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Education faculty students' preferred learning situation about computer literacy

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Abstract

In this study it is tried to be determined that Ahi Evran University Education Faculty students when they are learning about Office, Internet Explorer and Windows Xp prefer which level of learning between formal, semiformal and informal learning situations; and also it is tried to be determined that whether their learning situations differentiate for different computer skills. In data analysis the condition was tried to be displayed by observing the students' mean grades. According to the findings, students' preferred learning situations differentiates regarding to the computer technique that was to be learned and to the department in which they study.

Keywords: Formal learning; semiformal learning; informal learning; computer literacy.

1. Introduction

In the contemporary world that becomes more complex and changes quickly the basic skills such as reading, writing and arithmetic that were supposed to be enough 20-25 years before have become inadequate for peoples to maintain their Professional career with a successful manner (Deryakulu, 2008). This is a result of quickly increasing information, mass media and computers. This case was explained UNESCO's "Teacher Education in Information and Communication Technologies" report of 2002. In this report which was prepared by UNESCO today's society was explained as information based global society and their evidences fort his was explained as follows:

- The information accumulation over the world has been increasing two fold for every 2-3 years
- There are 7000 scientific and technical reports being published every day.
- If the information transmitted from the satellites around the world had been written on papers once every two weeks there would be 19 millions volumes of written documents for every two weeks.
- On developed countries, a student who completed his/her primary education exposed to information flow more than that of his/her grandparents exposed during all of their lifetime.
- In the next 30 years there will be much more changes than the changes of passed 300 years.

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The 21st century in which the information is increasing rapidly and it is seen as the most important richness; the primary qualifications necessary for the individuals of the information society includes learning how to learn and information literacy. Today it should be thought of be a literate of information, efficient usage of technology to accessing, evaluating, editing and sharing of the information in other words tit should be considered in a more general manner to include computer literacy with a more general look (Kurbanoğlu and Akkoyunlu, 2002). As it can be understood from the given definition, computer literacy is one of the most important components of the information literacy due to computers are widely used for accessing, evaluating, sharing and editing of information.

Developments in the fields of information and communication technologies resulted with changes in the standards of profession of teaching. Today it is included to ISTE's (International Society for Technology in Education) standards of profession of teaching that teacher should be computer literate and they should able to efficiently use information and communication technologies in their lectures (ISTE 2009).

This restructuring that necessitates the usage of computer technologies as well as various information resources obliges us to improve literacy of information and computer skills. All these developments revealed the fact that the teachers, undertake the great responsibility to orientate the students, as well as their students must be provided with these skills.

Educational establishments are responsible to give these abilities to the students. What are expected from the educational institutions that undertake the great responsibility to educate individuals whose are suitable to the needed people profile of the society includes educating individuals those are endowed with information skills. (able to access, use, transmit and produce information), able to use technology and are able to learn by himself/herself (learned how to learn) (Akkoyunlu and Kurbanoğlu, 2003). In other words, one of the basic requirements of the education is to prepare students those are participants of the information society that will be the most important resource of the social and economic development of the future (Hakkarinen, Ilomaki, Lipponen & Muukkonen, 2000).

1.1 Providing with Computer Literacy Skills

It is the responsibility of education faculties to provide candidate teachers with computer literacy. Within the context of the restructuring works those are executed with considering the components that must be included in the contemporary teacher education programs, Higher Education Council (HEC) included the computer lectures to the education faculty programs. In order for every candidate teacher to take at least two computer lectures, "Computer 2" courses are added on the programs (Seferoğlu, Akbıyık and Bulut, 2008). Thus, by "Computer 1" courses it is aimed to provide students with fundamental computer skills and by "Computer 2" courses it is aimed to provide students with fundamental concepts about computer aided education.

In a recent study by Seferoğlu, Akbıyık and Bulut (2008) in order to determine their views about the usage of computers in learning/teaching procedures 51 primary school teachers and 56 candidate primary school teachers included in the study it was observed that learning fundamental computer skill with the help of "Computer 1" course was very limited. It was seen that candidate teachers mostly learned computer literacy by the method of trial and error (%34). Rate of learning computer abilities from the friends was %29.

According to a social investigation executed in Canada in the year 2000 it was asked to the computer using personnel that what methods they use to learn required computer skill in their professional life in order to determine how they learn required computer skill in their professional life. %96 of the participants declared that they had learned computer skill with the trial and error method by themselves and %78 from their friends or family members. The ratio of the persons who learned computer skills from the courses by the educational institutions was %54 and from the courses or education programs provided by the employer was %40 and from the web based education was %30 (Dryburg, 2002).

According to the results of the studies peoples prefers learning fundamental computer skills mostly by the method of trial and error.

In this study education faculty students' computer skills learning methods were observed and also it is tried to be determined that whether their learning situations differentiate for different computer skills (Word, PowerPoint, Internet Explorer and Windows Xp).

2. Method

The study is in the form of a descriptive study aimed to determine learning strategies of the students of the faculty of education. Descriptive studies try to descript and explain "what" are the cases, the objects, the beings, the institutions, the groups and the different fields. Descriptive studies aim to define the interactions between cases by considering the relationships between the present cases and the previous cases and conditions (Kaptan, 1998).

Sample is composed of 201 participants from Ahi Evran University Departments of Classroom Teaching, Psychological Counseling and Guidance Teaching, Social Sciences Teaching, Primary Education Mathematics Teaching, Preschool Teaching, First Year and Science Teaching, Turkish Teaching; Second Year students.

In this study data collection medium of computer skills learning situations was used that was developed by authors after required correction were made according to the views of specialists.

Data collected within the framework of the study were analyzed descriptively according to the following topics.

1. Do students' computer skills learning situations differ according to the skills to be learned?
2. Do students' computer skills learning situations differ according to the studied program?

3. Results (Findings)

3.1 The findings about how Education Faculty Students Learn Computer Literacy

Table 1. Mean scores about how Education Faculty Students Learn Computer Literacy

Program	Category	Mean ($\overline{X}$)	df
Word	Formal	1,3350	,30092
	SemiFormal	1,8076	,44538
	Informal	1,8806	,49115
Powerpoint	Formal	2,0323	,44181
	SemiFormal	1,6285	,50242
	Informal	1,8640	,49696
İnternet	Formal	1,9726	,52962
	SemiFormal	1,7065	,63558
	Informal	2,0199	,53087
Windows Xp	Formal	1,9577	,49189
	SemiFormal	1,5937	,50463
	Informal	1,8143	,54548

Investigation results showed that Education Faculty Students' preferred learning methods about computer skills differentiate according to the learned skill. The study cleared that the students prefers to learn Word and Internet Explorer by informal way, however to learn PowerPoint and Windows Xp by formal ways. Thus, this condition shows that students prefer to learn programs they have use everyday and see more often in their daily life by informal way, on the other hand they prefer the formal learning way for the programs those they use relatively less in their daily lives.

3.2. The findings about the relationship between the department that they study and their learning ways of computer skills

3.2.1 The findings about students' Word skills learning methods

Table 2. The ANOVA results of the students' learning grades of Word skills by informal way regarding the studied department

	Sum of squ res	df	Mean of squ res	F	Sig
Between gro ps	3,436	5	,687	2,9 1	,01
Within grou s	44,809	195	,230		
Total	48,245	200			

The results of analysis showed that there is a statistically significant [F(5-195)= 2,991 p<0.01)] difference in their preferences of learning the Word program by means of informal methods and their departments. In other words, students' learning of Word skills by means of informal way differs according to the department that they study. According to the results of Scheffe test made to define the differences between the departments are between which departments it was defined that the students study in the Department of Science Teaching ($\bar{x}$=1.981)and in the Department of Physiological Consultancy and Guidance ($\bar{x}$=2.106) prefer to learn the Word skills by informal way.

3.2.2 The findings about students' PowerPoint skills learning methods

Table 3. The ANOVA results of the students' learning grades of PowerPoint skills by formal way regarding the studied department

	Sum of Squa es	df	Mean of squ es	F	Sig
Between gr ups	6.804	5	1.361	8.2 1	.00
Within grou s	32.236	19	.165		
Total	39.040	20			

The results of analysis showed that there is a statistically significant [F(5-195)= 8.231 p<0.01)] difference in their preferences of learning the PowerPoint program by means of formal methods and their departments. In other words, students' learning of PowerPoint skills by means of formal way differs according to the department that they study. According to the results of Scheffe test made to define the differences between the departments are between which departments it was defined that the students study in the Department of Science Teaching ($\bar{x}$=2.245)and Turkish Teaching department ($\bar{x}$=2.318) prefer to learn the PowerPoint skills by formal way.

3.2.3 The findings about students' Internet skills learning methods

Table 4. The ANOVA results of the students' learning grades of Internet skills by informal way regarding the studied department

	Sum of quares	df	Mean of squares		ig.
Between gr ups	3,499	5	,700	,581	28
Within gro ps	52,866	19	,271		
Total	56,365	20			

The results of analysis showed that there is a statistically significant [F(5-195)= 2.581 p<0.05)] difference in their preferences of learning the Internet Explorer program by means of informal methods and their departments. In other words, students' learning of Internet Explorer skills by means of informal way differs according to the department that they study. According to the results of Scheffe test made to define the differences between the departments are between which departments it was defined that the students study in the Preschool Teaching ($\bar{x}$=2.142) and Science Teaching department ($\bar{x}$=2.106) prefer to learn the Internet Explorer skills by informal way.

3.2.4 The findings about students' Windows Xp skills learning methods

Table 5. The ANOVA results of the students' learning grades of Windows Xp skills by formal way regarding the studied department

	Sum of sc ares	sd	Mean of squ es	F	Sig.
Between groups	7,767	5	1,553	7,45	,00
Within groups	40,623	195	,208		
Total	48,391	200			

The results of analysis showed that there is a statistically significant [F(5-195)= 7.457 p<0.05)] difference in their preferences of learning the Windows Xp program by means of formal methods and their departments. In other words, students' learning of Windows Xp skills by means of formal way differs according to the department that they study. According to the results of Scheffe test made to define the differences between the departments are between which departments it was defined that the students study in the Turkish Teaching ($\bar{x}$=2.181) and Science Teaching department ($\bar{x}$=2.207) prefer to learn the Windows Xp skills by formal way.

4. Conclusion and Recommendation

According to the findings Education Faculty students' preferred learning method differentiate according to the learned program. When learning Word and Internet Explorer they mostly prefer informal methods whereas when they learn PowerPoint and Windows Xp programs they prefer formal ways. According to the findings it can be stated that the students prefer informal ways when they learn the programs they use relatively more often however, students prefer formal ways when they learn the programs they see rarely or they do not have to use frequently. In a study by Seferoğlu, Akbıyık and Bulut (2008) it is stated that 33,90% of the candidate teachers expressed their learning methods of computer literacy as "Self learning by means of trial and error" and 28,60% of candidate teachers expressed their learning ways as "Learning from the friend around".

Education Faculty students' preferences of computer skills learning situations differ according to the studied program. It is observed that students studying in the Department of Science Teaching mostly prefer to learn Internet Explorer and Word skills informally however, they prefer to learn PowerPoint and Windows Xp skills formally; students studying in the Department of Preschool Teaching prefer to learn Internet Explorer skills informally; the students studying in the Department of Turkish Teaching prefer to learn PowerPoint and Windows Xp programs formally.

Candidate teachers generally make use of learning situations such as trial and error, receive support from family members and friends. In order for students to learn computer literacy skills it will be helpful to provide them with computer laboratories in which they will have chance to use computer skills more often and to study together with their friends.

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