hearing impaired individuals determine their careers, they can take a university education at the same environments with their hearing peers when they want to take university education and in the meantime, there is an higher education institution, organized for the hearing impaired young individuals. The School for the Handicapped (SfH) of the Anadolu University providing university training for the hearing impaired individuals is a starting step, made for integration of the hearing impaired to the university education (Kaya, 2017). The vocational courses at the School for the Handicapped of the Anadolu University (SfH) are supported with the language courses and scientific-based researches for the improvement of the vocational education, maintained thereunder, are made (Derican, 2010; Genç, 2013; Karasu G., 2011; İstel, 2018; Karasu G., Uzuner & Beral, 2018; Kaya, 2012; Kaya, at al. 2014; Kaya, Özten Anay, Abalı, Karasu & Girgin, 2017; Kaya, Özten Anay, Karasu, Abalı & Girgin, 2017; Uzuner, at al. 2011). Along with the works so made, there is requirement for the works

towards the preparation of the hearing-impaired young individuals for the post-graduation period as well. At the same time, it is required to increase the works to be carried out in this respect by diversification in order to be spread over all departments providing vocational education and explained the same in a detailed manner. Therefore, our research from this point of view has a separate importance for the fact that it is the only research depicting the activities of career awareness, proposed to take in the vocational education of the hearing-impaired individuals at university level.

The research has been effectuated between the years of 2013-2016. It is aimed at the research to plan activities in order to raise the awareness of the attending hearing impaired senior students at the School for the Handicapped of the Anadolu University and enable them to develop their career perceptions and learn and use the job finding strategies. It is aimed to depict the activities of the “Job Application” that is one of the basic activities, realized for the fundamental objective of the research in the article so presented. An answer is looked for to the question of “How the basic activity of the Job Application process has been realized?”

The Method

The planning and how to effectuate its application bears importance at the education researches and in this respect, the researches, realized in this manner, are required. The action research answering the question of ‘How?’ is able to provide theoretical knowledge, application and related improvements and arrangements that are required for the solution of the problematic case at the end of the research at issue. Therefore, the research has been realized as an action research by the examination of process of activities systematically in order to raise the career awareness and depiction of the products.

The application takes place in the centre of the action research. The qualitative and quantitative data collection techniques are taken advantage in the action researches especially for the solution of a problem. Cyclical models are used in order to determine the problem, collect data with relation to the problem, evaluation of data so collected and ensure the improvement with relation to the problem (Fraenkel, 2015; Jhonson, 2012; Zuber-Skerritt, 2003). The action research cycle is seen in the Figure no. 1.

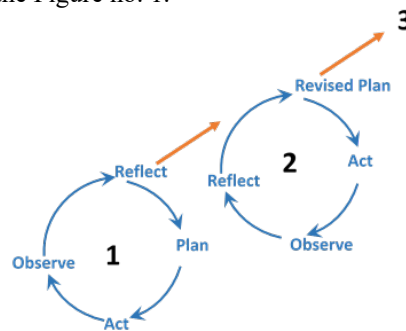


Figure 1: The action research cycle (Zuber-Skerritt, 2003)

The Setting

The research data have been realized at The School for the Handicapped taking place at the Anadolu University (SfH). The “professional language” and “language courses” taking place at the SfH programs have been used in the research. The data are collected in a total numbers of six different courses (Table: 1) and five classrooms/labs taking place in the Graphic Arts, Architectural Drafting Associate Degree and Computer Operator Training Associate Degree programs having a final year education in the SfH in the 2015-2016 educational year.

Table 1: Career Awareness Activities

Departments	Course	Required/ Elective
Architectural Drafting Associate Degree	• Professional Language for Architectural Drafting IV	Required
	• Writing and Speaking Skills for Architectural Drafting IV	Required
Computer Operator Training Associate Degree	• Professional Language for Computer Operator Training IV	Required
	• Writing and Speak. Skills for Computer Operator Training IV	Required
Graphic Arts	• Professional Language for Graphic Arts VIII	Elective
	• Turkish Language Skills for Graphic Arts IV	Elective

The educational year of 2015-1016 is not included in the research as a result of the fact that there was no student in the senior class of the Ceramic Undergraduate Program. The SfH labs and classrooms of the SfH where the

research has been effectuated were equipped with appropriate sound insulation and equipment within the direction of the students' requirements (Girgin, 2003). There are equipment supporting the education atmosphere such as smart board, projection, curtain and so on, at the class rooms/labs where the research data are collected (Figure no. 2).



Figure 2: The Classrooms and Laboratories Used in the Courses

The Participants

The participants of the research may be examined in two groups as *student participants* and *research team*. The *student participants* are 27 severe level hearing impairment and profound level of hearing-impairment students having education at the Graphic Arts, Architectural Drafting Associate Degree and Computer Operator Training Associate Degree programs in the educational year of 2015-2016. The average age of the students is 24. The students apart from a student, who uses a cochlear implant, use ear level hearing aid. "All Communication Method" has been used at the courses. The students were informed about the objective of the research and circumstances that they may come face to face in the application process, publication of findings and that they may leave the research when required (Biber & Leavy, 2011; Ryen, 2011). All of the students have taken part in the research voluntarily. The *research team* consists of three academic members, Internship Coordinator and a Consultant having expertise in the field of the hearing impaired. The academic members, who conduct the courses, have a minimum expertise of 20 years in their professional fields and field of education with the young hearing-impaired individuals. The Internship Coordinator is the instructor of the SfH responsible for internship affairs. The latter has followed up the research courses within the research process, taken part in the activities, and contributed on the provision of collaboration between the researchers within the education process. The Internship Coordinator, in the meantime, holds a sign language certificate and has provided support on communication with the students when required in the research process. The Consultant is an academic member, who has an experience of 35 years in the field of the hearing-impaired education and realizes the validity works of the research. All of the researchers apart from the Internship Coordinator have doctorate theses, book translation experiences and projects that have been realized by way of action research. The work, carried out by them, on the subject matter hereof have been presented at related national and international congresses and published in magazines pertaining thereto. The validity and reliability study of data collection instruments, used at the research, is realized by the research team.

Data Collection and Analysis

The quantitative and qualitative data collection methods and techniques have been taken advantage thereof within the research process (Jhonson, 2012; Henning, Stone & Kelly, 2009). The part of the research, presented in the article, has been effectuated through the analysis of data, collected in the Spring Semester of the educational year of 2015-2016. The data have been collected by way of video records of the courses and activities, class observations, sound records and reports of the planning and evaluation meetings, course plans and reflected appraisals, periodical examination results, student products, documents, meetings/negotiations, e-mails, student and researcher diaries, Whats App messages, Facebook messages and student sharing taking place at Facebook media. An expert opinion has been taken for the validities of the data collection instruments and accuracy of data and the analyses realized as simultaneously.

The data were analysed systematically, cyclically and in a reflected manner according to the decisions, made in planning and evaluation meetings, held by the research team within the direction of the objective of the research. According to the data of the research, eleven activities have been organized within the direction of the research objective in the research process. The activities were made in a successive and synchronous manner. The activities so effectuated were classified as three basic activities. The research questions have been answered within the direction of basic objective of the research in this article.

Findings

The research process consists of *problem determination*, *pilot study* and *application* processes. The research began with a problem determination work in 2013. Kaya, Özten Anay & Girgin (2014) effectuated a questionnaire study with the SfH graduates and gathered information on the problems tha the graduates have faced in employment arena and their job finding efforts. At the end of the studies so made, it has been understood that the graduates did not have sufficient knowledge about where they would take up employment and experienced problems on

application for employment.

At the end of problem determination study, it has been decided to carry out a pilot study in the autumn and spring Semesters of the educational year of 2014-2015. Relevant activities have been planned for the career awareness of senior students during the pilot study. The senior students of the Architectural Drafting and Computer Operator Associate Degree programs have been worked with in the pilot study at the SfH. It has been resolved to diversify and increase the activities within the direction of findings, obtained at the end of the said pilot study. The research data were collected with the activities, determined in the research team planning and evaluation meetings in the autumn and spring Semesters of the educational year of 2015-2016 within the direction of the decisions so made.

The research was conducted in a weekly systematic and cyclical process (Figure no. 3). The weekly “*Planning and Evaluation*” meetings were held on Monday. The decisions pertaining to the application of courses have been shared through reports and e-mails together with all research team. The course plans of the focus courses to be made in that week have been examined and necessary arrangement made therein. After the courses, every researcher wrote an evaluation of his course and reflected diary thereof and shared the same with all research team by way of e-mail. The research team set up communication through face-to-face meetings, e-mail and WhatsApp within the direction of due requirements and made information studies in that respect. The plans of the next week were written at the weekend and the same was shared with the research team again through e-mail.

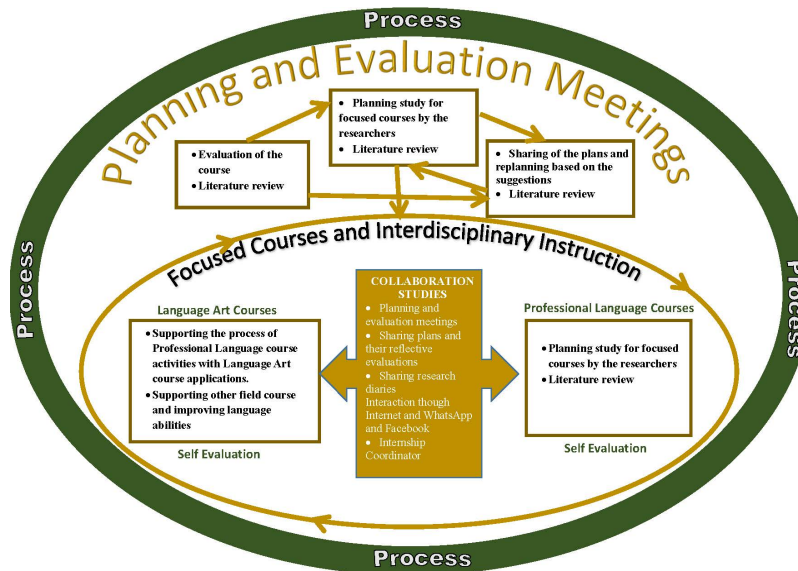


Figure 3: Weekly Cycle of the Research

When the research data are examined, it is seen that the activities, realized in this respect, were gathered under three basic activities. Every basic activity was formed up with sub-activities spreading over weeks (Table 2). The activities so planned were conducted as simultaneously and successively in the focus courses at the autumn and spring Semesters of the educational year of 2015-2016. Notwithstanding that some activities started after the completion of the preceding activity, some activities have been realized in parallel with other activities. When the activities were completed, the student products have been formed up for each activity. The products come forth and studies, carried out within the process, have been evaluated within the scope of the visa-homework-final.

Table 2: The Activities of Career Awareness

The name of the basic activity.	Date
Recognizing Business Environments	October 19, 2015– April 08, 2016
Job Application	March 02, 2016 – April 26, 2016
ISKUR (ISKUR is a government instution to apply for a job in Turkey)	October 22, 2015 – March 23, 2016

At this article, the process of “*Preparation of Job Application Portfolio*” and “*Job Interview-Simulation*” sub-activities, conducted within the scope of the “*Job Application*” basic activity containing the job seeking and finding strategies within the career awareness process of the senior students of the SfH in the spring Semesters of

the educational year of 2015-2016 will be depicted in a detailed manner.

“How the basic activity of the Job Application (the Job Application Portfolio and Job Interview-Simulation) process has been realized?”

The Turkish Employment Organization “ISKUR” in our country offers an intermediation service to find worker and work within the direction of the labour market and develops active programs in order to increase the level of employment (ISKUR, 2018). A communication was set up with the ISKUR (Turkish Employment Organization) within the research process and permission was taken from the manager of the related department and collaboration was conducted with the related Job and Profession Consultant serving duty at Eskişehir branch. The “Job Application Techniques” obtained from the Job and Profession Consultant and prepared at the ISKUR and used in trainings have been arranged in respect of language and content and prepared anew according to the language levels of the hearing-impaired students within the scope of the collaboration. The presentation so prepared has been used in the Professional Language and language art courses. While it was studied on the process of writing documents taking place at the art courses, the study was made on where those documents would be used at the Professional Language courses and how they would be gathered within a file. Job interview and job interview simulation has been made towards the use of the file so prepared. The process of the activities is shown in the Figure no. 4.

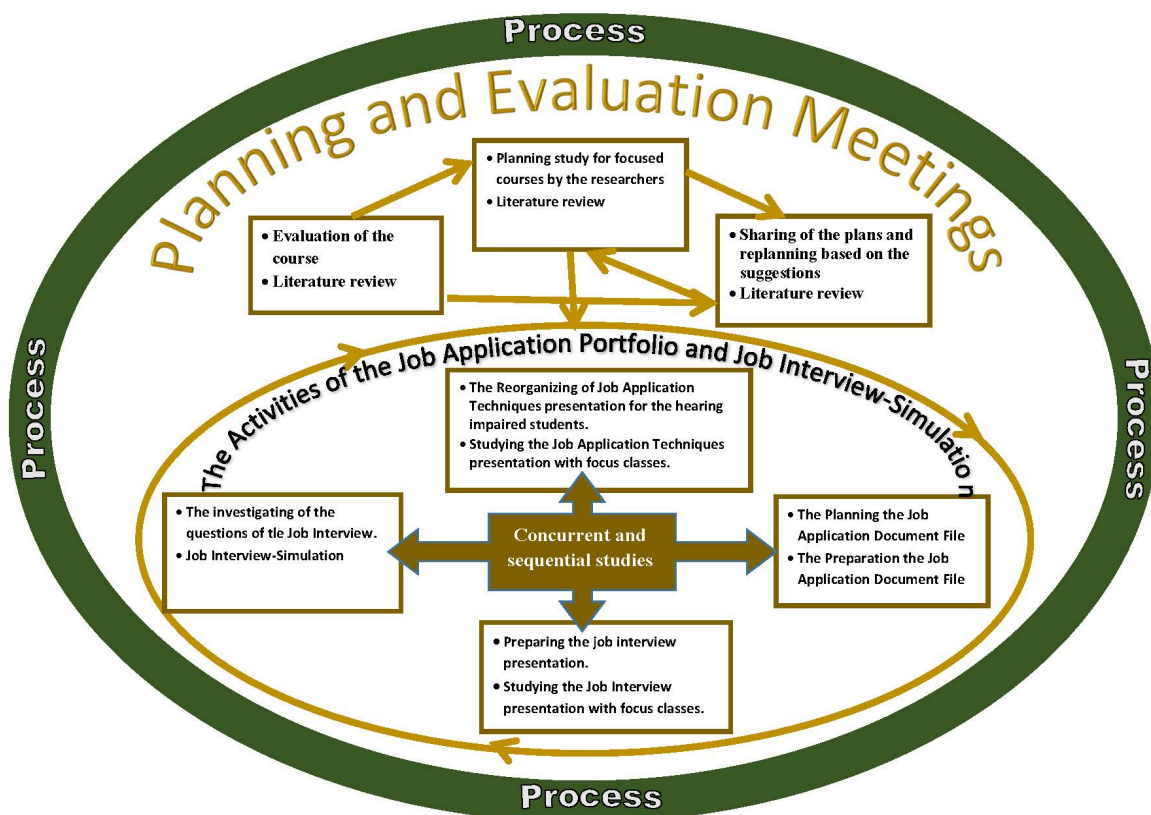


Figure 4: The process of the Job Application Portfolio and Job Interview-Simulation Activities

Job Application Portfolio Preparation Activity

It was studied in the Professional Language and language arts courses through the help of the presentation of the “Job Application Techniques” that indicated what necessary documents are for the job application and were prepared by the ISKUR and adopted by the researchers according to the language level of the hearing-impaired students. The Curriculum Vitea, job application letter/cover letter, reference letter, and job application form filling works have been realized in the language arts courses. In the Professional Language courses, however, it was studied on the maintenance of these documents in a file and how this file would be used within the job application process. The files, selected by the students, have been used as the “*Job Application Portfolio*”. The product of the activity is the Job Application Portfolio, prepared by the students. The files have been evaluated by the visa grade. Every product having taken place within the file, however, was evaluated within the scope of homework. The courses where the Job Application Portfolio was studied on and weeks take place at the Table no. 3.

Table 3: The Table of the Job Application Portfolio Activity Courses.

Departments	Courses	Date
Architectural Drafting Associate Degree	• Professional Language for Architectural Drafting IV	• 30/03/2016, 31/03/2016, 06/04/2016
	• Writing and Speaking Skills for Architectural Drafting IV	• 07/04/2016, 06/04/2016
Computer Operator Training Associate Degree	• Professional Language for Computer Operator Training IV	• 23/03/2016, 30/03/2016, 06/04/2016
	• Writing and Speak. Skills for Computer Operator Training IV	• 29/03/2016, 05/04/2016, 26/04/2016, 03/05/2016
Graphic Arts	• Professional Language for Graphic Arts VIII	• 22/03/2016, 29/03/2016, 05/04/2016
	• Turkish Language Skills for Graphic Arts IV	• 31/03/2016, 07/04/2016, 14/04/2016

Requirement of why the file had to be used was discussed with the students. It has been agreed upon with the students that the Job Application Portfolio was required. Subsequently, the job application presentation and use of the file has been shared. The matters taking place within the Job Application Portfolio have been the studies, carried out on the cover, job application form, CV/Curriculum Vitea, job application letter/cover letter and reference letter and any other documents for the student qualifications/characteristics. Each activity has been realized sometimes successively and other times, however, simultaneously. It has been worked in collaboration in all focus courses for the preparation of documents. The management of the process has been ensured through planning and evaluation meetings, and contacts of the researchers with face-to-face meetings and by way of whatsapp and e-mail. The study of depicting the activity of the Job Application Portfolio will be realized by the depiction of the process for the preparation of documents taking place within the activity. The study of depiction will be presented under a separate topic for each document.

Preparation Process of the Cover Page

The knowledge why the cover page is necessary in the Professional Language and arts language courses was studied on with the students through question-answer and brainstorm activities. The levels and requirements of the students have been taken into consideration in the realization of study in this way (Schirmer, 2000). The cover work home-works were given in the Professional Language courses and their evaluation was made in Professional Language courses. The process of the study, however, has been followed up in the arts language courses within this process. At the Table no. 4, the courses where the Cover page was studied on, course hours and works being made with relation to the cover in courses have been presented on the basis of sections.

Table 4: Cover Page Lessons Table

Departments	Course Name	Date
Architectural Drafting Associate Degree	• <i>Professional Language for Architectural Drafting IV</i> The topic of the “What is being done for a job application?” was discussed with the students. The topic of the Documents, used for presentation of business application, was shared with students. The topic of cover page was studied with students. Preparation of a cover page was given as homework.	30/03/2016
	• <i>Professional Language for Architectural Drafting IV</i> The prepared cover pages were evaluated. The Job Application Portfolio was discussed with the students. Homework: Reorganization of cover page according to the recommendations. Selecting and purchasing a Job Application Portfolio .	06/04/2016
Computer Operator Training Associate Degree	• <i>Professional Language for Computer Operator Training IV</i> It was explained the development of job search skills. It was continued to the presentation. The question of what needs to be done to look for a job? was discussed. The cover page's importance was discussed. Preparation of a cover page was given as homework.	23/03/2016

- *Professional Language for Computer Operator Training IV* 30/03/2016
The prepared cover pages were evaluated. Documents to be included in the job application file were explained. Homework: Reorganization of cover page according to the recommendations. Selecting and purchasing a Job Application Portfolio .

- *Professional Language for Graphic Arts VIII* 22/03/2016
What do we do to look for a job? What is the difference between state and private sector? What can be done for a job application? The cover page's importance was discussed. Preparing Cover page was given as homework.

Graphic Arts

- *Professional Language for Graphic Arts VIII* 29/03/2016
The prepared cover pages were evaluated. Job Application Portfolio was explained and discussed with the students. Homework: Reorganization of cover page according to the recommendations. Selecting and purchasing a Job Application Portfolio .

At the cover work, while the Graphic students were making their own cover designs, the cover work of the the Architectural Drafting and Computer Operator Training students has been realized out of a joint cover design. It has been jointly decided with the students that the name and surname of the student, communication information, department of graduation and his/her photo would take place on the cover. The decision of the students on the product content has caused them to appropriate the product and raise their motivation (Asselin, 1999). There are two examples from the Graphic and computer Operator Training students take place in the Figure 5.



Figure 5: Cover Page Designs of the Students

Job Application Form Process

The notification with relation to the job application form was made in language courses and example forms, obtained from various media, were studied on at the said language courses and relevant form filling activities effectuated accordingly (Figure 6). The form study was worked on simultaneously with the Curriculum Vitea (CV) activity. The form samples, filled in thereunder, were placed in the Job Application Portfolio. However, after the graduation, the necessity of the attachment of the form for the workplace where the application will be made thereof, instead of sample forms, has been shared with the students.

Figure 6: Job Application Form

Curriculum Vitea /CV Preparation Process

The necessity of how an effective curriculum vitea should be has been realized in the language arts courses through

The “Job Application Techniques” and application studies. It has been studied in the language arts course what the information has to be available at the curriculum vitae and sample curriculum vitae have been examined. The repeat study has been realized in the language arts courses in a manner of examination of the studies so made and expression of the study so made by the students. The researchers have worked on effective curriculum vitae design containing common information in all departments in the planning and evaluation meetings and a common design has been determined upon participation of the students and the curriculum vitae of each student been prepared in this respect (Table no. 5).

Table 5: The Activities of Job Application Form and CV Lessons

Departments	Courses	Date
Architectural Drafting Associate Degree	<ul style="list-style-type: none"> • <i>Writing and Speaking Skills for Architectural Drafting IV</i> 	31/03/2016
	The documents in the Job Application Portfolio were studied with students. CV and Job application form. Homework: Students will write their curriculum vitae.	
Computer Operator Training Associate Degree	<ul style="list-style-type: none"> • <i>Writing and Speaking Skills for Architectural Drafting IV</i> 	07/04/2016
	The prepared CVs were evaluated. CV examples. Homework: Reorganization of CVs according to the recommendations.	
Graphic Arts	<ul style="list-style-type: none"> • <i>Writing and Speak. Skills for Computer Operator Training IV</i> 	29/03/2016
	CV and Job application form were studied with students. The properties of CV. CV and job application form examples. Homework: The students will prepare their CVs with new information.	
Graphic Arts	<ul style="list-style-type: none"> • <i>Writing and Speak. Skills for Computer Operator Training IV</i> 	05/04/2016
	The prepared CVs were evaluated. CV examples. Homework: Reorganization of CVs according to the recommendations.	
Graphic Arts	<ul style="list-style-type: none"> • <i>Turkish Language Skills for Graphic Arts IV</i> 	31/03/2016
	Important features about CV. Information about CV and job application form were given. CV examples. Homework: Students will write their curriculum vitae.	
Graphic Arts	<ul style="list-style-type: none"> • <i>Turkish Language Skills for Graphic Arts IV</i> 	07/04/2016
	The prepared CVs were evaluated. The properties of CV. CV examples, Homework: Reorganization of CVs according to the recommendations.	

The graphic students have created their own designs by applying their cover designs to their curriculum vitae. However, the information-taking place within the content of the curriculum vitae remained the same (Figure 7). Other departments worked on a common design. It is seen that the graphic students have transferred the design information, learned by them in the vocational courses into the CV preparation work. The students, at the same time, wanted to reflect the designs that they used in their vocational course where the “Portfolio” preparation works are made and the design works of the graphic students have taken place. The execution of this work upon proposal of the students indicates that the students attribute importance to the activities so made and the awareness of the career in them rises.

Job Application Letter / Cover Letter Process

The matters referring to what the presentation of “Job Application Techniques” and job application letter are and how it should be written have been studied on at the Professional Language and arts language courses. The sample job application letters are examined in the art language courses, job advertisements conforming to the vocational fields of the students have been gone through, and different scenarios were formed up and job application letters written (Figure 8). The instructor has been a model within the process at the studies so made and given a feedback to the studies. The repetitions, made in this context, have caused persistency of the students to learn new knowledge (Schirmer, 2000). The job application letters, prepared by the students, have been placed in the job application portfolios. They are told that it was necessary for them to write the letter anew according to the work that they would apply for after the graduation.

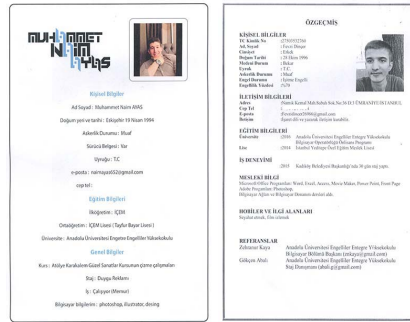


Figure 7: CV Examples



Figure 8: An example for Job Application Letter

Preparation Process for Reference Letter

The information such as “What is a Reference Letter?”, “How is it written?” and “Who writes them?” have been studied on at language arts courses. Homework is given to the students being supposed to ask reference letters from the persons, who may be a reference for them (Figure 9). After the reference letters, taken from the teachers of the vocational courses and workplaces where they may have done internship, were examined and approved, they have been placed in the job application portfolios.

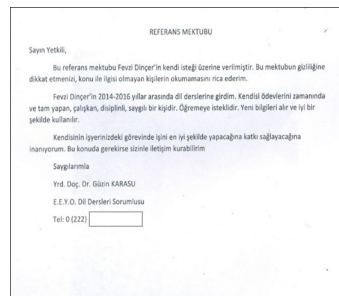


Figure 9: An example for Reference Letter

Preparation Process for Other Documents

The decision of what other documents that will take place in the Job Application Portfolio may be again has been determined together with the students at the Professional Language and arts language courses (Asselin, 1999; Schirmer, 2000). It was also resolved again together with the students on the requirement of the inclusion of the documents clarifying the states of impairments since the students were the hearing impaired, and the health report showing the degree of impairment, audiogram showing the degree of hearing, diploma, transcript indicating the courses taken and certificates so awarded have been determined for each student and procedure and placed in their files (Figure 10). The files have been examined in the courses and with appointments, given to the students out of the classes and by doing so, the study for the completion of all files was realized.



Figure 10: Other Documents

Following the completion of all documents, the “Job Application Portfolios” of the students have been prepared (Figure 11). The graphic students desired to use the designs, made by them while they prepare the cover letter and curriculum vitae, and have created their own files.

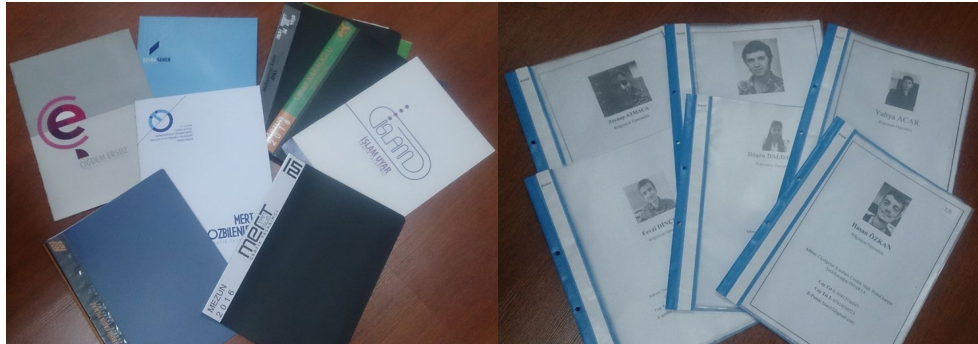


Figure 11: Job Application Portfolios

Job Interview-Simulation Activities Process

A “Job Interview-Simulation” activity for application and acquirement of experience has been made at the planning and evaluation meetings in order to use the files so created in an effective manner. The information pertaining to the job interview has been shared with the students by way of presentation in the Professional Language courses. The questions, asked in the job interview within the course process and possible solution thereunder have been discussed. A job interview-simulation has been made with the scenarios, prepared in advance, in order to ensure the permanence of the work so made (Figure 12). The scenarios have been developed in a manner of defining the workplaces looking for employees in certain qualifications, carrying out works with relation to the professional field of the student and ensuring the students to make application for this work. A different scenario has been developed for each department. The students are requested to prepare necessary documents in order to apply for an employment within the direction of the determined scenario and come for the interview. The courses and studies, made within the activity process have been presented in the Table no. 6. This is the preparation of the work for the product activation by the activity as a poster/film.

Table 6: Job Interview-Simulation Activities Lessons

Departments	Courses	Date
Architectural Drafting Associate Degree	• <i>Professional Language for Architectural Drafting IV</i>	20/04/2016
	Job interview presentation. Job interview questions and answers. Job interview practice.	
	Sample scenarios were given. According to the scenario, job interview-simulation was done. Feedback was given to the students after the simulation.	
Computer Operator Training Associate Degree	• <i>Professional Language for Computer Operator Training IV</i>	06/04/2016
	Job interview presentation. Job interview questions and answers. Job interview practice.	
	Sample scenarios were given.	
Graphic Arts	• <i>Professional Language for Computer Operator Training IV</i>	13/04/2016
	According to the scenario, job interview-simulation was done. Feedback was given to the students after the simulation.	
	• <i>Professional Language for Graphic Arts VIII</i>	12/04/2016
	Job interview presentation. Job interview questions and answers. Job interview practice.	
	Sample scenarios were given.	
	• <i>Professional Language for Graphic Arts VIII</i>	26/04/2016
	According to the scenario, job interview-simulation was done. Feedback was given to the students after the simulation.	

At the end of job interview-simulation activity activation, a feedback has been given to each student and class whether they are offered or not an employment with due grounds for it. How to behave in what case and how to speak to the persons related thereto and their causes have been dwelled upon and it has been explained that why the students makes the things and what is the reason for it. These explanations, realized as upper-cognitive, supported to the permanence of the information (Joseph, 2006). All of the students have taken part in the activity and said that they benefited from it (Application video records, student diaries.)



Figure 12: Job Interview-Simulation Activity

The products of the “Job Application Portfolio Preparation and Job Interview Simulation” activity have been shared with all students at the end-of-year SfH exhibition. The exhibition representation of the process has been realized by the students of the Graphic and Architectural Drafting students by the use of computer application where they have learned at vocational courses and design information as a poster. The computer students, however, told about the process as a film by the use of the computer software, learned at the vocational courses (Figure 13). The students in the realized activity has transferred the professional knowledge that they have learned in vocational courses and seen how the knowledge that they learned in the course is used in a real product. This case is important from the point of view of the permanence of information. The language and design arrangements of the prepared poster and film works have been worked on both a group and individual basis in the professional language and arts language courses (Kolb, 1984; Schirmer, 2000). It is aimed to strengthen the learning by the students by the feedbacks, given within the arrangement work period.



Figure 13: The end-of-year SfH exhibition: Career Planning Presentation

Conclusions

It is indicated in the literature that the repetition of the knowledge, learned by the students at the classes through experiences, their use of the same in meaningful contexts and sharing the studies so made with their fellows make a positive contribution to their learning (Schirmer, 2000; Uzuner et al. 2011). The research is a study that is informative, bearing objective for application and based on experience (Isaacson & Brown, 2000; Kolb, 1984; Schirmer, 2000; Sharf, 2006). It has been determined that the provision of opportunity by the research to use the vocational knowledge and transfer of the knowledge, learned by the them (students) into a real product and telling their teachers about the studies carried out by the same, provided positive contribution to the vocational knowledge and skills of the students with relation to the subject matter thereof.

Provision of active participations of the students in the activities, indication of their opinions with relation to every activity in writing, conduct of individual studies with the students, viewing of the use of files, prepared by them, by the students at a media, created by way of activation, realization of the courses through the use of all components of the language and their metacognitive and interdisciplinary studies have increased the affectivity of the study in the activities so materialized.

It has been understood within the direction of findings, acquired from the interviews, diaries of the student and instructors, videos of the courses and records of the planning and evaluation meetings that the career perceptions of the students towards graduation have developed and they acquired knowledge about application for job and had

courage on the job interviews.

In the research, the communication is still continued even after the graduation of the student. Various planning are made for the systematic collection of the monitoring data. At the same time, various meetings have been realized with the focus students, graduated within this process, through e-mail Facebook, WhatsApp and on face-to-face basis. The feedbacks having come from the students are in nature of supporting the results and affectivity of this research. In the meeting, made with M.A., who is a Graphic program graduate and got a job, he indicated that he had applied to the organization where he was employed at that time through a "Job Application Portfolio" that he had prepared within the research process and given answers to the questions asked at the job interview and that the experiments, experienced at the activation process assisted him at the activation process and did not experience too much experience as a result of activation activity, made at the class (History Researcher Diary, 2017).

When the works have been exhibited at the end-of-year exhibition, made at the end of 2015-2016, the lower-class students asked about when they will acquire this knowledge and prepare files for themselves. This case gives rise to the thought that the presentation of the study so made to the SfH raises the career awareness of other students apart from the graduated students.

The research has been supported by the SfH management. Within this scope, a study of adding the awareness studies to the contents of the Professional Language and arts language courses has been carried out and new contents have taken their places at the catalogue of the educational year of 2017-2018 upon approval of the school Director. The provision of support by the Director of the SfH, existence of a researcher from the research team at the management cadre and availability of courses that will be able to place the career awareness matters in the SfH course programs have provided ease in the conduct of the research. The research has continued in the (educational) year of 2017-2018 with the inclusion of all programs. The study is continued on by the expansion of activities and addition of new activities. It is thought that the study so made will provide a point of view to the lawmakers, managers and teachers working in the vocational education of the hearing-impaired individuals. The study may be repeated by the addition and development of new activities, it is possible to suggest the use of the activities in the vocational education at the secondary-education stage the same as the vocational high schools.

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Learning Difficulties In Students Of The 3rd Year Of A Public School In The State Of Alagoas, Brazil: A Vision Of Psychoeducation

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Abstract

This article seeks to analyze learning difficulties in students of the third year of schooling and to relate some sociodemographic, family and school factors that contribute to failure rates in elementary education in a school in the state of Alagoas, Brazil. A quantitative, exploratory-descriptive study was carried out on a sample of 178 students from a public school. The results indicate that one third of the students live with only one parent and the same percentage say that the family environment is bad or very bad. More than half of the parents (53.4%) do not help their children in studies or homework and 41.6% of the parents do not have education.

With our study we found students with high failure rates as 26.4% have already failed and 42.6% of these have failed twice and 36.2% have failed 3 or more times. Educators should reflect on these rates and on the influence the family has on children's learning and takes appropriate actions as poorly structured, uneducated, and uninvolved families influence the failure of students.

Introduction

The problem of school success/failure is transversal in all levels of education, in all institutions and has always been a concern both for the school and for families and other entities involved in the school environment.

Several studies have addressed the issue and multiple factors are identified as being related to school failure, including psychosocial, family, cultural, political and economic factors.

If in a more advanced degree of studies, social support is more directed to the peer group, at an earlier stage, such as elementary education, the role of the family becomes essential in promoting the education of children.

Entering school generates changes in the child with the adaptation to different environments and contexts, with the relationships with the teachers and colleagues, with the habits and lifestyles of the students. The family plays a fundamental role in the children's school performance, both at home and in school relations, for the accompaniment and active involvement that it should have in educational projects. The school, in turn, should involve the students' families in school activities and in their educational projects, making them a stimulating factor for learning.

Alongside the school, the family has an important role in the teaching/learning process and in addition to the support they can give at home in the students' school tasks, their presence at school in meetings or accompaniments leads them to become aware of their children's school life. This approach helps the school to be aware of the difficulties and concerns of the parents and, on the other hand, the parents are led to take an interest in the school activities and assume greater responsibility in the teaching and learning process of their children.

We know that this relationship isn't always easy or simple, but it is an effort worth investing in. Several authors have concluded that it is only possible to achieve good levels of success and prevent school dropout if there is a good relationship between the school and the family (Peixoto & Rodrigues, 2003; Jacinto, 2006; Spoth, Shin & Randall 2008; Topor et al.

Family interactions and the affective environment are stimulating for the development of the child, but in today's society we see rapid changes that can lead to instabilities in the families with consequences on the education and accompaniment of the children. Today's families have undergone profound transformations, sometimes with weak structures, with changes in family functionality and living in circumstances that are not conducive to this relationship with the school.

Often the school demonstrates that it has no responsibility and assigns the problems that it faces only to the family, which in turn hopes for solutions and believes that it should be the school solving the problems. This way, the school attributes the student's academic failure to the influence, or lack of influence, of the family, diverting attention from what the school can do to solve the problem, such as, for example, in relation to student learning, rules and discipline.

The causes of school failure are varied and may depend on factors endogenous and exogenous to the school. In the first case are the socioeconomic and cultural characteristics, the profession and the qualification of the parents and caretakers, the type of habitation in which they live and the distance to the school. Exogenous factors include professional qualification and preparation of teachers, institutional conflicts, interpersonal relationships in school, management of classroom activities, existence and availability of teaching equipment, physical and material conditions and structures.

Constâncio (2013) refers to a survey conducted by UNESCO on the profile of public and private school teachers throughout Brazil, which revealed that most teachers have a precarious academic background, which is a determining factor in the educational process. The role of the teacher and his/her characteristics is recognized as one of the main factors that influence the students' learning in school. Veloso (2011) emphasizes the importance of teacher education because as agents of transformation they need to have a solid, ethical and mainly continuous scientific basis, since they receive children from several family and social environments with different sociodemographic situations.

It is up to the teacher to analyze the particularities of each student and, when perceiving any disturbance related to learning, provide actions to minimize the problem. The teacher can instruct the family to seek specialized health professionals, acting in a complementary way between the school and the family, with this preventing major disorders.

We reinforce the importance of the teacher creating situations involving content and social environment that arouse the interest of students, especially those who cannot connect to certain subjects related to learning. Capturing the attention and interest of these students is a great challenge, which can be favored by psychopedagogical actions such as knowing each student, each family and the social environment.

The academic failure of some children may be linked to learning disorders. Psychological disturbances cause several academic problems to some children during their schooling journey, more precisely in languages, writing and mathematical calculations.

Carrera's studies (2013) address learning difficulties as a low school performance related to the age of each individual and also indicate that such difficulties may be related to speech, hearing, reading, writing and mathematical reasoning. The term can be applied to children with a normal Intellectual Quotient (IQ) but with sub-achievement in some subjects. These difficulties can manifest themselves in several ways: dyslexia, dysgraphia, dyscalculia, attention deficit, hypo or hyperactivity.

Martins and Figueiredo (2011) affirm that there is not only one single cause for learning difficulties because they must be understood from a multidimensional perspective. According to Lopes (2005), the causes of learning difficulties may be multiple and there may be interaction between them, being able to be grouped into neurophysiological, psychological, sociocultural and institutional factors.

The teacher must bear in mind that each child is unique and learns differently from the other, respecting the time and level of learning of his student, acting in a conscious way and contributing to the development of students' potentialities and autonomy.

It is necessary an early diagnosis to identify learning difficulties in children and to guide them to specialists in the area. In this context it is considered of great importance the role of a psycho-pedagogical professional since it is necessary to have a special vision of the practice of the teacher in the classroom, in the relation of the student with the knowledge and learning and an evaluation of the clinical aspects that can interfere in the learning of the student. This discipline emerges as a link between psychology and pedagogy, between the part of affective and intellectual development seeking to improve learning. According to Souza and Vasconcelos (2012, p.54) "the psycho-pedagogue is a professional who can help students cope with their circumstantial learning difficulties, understand the school process and discover (or rediscover) their potential". Cruvinel (2014, p.96) quoting Bossa, says that "clinical psychopedagogy seeks to comprehend in a global and integrated way the cognitive, emotional, social, cultural, organic, and pedagogical processes that interfere in learning in order to enable situations that rescue the pleasure to learn in its entirety". In his intervention in problems of conduct and learning, he seeks to include parents, teachers and specialists in the educational process, through meetings, enabling the monitoring of work with teachers.

The psychopedagogue seeks differentiated methodologies to be worked on with teachers and with these students. The importance of promoting the self-esteem of these students is valued, as well as the motivation for learning by directing the content to its surroundings giving priority to what the student already knows, so that he/she feels pleasure in learning and feels able to learn.

The Study

The relevance of the research arises from the knowledge we have of the reality lived in the day to day with the difficulties of learning that we find in students of the third year of schooling. Our study aims to identify areas of learning difficulties in the curriculum component of portuguese and mathematics and to analyze the relationship of sociodemographic, family and school variables with learning difficulties.

We conducted an exploratory-descriptive, quantitative and correlational study in a sample of 178 students, 3rd year, in a public school in Taquara, Alagoas, Brazil. We used a questionnaire to characterize the socio demographic and scholastic characteristics of the students and a scale of formal evaluation of the learning used in the school to evaluate the portuguese language (orality, reading, writing and production, linguistic analysis) and mathematical evaluation (numbers and operations, space and form, magnitudes and measures, information processing).

To carry out the study, authorization was requested from the school, the questionnaire was filled out by the class management teacher. The application of the scale for the formal evaluation of learning has fulfilled the schedule

foreseen in the school year. The students were informed and invited by the teacher to collaborate on the answers to the questionnaire. Respondents' anonymity and confidentiality were guaranteed, and the teachers completed the answers in the questionnaire. The application of the questionnaires was carried out during a class in its normal timetable.

Findings

The participants were mostly male (55.6%). The ages vary between 8 and 14 years old with an average age of 8.53 years, distributed in 6 classes (3 morning and 3 afternoon) in which the smallest has 25 students and the largest has 35. There were 69.1% of students were 8 years old, 18.5% were 9 years old and 12.4% of the students were 10 years or older.

It takes an average of 20 minutes for students to get to school. We found that 34.3% lived with single parents, separated divorced or widowed. About a third of the students (31.5%) report having very bad, or bad family environment and there are classes where this is more evident.

41.6% of the students' dads and 37.1% of the mothers do not have education. 53.4% of the students reported that the parents did not help in their studies or homework, a fact that is related to the parents' lack of education.

26.4% of the students have been held back at school (failed). Out of the students who have failed, 42.6% have failed twice and 36.2% have failed 3 or more times. The failure rates are high but, at the school where this study was developed, no one is held back a year (fails) until the 3rd year of school (except by absences) so many students reach this stage without the knowledge and performance required for the 3rd year. The subject of reproaches has already been debated with arguments in favor and against, and in this situation, we find many of the held back are unmotivated students and classes with large age differences which is disturbing in peer relations and attitudes regarding school.

The learning difficulties in portuguese were evaluated in four parameters. In orality the greatest difficulties were found in the presentation of ideas in a clear way and in the adequacy of the discourse. In reading the greatest difficulties were in the recognition of sentences and in the reading and comprehension of texts. In the writing and production of texts, they showed more difficulty in ordering and organizing the text, in the construction of text with correct punctuation and in the revision of texts with coherence. In linguistic analysis the greatest difficulty was in the recognition and use of orthographic rules.

The learning difficulties in mathematics were also evaluated by four parameters: numbers and operations; space and form; magnitude and measures; treatment of information. With regard to numbers and operations the greatest difficulty was in identifying operations to solve problems (addition, subtraction, multiplication and division). In space and form the difficulties were smaller, in the greatness and measures they felt more difficulty in interpreting problems using the monetary system. In the treatment of information, the greatest difficulty was in the elaboration of tables and graphs and in their interpretation.

The learning difficulties in portuguese and mathematics are greater in the older students, male students, who have already failed more than once and with histories of behavioral problems and with a bad or very bad family environment, and who do not have help at home with homework.

We noticed that the positive data came from students with married/living together parents who presented good/very good family environment, who organize themselves to help their children with homework. Most of these students did not have difficulty in performing the tasks proposed in the evaluations.

Conclusions

We found that our results pointed to some groups with higher learning difficulties due to some variables, among them are those students with history of failure, older students with a distortion in age/year of schooling, male, living in poor / very poor family environment, with parents with low level of education who do not offer help in tasks and homework. We also noticed that the opposite occurs with the other groups, those students who live in a good/very good family environment, married parents or together in a stable union, who have never failed and who receive help in tasks and homework, follow their cycle of learning at the indicated age and without many difficulties for the appropriate class and year.

We found that parents were poorly involved in their children's school life, not helping them in school tasks or encouraging them to study. Family caring about the learning of their children is of fundamental importance for a good school development of the child and many of the problems emerge from the existing relationships in the family.

There is a need to attend to the structure and phases of psychological development as there are classes with large age differences among students and with several held back students that require individualized and continuous care to proceed. Due to the need to attend to the dimension of affection in learning and to the sociocultural origin of the students and the problems they live with the families, in our opinion, the existence of a psycho pedagogue in the school team, is justified.

It is necessary to raise awareness of all those involved in the learning process, since many causes contribute to the development of learning difficulties and can appear in any child, regardless of the social stratum to which they belong.

The results obtained are of great importance and show that we should invest more in the study of this subject and identify the learning difficulties in this area and at this level of education, because it is about preparing the women and men of tomorrow.

The pedagogical project of the school should be open to family participation and it should also organize joint and complementary actions in order to enhance student learning and lead to a better perception of families by teachers so that they can understand the children and some of their behaviors in a better way.

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An Evaluation On Foreign Word Use: “Eti Wanted” And “Casper” Tv Advertising

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Abstract

When the relationship between language and advertisement is studied, it is clear that it shares a bond of being social and the biggest reason it is integrated is because they are each living entities. In order for both language and the concept of advertisements to remain vibrant, they have to be dynamic. The information age, human needs, and the advances in technology are signs that the period of change that is taking place in language and advertisements will continue. Naturally, as a result of this change, the relationship between language and advertisements will become stronger because language is the most effective means of communication and because in order to have an impact on society, advertisements have to use this important tool carefully. When it comes to being close to societies, it can find these opportunities through channels like television, the internet, social media etc. Advertisements, which influences societies; and as a result, cultures; has brought important issues along with it in its attempt to adapt to this change: Using Foreign Words.

The existence of foreign words that are used as a result of the desire to be like the West and which attempt to form an impossible integrated language through a different kind of jargon (broken language, slang), have influenced society. These words that we hear frequently on TV weaken language, which is considered a conduit of culture, by destroying the functionality of it. In this study, advertising copies have been studied linguistically and the effect of these foreign words on the language-culture bond has been analysed.

Key Words: Culture, The Turkish Language, Advertising, Advertising Discourses.

1.Introduction

As an important part of culture, language, which appears to us in various definitions; also appears to us as a factor that allows us to perceive and understand not only the present but also the past. Language, which could also be taken into account as a conduit for culture, provides many precedents regarding the mentality, structure, and lifestyle of the speakers of it. According to Uçok, since words are the building blocks of thought and since language is formed of words; then words are a creation of the minds of communities and a term that is given to the thought process of people. Language, is a social systematic whole, which allows us to convey our feelings and thoughts and which connects generations (Üçok, t.y.). As for culture; although it may be considered as all that humankind has created, it actually is the unique way in which each society lives, thinks, and behaves. The social behaviours and technical institutions belonging to a certain society are what make up ‘culture’ (Kafesoğlu, 1998; Göçer, 2013). Language unity is one of the main factors that a nation is made up of and just as we can attribute the existence of a society to language, we can also attribute its extinction to it. The famous philosopher Confucius emphasized the importance of language for a nation and its existence by saying, “... If I were to rule a country, the first thing I would do, undoubtedly, is to have a look at its language because if language is flawed, words cannot express thought properly. If thought is not expressed properly, then duties and services cannot be carried out as they should be. In places where duties and services are not carried out properly, norms, rules and culture breaks down. If norms, rules and culture breaks down, justice will lose its way. If justice loses its way, the dumbfounded people will not know what to do nor what awaits them. And it is for this reason that nothing is as important as language! (Trans. Başçetinçelik, t.y.).

While language and advertisements are two unseparable components, in today’s world advertising activities grow day by day. The biggest proof of this however, is the frequency in use of mass-communication mediums. Advertisements, which exist through language, is defined as the introduction of various goods, products, and services to target audiences and consumers for a determined fee. This is done via different channels like TV, newspapers, radio, billboards, magazines, the cinema and the internet. Advertisements, which are crucial to marketers, is aware of the fact that it needs to be engraved in people’s minds by the masterful use of language. It also makes full use of all the boons of language, knowing that language is the most important communications medium. Advertising, which is a motive mechanism and which needs new ideas and strategies, can have both positive and negative effects on consumers. Thanks to adverts, which consumers watch carefully; new things are learnt, all kinds of information about the product is gleaned, and information about the variety and brands of goods and services is acquired (The Ministry of Education Family and Consumer Services, 2012). However, apart from this positive aspect; advertising discourse, which builds the power of words by uniting them with the structural reality of language, affects language-the most valuable treasure of a nation- to a high degree and causes the structural integrity of the language to be damaged through the use of foreign words, slang and mispronunciation. When this case is studied linguistically, it proves that in advertising discourse, language is in the process of being polluted. As Mengü translates from Lull; “Individuals almost play with language. They shape it, exploit it, discover it, add various accents to it and sing with it. Therefore, while language truly constructs communication awareness

and functions as a glue that brings cultures together by forming common areas of meaning, it does not determine thought or behaviour. Language is a resource that enables the construction or deconstruction of culture” Lull, 2000; Trans. Mengü t.y.). Advertisements weaken language with the foreign words it harbours. Advertisements, which enable intercultural interaction however, frequently employ foreign words in their slogans. Foreign words, which are especially used despite the existence of their Turkish equivalents, become embalmed in the language after a while and the Turkish equivalents become obsolete. When language, which has its own rules and which can only develop within the framework of these rules; used in advertisements are studied; one observes that it disregards Turkish Grammar rules and Turkish vocabulary.

2.The Language, Culture And Advertisements Relationship From A Linguistic Perspective

Linguistics, which is a science, analyses languages in terms of grammar, phonetics, syntax etc. It also analyses words in terms of structure and meaning and it also involves pragmatics, which studies the relationship between speech acts and the people that comprehend them. Pragmatics is based on the context of language and what words signify to us. Vardar, who adapts Saussure’s timeless ‘Course in General Linguistics’ to the modern day, states that Saussure has created a universal epistemology. And that by creating a linguistic method, Saussure has approached language as a network formed by meaningful units or signs, which enable understanding and communication on various platforms. Vardar also states that Saussure places language within this framework. Thus, as Saussure puts forward, wherever there is meaningful units or signs that is where the linguistic method will prevail. This is because language is the most systematic and perfect medium compared to similar communications mediums. Linguistics offers the most appropriate theoretical framework that can be drawn on in explanations and the most practical approaches towards these kinds of phenomena (1998).

Linguistics is the study of things related to humankind. It approaches things from different perspectives and is in close contact with the other fields of humanities. All scientific methods that are approached from different perspectives prove that language is a system of systems. Saussure, who draws attention to the fact that semiology is on a social level, is the source of the understanding of signs in linguistics in the 20th century. He envisaged semiology as «a science that studies the life of signs within society». The Swiss linguist states:

“Semiology would show what constitutes signs, what laws govern them. Since the science does not yet exist, no one can say what it would be; but it has a right to existence, a place staked out in advance. Linguistics is only a part of the general science of semiology; the laws discovered by semiology will be applicable to linguistics and the latter will circumscribe a well-defined area within the mass of anthropological facts. Language is a system of signs that express ideas and is therefore comparable to a system of writing, the alphabet of deaf-mutes, symbolic rites, polite formulas, military signals, etc. But it is the most important of all these systems” (Trans. Barthes, 1979).

Apart from this approach, we encounter various works that follow different paths. It is also possible to come across more complex approaches other than Saussure’s semiotic/structuralist approach. Those that study the various connections between logic and language and metalanguage that enables us to achieve scientific knowledge from semiology, wait for the formation of conceptual sign systems. In this respect, the works of scholars like R. Camap, B. Russell, E. Cassier, A. Tarski as well as of Ch. Morris, come to mind (Barthes, 1979).

While linguistics studies these aspects of language, it also brings certain branching with it. According to Üçok, linguistics is a discipline that makes a comparison between all the signs in a language or language group and compares them to their form in other languages. It also draws conclusions from these manifestations. Thus, it is made up of many disciplines and deals closely with many of them. Since words come into existence through phonetic symbols, linguistics is a physical discipline (Üçok, t.y.). It has ties to many disciplines and has many subdivisions within itself. It has come into existence via humankind; it has feed all expectations and disciplines regarding humankind and has embraced social unity. It is as important as the importance of society since it is a cornerstone of the formation of society. It is a sign of humankind’s current and future existence. As a result, we would not be too wrong in claiming that it is the creator and the beginning of humanities. Sound formed words and words formed sentences, thus, language was able to be formed. This shows that linguistics is a physical science (Üçok, t.y.).

“Language is a nation’s most valuable commodity. Words are a language’s smallest unit as are sentences in speech. Since language individually connects each individual in society and since it is a bond made-of-steel left by our ancestors, then the traditions and mind-sets – in short – the cultures of communities are expressed in the languages of those communities. Thus, a nation’s language is one of the most reliable historical sources of a nation. It is a mirror on history. The fate and history of language unity

manifests in language and the transformations in language are nothing but a reflection of changes in that nation's history" (Üçok, t.y.).

The fact that linguistics studies languages in terms of grammar, phonology, syntax etc. and that it studies words structurally, meaningfully and performatively has been mentioned above. As a result of the works of many linguists, it has started to be studied in small units. Thus, by theorizing it, it is now easier to analyse. Roland Barthes is one of these people. He has published work in many areas such as the problem with ideology, the concept of a sign, the formation of a text, intertextuality, the importance of the process of reading, the gratification of a text, the difference between visual signs and verbal language, love, fashion, music, and movies. He has thought upon and in turn made others think upon all kinds of texts ranging from music to advertising copies. His aim is to form a link between linguistics and all other sciences, to continuously reproduce dominant meanings and correlate them to social, historical, and political events (İnal, 2003).

Barthes analysed all forms of linguistic and non-linguistic sign systems used with the purpose of communication as well as their communicative functions. He focused on what Saussure had skipped through the 'connotation' language model (İnal, 2003). Language is part of culture and it is possible to mention a 'connotative' language model when the effect of culture and language integrates within the individuality of signs. Connotation can be another set of signs in instances when the sign is not clear (Barthes, 1979). Naturally, this can only be explained through the cultural values of those using the language. In other words, connotation and myths are needed in order to understand and give meaning to the signifiers in language.

When the unbreakable link between culture and language, is looked at; in research conducted by Turkish language teacher candidates, which aimed, via metaphors, to find out the candidates' perception of the culture-language relationship; most of the 38 metaphors developed by the candidates turned out to be positive. As a result of the metaphors, it was realised that culture and language were inseparable and that language was very important in conveying culture into the future. The metaphors were grouped under nine categories and under the category 'whole-part relationship' it is touched upon how culture and language are two components that complete and need one another. Other than the 'inseparability' category, which denotes that these two terms are two main components that are intertwined, it also points to the fact that both act as 'mediums' for each other. Furthermore, the categories which draw attention to how they contribute to one another's efficacy in terms of 'functionality' and to the 'harmony' between them come into prominence (Göçer, 2013).

Advertisements, which display the relationship between culture and language for all to see, influence social culture especially through its use of language. Thus, it passes on all the details of the language-culture compound to the media. For example, Beer has been added to the McDonald's menu in Germany. In Chili, avocado is served instead of ketchup and mayonnaise. In another country, boiled rice is on the menu. And the doner kebab pizza at Dominoes pizza is perceived to be something that "only a Turk would do" (Serttaş Ertike, 2010). Then the thing that is wanted to be explained through all these practices is that language-culture and advertisements are values that are closely affiliated to each other.

3.The Use Of Foreign Words In Advertisements

The most effective factor in the magnificence that advertisements awaken in us is the language employed. If one takes a look at the different definitions given to advertisements, one can see that advertisements, which are important for both business managers and consumers, are an important medium of communication and an essential part of marketing communications (Serttaş Ertike, 2010).

"Advertising is a sector that is gradually growing in terms of its dimensions and costs. Furthermore, on the market also, businesses rapidly producing similar types of products and services are offering consumers many different products and services that are similar to each other and that can be substituted for one another whether it be in terms of mass-produced goods or services. Thus, its sole aim of transforming the market into an arena of competition was not too difficult to accomplish" (Topsümer ve Elden, 2015).

David Ogilvy, an important name in advertising, wrote down the rules of advertising in his works. Ogilvy, noted for his successful work in advertising, is as good a writer as he is an advertiser. Who especially draws attention to advertising copy penmanship, offers people that want to work in this area 10 pieces of advice on how to be a good advertiser and advertising copy writer:

- Read the Roman-Raphaelson book on writing. Read it three times.
- Write the way you talk. Naturally.
- Use short words, short sentences and short paragraphs.
- Never use jargon words like reconceptualise, demassification, attitudinally, judgmentally. They are hallmarks of a pretentious ass.
- Never write more than two pages on any subject.
- Check your quotations.
- Never send a letter or a memo on the day you write it. Read it aloud the next morning—and then edit it.

- If it is something important, get a colleague to improve it.
- Before you send your letter or your memo, make sure it is crystal clear what you want the recipient to do.
- If you want ACTION, don't write. Go and tell the guy what you want (Trans. Bişkin, 2011).

He especially notices the prominent mistakes that cannot go unnoticed and that are made beforehand and makes references to new generation advertisers. His ideas, write the way you talk, naturally, use short words, short sentences and short paragraphs and never use jargon words... They are hallmarks of a pretentious ass can be used to refer to the advertising going on in Turkey today. Similarly, the phrase "Everything stated in the text must be of value" acts as a warning that a lot of things stated in advertisements in today's world should not be employed. Mengü also puts forward the power of words in advertisements when she writes "advertisements are created through the combination of verbal and visual factors. Advertisement copy is not only comprised of signs, pictures, brands and all the visual factors; but it also includes sound and music. Thus, besides these factors, the slogans, catchphrases, and words used in advertisements become more prominent and the other factors more passive" (Mengü, t.y.).

In advertisements, these effective words are selected and used artfully. Advertisers especially, have equated advertisements with language and thus have provided marketing with the opportunity to flourish. It is obvious that both concepts are inseparable and that they are significant in terms of being a part of society. As they are both living things, they are integrated with one another. In order for the concepts of both language and advertisement to remain strong, it is necessary that they be open to change. Like the developments in globalisation, the information age, human needs, consumer trends and technology, language and advertisements experiences change very quickly. During this period of change, the mistakes in Turkish made in advertisements were recorded by The Association of Advertisement Creators (Reklam Yaratıcıları Derneği); and the use of foreign words in mass-communication tools was deemed the number one mistake (Türkçe Bilgisi, 2010). Today we can see that the names of many shops, radio stations, and TV channels are not Turkish; in fact, the names of individuals are also being chosen from foreign words and it is clear that the idolisation of the West increases day by day. These words, which we hear due to the idolisation of foreign words, do not disturb Turkish people. This situation that we face is trying to be normalised.

4. Purpose And Method

The use of foreign words, which is at the top of the list of mistakes made in the Turkish language, shall try to be shown via the analysis of advertisements slogan such as "*Wantedla Wan Wantedla*" and "*Layka Layk*". The fact that these uses form a threat to national unity shall also be attempted to be shown. In this respect, the first advertisement that will be analysed is the Eti Company's (a company in the Turkish food industry since 1962) "*Wanted*" chocolate advertisement. An analysis of the television advertisement of the "*Wanted*" chocolate brand, belonging to Eti, was conducted. The next advertisement that we will be analysing however, is the "*Atara Atar, Layka Layk*" (a slight for those who slight you, a like for those who like you) advertisement work of Casper, which is a Turkish brand known throughout the world and which manufactures computers and computer accessories. In the study of the effect of alienation on advertising language the existence of foreign words in the two advertisements that have been analysed has not gone unnoticed. Furthermore, the fact that phrases like "*Wantedla*" and "*Layka Layk*", which are used in the advertisements, are actually the English words "*like*" and "*wanted*" and that they have been transformed in an attempt to adapt them to Turkish, also, has not gone unnoticed.

5. Findings

5.1. Wanted TV Advertisement: "*Wantedla Wan Wantedla*"

A girl sitting in a park about to eat her "*Wanted*" chocolate is met by "*wanted*" girls and they start to sing. They tell her that she need not be coy and that she has the aura of a "*star*".

Girls: The spotlight awaits you, stop being coy. There's no need for you to be reluctant-t-t-t-t. You have the aura of a star-r-r-r-r-

"WANTEDLA WAN WANTEDLA"

"WANTEDLA WAN WANTEDLA"

After hearing these words from the girls, the girl eating her chocolate believes in herself and gets up on stage. Thinking herself her star, she starts to sing. She makes all on stage get off, grabs the microphone, and sings with an awful voice. As she sings, the people around her cover their ears and run away. Then the narrator begins:

Narrator: We cannot give you all you want in life; however, we can give you all you want from a chocolate bar. Crunchy, round, new "*wanted*". Just "*wanted*".

What is trying to be conveyed in the advertisement is that those that eat the "*Wanted*" chocolate bar emit the aura of a star and that eating the chocolate bar gives them courage. The girl in the advertisement eats her chocolate bar and despite her bad voice, by getting up on stage she shows courage. The foreign words in the advertising copy are "*star*" and "*wanted*". There is a Turkish equivalent of the word star and it is "yıldız". The meaning of

"*Wanted*" speaks for itself. In spite of there being Turkish equivalents of these two English words, Eti, a company of Turkish origin, chose to use foreign words in its advertisement.

Furthermore, Eti, who used the slogan "*Wantedla Wan Wantedla*", added a new mistake to language use. The English word is combined with the Turkish verb "-la, -le" to make the new verb "*Wantedla*". The name is transformed into an action. The resulting word is confusing and meaningless. When examined from the point of view of discourse and linguistics, it is seen that the structural rules are violated by emphasizing the variability of meaning. The advertisement produces a mixed and unintelligible word by adding a new one to the language usage mistakes.

The popular culture especially stands out with the dream of being a "star" when it is spoken to young people and encourages them. If we go out of Barthes' model, we live in an age where everyone has the chance to become famous by using consumer practices and media. Especially the fact that Instagram is viewed as a magazine program by young people and the number of rising followers reminds the following "phenomenon" status: "One day everyone will be famous for 15 minutes" (Andy Warhol).

Therefore, without doing anything (without have a professional voice as a singer, without talent as an actor) occur an argument "be celebrity" and in this way "celebrity culture" is reproduced. This ad, which leads to language pollution (implicitly) by mistakes, indirectly opens the way for cultural degeneration.

5.2. Casper TV Advertisement: "*Atara Atar, Layka Layk*"

A band starts to sing in the street. Along with the other guys in the band, a young guy with a guitar is explaining, through song, that we should not get too hung up on things in life. Those in the street on the other hand are tapping their feet to the beat of the song. Then they start recording with their electronic devices and share the video on social media. The video quickly becomes viral. People watching the video at home, at work and on the road like the song and start to smile as they also tap their feet to the beat. And of course, all the while the jingle continues to play.

Young guy: Three, two, one (smiles and points) anddd...

Song: If you think it's not going to work, then don't bother. You mustn't let it worry you in the slightest. If you think it's not going to work, then don't bother. Don't worry about it all at all. Respond to a slight with a slight, to defiance with defiance, to a layk (like) with a layk. Respond to a slight with a slight, to defiance with defiance, to a layk (like) with a laykkkkk!

Reprise: Three two one! Respond to a slight with a slight, to defiance with defiance, to a layk (like) with a layk!

Narrator: As time passes and changes, a Casper is always in your life. It's your Casper! Own one or not. Casper. Your life. Your technology.

In its advertisement, Casper, a Turkish company, has determined young people interested in technology as its target demographic. The efficacy of the advertisement was more profound due to its use of fun young groups of people. Casper, which sells computers and their accessories, put all its products on display in this advertisement. This advertisement, which especially draws attention to how easily the conduits of social media can be used on Casper, has frequently used the word "*like*", which entered Turkish due to social media. By being used as "*layk*" in the advertisement, it has added another dimension to the language. Just like the "*Wantedla Wan Wantedla*" phrase used in the "*Wanted*" advertisement, the phrase "*layka layk*" has no equivalent in neither Turkish nor English. It neither fits into the structure of English nor of Turkish. This noun phrase, which can only be analysed under the term 'Turkification', has started to be used by young people, who are active social media users; and has awakened in marketers, whose target audience is young people, the urge to misuse the Turkish language.

The existence of these words, which are used as a result of wanting to be like the West and then in turn try to establish an impossible unity with the language through a different jargon (broken Turkish, slang), influence society. By destroying the functionality of the language, these words which we regularly hear on television advertisements actually pollute the language and damage the language-culture bond.

The presence of these words, which are used as the end result of the admiration to the west and which are trying to establish a unity with a different jargon, infects the society. Especially in the social media where virtual identities are staged, the profile who are alienated to their own selves become a kind of image indicators (Güzel, 2016: 87). Thus, by erasing all functionality of the language, it is actually damaging both language and culture, also points to the concept of digital culture.

Along with the development of the digital media, a unique culture is formed and, with Baudrillard's age of the objects, the lost of reality is expressed in the semantic reading through Casper advertisement. The subject of the Casper ad is about young people breaking out from real life moving to the virtual reality. Accordingly, new concepts like "*taglamak, layklamak, hashtaglemek*" frequently used in our lives have entered our life together with the digital world. The technology that creates new words, new concepts and new communication networks also feeds the consumption culture. This culture is concretized by the fact that the young individual publishers in the social media become an object of consumption. Being traceable from one end of the world to the other leads to the circulation of new cultural products and values. Therefore, young people who admire the West can easily

distinguish and adopt new trendy Western words. For this reason, the advertising writers quickly and comfortably use the new conception.

6. Discussion And Conclusion

In this study's theoretical and conceptual part, the linguistic relationship between language, culture, and advertisements were mainly examined through the approaches of Saussure and Barthes and it was discovered that the foreign words in advertisements can in no linguistic way become integrated. These non-Turkish words, which have been used in the advertising copies that we analysed in terms of the semiotical and structural approaches of Saussure and Barthes, have their equivalents in Turkish. This proves to us that advertisements disregard the undividable unity of language and that their only aim is to dazzle the society that they want to influence by using colourful and unusual terms; and promote 'consumer behaviour'. Whereas in fact, the idea that advertisements will have a stronger impact through the correct use of language is evident when David Ogilvy states: "You cannot bore people into buying your product. You can only interest them in buying it." What is trying to be stated is the power of words. The importance placed on language's power to get things done. Through this power; advertisements, which are undoubtedly the most important factor when it comes to the consumer becoming acquainted with the brand, have introduced us to various terms in the name of impressing the consumer. And as it is these terms have become a part of our lives and show no likelihood of disappearing i.e. "Hi", "bye", "thanks" etc.

If we take into consideration the fact that consumers, who today form the target audience of advertisers, are being bombarded with communication and are only reacting to a few of the many messages sent to them, then it can easily be stated that a great deal of meticulousness and professionalism is needed in every step of the advertising process (Topsümer ve Elden, 2015). Advertisements, which develop different approaches in order to influence the target audience, have damaged language and sociolinguistics. These differences, which emerge as a result of wanting to be like the West, destroy both the structure of the language and the language-culture bond. Sociolinguistics is a linguistic branch that studies all the phenomena that are based on the cause and effect relationship of the components that form the intersection of all things existing in the name of language and society (Vardar, 2002; Güven 2012). Culture however, is the sum of the material and moral values, a life-style that manifests over centuries through a nation's interests, perceptions, attitudes and behaviours, and a memory that internalizes the codes of the life-styles fashioned by a nation for centuries; and has been conveyed from generation to generation like an inheritance (Göçer, t.y.). Language is what makes this conveyance possible and in advertisements this conveyance has led society to misconceptions.

As we also noticed in the advertisements we analysed, phrases like "Wantedla Wan Wantedla" and "Layka Layk" etc. have been etched onto minds and these advertisements have implemented methods, which influence society. Today if we know immediately which product a person is talking about just by repeating this phrases, then the power of advertisements on society cannot be disregarded. Since the advertising copies and slogans being used have become infectious, it is also clear to see that television advertisements have been successful in terms of interaction. Thus, perhaps language's importance, not polluting its structural properties, and making people aware in this area ought to be at the top of the duties and responsibilities of advertisers. As a result, meaningless foreign words that cannot be explained by any term due to the Turkish languages structure would not be used and the Turkish language will not be exposed to the danger of pollution.

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Access to Ads:

Wanted TV Advertisement: “Wantedla Wan Wantedla”

https://www.youtube.com/watch?v=28eAT0C_LeQ

Casper TV Advertisement: “Atara Atar, Layka Layk”

<https://www.youtube.com/watch?v=qzDhPYq3-Ag>

CONNECTEDNESS TO TELEVISION SERIES AND THE TENDENCY AS TAKING MODELS: SAKARYA UNIVERSITY EXAMPLE*

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ABSTRACT

It has almost been a century since television entered our lives. Leaving all other media behind, it has become the most popular mass media. The most important reason behind its popularity is that it brings almost everything we desire but cannot reach to our homes through a glass screen. Thousands of television channels all around the world create contents for almost every taste and interest group; and their number is gradually increasing. Owing to the broadcasting adventure in Turkey that shows parallelism with the developments in the world, televisions have become indispensable furniture in houses, offices and even in places of socialisation.

The place of television in our daily lives is important in terms of the time we spend and our habits of using this media. Television which has many functions such as entertainment, education, and informing is the most common and the most effective mass media. The way it influences our lives has become so dominant that we have started to plan our daily routine according to our fields of interests on television. Today, when designing a living room, the first problem to be solved is the place of the television. In the selection of furniture, television has become a reference point, which is an indication of the fact that in homes, we spare the most important and precious time for television.

There are many researches on what we watch on television which is placed in the centre of our lives. As the television rating results reveal, series are the most popular productions. There is a cut-throat competition among the series aired at primetime every night. The winners of this competition, at the same time, can be the winner of the rest of the day because people focus on talking about the popular series and solving the issues as if the characters are real. This interaction can be effective in their socialisation, shaping their lives and making decisions. This study scrutinises the series-watching habits of the university students through “TV Programme Connectedness Scale” developed by Russell, Norman and Heckler, and the reflection of these habits in the students’ daily lives has been analysed in the framework of Elihu Katz’s uses and gratifications theory.

Keywords: Television, series, audience habits, connectedness scale, uses and gratifications

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INTRODUCTION

As the societies enlarged and new forms of relationships emerged, the dimensions of communication have changed and developed. The means that transform mass communication into a systematics and interaction were once printed works; but due to technology, their scope and range, that is, their impact area has been broadened. As the electronic waves were turned into message transmitters, telegram transmission became fast and less affected by the geographical conditions; and paved the way for communication. Then, when these waves started to be received from many sources at the same time, namely, through radio waves, mass communication was irreversibly transformed. From then on, everybody got the chance to receive information from other parts of the world at home or at work from electronic boxes which gradually became smaller. Radio broadcasting spreaded world-wide at the beginning of the 20th century; and radio was placed in the seat of honour in homes (Harte, 2002, p. 12).

When images were added to the messages received from these boxes, humankind entered the renaissance period in mass communication. This story which dates back to 1930’s was also considered as hosting everything from other parts of the world in our homes; and this opportunity brought about new wishes and needs (Gray & Bell, 2013, p. 2).

As a matter of fact, television is not a basic need for a house like a washing machine or a stove; people can very well maintain their lives without it. However, at this point today, plans concerning the purchase of a television are made before considering many other needs of the houses, and even the designs of the rooms are determined by these choices (Cavendish, 2007, p. 9).

As the television adventure which was once black and white was coloured, and as the hours and consequently the variety on the screen increased, television started to be settled in the centre of daily life. Cinema, which was the

biggest actor of fine arts in that period, did not at first share its productions with television which was regarded as the biggest threat for its existence. In time, since it could not resist the effect and spread of this mass media, cinema had to stretch its resistance (Cavendish, 2007, p. 25).

Turkey was introduced to television broadcasting as late as the middle of the 20th century. In 1952, a group of academics from the Faculty of Electrical Engineering in İstanbul Technical University started limited television broadcasting with the opportunities of the school and of their own. Later, the state television was founded and television broadcasting was carried out only by the state for long years (Özçağlayan, 2000).

On the other hand, the inclusion of the private sector in television broadcasting was with the broadcast by the satellite on 1st March 1990. Since there was no legislative regulation in that period, this broadcast was discussed a lot; and in the following years, new broadcasts were added with frequency tenders. Turkish television broadcasting became varied in terms of content when the private televisions started to broadcast; and this widened the place of television in the daily lives of the Turkish people incredibly (Özçağlayan, 2000).

The researches reveal that in Turkey, more than 90 percent of the society prefers watching television as the first activity to fulfil their free time (TÜİK, 2015). The Turkish people are among the first 15 in terms of television audience rates (Özertem & vd., 2014, p. 5). However, how they spend this time differs from person to person. The most watched programmes are generally the ones that are aired in the primetime, that is, 'the golden hours'. Series are the most watched productions in these hours. Television series cover almost 70 percent of these hours in which the television is watched the most (Özertem & vd., 2014, p. 9). The size of the demand shapes the supply and every season nearly 100 series start to be aired. Nearly half of these have to have an early final as they cannot achieve enough rating to continue (Özertem & vd., 2014, p. 35). To conclude, series have a significant impact on the daily lives of the Turkish television audience. The first series that was aired on Turkish televisions in 1972 was a French production titled *Bedava Dünya Gezisi*. The first domestic series aired on TRT in 1975 was *Aşk-ı Memnu* which was adapted from Halit Ziya Uşaklıgil's novel. Before this 6 episode trial, generally dubbed foreign productions were presented to the audience, but later, domestic productions were started to be aired one after the other (Çelenk, 2010).

PURPOSE

The purpose of every research is to come up with a meaningful result from the data obtained through the analysis of actually a part of life. The motivation of this study is to put forth the television audience habits that have become an important part of our daily lives, along with their reflections on our daily lives. With this aim, the most effective and the most watched productions on the mass media called the television have been chosen. The most watched productions can be exemplified as series, films, competition shows, and news-sports programmes. Since the objective of the study is to measure the impact of this media, that is, connectedness, the series which are known to be the productions that the society turns to in terms of modelling should be involved. Therefore, it is aimed to reveal how these productions have an impact on the lives of the people. This effect sometimes corresponds to a mood because with the motivation to spend the period of relatively free time good, people consider these productions as an escape from the real life or as a confrontation with the real life. Previous research (Russell, Norman, & Heckler, 2004) have shown that watching certain series had been effective in forgetting or solving problems. Another data that the study aims to obtain is the state of being inspired which is emerged with these productions. The source of inspiration is sometimes the places, the clothes or other daily needs used in the series. Shopping or the preferences based on the impact of the series is another aspect that this study aims to bring to light. The state of being inspired is sometimes observed as modelling. The study also tries to reveal at what rate the characters that are identified with guide people in their struggles for life. This behaviour of inspiration and modelling is intermingled with the daily life; and so as to bring out its effects into open, good scales should be developed. That is why the researcher aims to find out not only the impact of these productions in terms of shopping behaviour and time planning, but also their reflection on the daily behaviour.

SIGNIFICANCE

In the end of 45 years, television series gained an important position in planning the daily life for the Turkish viewers. Therefore, it is necessary to analyse the impact of these productions which are in the very centre of life on daily lives.

In our country where more than 70 productions are aired a year (Özertem & vd., 2014), it will not be wrong to say that series are the leading productions from which the society is fed to a great extent. Thus, their impact will guide in understanding the changing dynamics of the society.

Conducted researches are generally based on the educational and theoretical communication perspectives. Today, revealing the attitudes is far more important than finding out at what rate the contents are presented to the viewers as most of the time, communication is actually what people want to see and hear. The studies concerning the types, themes and functioning of the productions continue with assumptions after some point. Yet, their impact on the target audience should also be analysed. Certainly, it is also taken into consideration that this is like a relay race, and without having the other data this study will not be able to accomplish the aims. As the population of this study consists of the students of the faculty of communication who are going to be communication professionals of the future, it is believed that the study will set forth significant results in terms of the tendencies of tomorrow's trend creators. It is assumed that their perspectives will provide a projection to the future.

The data obtained in this study involving the students of the Faculty of Communication in Sakarya University will

1. Measure the connectedness created by their series watching behaviour
2. Reveal whether these tendencies are perceived as an escape in terms of uses and gratifications theory or not
3. Determine the impact of the series they watch on their choices of daily clothing
4. Show the impact of the series on daily conversations in terms of oral communication culture as well as on gestures and mimics
5. Determine to what extent they are inspired from or model what they see in the series in understanding and solving daily problems
6. Show the impact of the series they watch on the wishes and desires in terms of identification
7. Try to answer the questions concerning the choice and use of personal belongings in terms of more intellectual factors

REVIEW OF LITERATURE

From the very first moment, humankind has been in an effort to exist and has struggled for the things they determined or needed in order to realise this effort. Abraham Maslow was the one who described these needs the best. With the pyramid model he developed, he asserted that as the lives of people develop, their needs are increased and get complicated. Physiological needs like eating and drinking (hunger-thirst) are at the lowest part of the pyramid, that is, the basic needs. After these needs are fulfilled, new needs emerge. With this description, Maslow changed the horizon of social sciences (Maslow, 1943). The new needs are security and safety, social belonging, to love and to be loved, to be valued, success, esteem, and most importantly, self-actualisation (Cüceloğlu, 2004, p. 236). Today, these needs have not totally changed but transformed, and within the changing circumstances, new struggles and interests emerged for the humankind. The most important need for today's human beings, namely, the individuals of the modern society is to be connected with the world because there are more communication opportunities compared to the previous century. New needs emerged for this state of connectedness or this process. Researches have determined that the emergence of these needs and their impact are actualised by the mass media to a great extent. Elihu Katz who has analysed this kind of tendencies and needs came up with the model that would provide an insight to today's dynamics half a century ago (Katz, 2010).

This is because the individuals of the modern period want to fulfil their psychological needs. They consider this as distancing or an escape, relief or entertainment and plan their time. The most effective cure for these psychological needs is certainly the mass media. Setting off from these findings, Katz and his friends developed uses and gratifications theory and analysed the media or the mass communication means, along with their target audience, in other words, the society, and put forth their interaction with each other. These studies have paved the way for the development of new researches and models. According to McQuail and Windahl (2010), Blumler's and Katz's work have been determinative in the emergence of the concept of active audience, and therefore, in the finalization of the theory (Alioğlu, 2016). Tracing the uses and gratifications, they scrutinized the social and psychological needs that the mass media create, and developed the theory. Uses and gratifications researches focus on the question of 'What do people do with the media?' against the question of 'What does the media do to people?' (Denis & Windahl, 2005, p. 166).

Trying to understand what the users of mass media basically think or feel, Klapper defined these media as a 'means of escape' and a functional tendency. According to Klapper, mass media helps to form the common ground for relief, boosting imagination, providing the opportunity for an interaction on behalf of somebody else, and social relationship (Denis & Windahl, 2005, p. 167).

Since people try to satisfy their desires and wishes according to their own needs or to what they get from the contents they follow, studies on uses and gratifications mainly try to describe how people fulfil their essential needs through media.

Using mass media as a means of escape can be considered sometimes as isolation, sometimes as getting lost. Katz and Foulkes warn that this escape action should never be considered as a means to take people from one point to another. For example, television watching behaviour of the children who have problems in their families is high; but most of these children take this action not to solve these problems but to be away from them (Katz & Foulkes, 1962).

As for the relation between the term connectedness and the series, Russell and his friends have used this concept to put forth the interaction between the people and the series they watch with the scale they developed. According to this, people perform new behaviour with what they like in the things they watch. This is actualised sometimes as an inspiration, sometimes as an imitation, and sometimes as a mood (Russell, Norman, & Heckler, 2004).

The previous studies concerning television watching habits and their effects have tried to put forward the forms of consumption and their behavioural consequences. Erjem and Çağlayandereli (2006) have tried to examine the effects of television contents in terms of learning behaviour via modelling which is included in the social learning theory. The study revealed the impact of the series the youth watched on their daily lives. One of the striking findings is that the attitude to like or dislike the heroes depending on their appearance is related with the 'personal traits' of the characters. Researchers have found out that personality is much more important in the perception of the youth. Yet, this changes depending on the socio-demographical features such as income, education, the social class of their families. It is understood that when the levels of income and education are high, the modelling intention decreases. Furthermore, Özçetin (2010) analysed TV watching habits in terms of uses and gratifications and evaluated the effectiveness of the previous audience scanning researches. The researcher claims that a more sociological approach is necessary in terms of the cultural, practical attitudes, and the identities that define the target audience. His most significant criticism is about the intention of most of the studies to understand the television audience according to the demographical features. It is emphasised that this intention leaves out many questions, and that it is not right to leave the answers to these questions to future studies. It has been observed that this results from the lack of a sociological perspective, and similar studies are mostly based on psychological reductive interpretations. For instance, in such studies, the motivations and satisfaction conditions that describe the attitudes of masses, individuals are revealed; however, what creates these motivations and satisfaction conditions which constitute these attitudes has not been determined. One of the studies as a candidate to sweep away Özçetin's criticism has been carried out by Demir and Demir (2013), and it has been found out that the series create some effects, more precisely, expectations on the target audience which were not estimated. It has been concluded that sometimes the audience change position from active to passive, which is one of the results that Katz's theory, which assumes that the target audience is completely in an active role, failed to calculate. So as to exemplify this, it has been pointed out that the perception of reality increases when real products are used in the series and this creates a desire intention for these products which means that new needs and tendencies emerge. Moreover, Damlapınar (2008), in his study based on cultivation perspective, asserted that the rate of the acceptance of the reality presented by the productions on television as the social or current reality was high. Additionally, Köse's (2012) study which focuses on the impact of TV series on the daily language has put forward findings concerning the detection and use of the expressions, denotations, idioms that have entered the daily language. It has been found out that the youth do not show a complete voluntarily participation in the parlance of the domestic television series and is aware of when to limit this. İlhan and Ulusoy (2013) who examined TV watching habits and their reflections in terms of addiction have explained the motivation for watching television as 'to make oneself isolated from the real world for a period of time in order to run away from the problems'. Although it has been based on the research of American Psychologists Association that consumption of more than 2 hours is classified as excessive use, when the condition in Turkey or the fact that digital advancements have been placed in the centre of lives is taken into consideration, a new definition of period should be made. Taş and Yalçınkaya (2015) who have analysed the impact of the school-themed TV series on the students in the view of their teachers have come up with striking results. The data obtained have revealed that the educators do not feel comfortable about these series. The teachers have stated that the characters in the series do not have constructive effects on the students. The educators have emphasised that the negative behaviour in the series create negative effects on school life.

METHODOLOGY

Problem

What is the impact of connectedness to television series on the lives of university students? The sample of Sakarya University Faculty of Communication.

Subproblems

1. Is there a significant difference between the escape from real life which is one of the motivations of watching television series and the demographical factors?
2. Is there a significant difference between the series that can be perceived as a means of escape and age, daily television watching time and the preferred genres?
3. Do they model the clothes and the hair styles of the characters in the series?
4. Is there a significant difference between the imitation behaviour concerning the discourse and style of speaking used in the series and the demographical factors and the forms of television watching?
5. Is there a significant difference between modelling the series in solving the problems of real life and other factors?
6. Is there a significant difference between the wishes and desires that the series create and the demographical and other variables?
7. Is there a significant difference between the interest in intellectual things that the series present and the demographical factors and television watching habit or the preferences?

Research Model

For decades, thousands of researches have followed the way opened in the 19th century by Auguste Comte and later by his follower Emile Durkheim. Today, research in social studies falls into two distinct types: Quantitative or qualitative. Some studies combine both. Preferring a quantitative approach as the research paradigm requires the use of experiments, statistics and surveys. The reason for preferring this kind of a positivist method is that the results will be objective, repeatable, and the same even when the sample is changed; that is, the absolute and testable results will be reached (Gunter, 2000, p. 4).

The most widely-used of these techniques is survey study. Survey, which is a fully-structured scientific research technique, is applied to a certain fraction which is assumed to represent the society in order to reveal the general opinions and tendencies of the society (Edmonds & Kennedy, 2017, p. 133).

After the subject of the study has been determined, aiming to analyse the preferences of series which is a more limited tendency among television watching behaviour, along with their impact on daily uses, firstly, the literature has been searched and this background has been formed. Then, the research design has been determined and a constant design has been chosen for the hypotheses that are to be tested before and after the research to remain the same. By this way, it is aimed that the intention determined before the research will not change. As for the design, descriptive constant design has been preferred so as to make it understandable what the data mean by the help of tables, graphics and numerical summaries (Özdemir, 2000, p. 19).

Population

The population of the study consists of students aged 17 and over as it is thought that they are the biggest audience of series. The university students, especially the students of the faculty of communication are assumed to be more interested and to have a deeper perspective.

Sample

The sample in this study has been made up of 110 people that were selected with the appropriate sampling method from the students of the Faculty of Communication in Sakarya University. In appropriate or convenience sampling method, the subjects are selected because of their convenient accessibility and proximity to the researcher. The process of selection continues until the desired size of the sample is reached (Robson & McCartan, 2016, p. 144). Furthermore, it is apparent that selecting the sample from the future communication professionals will also provide an observation concerning the tendency of the future productions.

Data Gathering Tool

The data gathering tool of the study has been realised by using the assessment and evaluation tools that were published in 2004 by Cristel Antonia Russell, Andrew T. Norman and Susan E. Heckler in their study (Russell, Norman, & Heckler, 2004).

Consumption of television programmes: The survey study which is used in the development and verification of the connectedness scale has been formed in compliance with the likert scale and is an approved study. For the survey study that was published in the *Handbook of Marketing Scales* (Beardan, 2011), the responsible author Cristel A. Russell has been contacted and permission has been taken.

Data Analysis

The data obtained from the survey study has been analysed through quantitative data analysis. In order to meet the aim without deviation, the quantitative data has been analysed by SPSS programme. In the analysis, firstly, the general tendencies were put forth by calculating the percentages; then, with t-test and one way Anova analysis, the impact of series watching behaviour on the daily lives in terms of connectedness were tried to be understood. Thus, it has been measured whether there is a significant difference between the tendencies or not.

Limitations

The research is limited with the students of the Faculty of Communication in Sakarya University and the population is formed in this way. The survey was applied to the 2017 Fall Semestre students of the Departments of Journalism and Communication Design and the Media. Due to the need of convergence, participants have been limited to 110 people.

FINDINGS

The data has been analysed in terms of demographical factors (age and sex) and television watching habits and preferences by SPSS and has been transformed into tables.

Then, by t-Test and Anova analysis, whether there is a significant difference or not has been determined in terms of escape, fashion, imitation, wish/desire and personal belongings preferences.

FREQUENCY CHARTS

The percentage distribution obtained by the results gathered after the data was analysed by SPSS is as follows:

Table 1. What is your gender?

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Female	55	50.0	50.0	50.0
Male	55	50.0	50.0	100.0
Total	110	100.0	100.0	

As it is seen in Table 1, the gender distribution of the survey participants was on equal levels. That is to say, 55 people were female and 55 people were male.

Table 2. How old are you?

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
17-19	17	15.5	15.5	15.5
20-22	81	73.6	73.6	89.1
23-25	9	8.2	8.2	97.3
Other	3	2.7	2.7	100.0
Total	110	100.0	100.0	

As it is seen in Table 2, most of the survey participants (73%) were between the ages of 20-22. It is followed by the ones between the ages of 17-19 (15.5%). The sum of the ones in the group over 23 years was approximately 11% (10.9).

Table 3. Daily television watching tendency

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
0-2	93	84.5	84.5	84.5
2-4	17	15.5	15.5	100.0
Total	110	100.0	100.0	

In Table 3, the daily television watching habits of the participants are presented. The participants gathered around only two options. The large majority (84.5%) indicated that they watch television for less than 2 hours, and the rate of the ones who watch television for 2-4 hours was very low (15.5%). Even though there was another option as watching television for more than 4 hours, none of the participants marked this option.

Table 4. What type of series do you watch the most?

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Comedy	39	35.5	35.5	35.5
Romantic-Drama	23	20.9	20.9	56.4
Historical	14	12.7	12.7	69.1
Action	34	30.9	30.9	100.0
Total	110	100.0	100.0	

Table 4 shows the type of series the participants preferred. The most preferred series was comedy series with 35.5%. The second most preferred series was action series (30.9%) followed by romantic drama series with 20.9%. The type of series that was found out to be the least preferred was the history category.

Table 5. Watching series is an escape for me

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Strongly Disagree	22	20.0	20.0	20.0
Disagree	32	29.1	29.1	49.1
Neither Agree Nor Disagree	23	20.9	20.9	70.0
Agree	27	24.5	24.5	94.5
Strongly Agree	6	5.5	5.5	100.0
Total	110	100.0	100.0	

A large majority of the participants did not consider watching series as an escape. The participants who strongly disagreed (20%) and who disagreed (29.1%) constituted almost the half. While the percentage of the participants who neither agreed nor disagreed was 20.9%, the ones who agreed (24.5%) and who strongly agreed (5.5%) were below the majority.

Table 6. Watching series make me forget my daily problems

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Strongly Disagree	17	15.5	15.5	15.5
Disagree	28	25.5	25.5	40.9
Neither Agree Nor Disagree	24	21.8	21.8	62.7
Agree	33	30.0	30.0	92.7
Strongly Agree	8	7.3	7.3	100.0
Total	110	100.0	100.0	

The participants who thought watching series made them forget their problems constituted of the ones who agreed (30%) and the ones who strongly agreed (7.3%). While 21.8% of the participants neither agreed nor disagreed, the sum of the ones who stated negative opinions (Strongly disagree 15.5%, Disagree 25.5%) was over 40%.

Table 7. If my mood is low, watching series makes me feel better.

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Strongly Disagree	9	8.2	8.2	8.2
Disagree	18	16.4	16.4	24.5
Neither Agree Nor Disagree	27	24.5	24.5	49.1
Agree	47	42.7	42.7	91.8
Strongly Agree	9	8.2	8.2	100.0
Total	110	100.0	100.0	

In this question which tried to measure the impact of watching series on the moods of people 42.7% of the participants agreed. The percentage of the participants who neither agreed nor disagreed was 24.5%, and who

disagreed was 16.4%. The percentages of the ones who strongly disagreed and who strongly agreed were the same, to be exact, 8.2%.

Table 8. I like the clothes in the series

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Strongly Disagree	16	14.5	14.5	14.5
Disagree	24	21.8	21.8	36.4
Neither Agree Nor Disagree	23	20.9	20.9	57.3
Agree	34	30.9	30.9	88.2
Strongly Agree	13	11.8	11.8	100.0
Total	110	100.0	100.0	

Table 8 shows the interest in the costumes in the series. While the highest percentage was the ones who agreed (30.9%), the lowest percentage was the ones who strongly agreed (11.8%). The percentages of the participants who disagreed was 21.8%, who neither agreed nor disagreed was 20.9%, and who strongly disagreed was 14.5%.

Table 9. I like the hair styles and the haircuts in the series

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Strongly Disagree	14	12.7	12.7	12.7
Disagree	19	17.3	17.3	30.0
Neither Agree Nor Disagree	28	25.5	25.5	55.5
Agree	40	36.4	36.4	91.8
Strongly Agree	9	8.2	8.2	100.0
Total	110	100.0	100.0	

Table 9 reveals the interest towards the hair styles and haircuts in the preferred series. The highest finding was 36.4% (Agree). The second high percentage consisted of the ones who neither agreed nor disagreed as 25.5%, and it was followed by 17.3% of the participants who disagreed. While the percentage of the ones who strongly disagreed was 12.7%, the percentage of the ones who strongly agreed was 8.2%.

Table 10. I try to buy the clothes I see in the series

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Strongly Disagree	58	52.7	52.7	52.7
Disagree	30	27.3	27.3	80.0
Neither Agree Nor Disagree	12	10.9	10.9	90.9
Agree	10	9.1	9.1	100.0
Total	110	100.0	100.0	

In this question which tried to measure the buying behaviour created by the costumes in the series, none of the participants chose the option Strongly Agree. The highest percentage was consisted of the ones who strongly disagreed (52.7%). The percentage of the ones who disagreed was 27.3%. While 10.9% of the participants neither agreed nor disagreed, 9.1% stated positive opinions (Agree).

Table 11. I sometimes imitate the gestures and mimics of the characters in the series

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Strongly Disagree	36	32.7	32.7	32.7
Disagree	29	26.4	26.4	59.1
Neither Agree Nor Disagree	10	9.1	9.1	68.2
Agree	30	27.3	27.3	95.5
Strongly Agree	5	4.5	4.5	100.0
Total	110	100.0	100.0	

In Table 11 which shows the results for the question that tried to measure the reflections of favourite series on the daily lives, the highest rate for the opinions concerning the imitation of gestures and mimics was observed in negative direction. While 32.7% of the participants strongly disagreed, 26.4% of the participants disagreed. The percentage of the ones who agreed was 27.3%, whereas the percentage of the ones who strongly agreed was 4.5%. 9.1% of the participants neither agreed nor disagreed.

Table 12. From time to time, I realise that I use the dialogues and expressions in the series called ... in my daily conversations

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Strongly Disagree	21	19.1	19.1	19.1
Disagree	18	16.4	16.4	35.5
Neither Agree Nor Disagree	19	17.3	17.3	52.7
Agree	43	39.1	39.1	91.8
Strongly Agree	9	8.2	8.2	100.0
Total	110	100.0	100.0	

The results for the question concerning the reflection of favourite series on the daily lives in terms of the impact on daily language are shown in Table 12. The highest percentage was observed with the participants who agreed (39.1%). 19.1% of the participants strongly disagreed, and 16.4% of the participants disagreed. 17.3% of the participants neither agreed nor disagreed and 8.2% of the participants strongly agreed.

Table 13. I try to talk like the characters in the series

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Strongly Disagree	41	37.3	37.3	37.3
Disagree	37	33.6	33.6	70.9
Neither Agree Nor Disagree	16	14.5	14.5	85.5
Agree	15	13.6	13.6	99.1
Strongly Agree	1	.9	.9	100.0
Total	110	100.0	100.0	

Another table that illustrates the results concerning the impact of the series on daily language is Table 13. It is observed that the action of talking like the characters was not realised at a high rate. 37.3% of the participants strongly disagreed and 33.6% of the participants disagreed. 16% of the participants neither agreed nor disagreed and 15% of the participants agreed. Only one participant strongly agreed whose sampling rate was 0.9%.

Table 14. While watching series, I learn to overcome the problems I face in real life

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Strongly Disagree	34	30.9	30.9	30.9
Disagree	40	36.4	36.4	67.3
Neither Agree Nor Disagree	18	16.4	16.4	83.6
Agree	17	15.5	15.5	99.1
Strongly Agree	1	.9	.9	100.0
Total	110	100.0	100.0	

Table 14 shows the results about the behaviour of taking the series as a guide and being inspired concerning the attitude towards the events that are faced in real life. The vast majority stated negative opinion. The percentage of the participants who strongly disagreed was 30.9% and who disagreed was 36.4%. While 16.4% of the participants neither agreed nor disagreed, 15.5% of the participants agreed. Only one participant strongly agreed whose rate among the whole was 0.9%.

Table 15. While watching series, I learn how to treat the people in my life

Frequency	Percentage	Valid Percentage	Cumulative Percentage
Strongly Disagree	36		32.7
Disagree	35		31.8
Neither Agree Nor Disagree	17		15.5
Agree	19		17.3
Strongly Agree	3		2.7
Total	110		100.0

Table 15 presents the findings concerning the imitation behaviour resulting from watching series and the attitudes towards similar problems and events. Once more, most of the participants stated negative opinions. 32.7% of the participants strongly disagreed and 31.8% of the participants disagreed. While 17.3% of the participants agreed, the number of the ones who strongly agreed was 3 which correspond to 2.7% of the participants. The percentage of the participants who neither agreed nor disagreed was 15.5%.

Table 16. I associate the events in the series with the events in my life

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Strongly Disagree	22	20.0	20.0	20.0
Disagree	28	25.5	25.5	45.5
Neither Agree Nor Disagree	24	21.8	21.8	67.3
Agree	31	28.2	28.2	95.5
Strongly Agree	5	4.5	4.5	100.0
Total	110	100.0	100.0	

In Table 16, the results concerning the attitudes of the participants towards the events depicted in the series and their behaviour of relating these events to real lives are shown. Even though the majority stated negative opinions, the most frequently occurred response was Agree (28.2%). The percentage of the participants who strongly agreed was 4.5%, whereas 20% of the participants strongly disagreed. Yet, the second highest rate consisted of the ones who disagreed as 25.5%. Another high percentage was observed for the ones who neither agreed nor disagreed as 21.8%.

Table 17. I would like to act in the series called ...

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Strongly Disagree	23	20.9	20.9	20.9
Disagree	23	20.9	20.9	41.8
Neither Agree Nor Disagree	14	12.7	12.7	54.5
Agree	29	26.4	26.4	80.9
Strongly Agree	21	19.1	19.1	100.0
Total	110	100.0	100.0	

The most frequently occurred response for the question concerning acting in a favourite series was observed with the ones who agreed (26.4%). It is followed by the ones who strongly disagreed (20.9%) and the ones who disagreed (20.9%) with equal percentages. The percentage of the participants who neither agreed nor disagreed was 12.7%, and who strongly agreed was 19.1%.

Table 18. I would like to meet the characters in the series

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Strongly Disagree	13	11.8	11.8	11.8
Disagree	7	6.4	6.4	18.2
Neither Agree Nor Disagree	16	14.5	14.5	32.7
Agree	51	46.4	46.4	79.1
Strongly Agree	23	20.9	20.9	100.0
Total	110	100.0	100.0	

It is presented in Table 18 that the vast majority of the participants would like to meet the characters in the series. 46.4% of the participants agreed and 20.9% of the participants strongly agreed. The percentage of the ones who neither agreed nor disagreed was 14.5%. The percentage of the participants who strongly disagreed was 11.8% and who disagreed was 6.4%, sum of which constitutes the ones who stated negative opinions.

Table 19. I have bought accessories, books, posters, etc. of the series called ...

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Strongly Disagree	58	52.7	52.7	52.7
Disagree	36	32.7	32.7	85.5
Neither Agree Nor Disagree	6	5.5	5.5	90.9
Agree	9	8.2	8.2	99.1
Strongly Agree	1	.9	.9	100.0
Total	110	100.0	100.0	

Table 19 illustrates the results showing the reflection of buying behaviour of the participants in terms of books, posters or accessories emerged as an effect of the series. The vast majority stated negative responses. 52.7% of the participants strongly disagreed and 32.7% of the participants disagreed. While 8.2% of the participants agreed, 5.5% of the participants neither agreed nor disagreed. Only one participant strongly agreed whose rate among the whole was 0.9%.

Table 20. I have read/am reading books about the series called ...

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Strongly Disagree	48	43.6	43.6	43.6
Disagree	36	32.7	32.7	76.4
Neither Agree Nor Disagree	12	10.9	10.9	87.3
Agree	11	10.0	10.0	97.3
Strongly Agree	3	2.7	2.7	100.0
Total	110	100.0	100.0	

In Table 20, it is observed that the vast majority stated negative opinions about buying and reading books as an impact of the series. 43.6% of the participants strongly disagreed and 32.7% of the participants disagreed. The percentage of the participants who neither agreed nor disagreed and who agreed was 10%. Only 3 people strongly agreed whose rate among the whole was 2.7%.

INDEPENDENT t-TEST APPLICATION

In order to measure whether there is a significant difference ($p \leq 0.05$) concerning the questions in terms of demographical factors, an Independent t-Test has been conducted. As a result of the tests, a significant distance was found only in one of the questions. The data concerning the significant difference is as follows:

Table 21. Independent t-Test by Gender ($\alpha < 0,05$)

		F	Sig.	T	df	Sig. (2-tailed)
I try to talk like the characters in the series	Equal variances assumed	3.253	.074	-1.982	108	.050
	Equal variances not assumed			-1.982	104.901	.050

Table 21 presents the only significant difference ($p \leq 0.05$) found in the question “I try to talk like the characters in the series” with the application of Independent t-Test by gender. When the means in gender distribution is examined, it is observed that the males ($=2.27$) had more tendency to talk like the characters in the series in their daily lives than females ($=1.87$).

Since there was no other demographical factor with two options in the scale, another Independent t-Test was not conducted.

ANALYSIS OF VARIANCE (ONE-WAY ANOVA)

No significance difference ($p \leq 0.05$) was found between the age groups of the participants (17-19, 20-22, 23-25 and other) and the questions. Also, in the one-way Anova analysis concerning the daily TV watching habits, no significant difference was found. However, two significant differences were found in the one-way Anova analysis concerning the series preferred. They are shown and interpreted in Tables 22, 23, 24 and 25.

Table 22. One-way Anova analysis concerning the question “I associate the events in the series with the events in my life”

	Sum of Squares	Mean Squares	F	P
Intergroup	13.101	4.367	3.189	.027
Intragroup	145.163	1.369		
Total	158.264			

A significant difference ($p:0,027 < \alpha:0,05$) was found between the most watched types of series in terms of relating the events in the series with the events in their lives. The details can be interpreted in Table 23.

Table 23. The descriptive statistics of the One-way Anova analysis concerning the question “I associate the events in the series with the events in my life”

		N	Mean	Standard Deviation
I associate the events in the series with the events in my life	Comedy	39	2.7436	1.29204
	Romantic-Drama	23	3.3043	1.14554
	Historical	14	2.2143	.69929
	Action	34	2.5000	1.18705
	Total	110	2.7182	1.20497

When we examine the descriptive statistics (Table 23) to find out the reason for the significant difference found in Table 22, it is observed that Romantic-Drama viewers (Mean: 3.3) have been distinctive among others in terms of associating the events in their daily lives with the events in the series. This significant difference is higher especially with the historical series viewers.

Table 24. One-way Anova analysis concerning the question “I would like to meet the characters in the series”

	Sum of Squares	Mean Squares	F	P
Intergroup	11.934	3.978	2.759	.046
Intragroup	152.830	1.442		
Total	164.764			

A significant difference ($p:0,046 < \alpha:0,05$) was found between the audience who would like to meet the characters in the series and the types of series. Table 25 indicates that this significant difference is between the

Action series viewers and the others. It is observed that the mean for the Action series viewers' wish to meet the characters in the series as 4.02 is higher compared to the historical (3.1) and comedy series viewers. The significant difference resulted from this factor.

Table 25. The descriptive statistics of the one-way Anova analysis concerning the question "I would like to meet the characters in the series"

		n	Mean	Standard Deviation
I would like to meet the characters in the series	Comedy	39	3.3333	1.42040
	Romantic-Drama	23	3.6087	1.23359
	Historical	14	3.1429	1.09945
	Action	34	4.0294	.90404
	Total	110	3.5818	1.22947

RESULTS

The students that constituted the sample of the study were selected randomly, and the gender frequency has coincidentally been equal. When it comes to the other demographical factor, the age groups, most of the participants (73.6%) were between the ages of 17-19 as the study was conducted in a university environment. A surprising finding has been observed in the measurement of television watching habits that none of the participants spend more than 4 hours in front of the television. This data might be the consequence of the fact that the youth do not watch the series or their favourite programmes when they are aired anymore; they watch them on digital platforms. This data can be interpreted as the youth has pushed away television as a means of watching. The most watched type of series has been comedy with 35.5% followed by action series. Despite the current number of historical series and the television audience measurement results, the students of the faculty of communication are among the ones who prefer such productions the least.

Even though the number of the ones who considered watching series as an escape (total 30%) was lower than the ones who did not (49.1%), with the question of "Watching series make me forget my daily problems" the rate increased (37.3%), and it reached dramatic levels (50.9%) with the question concerning the impact of watching series on the moods of people.

When the participants' preferences about fashion are examined in terms of their interests concerning the hair styles and costumes in the series, it is observed that they responded positively about the costumes (30.9%) and the hair styles (36.4%); however, when it comes to buying these, 80% of the participants have opposed it. Moreover, it is remarkable that it is the only question in which the option "Strongly agree" was not chosen. It seems that the youth is not willing to express that they are influenced about fashion by television or they use other media for this. The current and future social media studies can reveal some findings to support this argument.

It has been revealed that there was no tendency for imitation in terms of nonverbal communication (59%), whereas the styles of speaking in the series were found out to be modelled by the participants (48.1%). The youth may be doing this deliberately or they may not be aware of the gestures and mimics they imitate. Another interesting result has come up with the question concerning the tendency to speak like the characters in the series. 70.9% of the participants have stated that they do not take the characters as a role model. How it is possible not to imitate the characters while using their expressions in conversations may be another research question.

The responses concerning modelling the series by relating them to real life have indicated different results. Although the participants stated that they did not learn to overcome the problems in real life (67.3%) or how to treat people (64.5%) by being inspired by the series, they demonstrated equal distribution in relating the events in the series to the events in their lives. This approach may also be an expression of "I am not going to learn life from series".

The university students who stated negative responses concerning acting in the series did not hold the same opinion about the characters in these series. The motivation behind their wish to meet them can be explained by modelling or wish/desire factors.

The fact that the youth has mostly demonstrated a negative attitude about their choices of personal belongings related with the series, especially books or posters may have resulted from the understanding that in Turkey, promotional activity is not considered as a part of the production process. On the other hand, world giants (*Game*

of *Thrones*, *Breaking Bad*, etc.) regard this process as a whole; and sometimes the income from promotions reaches considerable amounts.

The question whether the result indicating that the males have more tendency to talk like the characters in the series in their daily lives than females requires a generalisation or not is another research topic. This may be the consequence of the dialogues and characters in the series aired in this period which seem to address males more. It should be remembered that once there were many female viewers who talked like the woman characters in the popular series like *Avrupa Yakası*.

The result indicating that the viewers of Romantic-Drama series related the events in their real lives with the fictive events in these series more often can be interpreted as the emotional needs are satisfied better with these productions. However, the fact that the characteristics of the period series are determinative should be remembered. It should also be taken into consideration that the language and the social behaviour patterns in period series do not reflect contemporary examples but the tendencies of that specific period.

Considering the characters, the feeling of reality, and the need of reality, the result showing that the viewers of action series are willing to meet the characters in these productions more can be explained with the excitement factor. Furthermore, before such an observation, it should be noted that televisions have relied heavily on action series because of the traumas the country has recently been through. Moreover, it should be taken into consideration that aforementioned series have been aired in the best hours, written by the best scriptwriters, and have included the best actors and actresses. Therefore, it can be concluded that the finding indicating that the characters in these productions gained appreciation is understandable.

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The Effects Of Using Smartphones On The Feeling Of Loneliness: The Case Study Of Sakarya University

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Abstract

There is a rapid increase in informatics and communication technologies whole the world. Parallel to this growth, diversification and innovation of smart phones are quite active. The particularly teenagers are very active in social media through these smart phones. It is surprising then that, in spite of this enhanced interconnectivity, young adults may be lonelier than other age groups, and that the current generation may be the loneliest ever. The usage of smart phones among adolescents might be considered by some people as an increase communication network while others might think that they reduce communication and make them more isolated.

The study was carried out to perceive the effects of using smart phones on the feeling of loneliness. The relevant research was directed with the 120 freshman students who studying at Communication Faculty of Sakarya University at the Autumn Semester of 2018/2019 Academic Year. The reason why this study was conducted especially with freshman students is that it is the important age range that plays a major role in the formation of the characters of the youth, which is the transition period from childhood to adulthood. For this purpose, the surveys tried to reveal the reaction of the freshman students whether problematic mobile phone use feel sense of loneliness. In the research, UCLA Loneliness Scale and the scale that developed by German scientist Dr. Christoph Augner, Problematic Mobile Phone Use Scale were used.

It was determined that students who used problematically mobile phones did not feel the sense of loneliness at a high point. Use of mobile phone allows them to become more socialized, and in this way, students do not feel themselves in a sense of loneliness.

Keywords: *Sense of Loneliness, Smartphone Addiction, Teenage, Social Media Effects, Freshman*

Introduction
The concept of communication technologies is often used as a concept that covers all technologies in the field of communication. New communication technologies, also known as information technologies, are the result of developments in three key areas such as computers, telecommunications and microelectronics (Tekin, 2012, p. 4).

In fact, the first users were so impressed by the easy access to the information that they visited the Internet for 4-5 hours and began to enjoy the information needed or not. Davis, Smith, Rodrigue and Pulvers (1999) called as a "masturbation with the information" (as cited in Doğan, Işıklar, & Eroğlu, 2010, p. 107).

Along with the rapidly developing technology, important design changes have been made in the dimensions of the products, especially when we consider the change of devices such as the first computer or the first telephone, we understand the importance of the studies in this field. In recent years, with the rapid developments in technology, the demand for smart phones and tablets, which can fit even in our pockets, is growing rather than huge computers. As a result, we can say that the interest in desktops and laptops in the world is now decreasing and mobile technologies, especially smart phone ownership, are increasing (Güler, Şahinkayasi, & Şahinkayasi, 2017, p.188 - 189).

Worldwide and in Turkey, mobile phone number of the show much greater increases than estimated users, and indispensable to become a part of daily life, this technology also requires closely monitored and questioned the changes in cultural life. This situation may cause individuals to feel they cannot be mobile phones (Tekin, 2012, p.2). This dependence is considered to be more especially among young generation (Öztunç, 2013).

There are philosophers who claim that technology has both good outcomes and bad outcomes. Surely, the importance of technology cannot be underestimated and its effects on human life cannot be ignored. Today's people are fully involved in the process of technological change and development. Smart phones offer a whole world that can fit into our pockets. Internet has brought innovations which able to fit all segments of society.

Global System for Mobile Communications (GSM) sector is developing very fast in the Turkey as in all over the world. In addition to verbal communication, telephones are now used for many different purposes, such as through chat rooms, message boards, multiuser domains (MUDs). People may meet with someone else who has similar interests and these online relationships may develop into real-world relationships surfing the internet, exchanging e-mails (Tekin, 2012, p. 1; Shaw & Gant, 2002, p. 158).

The hardware and software of smart phones are dramatically improving and various applications are being developed and these available to suit our lifestyle. It is natural for smart phones to become increasingly popular due to new features added to smart phones and easy portability. With smart phones, besides the features of normal phones; there are also many applications such as image and sound recording, transmission of data, internet access, e-mail, transmission of instant messages, display of digital content, mobile applications, social media tools, games etc. As a result, many people in this modern society are extremely willing to acquire a smart phone (Çakır&Oğuz,

2017; Kwon et al., 2013, p. 1 - 2)). Due to very rich programs they contain, are thought to isolate people since they personalize them, and worst of all, render them addicted. New Generation mobile phones open the windows of a new dimension to users (Tekin, 2012, p. 6).

According to the We Are Social report (2016), individuals with smartphones make up 56% of Turkey's population, and the number of active mobile social network users has reached 36 million people, in other words, 45% of the population, in Turkey. Furthermore, the number of people using social media activity on their mobile devices has increased by 13% percent over the last one year in Turkey. Therefore, it might seem fair to say that people are now migrating to mobile devices for socialization, entertainment, and other needs (Gezgin, Hamutoglu, Sezen-Gultekin, & Ayas, 2018, p. 359).

Devices, smart phones and the internet, in particular, are being extensively used all over the world. These tools of communication take all the people, whether young or old, under their control and are also being used to satisfy a number of needs in addition to communication. These tools offering many activities such as watching television, playing games, instant messaging etc., render them addicted. (Öztunç, 2013, p. 456-457).

The combination of faster mobile connections and improved access to smartphones has delivered another of the key findings of 2017's report. More than half of all web pages are now served to mobile phones (We Are Social, 2017).

The use of mobile phones is becoming increasingly common among adolescents. This increased use of mobile phones affects the social communication of young people, and these devices are not only for communication but also as a status symbol and identity element (Tekin, 2012). Shaw and Grant research (2002) shows that there is no certain internet user. Although internet use is linked generally with younger generations, a 1998 study found that only 6% of users were under 21, while in 2000, 4 million senior citizens were reportedly online.

Especially in school-age adolescents, excessive use of internet and computer has a negative effect on both academic and personal development of adolescents. Problematic internet use can make the person addictive. Research on adolescents has shown that problematic internet use affects adolescents intensively (Doğan et al., 2010, p. 108).

On the other hand, some of the disadvantages of overuse cell phone usage include hindering classroom performance, distraction and an annoyance to fellow classmates and instructors, because of the lack of attention, increasing dropout rates, and fewer graduates for students, the anxiety students experience because of their constant need to have their phone on them at all times. Therefore, it can be claimed that multiple psychological effects emerge from smart phone ownership and usage. For instance, Bian and Leung (2014) observed that the higher one scores in loneliness, the higher the possibility one would be addicted to smart phones (as cited in Gezgin et al., 2018, p. 359). While the concept of Internet addiction was at the forefront, the concept of smart phone addiction has now been replaced by this concept (Kwon et al., 2013).

Technology adoption has been the subject of various theories (Gezgin, Hamutoglu, Sezen-Gultekin, & Ayas, 2018; Güler, Şahinkayasi, & Şahinkayasi, 2017; Kwon, Kim, Cho, & Yang, 2013; Liu, Desai, Krishnan-Sarin, Cavallo, & Potenza, 2011; Lopez-Fernandez, Honrubia-Serrano, Freixa-Blanxart, & Gibson, 2014; Mert & Özdemir, 2018; Moody, 2001; Öztunç, 2013; Siomos, Dafouli, Braimiotis, Mouzas, & Angelopoulos, 2008).

According to Shaw and Gant research (2002), loneliness, depression, and daily stress were positively linked to greater Internet usage when researchers controlled for possible mediating variables. The researchers used path analyses to analyze each of these findings and determined that the Internet caused the observed effects (p. 158).

Today, the phenomenon of socialization has gone beyond the definition of the individual with the physical conditions, the people and places around it. With the development of technology, this concept has found itself in different fields. The use of social media has become known as a new form of socialization when it becomes an object in the construction of social reality (Yüzüncüyıl, Buluş, & İşman, 2016, p. 611-612).

Considering the increasing role of smartphone use play in everyday life and the potential dangers of loneliness, the aim of the present research is to determine the relationship between use smartphones and feeling lonely. Unfortunately, in the world, while carried out research on the internet and the use of negative effects, studies conducted in Turkey are quite limited. Therefore, the purpose of this study is to reveal the problematic internet usage levels of adolescents and smartphone addiction.

1. Aim

Worldwide and in Turkey, the number of mobile phone users showing much greater increases than estimated and become an indispensable part of daily life. This technology requires the questioning of changes in cultural life (Tekin, 2012).

More than half the world now uses a smart phone, almost two-thirds of the world's population now has a mobile phone and more than half of the world's web traffic now comes from mobile phones (We Are Social, 2017). With the rapidly developing innovations in the field of technology and especially after the 21st century, we feel strongly the effect of the internet everywhere in our lives. As well as all over the world, we see the effects of

the wide internet in terms of Turkey besides. According to TUIK (Turkish Statistical Institute [TUIK], 2018); Internet usage of individuals was 72.9% in 2018. In April 2018, 82.5% of households had a broadband Internet connection. In terms of broadband connection types, while 44.5% of households used a fixed broadband connection (ADSL, cable, optic fibre, etc.), 79.4% of households used the mobile broadband connection to access the Internet. 78.3% of households had a broadband Internet connection in the previous year in Turkey.

New communication tools attract people, from any age and statute and one of them is smart phones (Doğan, Işıklar, & Eroğlu, 2010). Mobile phone usage is becoming more and more common in adolescents (Tekin, 2012). As the access to these technologies increases, times spent and interaction with these technologies will increase even at very young ages (Güler, Şahinkayasi, & Şahinkayasi, 2017). Upon review of the above information, problematic mobile phone usage may adversely effects adolescents whom may easily be influenced by the characteristics of the period they are in and constitute an important risk group (Çakır & Oğuz, 2017; Öztunç, 2013).

As Moody said; "The internet is so new that little is known about those who use it a great deal, or whether it can effect behaviour or reflect personality traits" (2001, p. 393). However, our knowledge is limited if the innovations impress masses or impulse them.

However, the direction of this relationship is uncertain. Two contrast theses have been submitted to describe the association between loneliness and Internet use: extreme Internet use causes loneliness vs. lonely individuals are more likely to use the Internet extremely (Mert & Özdemir, 2018; Moody, 2001). As in every addiction, smart phone addiction is common also in individuals alone. To prevent this, individuals should first be made aware of the ways of coping with the feeling of loneliness (Mert & Özdemir, 2018).

The subject of loneliness which is at the forefront of these effects forms the foundation of this research. In fact, although the means of communication emerged to increase communication among people, in this study, it was pointed out that the sense of loneliness created by smart phones which is one of these communication tools.

One of the issues identified as a major problem is the spread of the view that children and young people move away from society and become lonely due to such environments. The aim of this study is to find out whether there is a relationship between unrestrained internet and mobile phone usage on the feeling of loneliness with the results of the survey conducted with freshman communication faculty students. Besides, reveal the results of analysis on the example of Turkey.

2. Importance

As digital technologies continue to make communication channels and platforms more accessible and effortless, human beings are more related to each other than ever before (Pittman & Reich, 2016, p. 155). The standout finding of the 2017 year report is that more than half of the world's population now uses the internet. It's not only the internet that's growing rapidly but also more than half the world now uses a smart phone. In addition 2017 statistics, almost two-thirds of the world's population has a mobile phone and more than half of all mobile connections around the world are broadband (We Are Social, 2017).

New communication tools attract people, from any age, statute and one of them is smart phones. Now people have begun to spend most of their time with new communication technologies in order to obtain information or to spend their leisure time. Our daily habits at home, work or our relationships with the environment are determined according to the time that we spare for these technologies in our daily lives (Tekin, 2012, p. 4).

The development of technology has established significant distinguish in people lives, particularly over the past few years. It has not only changed the daily routine but has also changed the cultures of societies. (Morahan-Martin & Schumacher, 2003). More specifically, in tandem with an expansion in the prevalence of mobile phone use, certain side effects related to extend usage of mobile phones have come into the picture (Gezgin, Hamutoglu, Sezen-Gultekin, & Ayas, 2018, p. 358). According to TUIK; computer and Internet usage of individuals aged 16-74 were 59.6% and 72.9% respectively in 2018. These proportions were 56.6% and 66.8% respectively in 2017. Almost three-quarters of the world's population use a mobile phone and the overall trend is clear: mobile phones are now an indispensable part of everyday life for most people around the globe (We Are Social, 2017).

Although smart mobile phones are widely used in daily life and work well, they bring with them a number of problems. Particularly young people are becoming addicted to the smart phones. They have a huge impact on the birth of technology-filled world.

Especially teenagers, who use their phone for social networking sites and messaging, want to keep their phones hands on or beside them even when they are not using them. Unfortunately most young people cannot limit and control the use of phones. When they are in the cinema, with their family or friends, they even use the phone in the toilet or in the bathroom and when they don't use it, they feel uncomfortable, missing, and uneasy (Doğan et al., 2010; Kwon, Kim, Cho, & Yang, 2013).

The consequences of smart phone addiction may be as bad as the consequences of substance abuse. Because first, you will get away from your family, friends, social and cultural activities, and then you will experience behaviours such as depression, loneliness, hypersensitivity, low self-esteem, guilt and despair due to

the failure of your interpersonal or self-relationship with yourself. Mert and Özdemir (2018) emphasized, there are numerous studies confirming that loneliness is more intense at young ages. It was proved in the results of research that adolescence is the period when loneliness was more intense than other age groups (p. 103). Also Erikson said that it is the period of psychosocial development in which adolescents form identity and are the most vulnerable to environmental impacts while they form this identity (as cited in Doğan et al., 2010).

We can say that the young people who use excessive mobile phones are risky for addiction. Loss of control over the use of technology and unpredictable use of technology can lead to serious physical and psychological damage. In general, excessive and unconscious consumption causes a negative change in our country as in the whole world (Tekin, 2012). In this study, the evaluation of such an important issue in terms of Turkey samples constitutes the importance of this research.

3. Theoretical Background

Day by day, new technologies are developed and made available to the public to address the needs of society and people. Technological improvements will continue to progress at any moment. With the new technological developments they have developed, companies are approaching their customers more closely. They understand the demands of customers in changing conditions more clearly and adapt to developments in this framework. Each firm has different technological products to test for future generations, and this cycle is rapidly continuing dramatically. Innovation is a process that begins with encountering new ideas and technologies both individually and in social terms and results in adopting or rejecting these ideas and technologies. The concept of innovation spread aims to model the spread of new ideas and technologies within a culture (Chang, 2010).

The first studies on this subject have started in the field of communication with the thesis that a social system is spread over certain channels among its members and then different disciplines have been involved with the interest in economics and management. The first model of the diffusion of innovations is developed by Rogers. He defined the model as “the process by which an innovation is communicated through certain channels over time among the members of a social system” (Rogers, 2010).

An innovation must be self-sustained on a large scale. There is a critical point for the size of the mass reached and it can be said that after reaching this point, the innovation has reached a sustainable level. Accordingly, it is possible to talk about 5 groups. The first group consists of *Innovators*. This group is; innovators, inventors and system developers. The second group consists of *Early Adopters*. In this group, there are those who first meet innovation and play a critical role in the spread of innovation to society. They are very important for the first impression and approach. Then comes the *Early Majority Group* (Rogers, 2010).

These are the critical majority in which innovation has reached and incorporated this innovation into life and culture for a variety of reasons. Then there is the group called *Late Majority*. This group comes from the majority formed by the spread of innovation to other parts of society after passing the maturity phase. At this stage, innovation is now widely accepted. Finally, there are *Laggards*. These are the ones that continue to use this innovation, which is still obsolete, despite the fact that innovation is abandoned, abandoned or replaced by a new technology (Rogers, 2010).

In addition to his first work in 1962, Rogers later listed the main factors during propagation as innovation, time and social system in his 1983 work. Rogers is described in the following way; Innovation is an idea, an application, or an object that is perceived as new and which is to be adopted by the individual or community groups. Communication Channels is an environment in which news is transmitted from one individual to another. Time is the time for Innovation decision time to pass for the innovation-decision process. In fact, the rate of adoption is proportional to the period of adoption of innovation by members of the social system. The social system is a cluster of interrelated community units that have come together for a common goal and have developed a common problem-solving ability (Rogers, 2010).

There are two important factors in the decision-making process. The first is whether the decision is granted free and whether the innovation is voluntarily adopted, and secondly, who made the decision. According to these two elements, the decision on innovation can be one of three categories. These are the *Optional Innovation-Decision*, *Collective Innovation-Decision* and the *Authority Innovation-Decision*. In the *Optional Innovation-Decision*, the decision of innovation was given by the individual and the individual may be different from some perceptions in society. *Collective Innovation-Decision* refers to an innovation recognized by the self-determination of all individuals of society. The adoption of innovation is a collective process. In the *Optional Innovation-Decision*, innovation has been spread and adopted to all the members of a society, but the decision to transition to innovation has been taken by an authority with the influence and power in society (Rogers, 2010).

Rogers' in-depth approach, with each stage of the theory of thought, in terms of both content and meaning, is a communication theory that fits our work. As Rogers has discussed, innovations are gradually adopted by individuals, but we have tried to address this theoretical basis and your position by considering these rapidly advancing innovations and acceptance processes (Rogers, 2010).

In recent years, where research on the internet and social media addiction has increased, human beings have been confronted with serious problems (Chang, 2010). This dependency ratio has increased rapidly,

especially by providing internet access easily via mobile phones. From a psychological point of view, this addiction can cause many problems, ranging from behavioural disorder to loss of relationships. Again, Internet addiction causes people to be isolated from society, weaknesses of relationships, decrease in trust and asocialism (Öztunç, 2013; Tekin, 2012). As a result of the fact that the existing relations start to gain a virtual dimension, the existing relations are being e-social and they are dragged into a process of communication that is not natural. In addition, the most serious side effects of Internet addiction that cause behavioural disorder include anxiety, anxiety, depression and stress (Shaw & Gant, 2002). People who isolate themselves in the mobile world are trying to design their behaviour and lives according to social networks. After a while, people living in the real world with the difficulty of separating the real world, if not treated can lead to severe psychological trauma may result.

4. Literature Review

In Öztunç (2013) research aimed to determine the feelings of the loneliness of adolescents. The goal of the research is to examine the effect of problematic mobile phone use on feelings of shyness and loneliness in accordance with gender, place of accommodation, internet use, place of residence and grade level. For this mission trying to get answers to if there is any meaningful distinction between problematic mobile phone and feelings of shyness and loneliness. Öztunç research aims at clarifying the association between problematic mobile phone use and some decided variables(2013). As a data, he concluded to conduct with 273 pupils from Education Faculty and Faculty of Science and Letters at Sakarya University in the academic year of 2012- 2013. 62.3% of participants were female, 37.3% of partners were male students.

In Öztunç study, a notable distinction was observed among the feeling of shyness and internet use(2013). It has seen that pupils, who do not use the internet very often in their regular lives, feel much shy than students who use it. It can be translated that using the internet decreases the feeling of shyness. There were not found significant differences between the feeling of loneliness and internet use variable. In addition, there were not found meaningful discrepancies between the place of residence, students' grade level and problematic mobile phone use and internet use variables.

Öztunç's research will help to see whether the effects in terms of gender, place of accommodation, internet use, place of residence or grade level while examining the effect of smart cell phone usage on adolescents (2013). Öztunç study will be very useful to analyse the effects in terms of mentioned variables. In addition, the research is very important to be done in Turkey.

Morgan and Cotten's research was an internet survey of college beginners at Mid-Atlantic Mid-Sized University was conducted during the spring of 2002 (2003). They were tried to determine the effect of Internet activities on social aspects and well-being. Unfortunately, a few studies consider that these internet activities may be related to depression. According to this research, reveals the effects of internet usage are growing. In Morgan and Cotten's study determined the impact of internet usage on health and depressive symptoms(2003).

Conclusions show that increased e-mail and instant messaging hours are linked to reduced depressive symptoms. On the contrary an increased internet hour is associated with increased depressive signs. Morgan and Cotten hypothesized that higher levels of internet usage should be associated with lower levels of depressive symptoms, while higher levels of non-communication Internet usage should be associated with increased depressive symptoms(2003). Also, these findings recommend those male students communications, even if by e-mail, is important for reducing depression levels. These conclusions recommend that using the Internet for communication purposes has useful consequences on well-being among college beginners, while non-communication internet usage may be connected with adverse effects on well-being.

Since more people are connected to the internet, researchers have increased the work on the effects of the internet. One of these researches, Morgan and Cotten's study is an important study in terms of comparing the results of this research and considering each aspect with the result that smart mobile phone use increases both social interaction and decreases the sense of loneliness, decreases social insolvency and increases loneliness(2003).

In Doğan, Işıklar, & Eroğlu research, (2010) conducted to observe adolescents' problematic internet usage according to variables, such as gender, internet access situations, interests, their comments about going to an internet cafe. The examination was carried out by the general survey method. The current circumstances were defined and whether there were important connections between the variables or not. the research was done in Turkey, Konya province with the 184, 4th level students who are studying at Selçuklu Atatürk High School. 86 of them were male and 98 them were female. The use of internet in adolescents; variables such as gender, internet access status, interests and whether they find it inconvenient to go to the internet cafe are examined.

According to the results of Doğan and his friends study, it has been revealed that boys and girls use the internet for different reasons(2010). While the girls mostly connected to the internet with the aim of creating e-mail and social relations; men use the internet for playing games, virtual sex, reading news, chatting, meeting new people, accessing illegal materials, music and downloading programs. Girls are supported by the results that are more effected by the negative results of the internet than men. Also, considering the culture of the location, it can be thought that girls see the internet as the only environment in which they will feel free and easily communicate

with people and express themselves. Based on these results, it can be said that girls are more risky in terms of problematic internet usage behaviour than males.

In the research, which examined freshmen communication faculty students of the feeling of loneliness and problematic mobile phone use examined also gender factor, therefore, Doğan's research has a significant relationship with this research to analyzing results according to gender (2010).

Ownership of Japanese mobile phones called *Keitai* has increased quickly day by day among young people. Kamibeppu and Sugiura's research determined *Keitai* usage of younger high school students and consider the effect of using it on their psychology, particularly on their social interaction as friendship (2005). As a data, he concluded to conduct with 651 students, grade 8, from five public junior high schools in the Tokyo cosmopolitan area. Researchers had created a questionnaire and completed with each pupil to figure out the results.

Findings from research conducted that students used *Keitai* much more often for e-mail than as a telephone. Most of them transferred e-mails between classmates. Students ascertained that their own *Keitai* was useful for their friendship and well-being. Students considered that they could not live without their own *Keitai*. The surveyed students positively estimated the effects of using *Keitai* on relations with friends. The students who have a large number of friends are used e-mail more often than those who did not. As a result, usage of *Keitai* mail effectively broadens their inter-personal relations.

Kamibeppu and Sugiura's research will be an important source of literature for this research in addressing both the advantages and disadvantages of using the mobile phone psychologically. This will help to draw the borders more clearly. In addition, the fact that the survey of Kamibeppu and Sugiura's research was conducted with the young generation constitutes the most important point in this study, so it is possible to evaluate the results and add them to the study.

In Siomos, Dafouli, Braimiotis, Mouzas and Angelopoulos research(2008), proposed to detect the diffusiveness of Internet addiction among Greek adolescent students, between 12 to 18 ages. The sample of 2,200 students was selected from 120 classes among 85 schools in Thessaly, Greece. The sample included 10% of all classes in schools of Thessaly. Randomized stratified selection method was used in every school was used. Participants completed the Diagnostic Questionnaire for Internet Addiction (YDQ), based on eight criteria.

The prevalence of Internet addiction among Internet users of Central Greece was found as 8.2%. This percentage mainly the male students who play online games whether at home or at internet cafes. The result shows that internet addiction among Greek adolescents 8.2%. 6.2% of them were males and 2% of them were female. Considering the evaluation of the contemporary condition, Siomos and friends detected at-risk Internet use, establishing it as the fulfilment of three to four of eight criteria. These results concern when considering the rapid growth of the Internet in Greece (2008).

Although this research restricts with Turkey, we must not forget that the Internet is a power that dominates the world. Therefore, Siomos and friends study, which was conducted in young people between 12 and 18 years of age and revealed internet addiction, will be another important literature in this study. It will be enabled to address all aspects of internet addiction.

While many researchers focus on the harmless and negative effects of the Internet, Shaw and Gant aim to reveal the useful and positive effects of internet use (2002). Research participants were undergraduate students at the University of North Carolina at Chapel Hill who study in an introductory psychology course at the time of participation. Forty-six students observed in the study. In Shaw and Gant's research, participants involved in five chat sessions with an anonymous partner and they were they were directed scales to measure depression, loneliness, self-esteem, and social support (2002).

Shaw and Gant's research confirms that the negative effects of the Internet have been exaggerated. According to their findings, sense of depression among the participants could have decreased for reasons independent to the research(2002). As hypothesized, the data point out that chatting on the Internet had useful effects on students. It seems unlikely that college students' depression would reduce as they became more confused in the semester. As a result, internet use was found to reduce loneliness and depression significantly. Somewhat, it is more credible that the reduction in depression was linked to the study.

The research conducted by Shaw and Grant in 2002 on the relationship between Internet Communication and Depression, Loneliness, Self-Esteem and Perceived Social Support is very important in the literature as opposed to the negative loneliness effect of mobile phones. Contrary to this research, Shaw and Grant argued that the intensive use of internet and technology is exaggerated and the fact that there are many psychological social consequences which are brought about by the loneliness without based to the internet. It is a very important study in terms of seeing all the results and perceptions (Shaw & Gant, 2002).

In Moody's research (2001), the association between Robert Weiss's bimodal theory of loneliness and Internet use was examined. Data conducted with 166 undergraduate students. 47 of them were male and 119 of them were female. Participants mean age was 19.2 years. The research carried out in social psychology or introductory psychology classes at a small liberal arts university.

Low levels of social and emotional loneliness were both associated with high degrees of face-to-face networks of friends and high levels of Internet use were associated with low levels of social loneliness and high

levels of emotional loneliness. This might include keeping in contact with distant relatives and friends, although this connection, high Internet usage also links with high emotional loneliness. As hypothesized in research, individuals who consume more time online are more likely to have higher degrees sense of loneliness (Moody, 2001). This proposes that the influence of the Internet on emotional wellbeing might be more complicated. As a conclusion, the Internet can reduce social well-being, even though it is frequently used as a communication tool. Therefore it is inevitable that the research of Moody was in the literature of this research (2001).

The usage of the smart phone can be described as a internet addiction. Accordingly, in Çakır and Oğuz's study (2017) it was proposed to show the relationship between high school students' loneliness levels and their smart phone addiction. Two different questionnaires were used. One of them was "Smart Phone Addiction Scale" and the other one is "UCLA Short Form of Loneliness Scale". The sample of the research was 540 high school students. they were chosen by the randomly selected method from state and private high schools in Ankara in 2014-2015 education year which is the capital city of Turkey.

According to the results of the research, high school students use the smart phone intensively (Çakır & Oğuz, 2017). More than half of the students were male. Nonetheless, female students participating in the research were more likely to have a smart phone dependency than male students. It can be said that female students use the smart phone more, provide more socialization in this way, so they experience more physical symptoms. It can be said that 15 years old students who were in transition to adolescence lived the most. There is a positive and significant relationship between students' smart phone addiction and loneliness levels.

The subject of this research is about the loneliness of the use of smart phones on adolescents. Çakır and Oğuz's study (2017) was one of the important sources of literature for the research is revealing the effects of the use of mobile phones as well as the Internet.

In Gezgin, Hamutoglu, Sezen-Gultekin and Ayas research(2018) aims to examine the association between nomophobia and loneliness. Besides them, analyse the impacts of smart phone and mobile internet usage among adolescents. As data of relevant research, 301 adolescents were engaged. In Gezgin's and friends research, in order to examine distinctions between adolescents groups, the survey method was used(2018). In addition, in order to reveal the relationship between nomophobia prevalence and loneliness among adolescents, the relational survey method was used.

As a general result of mentioned research, there as a notable positive relationship between nomophobia and loneliness in adolescents (Gezgin et al., 2018). Determined that there is the statistically meaningful association between nomophobia and loneliness. Adolescents' nomophobic behaviours levels were at a medium level. The findings show that; when participants lose access to their smart phones, have a sense of loneliness. They could feel anxiety because of failure to interact with others. Base on the results of research, it is reasonable to say that adolescents who suffer from loneliness might have difficulties when they are isolated from their smart phones.

Gezgin and friends research provide to see the results of problematic mobile phone usage and internet usage with the results of the survey and to be associated with this research. In addition, in the research results of Gezgin and friends, the sense of loneliness and nomophobia is positively linked with intensive internet and mobile phone use enriches the related research (2018).

The mobile phone, which is one of the communication tools, has experienced an increase in usage rate every year since it entered our lives. The reason for this increase is the renewal of the usage characteristics of mobile phones with the development of technology and the addition of different functions. The main feature of communication, rather than the purpose of high-level access and information processing has had the opportunity. While the studies focused on creating the feeling of loneliness by the use of intensive mobile phones, Mert and Özdemir pointed out a completely different question in this study (2018). This time, the effect of research loneliness on the use of mobile phones has been discussed. 300 people were selected as the sample. They were selected from among the students attending Uşak University and among the people working in the public institutions of the city of Uşak.

The findings support the effects of loneliness on smart phone addiction (Mert & Özdemir, 2018). It has been found that smart phone addiction has no relation with age, learning and teaching status. The state of loneliness is not proportional to the ages, meaning that people experience less loneliness when they get older.

With the rapidly developing technology, the innovations in the communication tools and the attractive functions they offer us increase the usage time of people. This leads to addiction on devices. As with any addiction, smart phone addiction is common in individuals who are alone. As a way to cope with the sense of loneliness to prevent this, individuals tend to use intensive mobile phones. In the study of Mert and Özdemir, the connection of mobile phone and loneliness with a completely different perception would be a very important literature in terms of the research (2018).

5. Method

5.1. Problem statement.

Although many studies have been carried out on the subject of the sensation of loneliness due to, unconscious internet and smart mobile phone usage, which is uncontrollably increasing among adolescents today,

the use of uncontrolled mobile phones and results continue to increase. If we ignore this problem, we may face irrevocable social-psychological loneliness problems in adolescents who will be the future generation. Results of this study based on a quantitative research method to help determine if the students have a sense of loneliness as a result of smartphone usage.

5.2. Statiscal hypothesis.

This research carried out with freshman students from 3 different departments of communication faculty, which is called as the public relations and advertising; journalism; communication design and media. Of the respondents, 50% of them were female students, 50% of them were male students.

The reason why survey studies are conducted especially with students of communication faculty is to find out whether the use of intensive smartphones restricts communication in real life and drags students into loneliness.

5.3. Scope and limitations.

As the subjects of this research were limited in a particular region. The research limited by only Sakarya University, Communication Faculty. The study was done in 2018. Another limitation of this study is that carried out with the same age range therefore, it is difficult to be generalized the results of the sample group according to adolescents of all ages.

5.4. Sample.

The relevant research was directed with the 120 freshman students who were studying at Communication Faculty of Sakarya University at the Autumn Semester of 2018/2019 Academic Year. The communication faculty of the Sakarya University, which is the universe of this research, was stratified by 3 different departments which is called as the public relations and advertising; journalism; communication design and media. 50% of the students participating in the study were male and 50% were female.

If sample is chosen correctly using the correct procedure in quantitative research, it is then possible to generalise the results to the whole of the research population (Dawson, 2002). Therefore, the sampling type is very important for the validity of the research. Stratified sampling is used to generate samples with better representative ability by reducing sampling mistakes (Sencer & Sencer, 1978, p. 466).

The sampling model, which is a variant of the stratified sample and used in this research, is a disproportionately stratified sample. In the disproportionate stratified sample selection, the number of samples to be selected from each layer is determined and an equal number of samples are taken regardless of the ratio of the layers in the universe (Sencer & Sencer, 1978, p. 470).

In this research, correlated with the description, an equal number of samples were taken from 3 different departments of Sakarya University Communication Faculty. It is appropriate to use the disproportionate stratified sample selection technique when it is desired to represent each layer in the universe in a meaningful and necessary size (Sencer & Sencer, 1978, p. 470).

5.5. Instrument.

In this study, the demographic characteristics of the students (section and gender), were taken note above the completed UCLA Loneliness scale survey form.

5.5.1. Cell phone problem use scale.

Problematic Mobile Phone Use Questionnaire measures the relationship between mobile phone and some psychological variables and the negative effects of long-term usage of mobile phone.

The German original scale was developed by Augner and Hacker in Austria, in German and later translated into Turkish by using the group translation and retranslation. The process of translating scale into Turkish was carried out by Tekin (2012).

The necessary corrections were done in accordance with the suggestions of the 10 experts, and the value of the content validity index of the scale (KGÖ) was found 0.89. Cronbach Alpha value calculated for the reliability analyses of the scales was found 0.854. The scale Turkish questionnaire was accepted as valid and reliable (Tekin, 2012).

Problematic Mobile Phone Use Questionnaire; 1. Dependence (9 questions), 2. Social relations (7 questions), 3. Results (10 questions) consists of three sub-sections. 0-4 points (0 = strongly disagree, 4 = strongly agree), each item included in the Dependence and Social Relations section is scored with 0 (none) - 4 (very frequent) points through the Likert scale. The total score of each answer is collected and the total score is obtained. The total score for the whole scale ranged from 0-104. Getting a high score indicates that the person is using the mobile phone with problems (Tekin, 2012).

5.5.2. Ucla loneliness scale.

UCLA Loneliness Scale (University of California Los Angeles Loneliness Scale) developed by Russel, Peplau and Ferguson in 1978 then, revised by Russel, Peplau and Cutrona in 1980. The adaptation work of the scale was carried out by Demir (1989), the internal consistency coefficient was $\alpha = .96$, and test-retest reliability was found to be $r = .94$ (as cited in Öztunç, 2013, p. 460).

The scale consists of 20 items. 10 of them were directly coded and other 10 were coded in the opposite direction. Individuals were asked to indicate at what frequency they experience situations found in items on the Likert-type scale (Öztunç, 2013, p. 460).

Scale was marked by giving scores to items containing statements in positive direction such as “I never experience it” 4, “I rarely experience it” 3, “I sometimes experience it” 2, and “I often experience it” 1, whereas the items containing negative statements were marked in exact opposite of this such as: “I never experience it” 1, “I rarely experience it” 2, “I sometimes experience it” 3, and “I often experience it” 4 (Öztunç, 2013, p. 460).

The scale consists of 20 questions. the participant gets the opposite point from the number of 1- 4 - 5 - 6 - 8 - 10 - 15 - 16 - 20 questions. 1 gets 4 points, 2 gets 3 points, 3 gets 2 points, 4 gets 1 point. Other questions are scored ordinarily. The highest score is 80 and the lowest score is 20. As the total score increases between 20-80, the feeling of loneliness increases. As the total score decreases, the feeling of loneliness is also reduced.

5.6. Data Collection.

The participants were recruited by randomly among the students who wanted to participate in the survey. Participants were required to complete the loneliness and cell phone problem use scales by giving the most appropriate response to each item and were then required to return the questionnaires in the reply-paid envelope provided. It took 10-15 minutes to complete the data collection tools. Data were collected between 17 December 2018 and 25 December 2018.

5.7. Data Analysis.

Scores for the loneliness and cell phone problem use scales were totalled as per the instructions in the manuals. Each dataset was checked by the researcher and transferred to the computer environment. The data were analysed and tabulated with Excel.

5.8. Definition of Terms.

Loneliness: Loneliness is not the case of being on one's own, it is the case of feeling that psychologically lonely.

Adolescent: Adolescence period includes a wide age range and each period has its own characteristics. Therefore, emphasized the mentioned age range (19-20) in this research.

6. Findings

Table 1

Gender and Departmental Distribution of the Participated Communication Faculty Students

To the Research

Note. n= number of participants. % = percentage of sample. f= female. m= male.

As can be seen in Table 1, surveys were conducted with 3 different departments in the Communication Faculty of Sakarya University. Target population indicated from 50% male and 50% female communication faculty students. 40 students participated in from each department. 20 of these 40 students were male and 20 were female. Each department indicated 33.33% of the target population and this ratio was equally distributed to both genders as 16.7%.

Table 2

Is There Any Significant Difference in the Department of Journalism Between Cell Phone Problem Use and Sense of Loneliness in Terms of Gender?

Scale type	f	m	Difference
Cell Phone Problem Use Scale	45.4	42.3	3.1
Loneliness Scale	39.75	43.85	4.1

Note. f= female. m= male.

The female students who study in the *Department of Journalism* used the mobile phone with 45.4 points problematically while the male students used the mobile phone with 42.3 points problematically. Thus, female students used their mobile phone more problematic with 3.1 points difference. In the department, female students felt 39.75 points sense of loneliness while the male students felt 43.85 points loneliness. Thus, men felt lonelier than female students with a score of 4.1 points.

Table 3

Is There any Significant Difference in The Department of Communication Design and Media Between Cell Phone Problem Use and Sense of Loneliness in Terms of Gender?

Department	n		%	
	f	m	f	m
Journalism	20	20	16.7%	16.7%
Communication Design and Media	20	20	16.7%	16.7%
Public Relations and Advertising	20	20	16.7%	16.7%
Total	60	60	50.0%	50.0%

Scale type	f	m	Difference
Cell Phone Problem Use Scale	50.35	46.45	3.9

Loneliness Scale	40.4	41.75	1.35
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Note. f= female. m= male.

The female students who study in the *Department of Communication Design and Media* used the mobile phone with 50.35 points problematically, while the male students used the mobile phone with 46.45 points problematically. Thus, female students used their mobile phone more problematic with 3.9 points difference. In the department, female students felt 40.4 points sense of loneliness while the male students felt 41.75 points loneliness. Thus, men felt lonelier than female students with a score of 1.35 points.

Table 4

Is There Any Significant Difference in the Department of Public Relations and Advertising Between Cell Phone Problem Use and Sense of Loneliness in Terms of Gender?

Scale type	f	m	Difference
Cell Phone Problem Use Scale	45.4	40.3	5.1
Loneliness Scale	40.75	43.5	2.75

Note. f= female. m= male.

The female students who study in the *Department of Public Relations and Advertising* used the mobile phone with 45.4 points problematically while the male students used the mobile phone with 40.3 points problematically. Thus, female students used their mobile phone more problematic with 5.1 points difference. In the department, female students felt 40.75 points sense of loneliness while the male students felt 43.5 points loneliness. Thus, men felt lonelier than female students with a score of 2.75 points.

Table 5

Is There Any Significant Difference Between Cell Phone Problem Use and Sense of Loneliness in the Communication Faculty in Terms of the Department?

Scale Type	Department of Journalism	Department of Communication Design and Media	Department of Public Relations and Advertising
Cell Phone Problem Use Scale	43.85	48.4	42.85
Loneliness Scale	41.8	41.075	42.125

While the students of the *Department of Communication Design and Media* use more problematic mobile phone than other departments with the 48.4 points, students of the *Department of Public Relations and Advertising* feel lonelier than other departments with the 42.125 points.

7. Summary

In this study, which is based on Rogers' diffusion theory, revealed that whether if there is the relationship between the use of problematic mobile phone and feeling of loneliness.

The mobile phones, one of the innovations easily adopted especially by young people and adolescents has been the subject of various research whether it effects them positively or negatively. It is important to explain the relationship between mobile phones and the sense of loneliness, especially on adolescence and young adults in which characteristics are acquired. Giving the fact that if there is a positive relationship, taking precautions is a very important issue for the psychological health of the next generation.

In this study, it has been investigated whether the problematic use of mobile phones, especially in young people and adolescents, increasing the feeling of loneliness. According to the results of the surveys conducted with 120 freshmen students studying in 3 different departments of Sakarya University Communication Faculty, it was concluded that the problematic users of mobile phone did not feel the sense of loneliness. As a result, no relationship was found between problematic mobile phone use and the sensation of loneliness. As a general conclusion of the research sample, it was concluded that the male students felt lonelier than female students despite the low level of problematic use of mobile phones.

8. Discussions

In many studies that have been studied with different sub-factors, the relationship between mobile phone use and sense of loneliness has been investigated. Based on the findings obtained from the target sample of 120 freshmen students, it can be said that the problematic mobile phone use does not effect the sense of loneliness. The results of previous researches have largely supported this finding (Doğan et al., 2010; Kamibeppu & Sugiura, 2005; Morgan & Cotten, 2003; Shaw & Gant, 2002)

Morgan and Cotten's research (2003) found that using the Internet for communication purposes has useful consequences on well-being among college beginners, while non-communication internet usage may be connected with adverse effects on well-being. This study supports the conclusion of our research that the use of mobile phones, which is a communication tool, does not increase the sense of loneliness.

According to the findings of the study, significant differences in gender were found in problematic mobile phone use and in the sense of loneliness. Although female students use more problematic mobile phones than male students, it is found that male students feel more lonely. Çakır and Oğuz's research (2017) found the same result in his research. At this point, mentioned research is related to our research on the gender factor. On the contrary, it is concluded that the problematic use of smart phones is not related to gender in the study of Mert and Özdemir (2018).

As a result of Shaw and Gant research (2002), internet use was found to reduce loneliness and depression significantly. They found that chatting on the internet had useful effects on students. The findings of the mentioned study are consistent with the result of our study is that intensive communication through mobile phones reduces the sense of loneliness on students.

Mert and Özdemir's research (2018) found that loneliness is increasing as smartphone usage increases. The Moody's research (2001) reveal that, although the internet was used as a communication tool, it may reduce social well-being. These research consistent each other with the results of them. However, our research found that; use problematically mobile phone did not effect the sense of loneliness, therefore these findings do not overlap with our results. Because the purpose of using mobile phones and the internet is very important. As Morgan and Cotten found that, higher levels of internet usage should be associated with lower levels of depressive symptoms, while higher levels of non-communication Internet usage should be associated with increased depressive symptoms (2003). On this point, we should focus on the main purpose of using the internet and mobile phone.

It is possible to emphasize the results of the research of Kamibeppu and Sugiura (2005) as an example of how important the purpose of using mobile phones and the internet. When used for communication purposes, positive results have been proven to increase social well-being and students interaction. Students used *Keitai* (Japanese mobile phone) much more often for e-mail than as a telephone. Most of them transferred e-mails between classmates. Students ascertained that their own *Keitai* was useful for their friendship and well-being (Kamibeppu & Sugiura, 2005). These results are confirming our results of research.

9. Conclusions and Recommendations

With the rapidly developing technology, the purpose of using modern technology and its tools are changing. The use of this changing technology, on the one hand, meets our needs and on the other hand, bring up some problems.

In this study investigated whether the effect of problematic mobile phone use on the sense of loneliness. The research was conducted with the university freshman students, who are still considered to be adolescents. Related surveys conducted with 120 freshmen students studying in 3 different departments of Sakarya University Communication Faculty.

As can be seen in Table 2, while the female students who study in the journalism department used the more problematic mobile phone, male students felt lonelier than females. These results were the same for males and females who study in the department of communication design and media (Table 3) and the department of public relations and advertising (Table 4).

As seen in Table 5, while the students of the Department of Communication Design and Media used more problematic mobile phone than other departments with the 48.4 points, students of the Department of Public Relations and Advertising felt lonelier than other departments with the 42.125 points. Therefore, as a general conclusion of the research, students who used problematically mobile phones did not feel the sense of loneliness at a high point. Use of mobile phone allows them to become more socialized, and in this way, students do not feel themselves in a sense of loneliness.

In future studies, the problematic use of mobile phones on young adults and adolescents can be tried in different research groups and with the larger samples.

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