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A Study of the Attitudes of Student Teachers toward Use of Computer

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Abstract

The importance of information and communication Technology (ICT) in education, and particularly in teacher education, is being widely acknowledged. An important prerequisite of ICT is knowledge and attitude towards the use of computers. This descriptive study was aimed at finding out the attitude of student teachers toward the use of computer. Forty item questionnaire was constructed covering five dimensions i.e (fear of using computer, problem solving by computer, computer knowledge, using computer and learning computer). Two hundred student teachers from Federal College of Education were considered the sample of the study. Data were collected and analyzed by applying independent sample t-test and ANOVA. The study reveals that male and female students have the same attitude on all dimensions of the scale, those students who have computer at home are significantly better than their counterparts on fear of using computer and computer knowledge, there is a significant difference among students on computer knowledge regarding mothers' qualification and there is no significant difference on any dimension of the scale regarding fathers' qualification. The study recommends that the student teachers should be exposed more and more to computers so as to overcome the fear of using computers and get optimum benefit by using computer.

Keywords: use of computer; attitude of student teacher; mothers' qualification; fathers' qualification.

1. Introduction

Computer is taking up a significant place in our social and professional lives and is prevailing over ever more aspects of our life. It has overcome many activities of our leisure time too. At present, professional and private achievements have become

associated with computer skills and successful interaction with computers. Therefore, to advance in a computer based society it is essential to let male and female students have impartial and unprejudiced practice with the equipment right from their childhood. In an educational setup, more often than not, a tutor can play an instrumental role in putting computer into practice provided that a tutor has a wonderful capability to impart ethics and values to students. It becomes essential to identify with the prejudices and labels that professors may hang on to about the making use of computers. Zhao, Tan and Mishra (2001), while discussing the significance of tutors' approach towards utilization of computer, also presented the proof to propose that the approaches of tutors are openly linked with the use of computer in the classroom.

Educators are often of the view that computer is a device for carrying out every day jobs, dealing with their pupils proficiently and to be in touch with the parents effortlessly. Teo (2006) is also of the view that learning with the help of computers depends on tutors' readiness to take hold of the equipment and principally on their mind-set. Valuable approach towards technology incorporation its approval and its handling in teaching and learning can be achieved through expanding the admiration of the instructors' approaches in the direction of computer use.

2. Literature Review

Assistance and outlook of trainers, engaged in a training program to employ technology, affect the success of any scheme to a great extent. It also seems that if tutors suppose or make out that anticipated computer programs will neither fulfill their own nor their students' requirements then they are not expected to do any effort to launch technology into their classrooms. Huang and Liaw (2005) are also of the view that educators' mind-set in the direction of computers is one of the factors that influence the successful utilization of computers inside a classroom.

ICT interceded training has already been introduced, almost in every school of the developed countries, with the help of infrastructure. For successful incorporation of computers as a subject in the curriculum of schools encouraging approach of instructors towards computing is significant. According to Myers & Halpin (2002) the most important explanation to study teachers' approach in the direction of computer is that they are foremost judges for future utilization of computer in the classroom. After considering 184 pre-service instructors Khine (2001) established a substantial association between attitude towards computer and its use in the organization. By using Chinese Computer Attitude Scale for Teachers (CAST), on 216 secondary school teachers in Hong Kong, after judging the instructional use of computers and their results, Yuen and Ma (2001) confirmed that poignant attitudes, general effectiveness, behavioral management, and didactic use are important in shaping up the use of ICT. Majority of the teachers consider that the quantity of computer experience has a supportive consequence on attitude towards computers, Kumar and Kumar (2003). Negative responses to computers are more likely to be held by female consumers as compared with males and such variations may have led to diverse behavior of using computers, Jackson, Ervin, Gardner and Schmitt (2001).

Teachers' ability to integrate technology into the program of study in schools is very vital to accomplish excellence. To stop producing future teachers with underdeveloped proficiency towards using technology, foundation must be put down at the beginner or

pre-service teacher's level. Utensils and experiences must be made available to the Pre-service tutors, during the program of their training, to facilitate them for the typical activities throughout their forthcoming jobs like, classroom coaching, research, and problem solving. Zhang & Espinosa (1997) are of the view that by utilizing technology pre-service instructors can manage their situation and amend their instructional tactics. Fisher (2000) pointed out that in order to put together a well-organized teacher training curriculum; to train instructors to face the challenges in the age of information, need is to recognize the aspects that control pre-service instructors' feelings towards computers.

3. Purpose of the Study

To compare the attitude of student teachers toward use of computer.

3.1 Significance of Study

As the computer is not being taught in all the teacher education programs, this study will be beneficial in knowing the attitude of the student teachers and planning will be done accordingly to the attitude of the student teachers.

3.2 Research Question

Is there a statistically significant difference in the attitude of student teachers toward use of computer on selected variables in different dimensions of the computer attitude scale?

4. Research Methodology

As the study was descriptive in nature, it used the survey approach. 40-items questionnaire was developed and pilot tested.

4.1 Population and Sampling

All the student teachers 400 studying at Federal College of Education constituted the population for the study. Two hundred student teachers were selected randomly as sample for the study.

4.2 Research Tool

A forty item questionnaire was constructed and pilot tested. Its reliability and validity was determined, Cronbach’s alpha value was found 0.75.

4.3 Delimitation

The study was delimited to federal college of education, Islamabad.

5. Data Analysis

The data collected through questionnaire was coded and analyzed through SPSS XII in terms of independent sample t- test and ANOVA.

5.1 Findings of the Study

The findings drawn out from the data analysis are given below.

Table 1: Mean Difference (all dimensions of computer attitude: gender wise)

	Gender	N	Mean	Std. Deviation	df	t-value	p-value
Fear of Using Computer	Male	50	16.3600	3.32437	198	1.006	0.316
	Female	150	15.8133	3.32852			
Problem Solving Ability by Computer	Male	50	20.7400	2.98164	198	0.882	0.379
	Female	150	21.1800	3.07855			
Getting Good Job with Computer Knowledge	Male	50	13.3800	2.59426	198	0.179	0.858
	Female	150	13.4533	2.48374			
Interest and Learning Computer	Male	50	30.1800	4.31272	198	0.402	0.688
	Female	150	30.4467	3.97903			
Interest in Using Computer	Male	50	38.9800	5.10098	198	1.448	0.149
	Female	150	40.1000	4.61068			

It is evident from table1 that there is no significant difference between the male and female student teachers on all dimensions of computer attitude scale.

Table 2: Mean Difference (all dimensions of computer attitude: have/not have computer)

	Computer	N	Mean	Std. Deviation	df	t-value	p-value
Fear of Using Computer	Yes	150	15.5733	3.32238	198	2.821	0.005
	No	50	17.0800	3.10917			
Problem Solving Ability by Computer	Yes	150	21.0667	3.06017	198	0.027	0.979
	No	50	21.0800	3.06288			
Getting Good Job with Computer Knowledge	Yes	150	13.2200	2.50602	198	2.120	0.035
	No	50	14.0800	2.41458			
Interest in Learning Computer	Yes	150	30.4800	4.00959	198	0.603	0.547
	No	50	30.0800	4.21775			
Interest in Using Computer	Yes	150	39.9600	4.85339	198	0.721	0.472
	No	50	39.4000	4.44467			

Table 2 shows that there is a significant difference between the students having computer and not having computer on the dimensions of fear of using computer and getting good job with computer knowledge in favor of those student teachers who are not having computer at home. On the all other dimensions there is no significant difference between student teachers on the variable of having and not having computer at home.

Table 3: ANOVA Results (Class-wise)

		Sum of Squares	Df	Mean Square	F	Sig.
Fear of Using Computer	Between Groups	85.405	3	28.468	2.634	0.051
	Within Groups	2118.095	196	10.807		
	Total	2203.500	199			
Problem Solving Ability by Computer	Between Groups	21.437	3	7.146	.764	0.516
	Within Groups	1833.583	196	9.355		
	Total	1855.020	199			
Getting Good Job with Computer Knowledge	Between Groups	30.743	3	10.248	1.648	0.180
	Within Groups	1218.412	196	6.216		
	Total	1249.155	199			
Interest in Learning Computer	Between Groups	190.774	3	63.591	4.044	0.008
	Within Groups	3082.346	196	15.726		
	Total	3273.120	199			
Interest in Using Computer	Between Groups	449.834	3	149.945	7.275	0.001
	Within Groups	4039.686	196	20.611		
	Total	4489.520	199			

Table 3 shows that there is a significant difference among the student teachers class wise on the dimensions of interest in learning computer and interest in learning computer, while on the other dimensions all the groups are having the same attitude.

Table 4: ANOVA Results (Mother's Qualification)

		Sum of Squares	Df	Mean Square	F	Sig.
Fear OF Using Computer	Between Groups	56.245	5	11.249	1.016	0.409
	Within Groups	2147.255	194	11.068		
	Total	2203.500	199			
Problem Solving Ability By Computer	Between Groups	40.664	5	8.133	0.870	0.503
	Within Groups	1814.356	194	9.352		
	Total	1855.020	199			
Getting Good Job With Computer Knowledge	Between Groups	101.152	5	20.230	3.419	0.006
	Within Groups	1148.003	194	5.918		
	Total	1249.155	199			
Interest In Learning Computer	Between Groups	78.863	5	15.773	0.958	0.445
	Within Groups	3194.257	194	16.465		
	Total	3273.120	199			
Interest In Using Computer	Between Groups	184.516	5	36.903	1.663	0.145
	Within Groups	4305.004	194	22.191		
	Total	4489.520	199			

Table: 4 shows that there is a significant difference among the student teachers according to mother's qualification on the dimensions of getting good job with computer knowledge, while on the other dimensions all the groups are having the same attitude.

Table 5: ANOVA Result (Father's Qualification)

		Sum of Squares	df	Mean Square	F	Sig.
Fear of Using Computer	Between Groups	114.356	5	22.871	2.124	0.064
	Within Groups	2089.144	194	10.769		
	Total	2203.500	199			
Problem Solving Ability by Computer	Between Groups	34.216	5	6.843	0.729	0.602
	Within Groups	1820.804	194	9.386		
	Total	1855.020	199			
Getting Good Job with Computer Knowledge	Between Groups	58.971	5	11.794	1.922	0.092
	Within Groups	1190.184	194	6.135		
	Total	1249.155	199			
Interest in Learning Computer	Between Groups	81.923	5	16.385	0.996	0.421
	Within Groups	3191.197	194	16.449		
	Total	3273.120	199			
Interest in Using Computer	Between Groups	136.836	5	27.367	1.220	0.301
	Within Groups	4352.684	194	22.437		
	Total	4489.520	199			

Table 5 shows that there is a no significant difference among the student teachers according to father's qualification on all the dimensions of computer attitude scale. So, it is concluded that all the student teachers having the same attitude towards computer according to father's qualification.

6. Conclusion

The study concludes that:

1. There was no significant difference on all dimensions of computer attitude scale as far the variable of gender is concerned.
2. Significant difference was observed between the students having computer and not having computer on the dimensions of Fear of using Computer, Getting Good Job with Computer Knowledge and Interest In Using Computer in favor of those student teachers who are not having computer at home. Whereas on the dimension of Interest in Learning Computer there was no significant difference between student teachers on the variable of having and not having computer at home was observed.
3. There was a significant difference among the student teachers class wise on the dimensions of interest in learning computer and interest in learning computer, while on the other dimensions no significant difference was found.

4. There was a significant difference among the student teachers on the dimensions of getting good job with computer knowledge, when the variable of mother's qualification was applied while on the other dimensions all the groups are having the same attitude and no significant difference found.
5. There was no significant difference among the student teachers according to Father's Qualification on all the dimensions of computer attitude scale.

6.1 Recommendations

In the light of data analysis and conclusions it is recommended that for the good computer literacy students may have computer in their homes. In this way they will learn computer well and their fear to use the computer will be minimized. Student can improve their problem solving skills by using computer for their study purposes and to utilize their leisure time as well.

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