



## **ICT Culture and Computer Phobia among Pupil Teacher in Indian Context: Some Suggestive Guidelines**

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### **Abstract**

*The main goal of ICT in education is to enhance teaching and learning quality. A number of studies have shown a wide range of factors which influence educators' utilization of ICTs in their teaching. Computer Phobia is argued to be a major deterrent to the utilization of ICT by educators. Technological advancement has reduced the world into tiny space. In other world, it is something that has really connected people living all over the world and has turned the planet earth into a global village. These technologies assist teacher and facilitate learning. Grabe and Grabe (1998) even reported a recent situation in which computers were not used effectively in teaching practice, due in part to teachers' attitudes and fears regarding this relatively new technology. Thus, without a knowledge of teachers' and prospective teachers' perceptions and future plans for using computer in education, any potential innovations in this area may lack utility. Various researchers studied on computer found that teachers did not know how to use computers. Similarly, Gihar, Saxena and kukreti (2005) also indicated that 70 percent teacher educators accepted that they never used the computer and internet facilities in the classroom teaching. While Lunenburg & Ornstein, 1996; Grabe & Grabe (1998) found*

*that teachers felt anxiety about potentially losing their authority. In India most of the pupil teacher comes from rural areas and computer technology to a large extent is English based. In today's world the use of computers has become a part of daily life of an individual. It has almost become an extension of the self rather than a mere tool. In this context if pupil teachers develop computer phobia, it affects their own teaching as well as the ability of the learner to learn, apart from being a social handicap. Keeping in view of above discussion it can be said that the computer is an important tool for making classroom teaching effective. But very less number of teachers is capable for using computers. In the present investigation an effort has been made to know the level of computer phobia among pupil teachers. The present study was conducted in Ghaziabad District of Uttar Pradesh. All Prospective teachers studying in B.Ed Colleges in Ghaziabad district constituted the population for the present study. The researcher had adopted multistage stratified random sampling technique for gathering the data. 224 prospective teachers were selected from the randomly selected 10 teacher training institutions. This study has also given some guidelines to reduce computer phobia among pupil teacher.*

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**Key Word:** *ICT, Computer Phobia, Indian Context*

## **INTRODUCTION**

The role of present day teacher has become very challenging, complex and multifaceted, which requires preparation on the part of teachers in both ways-before entering in profession and after entering in to job. In this era of globalization when knowledge driven economy and ICT are strongly emphasized, there is need for paradigm shift in the teaching learning process and that can be done if the curriculum allows us to do so (Gupta & Mittal, 2011).

The effective and efficient use of ICTs depends largely on technically competent educators/teachers. They should be able to appreciate the potential of ICT and have positive attitude towards ICT. They should operate computers and use basic software for word processing, spreadsheets and ppt etc. evaluate the use of computers and related ICT tools for training and education of teachers. To integrate ICT tools into learning activities throughout the curriculum, create hypertext documents and understand about network:

demonstrate knowledge of ethics and equity issues related to ICT and keep up-to-date as far as educational technology is concerned (Dahiya, 2008).

The main goal of ICT in education is to enhance teaching and learning quality. A number of studies have shown a wide range of factors which influence educators' utilization of ICTs in their teaching. Computer Phobia is argued to be a major deterrent to the utilization of ICT by educators. Technological advancement has reduced the world into tiny space. In other world, it is something that has really connected people living all over the world and has turned the planet earth into a global village. These technologies assist teacher and facilitate learning. Grabe and Grabe (1998) even reported a recent situation in which computers were not used effectively in teaching practice, due in part to teachers' attitudes and fears regarding this relatively new technology. Thus, without a knowledge of teachers' and prospective teachers' perceptions and future plans for using computer in education, any potential innovations in this area may lack utility.

Recent studies of ICT environment in teacher education focus mainly on the difficulties in establishing such environments (Wedman & Diggs, 2001; Schaffer & Richardson, 2004). Various researchers studied (OTA, 1995; Samaldino, Russell, Heinich & Molenda, 2005; Whetstone & Carr-Chellman, 2001) analyzed that teacher did not know how to use computers to enhance computer application in class room activities. Similarly, Gihar, Saxena and kukreti (2005) also indicated that 70 percent teacher educators accepted that they never used the computer and internet facilities in the classroom teaching. While Lunenburg & Ornstein, 1996; Grabe & Grabe (1998) found that teachers felt anxiety about potentially losing their authority. In India most of the pupil teacher come from rural areas and computer technology to a large extent is English based. In today's world the use of computers has become a part of daily life of an individual. It has almost become an extension of the self rather than a mere tool. In this context if pupil teachers have computer phobia, it affects their own teaching as well as the ability of the learner to learn, apart from being a social handicap. If teachers are unsure of their computer knowledge and skills, they can be cautious about implementing CALL in the classroom teaching for their respective students (Chen, 2012).

Keeping in view of above discussion it can be said that the computer is an important tool for making classroom teaching effective. But very less number of teachers are capable for using computers. In the present investigation an effort has been made to know the level of

computer phobia among pupil teachers. This study has also given some guidelines to reduce computer phobia among pupil teacher.

### **OBJECTIVES**

1. To study the level of computer phobia between private and Govt. college prospective teachers.
2. To study the level of computer phobia of prospective teachers having undergraduate and post graduate qualification.
3. To study the level of computer phobia among prospective teachers in respect to their basic streams i.e. Arts, Commerce, and Science.

### **HYPOTHESES**

To get the meaningful results from the present study the following null hypotheses were framed:

1. There exists no significant difference between the levels of computer phobia of Govt. and private organizations prospective teachers.
2. There is no significant difference between the levels of computer phobia of prospective teachers having undergraduate and postgraduate qualification.
3. Statistically there is no significant difference between the levels of computer phobia of prospective teachers of different streams i.e. Arts, science & commerce.

### **METHODOLOGY**

The population of the study was all the prospective teachers studying in the B.Ed. colleges of Ghaziabad District. Total 10 colleges were selected randomly. Sample of the study was all the prospective teachers of randomly sampled colleges who were presented on the day of data collection. The sample of this study was 224 prospective teachers. For the collection of data investigator was used computer phobia scale. This scale was developed and standardized by S. Rajasekar & Vaiyapuri Raja (2002). The scale has 29 items spread over 3 dimensions i.e. personal failure, human Vs machine ambiguity, convenience.

## DATA ANALYSIS

**Table-1**

**Mean and SD Scores of Government & Private Organization Prospective Teachers on Different Dimensions of Computer Phobia Scale (CPS)**

S.N.	Dimensions	Government Organization ( N=46)		Private Organization ( N=178)		't'
		Mean	S.D.	Mean	S.D.	
1.	Personal Failure	25.02	5.63	26.79	6.79	1.68*
2.	Human Vs Machine Ambiguity	14.80	2.57	15.36	3.13	1.10
3.	Convenience	17.00	4.56	17.21	4.45	0.28
4.	All dimensions	57.00	7.97	58.98	9.94	1.25

An inspection of table – 2, clearly shows that there exists no significant difference between Government and private organization prospective teachers on computer phobia scale. Private organization prospective teachers had scored higher mean values than Government organization prospective teachers. The prospective teachers of private organization may not be able to visit computer lab regularly. If the computers are not easily accessible to them, so they do not know more about computers. If they do not know much more about computers, they may have lesser computer phobia.

**Table-2**

**Mean and SD Scores of UG & PG Qualifications Prospective Teachers on Different Dimensions of Computer Phobia Scale (CPS)**

S.N.	Dimensions	UG Level Prospective Teachers ( N=94)		PG Level Prospective Teachers ( N=130)		't'
		Mean	S.D.	Mean	S.D.	
1.	Personal Failure	25.57	5.98	27.04	6.56	1.70*
2.	Human Vs Machine	15.16	3.12	15.31	2.97	0.36

	Ambiguity					
3.	Convenience	17.48	4.03	16.94	4.75	0.89
4.	All dimensions	57.89	9.73	59.07	9.49	0.90

An examination of table-2, results that higher scores were obtained by PG prospective teachers than UG prospective teachers on their level of computer phobia towards personal failure dimension of CPS. Table also, indicates that no significant difference was found between the undergraduate and postgraduate prospective teachers on computer phobia scale. Undergraduate and postgraduate prospective teachers were found more or less similar mean values on CPS. Present times are the time of fast technological changes, so the youngsters are less computer phobic.

**Table-3**  
**Mean and SD Scores of Science & Arts Stream Prospective Teachers on Different Dimensions of Computer Phobia Scale (CPS)**

S.N.	Dimensions	Science Stream Prospective Teachers ( N=98)		Arts Stream Prospective Teachers ( N=94)		't'
		Mean	S.D.	Mean	S.D.	
1.	Personal Failure	27.28	6.51	25.26	5.61	2.29*
2.	Human Vs Machine Ambiguity	15.42	2.90	15.28	2.67	0.35
3.	Convenience	17.90	4.42	16.63	4.40	1.99*
4.	All dimensions	59.88	9.33	57.20	8.95	2.02*

The data displayed in table-3, concludes that the educational background of prospective teachers plays an important role as far as their computer phobia is concerned. The table further reveals that the prospective teachers of science stream had scored higher mean values than the prospective teachers of arts stream. *On its contrary*, Abd Hamid et.al. (2003) reported in their study that means scores of computer phobia is lowest for computer science students followed by the arts students.

**Table-4**

**Mean and SD Scores of Science & Commerce Stream Prospective Teachers on  
Different Dimensions of Computer Phobia Scale (CPS)**

S.N.	Dimensions	Science Stream Prospective Teachers ( N=98)		Arts Stream Prospective Teachers ( N=32)		't'
		Mean	S.D.	Mean	S.D.	
1.	Personal Failure	27.28	6.51	27.25	7.50	0.01
2.	Human Vs Machine Ambiguity	15.42	2.90	14.63	4.22	1.19
3.	Convenience	17.90	4.42	16.50	4.57	1.54
4.	All dimensions	59.88	9.33	58.63	11.73	0.61

An examination of table-4, results that higher scores was obtained by science stream prospective teachers than commerce stream prospective teachers on their level of computer phobia. On its contrary Abd Hamid, et.al. (2003) reported in their study that means scores of computer phobia is lowest for computer science students followed by the social science students.

**Table-5**

**Mean and SD Scores of Arts & Commerce Stream Prospective Teachers on  
Different Dimensions of Computer Phobia Scale (CPS)**

S.N.	Dimensions	Arts Stream Prospective Teachers ( N=94)		Commerce Stream Prospective Teachers ( N=32)		't'
		Mean	S.D.	Mean	S.D.	
1.	Personal Failure	25.26	5.61	27.25	7.50	1.58
2.	Human Vs Machine Ambiguity	15.28	2.67	14.63	4.22	1.01
3.	Convenience	16.63	4.40	16.50	4.57	1.40
4.	All dimensions	57.20	8.95	58.63	11.73	0.71

The data presented in the table-5, depicts that there seems no significant variation between arts and commerce stream prospective teachers on computer phobia scale. It can be concluded that stream is not an effective variable to determine the level of computer phobia.

## **FINDINGS**

The first null hypothesis that “There exists no significant difference between the levels of computer phobia of Govt. and private organizations prospective teachers” is fully accepted. The findings related to above hypothesis are as follows:

1. No significant difference was found between Government and private organization prospective teachers on computer phobia scale. Private organization prospective teachers had scored higher mean values than Government organization prospective teachers. The prospective teachers of private organization may not be able to visit computer lab regularly. If the computers are not easily accessible to them, so they do not know more about computers. If they do not know much more about computers, they may have lesser computer phobia.

2. The second null hypothesis that “There is no significant difference between the levels of computer phobia of prospective teachers having undergraduate and postgraduate qualification” is partially accepted or partially rejected. The findings yielded to above hypothesis are as follows:

3. No significant difference was found between UG and PG prospective teachers level of computer phobia in respect to the dimensions-human Vs machine ambiguity, convenience and as well as overall of computer phobia scale. While a significant difference was found between both groups on personal failure dimensions of CPS.

4. The third null hypothesis that “Statistically there is no significant difference between the levels of computer phobia of prospective teachers of different streams i.e. Arts, science & commerce towards environment” is partially accepted and partially rejected.

The findings yielded to above hypothesis are as follows:

5. A sharper variation was found between the science and arts stream prospective teachers on personal failure dimension of computer phobia scale. In this case prospective teachers of science stream had scored higher mean values than the prospective teachers of arts stream.

6. There was a significant difference between the level of computer phobia of science and arts stream prospective teachers towards convenience dimension of CPS.

7. No variation was found between science and commerce stream prospective teachers on personal failure dimension of CPS.

8. No significant difference was found between science and commerce stream prospective teachers on convenience dimension of computer phobia scale.

9. No significant difference between prospective teachers of arts and commerce stream on personal failure, human Vs machine ambiguity and convenience dimensions of CPS.

### **SUGGESTIONS**

On the basis of above discussion following suggestions may be given to reduce the level of computer phobia among prospective teachers:

Extra classes should be provided to prospective teachers to remove the phobia towards computers.

1. Teacher educators should encourage and motivate prospective teachers for using the computers.

2. Specialized courses on a range of topics, such as computer applications across the curriculum and class room management should be organized.

3. Teacher educator should have positive attitude towards computer and new technology.

4. Teachers should provide better knowledge towards computer by computer expert.

Setting up a National Council for IT education for defining courses and content for information technology and to initiate a 'Teach the Teachers' (3T) programme for Training of teachers.

5. Launching of "Operation Knowledge" to universalize computer literacy and also to spread the use of computers and IT in education.

### **CONCLUSION**

Teaching is one of the most challenging and crucial professions in the world. Teachers are critical in facilitating learning and in making it more efficient and effective; they hold the key to success of any education reform; and they are accountable for successful human development of the nation and for preparing the foundation for social and economic development (Kauts & Gupta, 2011).

The present inquiry has accessed to computer phobia among prospective teachers. In this technological era with the help of computers we can improve the class rooms teaching also. By using computers, in the class we can give the number of information to the students. It is also helpful for the teachers in keeping the records. It also benefited for our society and educational environment. But mostly teachers are not using the computers due to the lack of knowledge or a hidden fear of damage of computer called computer phobia. as computer phobia is concerned. the educational planners and administrators can take clue from following revelations of study.

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