The Evaluation of the Course "Introduction to School Experience I" with respect to Information Technologies.

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Introduction

Technology shows a fast development thus affecting our social life in management, banking, education and so forth. Therefore, educators should respect scientific and technological developments. Taking into consideration the fact that most education reform leaders recognized that technology is just a sideshow and that education is an eternal institution and that reform requires doing more of the same only better to Perelman (1992). One of the most important technologies of today is the computer. In all aspects of life, computers are widely used especially in education. In schools the use of information technologies has increased dramatically in Turkish Higher Education system. In the colleges in 2001, there were more than 100,000 information technologies (TV, computer, internet, data projection and others). This number increased to over 200,000 by the year 2002. Some information technologies, for example computers, are widely used for instruction and administrative management and in education settings (Maddux, Johnson, & Willis, 1997) thus affecting all facets of our lives.

Technology can fit comfortably with the teachers' instructional plans and philosophy thus representing an extension rather than an alternative or an addition (Grabe & Grabe, 2001). Instructional technology can play various roles in classrooms. With the use of information technologies, students can play an active role in instructions. It also enhances interaction among students so that they can share their learning experiences and collaborate with each other, and construct new knowledge in their minds. The teacher's role then shifts from "dispenser of knowledge" to "facilitator of learning" (Grabe & Grabe, 2001).

The fact that information technologies have changed the educational system is lucid. The productivity of students in college level towards institution and the subject studied have shown a positive result (Geisert & Futrell, 2000). Computers can help students to attain specific instructional objectives. Students can become active participants in learning (Simon & Thompson, 1994). In an information technology based environment, learners can make progress at their own space. Computers can be an effective teaching aid to instruction and improve the learning (Anglin, 1995; Simonson & Thompson, 1994). Information technologies can offer appropriate feedback to learners' responses.

In considering technology effectiveness in the classroom situation and its influence on our society, it becomes critical that school should plan to educate students accurately in the use of information technologies (Merrill at al., 1992). Information technologies should be properly integrated with the curriculum. Information based learning is the most popular term used to describe technology application in education as well as the interaction of a learner with the information technology in the Turkish education system.

In order to be able to use information technologies effectively and innovatively in class, student-teachers should be trained and or educated properly.

The aim of the research

In the process to reconstruct the faculties of education, and to help students in these faculties learn about the teaching profession and be trained, the importance of the course "Introduction to School Experience I" and its contribution to the training of students with respect to information technologies forms the aim of this research.

The place where the research took place

The research focused on freshman students studying in the Department of Computing and Educational Technology, Faculty of Education, at Sakarya University, Turkey. Students were selected randomly and they were asked to fill in a questionnaire. Its aim was to evaluate the course, "Introduction to School Experience I", with respect to information technologies.

The Questionnaire

The questionnaire used in this research had been prepared and developed by the teaching staff at Sakarya Univeristy in the Faculty of Education , Department of Computing and Educational Technology. The questionnaire consisted of seven questions, four about the participants' personal information and the remaining three were about information technologies, which were divided into further questions that were categorized as:

1. Audio-Visual technologies (this section comprised of 9 questions related with the usage of TVs, videos, CDs, film reels, video cameras, radios, tapes, as well as overhead and slide projectors).
2. Computer technologies (the section had ten questions about the usage of windows, DOS, Power Point, Word, Excel, scanners, digital cameras, CD-ROM, data show, and multimedia equipment).

3. Internet-based technologies (five questions on the usage of the internet, construction of a web page, usage of internet cameras, teleconferences, and search engines).

The total questions in the questionnaire was 28.

Data of the Research
The data used in this research was obtained after the participants filled in the questionnaire. It was given to 25 students in the Department of Computing and Educational Technology in the academic year 2001-2002. The questionnaire took into consideration the differences in gender, socio-economic background, type of secondary education received, and the school attended for teacher trainning purposes.

The statistical method of the research
The percentages (frequencies) obtained at the end of the questionnaire had been analyzed using pre-prepared statistics programmes like the t-test and one-way ANOVA SPSS.

The Demography of the participating students
The research revealed the demographic structure of the participants. The gender of the students filling in in the questionnaire is shown in the following table.

Gender	Frequency	Percentage
Female	4	16
Male	21	84
Total	**25**	**100**

Four female students and 21 male students took part in the research; therefore, the participant percentages were 16% females and 84% males.

The socio-economic condition of the participants

Income	Frequency	Percentage
<= 100 Milyon TL	5	20
101-200 Milyon TL	8	32
201-300 Milyon TL	2	8
301-400 Milyon TL	10	40
Total	**25**	**100**

The incomes of the families from which the students came was as: those coming from families with an income of 100 million Turkish Liras (TL) or less were 5 and this made up 20% of the participants. Those whose families income was between 101-200 million TL made up 32%, which was 8 participants. Incomes between 201-300 million TL were 2 students, which made up 8%; and between 301-400 million were 10 making up 40%. This table showed that the economical background of the students was between 101-200 and 301-400 million TL per month.

The type of secondary school they came from

Schools	Frequency	Percentage
High School	4	16
Vocational High School	19	76
Teacher High School	0	0
Other kinds High Shools	2	8
Total	**25**	**100**

As seen from the preceeding table, the majority of the participants were vocational school graduates. Nineteen of the students came from such schools and this made up 76%. This, therefore, showed us that those who were in the Department of Computing and Information Technology of the University came from the computer departments of these schools. This table also showed that the number of students coming from the teacher trainning school was zero.

The place where the participants attended high school

Location	Frequency	Percentage
Village	2	8
County	7	28
City	9	36
Metropolitan	7	28
Total	**25**	**100**

In general, the place where the participants attended high school showed a fair distribution between the cities, counties, and metropolitan schools. Whereas 9 of the participants did their education in city schools, the number of participants who did their education in metropolitan and county schools was 7 in each.

Result of the research
The data received at the end of this research depended on the questions answered in the questionnaire and on the statistics done to get the percentages. The questions had four alternatives:
1. Have no idea
2. Had no experience
3. Had a little experience
4. Had considerable experience

The percentages obtained from the answers
The results show that the course (Introduction to School Experience I) provided considerable aid and assistance in Computing and Internet based Technology and in the usage of information technologies.

| EXPERIENCE OF USING | NO IDEA | | HAD EXPERIENCE | | | | | | TOTAL | |
| | | | NO | | LITTLE | | CONSIDERABLE | | | |
	f	%	*f*	%	*f*	%	*f*	%	*f*	%
TV	3	12	14	56	2	8	6	24	25	100
Video	6	24	8	32	7	28	4	16	25	100
Laserdiscs (CD)	3	12	2	8	3	12	17	68	25	100
Film reels	5	20	13	52	3	12	4	16	25	100
Video cameras	5	20	12	48	1	4	7	28	25	100
Radio	5	20	8	32	2	8	10	40	25	100
Tapes	4	16	9	36	4	16	8	32	25	100
Overhead projector	5	20	8	32	2	8	10	40	25	100
Slide projector	6	24	13	52	1	4	5	20	25	100
Windows	3	12	0	0	3	12	19	76	25	100
DOS	4	16	1	4	4	16	16	64	25	100
Microsoft word	4	16	0	0	4	16	17	68	25	100
Microsoft powerpoint	3	12	2	8	5	20	15	60	25	100
Micrososft excel	3	12	0	0	4	16	18	72	25	100
Scanner	4	16	1	4	6	24	14	56	25	100
Digital Camera	3	12	8	32	4	16	10	40	25	100
CD-ROM	3	12	0	0	2	8	20	80	25	100
Data show	2	8	5	20	7	28	11	44	25	100
Mutimedia equipments	3	12	3	12	5	20	14	56	25	100
Internet	3	12	0	0	8	32	14	56	25	100
Constructing a web page	4	16	8	32	6	24	7	28	25	100
Internet camera	1	4	11	44	4	16	9	36	25	100
Teleconference	2	8	11	44	3	12	9	36	25	100
Search engines	2	8	1	4	4	16	18	72	25	100

The questionnaire included the following questions:
Did you have experience in using the TV?
56% of the participants said "no experience", but 24% said they "had considerable experience." This percentage showed that the participating students "had no experience" in using the TV in their "Introduction to School Experience I."

Did you have experience in the usage of videos?
The results show that 32% of the participants "had no experience" whatsoever whereas 16% "had considerable experience" in using the videos in their "Introduction to School Experience I" course. This percentage indicates that the students did not have considerable experience.

Did you have any experience in the usage of laserdiscs (CD) ?
The results show that the students taking "Introduction to School Experience I" had considerable experience in the usage of CDs. The percentages were 8% for "had no experience" and 68% for "considerable experience."

Did you have enough experience in using the film reels?

The percentage of students who answered "no experience" was greater than that of who answered as "had considerable experience." In percentages this is 52% for "no experience" and 16% for "considerable experience." This result shows that the course does not provide enough experience for the students.

Did you have enough experience in using the video cameras?
The percentage of students who answered "no experience" was greater than that of who answered "had considerable experience." In percentages this is 48% for "no experience" and 28% for "considerable experience." This percentage shows that the course does not provide enough experience for the students.

Did you have enough experience in the usage of radio?
32% of the students said "had no experience" and 40% said "had considerable experience." The course then, provided enough pratice in the usage of radio.

Did you have experience in using tapes?
Those who answered "no experience" made up 36%, whereas 32% made up those who said had "considerable experience." This result showed that the two percentages were very close to each other.

Did you have any experience in using the overhead projector?
Those who took part in the questionnaire said that in their "Introduction to School Experience I" course, 48% had experience.

Did you have experience in using slide projector?
Those who answered as none were 52%, and those who said "had considerable experience" were 20%. These results showed that the students taking "Introduction to Education I" had no experience regarding the usage of slide projector.

Based on the results obtained by the questionnaire, we may conclude that the students had no experience in audio-visual technologies in this course. This finding also showed that the lack of such technologies or not having enough help from such technologies were the two main issues in the faculty.

Do you have any experience in Windows?
The participating students' answers showed that those with no experience were 0% and those who said had considerable experience was 76%. Therefore, we could conclude that the students had enough experience in their "Introduction to School Experience I."

Did you have experience in the usage of DOS?
The percentage of those who had no experience at all was 4% and those that had considerable experience were 64%. This percentage showed that in this course, students had enough experience to use DOS.

Did you have experience in using Word?
Results revealed that all of the students had experience in using Word; percentages were 0% versus 68%. We could then conclude that the course supplied considerable experience in the usage of the Word.

Did you have experience in using Power Point?
Students who answered as not having any experience comprised 8% of the total and those who answered as having considerable experience comprised 60%. This percentage also showed that the students had enough experience in using PowerPoint in their "Introduction to School Experience I."

Did you have experience in using Excel?
Participants' answers showed that all the students had enough experience using the Excel, because those who said "no experience" was 0% and those who said "had considerable experience" was 72%. This result indicates that students got enough experience regarding the usage of Excel in their course.

Did you have experience in using the scanner?
Participants said they "had considerable experience" in using the scanners. For example, 4% said they "had no experience" while 56% said they "had considerable experience"; which suggest that students got enough experience regarding the usage of Scanner in their courses.

Did you have experience in using the digital camera?

Participants indicated that they "had considerable experience" in using the Digital Cameras. For example, 32% said they "had no experience" while 40% said they "had considerable experience", which suggest that students got enough experience regarding the usage of Digital Camera in their courses.

Did you have experience in using the CD-ROM?
Amongst the participating students none answered as having no experience; however, those who had considerable experience comprised 80%. Hence, the results showed that the students taking the course got enough practice in the usage of the CD-ROM.

Did you have experience in the usage of the data show?
Those participants who "had no experience" at all made up 20% and those with "considerable experience" made up 44% of the total. This result showed that the course offered enough help for using the data show.

Did you have experience in using the multimedia equipment?
The participants responded as none was 12%, and the answer for "considerable experience" was 56%. This percentage showed that the course enabled students to use such technologies. Taking the results into consideration, we could say that the active (efficient) usage of the multimedia laboratories had a prominent role in these results.

Did you have experience in the usage of the Internet?
The participants responded 0% for "no experience" and 56% for "had considerable experience" questions. Using these percentages, we can conclude that students did receive enough experience to be able to use the Internet.

Did you have experience in constructing a web page?
The participants responded 32% for "no experience" and 28% for "had considerable experience" questions. This result clearly indicated that the course did not provide enough practice for the students in the web page construction.

Did you have experience in using the Internet camera?
The percentages showed clearly that the course did not improve or add to the knowledge of the students to use the Internet camera efficiently because the percentages of the students were 44% to 36%. The former percentage is the one "no experience" and the latter "considerable experience."

Did you have experience in using the teleconference?
Those participants who answered "no experience" made up 44% and those who answered "had considerable experience" made up 36%. By looking at these results, we concluded that the course offered no guidance or enough guidance in using the teleconference technology.

Did you have experience in using the search engines?
Those participants who responded "I never had any experience in using a search engine" comprised 4%; and "I had considerable experience in using the search engine" comprised 72% of the total. These results indicated clearly that the students received enough help from the course to be able to use a search engine effectively.
Furthermore, we concluded that the experiences indicated here showed clearly that the students studying in the Department of Computing and Information Technology received enough practice on internet based courses in their "Introduction to School Experience I" classes.

Statistical Analysis
After the questionnaire was completed and the percentages were taken, it was important to see if the results showed any variations due to the differences in gender, socio-economic conditions, the type of secondary education received and the area in which training was done. Therefore, t-test was applied to find the gender differences and one-way ANOVA to find the others. While doing so, the value of alpha (α) was accepted as 0.05. All comparative analysis was made according to this value.

EXPERIENCE OF USING	t-test & gender analysis	One-way ANOVA (socio-economic background)	Type of seocndary school	Area of Secondary school
TV	0.300	0.184	0.297	0.300
Video	0.212	0.156	0.622	0.591

Laserdiscs (CD)	0.304	0.380	0.947	0.548
Film reels	0.642	0.480	0.140	0.749
Video cameras	0.120	0.273	0.325	0.405
Radio	0.090	0.132	0.871	0.842
Tapes	0.420	0.160	0.203	0.399
Overhead projector	0.100	0.008	0.467	0.589
Slide projector	0.059	0.052	0.417	0.988
Windows	0.652	0.450	0.449	0.606
DOS	0.180	0.617	**0.004**	0.346
Microsoft word	0.595	0.804	0.343	0.738
Microsoft powerpoint	0.810	0.364	**0.029**	0.700
Micrososft excel	0.552	0.530	0.679	0.853
Scanner	0.700	0.284	0.547	0.308
Digital Camera	0.301	0.137	0.209	0.276
CD-ROM	0.097	0.292	0.797	0.728
Data show	**0.014**	**0.000**	0.174	0.449
Mutimedia tools	0.142	**0.002**	0.092	0.687
Internet	0.938	0.070	0.463	0.168
Constructing a web page	**0.001**	0.015	0.338	0.289
Internet camera	0.300	**0.007**	0.531	0.496
Teleconference	0.255	**0.000**	0.363	0.623
Search engines	0.100	0.689	0.538	0.347

t-test and gender analysis
Some of the questions analyzed showed results greater than that of alpha. In such questions, there were notable differences due to gender.
Besides these questions, there were those which showed values less than that of alpha. The questions and their results were as follows:

- Experience in using the **Data Show-** calculated value 0.014
- Experience in **www page construction**- calculated value 0.001

The gender result of the t-test
Results revealed notable variations due to gender in the usage of the data show (0.014). It was clearly seen from the results that the male participants had more experience in using the data show as compared to the female participants.
Constructing a web page experience results also showed gender oriented differences (0.001). From the result, we could tell that the male participants were more experienced than to the female participants in the construction of a web page.

One-Way ANOVA Analysis
Analysis of the socio-economic backgrounds
Some of the results of the questionnaire had values greater than that of alpha. In the results of such questions, there were no notable differences (calculated value > value of alpha 0.05). The questions answered taking there socio-economic backgrounds into consideration.

Some questions had results with values less than that of alpha (value of alpha 0.05> calculated value).
- **Multimedia equipments**- experience in their usage-calculated value 0.002
- **Internet Camera**- experience in its usage-calculated value 0.007
- **Teleconference**- experience in its usage- calculated value 0.000
- **Data Show**- experience in its usage- calculated value 0.000

RESULTS
1. According to SPSS, one-way ANOVA test results, there were notable differences between those participants whose incomes were between 201-300 million TL and 100 million TL and less. The results clearly showed that the former group of participants had more experience in using such technologies.
2. There were again differences in the experiences of using the internet cameras. Participants whose economical backgrounds fell between 200-300 million TL had more experience using the technology than that of those with incomes between 301-400 million TL.

3. A similar result was visible in the experience of using the teleconference. Again those with incomes between 201-300 million had more experience than those who came from families with incomes ranging from 301 and 400 million.

Analysis according to the secondary education received
Some of the values of the calculated questionnaire results showed values greater than that of alpha. In such questions, results revealed no great diversities. (Calculated value > value of alpha 0.05). The questions answered depending on the secondary education received were as below:
Some questions had results with values less than that of alpha (value of alpha 0.05> calculated value).
- **DOS**- experience in their usage-calculated value 0.004
- **PowerPoint**- experience in its usage-calculated value 0.029

RESULTS
1. According to SPSS, one-way ANOVA test results, there were notable differences between those participants whose High School is Vocational High School and the other High schools. The results clearly showed that the former group of participants had more experience in using DOS.
2. There were again differences in the experiences of using the PowerPoint. Participants whose High School experience was at a Vocational High School had more experience using PowerPoint than those students in other High schools.

Analysis of the area of school where the participant had education
All the results had values greater than that of the value of alpha. There were not any important differences depending on the area in which the person had his training. (Calculated value > value of alpha 0.05).

CONCLUSION
All colleges of education in Turkey have an "Introduction to School Experience I" course, since all must have to use the same curriculum developed by the Council of Higher Education. In this course, teachers do not make use of such technologies since they do not know how to use information technologies in class (Isman, 2001). However, 99% of the students are willing to learn how to use information technologies for teaching purposes. Furthermore, the usage of such technologies is increasing rapidly and they are interconnected so that students can communicate with each other and access information source available through the internet (Grabe & Grabe, 2001).

Isman's (2001) technology survey indicated a shift in how students are using technology. His research reported that the most common experiences involved content-area, drill activity, and learning about the computer and internet applications. So, information technologies are applied as a learning tool by college students. If we try to teach information technologies to students, they learn an incredible amount of information in a short time. This research results support this idea. Almost all college of education students know that they will be an information age teacher and that they will teach using such technologies in future. In other words, teachers of the future are our students of today. In the future to be successful, they must know how to use information technologies in instruction process, which is why they respect learning information technologies.

Information technologies play and will play a critical role in our future education system. In addition, the information technologies will bring about organizational and cultural changes that would transform society and will no longer be regarded as mere futurism; as it will become part of the conventional wisdom about information technology. So alongside other concerns in using new information and communication technology to promote learning, a new concern on how to prepare learners for a future in which new technology will play a dominant role in society will emerge (Plomp & Ely, 1996).

The data received at the end of the research revealed that the "Introduction to School Experience I" course offered in the Faculty of Education provided students with enough experience in using the Computing and Information technologies. The course, furthermore, enabled the students to have enough practice on such technologies and learn how to facilitate such devices into their teaching techniques.

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