

## COMMUNICATION BARRIERS IN QUALITY PROCESS: SAKARYA UNIVERSITY SAMPLE

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### ABSTRACT

Communication has an important role in life and especially in education. Nowadays, lots of people generally use technology for communication. When technology uses in education and other activities, there may be some communication barriers. And also, quality process has an important role in higher education institutes. If a higher education institute tries to pursue a quality management system, some problems may occur in this process. This study aims to reveal the communication problems faced by the teaching staff in quality processes.

### INTRODUCTION

Global society is now in an information century. In this century, people are witnessing communication revolution. In this revolution, the communication technologies have been developing very fast. Especially Web 2.0 tools and other communication tools via internet get people together online (Isbulan, 2011). This development has altered the structure of education system. Especially in the quality processes people need clear and understandable communication tools. Creating effective communication among people and establishing contacts are the survival needs of human being. People cannot live without communicating (Isman, et al., 2003). New education system is more efficiency and effective because teachers and students use new technologies for teaching and learning. Modern information technology now affords organizations, businesses, individuals, and institutions of learning a variety of options for engaging in communication and information exchange (Kiyici, 2011). Using technology in the classroom sometimes creates some communication barriers for students and teachers. According to Berge & Collins (1995), certainly there are barriers to technologically rich learning environments: faculty reward structures, high front-end costs, training, equal access, student support, administrative, technical issues, copyright issues, and faculty resistance to name a few.

Knapp & Glenn revealed that teachers who teach with technology:

- Expect more from their students and expect their students to take more care in preparing their work
- Can present more complex material
- Believe students understand more difficult concepts
- Can meet the needs of individual students better
- Can be more student-centered in their teaching
- Are more open to multiple perspectives on problems
- Are more willing to experiment
- Feel more professional because, among other things, they spend less time dispensing information and more time helping students learn (Knapp, & Glenn, p. 17, 1996).

As the quality refers having product or service differentiation within a competitive environment, higher education institutions need to be involved in quality improvements by service differentiation to gain competitive advantage (Aksal, F. 2009). With technology, especially communication and communication tools has gained lots of developments. These developments have facilitated communication. At the same time, with technology, quality process has lots of developments. Many universities in the world are trying to implement quality processes. They also want to increase the quality of education and alumni. To do that, learning and teaching environment at the universities should be redesigned because there is a big diversity among students. Higher education institutes should offer different programs for their diverse students because each student would like to prefer to take different courses for their future. In other word, there should be a flexible curriculum. If they take their “most wanted” courses, they will be ready to compete with other national and global alumni all over the world to find a good job. If their alumni find a good job in the global market, they will be “most wanted” higher education institute. The students are universities costumers. Their demands should be taken into account by universities. In addition, the universities should take students’ attention in order to get more students applications.

To be able to take students’ attentions, higher education institutes should know Quality management models. These models may be appropriate for different global universities. Becket & Brookes (2008) explain Quality management models in Table 1.

**Table 1: Quality management models**

Model	Definition
TQM	A comprehensive management approach which requires contribution from all participants in the organization to work towards long-term benefits for those involved and society as a whole.
EFQM excellence model	Non-prescriptive framework that establishes nine criteria (divided between enablers and results), suitable for any organization to use to assess progress towards excellence.
Balanced scorecard	Performance/strategic management system which utilises four measurement perspectives: financial; customer; internal process; and learning and growth.
Malcolm Baldrige award	Based on a framework of performance excellence which can be used by organizations to improve performance. Seven categories of criteria: leadership; strategic planning; customer and market focus; measurement, analysis, and knowledge management; human resource focus; process management; and results.
ISO 9000 series	International standard for generic quality assurance systems. Concerned with continuous improvement through preventative action. Elements are customer quality and regulatory requirements, and efforts made to enhance customer satisfaction and achieve continuous improvement.
Business process re-engineering	System to enable redesign of business processes, systems and structures to achieve improved performance. It is concerned with change in five components: strategy; processes; technology; organization; and culture.
SERVQUAL	Instrument designed to measure consumer perceptions and expectations regarding quality of service in five dimensions: reliability; tangibles; responsiveness; assurance and empathy; and to identify where gaps exist.

Some of these models are more suitable for industrial companies. But, all these models give more ideas for higher education institutes to establish their own quality management system.

Higher education continues to be acknowledged as one of the primary policy responsibilities of European nation-states. However, national higher education arrangements are increasingly affected by international pressures, and the higher education sector in Europe is at present significantly influenced by two European level policy developments: firstly, the higher education reforms initiated by the Bologna Process, and, secondly, the research aspects of the European Union's Lisbon Strategy for jobs and growth (Keeling, 2006). Briefly, the lead up to the 'Bologna Process' began in 1998, when ministers in charge of higher education from France, Germany, Italy and the United Kingdom (UK) signed the 'Sorbonne Declaration' which called for the harmonization of higher education qualification systems in Europe. The Bologna process was launched the following year when representatives from 29 EU countries signed the 'Bologna Declaration' and committed themselves to reform their own higher education system and achieve convergence at European level by 2010 (Bologna Declaration, 2009). One of the key differences in the way the Bologna process works lies in how this combination of EU institutions, expert groups and lead organizations was able to achieve rapid progress on a range of issues including harmonization of degree recognition that had in some cases been taxing the EU for a considerable time (Furlong, 2005).

The Bologna Process of creating the European Higher Education Area and the simultaneous emergence of the European Research Area can be viewed as two sides of the same coin: that of the redefinition of the roles, missions, tasks, and obligations of the institution of the university in Europe's rapidly changing and increasingly market-driven and knowledge-based societies and economies (Marek, 2004). For example The Engineering Education Community in Europe as represented by the European Society of Engineering Education (SEFI) and the Conference of European Schools for Advanced Engineering Education (CESAER) have repeatedly expressed that in general they support the aims and objectives of the Bologna Process (Heitmann, 2005). However, the higher education institutes should create their own quality management model according to the Bologna Process and communication skills have very important place in this issue.

### Purpose

This study aims to reveal the communication problems faced by the teaching staff in quality processes. After determining the technology barriers faced by the teaching staff, it was tried to investigate if there is a communication barriers according to teaching staffs';

- Gender
- Computer education
- Academic title
- Computer usage experiences
- Internet usage experiences

### Data Collection Tool

In order to collect research data a survey was used which was developed by Isman and others in 2008. Survey was re-organized according to the quality process items after having obtained permission from the researchers. The data collection tool used in the research consisted of 6 questions defining demographic characteristics and processes, 16 questions measuring tool identifying barriers faced by instructors within the framework of quality processes.

The data collection tool was distributed to the instructors by hand and the ones who were willing to contribute were given 3 days for submission. The 136 questionnaires that were returned from the faculty members at the end of the data collection process were used as the source of the data in research.

### Findings

**Table 2. Demographic characteristics of participating teaching staff**

		Frequency	Percent
Gender	Male	85	62.5
	Female	51	37.5
Computer training	Yes	83	61.0
	No	47	34.6
Position	Prof.Dr.	12	8.8
	Assoc.Prof.Dr.	15	11.0
	Assist.Prof.Dr.	43	31.6
	Lecturer	11	8.1
	RA / TA	55	40.4
	Faculty	Faculty of Education	34
	Faculty of Science	23	16.9
	Faculty of Fine Arts	7	5.1
	Faculty of Medicine	9	6.6
	Law School	3	2.2
	Faculty of Engineering	18	13.2
	Faculty of Theology	1	0.7
	Faculty of Economics and Administrative Sciences	11	8.1
	Faculty of Technology	3	2.2
	Faculty of Computer and Information technology	5	3.7
	Faculty of Business Administration	17	12.5
	School of Physical Education and Sports	3	2.2

Demographic characteristics of instructors participating in the survey are summarized in Table 1. According to the research results of the instructors participating in the survey, 62.5% were male and 37.5% were female, 61% of the instructors who participated in the research had computer training while 34.6 % did not have computer training.

The distribution of titles revealed that, of the instructors participating in the study, 8.8%, were professors, 11% were associate professors, 31.6% were assistant professors, 8.1% were instructors and 40.4% were research assistants. The distribution of the instructors who participated in the research were employed in the faculties as follows. Faculty of education: 25%, faculty of arts and science: 16.9%, faculty of engineering: 13.2%, faculty of economics and administrative sciences: 12.5%.

**Table 3. Statistical information about the lecturers' experience of using computers and the Internet**

	experience of using computer	experience of using the internet
Mean	15.59	12.41
Median	15.00	12.00
Std. Deviation	4.547	3.078
Minimum	6	5
Maximum	28	20

According to table 2, faculty members participating in the survey are summarized in descriptive statistics about their experience in using computers and the internet. Table 2 shows that faculty members participating in the survey have an average of 15.59 years of experience of computer use and 12.41 years of experience of internet use. In addition, when looking at the experience of using the computer at extreme values, the least experienced computer user had 6 years of experience while the most experienced one had 28 years of experience and the least experienced internet user had 5 years of experience while the most experienced one had 20 years.

**Table 4. Responses to the items of the questionnaire according to the t-test results of gender**

	Items	t	df	p
1	I believe that I don't take an effective education about quality process	1,367	132	0,174
2	I believe that there are no well organizations to catch different units during quality process	0,830	132	0,408
3	I believe that there is a lack of incentives and release time during quality process.	0,288	131	0,774
4	I believe that female faculties have positive attitudes towards quality process.	0,160	129	0,874
5	I believe that I feel socially isolated because of having lack of person to person contact during quality process.	0,132	132	0,895
6	I believe that I have negative attitudes to quality process.	0,897	132	0,371
7	I believe that I have no connection with my friends during quality process.	1,846	131	0,067
8	I believe that I need non-verbal feedback (movie, presentation etc.) communication during quality process.	0,672	131	0,503
9	I believe quality process irritates me.	-0,305	132	0,761
10	I believe that I don't like to explore institutional innovations during quality process.	1,633	132	0,105
11	I believe that the structure of culture of society in where I live blocks quality process.	0,207	132	0,836
12	I believe that writing guide book about quality process prevents me to adopt quality process.	0,853	132	0,395
13	I believe that gender plays a key role in quality process.	0,201	128	0,841
14	I think ethics issues are not considered in quality process.	-0,600	130	0,550
15	I believe that my belief affects my institution quality process.	0,326	128	0,745
16	I believe that I don't understand the terms about quality process.	-0,240	128	0,811

After t-test values analyses it is stated that there are no significant differences ( $p < .05$ ) between gender and responses given to the items.

**Table 5. Responses to the questionnaire items according to the t-test results of receiving computer training.**

	training	N	Mean	T	df	p
I believe that there are no well organizations to catch different units during quality process.	Yes	83	3,70	3,856	127	0,000
	No	46	3,00			
I believe that there is a lack of incentives and release time during quality process	Yes	83	3,90	4,256	127	0,000
	No	46	3,13			
I believe that I feel socially isolated because of having	Yes	83	2,91	2,683	127	0,008

lack of person to person contact during quality process.	No	46	2,85			
	Yes	83	2,98			
I believe quality process irritates me.	No	46	2,50	2,143	127	0,034

The t-test was administered in order to determine whether or not the lecturer responses given to the questionnaire revealed any differences according to whether computer training was received or not. According to t-test results, the responses of the instructors differed in only four items according to whether computer training was received or not. T-test results revealed that participants who received computer training believe that “there are no well organizations to catch different units during quality process” than participants who did not receive computer training within the framework of quality processes ( $t(127)=3,856, p=0.000$ ). It was witnessed that participants who received computer training believe that “there is a lack of incentives and release time during quality process” than participants who did not receive computer training within the framework of quality processes ( $t(127)=4,256, p=0.000$ ). And also t-test results revealed that participants who received computer training believe that “they feel socially isolated because of having lack of person to person contact during quality process” ( $t(127)=2,683, p=0.008$ ) and “believe quality process irritates them” ( $t(127)=2,143, p=0.034$ ) than participants who did not receive computer training within the framework of quality processes.

**Table 6. Responses to the items of the questionnaire according to the t-test results of computer experience**

	Items	t	df	p
1	I believe that I don't take an effective education about quality process	0,876	128	0,383
2	I believe that there are no well organizations to catch different units during quality process	0,906	128	0,367
3	I believe that there is a lack of incentives and release time during quality process.	0,418	127	0,677
4	I believe that female faculties have positive attitudes towards quality process.	0,302	126	0,763
5	I believe that I feel socially isolated because of having lack of person to person contact during quality process.	1,753	128	0,082
6	I believe that I have negative attitudes to quality process.	0,134	128	0,894
7	I believe that I have no connection with my friends during quality process.	0,927	128	0,356
8	I believe that I need non-verbal feedback (movie, presentation etc.) communication during quality process.	0,740	127	0,461
9	I believe quality process irritates me.	0,947	128	0,345
10	I believe that I don't like to explore institutional innovations during quality process.	0,039	128	0,969
11	I believe that the structure of culture of society in where I live blocks quality process.	0,789	128	0,432
12	I believe that writing guide book about quality process prevents me to adopt quality process.	2,089	128	0,059
13	I believe that gender plays a key role in quality process.	0,594	125	0,554
14	I think ethics issues are not considered in quality process.	1,523	127	0,130
15	I believe that my belief affects my institution quality process.	0,475	124	0,636
16	I believe that I don't understand the terms about quality process.	1,000	124	0,319

After t-test values analyses it is stated that there are no significant differences ( $p<,05$ ) between computer experiences and responses given to the items.

**Table 7. Responses to the items of the questionnaire according to the t-test results of internet experience**

	Items	t	df	p
1	I believe that I don't take an effective education about quality process	0,460	128	0,646
2	I believe that there are no well organizations to catch different units during quality process	0,631	128	0,529
3	I believe that there is a lack of incentives and release time during quality process.	0,036	127	0,971
4	I believe that female faculties have positive attitudes towards quality process.	0,473	126	0,637
5	I believe that I feel socially isolated because of having lack of person to person contact during quality process.	0,433	128	0,666
6	I believe that I have negative attitudes to quality process.	0,444	128	0,658
7	I believe that I have no connection with my friends during quality process.	1,144	128	0,255

8	I believe that I need non-verbal feedback (movie, presentation etc.) communication during quality process.	1,080	127	0,282
9	I believe quality process irritates me.	0,234	128	0,815
10	I believe that I don't like to explore institutional innovations during quality process.	0,753	128	0,453
11	I believe that the structure of culture of society in where I live blocks quality process.	0,024	128	0,981
12	I believe that writing guide book about quality process prevents me to adopt quality process.	0,124	128	0,901
13	I believe that gender plays a key role in quality process.	0,266	125	0,791
14	I think ethics issues are not considered in quality process.	0,780	127	0,437
15	I believe that my belief affects my institution quality process.	1,021	124	0,309
16	I believe that I don't understand the terms about quality process.	0,102	124	0,919

After t-test values analyses it is stated that there are no significant differences ( $p < .05$ ) between internet experiences and responses given to the items.

**Table 8. Responses to the items of the questionnaire according to one –way anova Test results of research participants' titles**

		Sum of Squares	df	MeanSquare	F	Sig.
I believe that there is a lack of incentives and release time during quality process	BetweenGroups	11,784	4	2,946	2,808	,028
	WithinGroups	134,291	128	1,049		
	Total	146,075	132			
I believe that I feel socially isolated because of having lack of person to person contact during quality process	BetweenGroups	18,102	4	4,526	4,194	,003
	WithinGroups	139,182	129	1,079		
	Total	157,284	133			
I think ethics issues are not considered in quality process	BetweenGroups	25,994	4	6,499	5,619	,000
	WithinGroups	146,885	127	1,157		
	Total	172,879	131			

In order to see if the instructors' responses differed according to their title, one way anova test was administered. According to the Anova Test Results, the responses given by the Instructors differed according to their titles, in 3 items.

In the analysis of the responses given to "I believe that there is a lack of incentives and release time during quality process" which was done according to the instructors' titles, there were significant differences ( $F=4,609, p=0,028$ ). In the post-hoc tests (LSD) administered after one way ANOVA, it was apparent that the research assistants significantly believe that there was a lack of incentives and release time during quality process than assistant professors. Another significant difference was observed in the analysis performed according to Instructors' titles, "I believe that I feel socially isolated because of having lack of person to person contact during quality process". ( $F=4,194, p=0,003$ ). In the post-hoc tests (LSD) administered after one way ANOVA, it was apparent that the research assistants significantly believe that they felt socially isolated because of having lack of person to person contact during quality process than assistant professors. In the analysis of the responses given to "I think ethics issues are not considered in quality process" which was done according to the instructors' titles, there were significant differences ( $F=5,619, p=0,000$ ). In the post-hoc tests (LSD) administered after one way ANOVA, it was apparent that the research assistants significantly believe that ethics issues were not considered in quality process than professors, associate professors, assistant professors and lecturers.

## RESULTS

According to research results, the majority of the participants were male. Of the participants 61% of instructors had previously received computer training. The instructors' experiences of using computers and the Internet are analyzed and the instructors are reported to have been using computers for an average of 15:59 years, the internet for 12:41 years. As a result of the statistical analysis on the 16 item assessment tool, the t-test analysis revealed there are no significant differences according to gender. Analysis carried out according to receiving computer training or not, showed significant differences in only 3 items. T-test results revealed that participants who received computer training believe that "there are no well organizations to catch different units during quality process", "there is a lack of incentives and release time during quality process" and "they feel socially isolated because of having lack of person to person contact during quality process" than participants who did not receive computer training within the framework of quality processes. In The One Way ANOVA conducted according to the titles of instructors indicated significant differences in three items. In these items research assistants believe that there was a lack of incentives and release time during quality process, that they felt socially isolated because of having lack of person to person contact during quality process and ethics issues were not considered in quality process.

According to the research results, the instructors' perceptions of the barriers did not differ widely according to gender, computer experience and experiences of the internet. It is suggested that future research topics related to the perceptions of barriers faced by the teaching staff within the framework of quality processes should obtain the views of instructors explained qualitatively and studies should be conducted by selecting a method of qualitative research.

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