

A study of the attitude towards ICT among B.Ed. student teachers in Namakkal District

¹ Arthi S, ² Dr. Tamilselvi B

¹ Research Scholar, Department of Education, Karpagam University, Coimbatore, Tamil Nadu, India

² Research Guide, Associate Professor, Department of Education, Karpagam University, Coimbatore, Tamil Nadu, India

Abstract

ICT is the backbone of the education system in today's world. The challenge in India today is the lack of availability of teachers who are ICT-competent. B.Ed. student teachers, as future teachers, should have greater attitude and access to Information and Communication Technology to move from "learning to use ICT" to "using ICT to learn". So the present study aimed to find out B.Ed. student teachers' level of attitude towards Information and Communication Technology (ICT) and to find out any significant difference between the demographic variables viz., gender, marital status and locality. In the present study, normative survey method of research was adopted. The sample consisted of 724 B.Ed. student teachers from ten Colleges of Education from Namakkal District selected by random sampling technique. Data were analyzed using mean, standard deviation and 't' test. The study revealed that majority of the Male (42.6%) B.Ed. student teachers had high level of attitude towards ICT whereas majority of the Female (40%) B.Ed. student teachers had medium level of attitude towards ICT. In case marital status, majority of Unmarried (40%) B.Ed. Student teachers had high level of attitude towards ICT whereas majority of Married (40.8%) B.Ed. Student teachers had medium level of attitude towards ICT. In case of locality, majority of Rural (40.4%) B.Ed. Student teachers had high level of attitude towards ICT whereas majority of Urban (37.4%) B.Ed. student teachers had medium level of attitude towards ICT. Significant difference was not found between B.Ed. student teachers' attitude towards ICT at 0.05 level of significance with regard to the demographic variables viz., gender, marital status and locality of residence. The study suggested that many innovative techniques and methods of ICT application can be introduced for the B.Ed. student teachers during their pre-service training itself so that they can become well versed in using those applications and develop high level of positive attitude towards using ICT.

Keywords: attitude, information and communication technology (ICT), B.Ed. student teachers, ICT competence, pre service training, demographic variables

1. Introduction

All these years, education was teacher-centered, that is, the classrooms have been dominated by teachers. But today, education has taken a whole new meaning. Our educational system has been transformed owing to the ever-advancing technology. Technology is a tool, a method for fact-based learning and enable students to do a lot of research using the internet and various other ICT tools. And, at the same time these students are learning very valuable research skills which they can carry to high levels of education, at universities and beyond. Technology can be used to improve critical analysis and literacy skills, evaluate the authenticity and accurateness of online content. The two most important skills to include to 21st-century life skills list are information skills and technology adoption skills. In order to prepare our children for this new world dominated by technology we need to change the way we educate them. So the role of a teacher becomes very important in leveraging the ICT efficiently in the teaching learning process. Today, the teachers must understand and embrace ICT to create better learning environments for the wireless generation of students. The success of every initiatives to employ technology in an educational programme depends strongly upon the support and attitudes of teachers involved. It has been suggested that if teachers believed or perceived proposed computer programme as fulfilling neither their own or their students' needs, they are not likely to attempt to introduce technology into their teaching and learning (Askar & Umay, 2001) [4]. B.Ed. student

teachers, as future teachers, should have greater attitude and access to Information and Communication Technology. This makes the investigator to find out the attitude of B.Ed. student teachers towards using ICT.

2. Review of Related Studies

The study conducted by Arul Sekar J.M. and Arul Lawrence A.S. (2015) [3] on the attitude of B.Ed., students towards information and communication technology (ICT) revealed that (a) there was no significant difference in the attitude of B.Ed., students towards ICT with regard to (i) gender, (ii) discipline, (iii) course of study, and (iv) locality, and (b) aided colleges of education B.Ed., students were better than government college students in their attitude towards ICT. Similarly the study of Suganthi M. (2013) [6] on the attitude of B.Ed., Students Towards Information and Communication Technology explored that there was no significant difference between male and female B.Ed. Students in their attitude towards ICT. Mohit Dixit and Manpreet Kaur (2015) [5], investigated in their study, the attitude of Teacher Trainees towards ICT Teaching and revealed that the factors like locality and gender of teacher-trainees influenced the attitude towards information and communication technology teaching. Amit Kumar Sharma and *et al.*, (2015) [1] conducted "A Study & Survey of B.Ed. Students' Attitude towards Using Internet". Their study revealed that there were no significant difference in the results regarding the Gender, subject, qualification and marital. Annaraja P. and Nima M Joseph (2006) [2] also

revealed in their study that 54% of male teacher trainees had high level of attitude towards ICT and only 78% of female teacher trainees had high level of attitude towards ICT. Totally 68% of teacher trainees possessed high level of attitude towards ICT. The study also revealed that there was no significant difference between male and female teacher trainees in their attitude towards ICT and there was no significant association between attitude towards ICT with regard to (a) father's educational qualification (b) mother's educational qualification (c) father's occupation and (d) family income.

3. Aim of the Study

The study aims to explore the attitude of B.Ed. student teachers towards ICT. It also intends to explore if there exist any significant difference between their attitude towards ICT and the independent variables viz., gender, marital status and Locality.

4. Objectives of the Study

The objectives of the present study are as follows

- To know the level of B.Ed. student teachers' attitude towards ICT
- To find out whether there is any significant difference in the attitude of B.Ed. student teachers towards ICT with regard to certain demographic variables
 - (i) gender
 - (ii) marital status and
 - (iii) locality of residence.

5. Hypotheses

In the present study null hypotheses are framed. They are as follows.

- **Ho 1:** There is no significant difference in the level of attitude of B.Ed. student teachers towards ICT based on the demographic variables viz., gender, marital status and locality of residence.
- **Ho 2:** There is no significant difference in the attitude of B.Ed. student teachers towards ICT with regard to their gender
- **Ho 3:** There is no significant difference in the attitude of B.Ed. student teachers towards ICT with regard to their marital status
- **Ho 4:** There is no significant difference in the attitude of B.Ed. student teachers towards ICT with regard to their locality of residence.

6. Materials and Methods

6.1 Method

In the present study Normative Survey method of research is adopted.

6.2 Sample of the Study

The population of the present study is the Student Teachers studying B.Ed. degree programme in Colleges of Education affiliated to Tamil Nadu Teacher Education University (TNTEU), Chennai. A part of the population is called a sample. The sample of the present study consisted of 724

B.Ed. student-teachers studying in the College of Education from Namakkal District selected by random sampling technique. Among them 284 were male and 440 were female.

6.3 Variables of the Study

The variables of the present study are categorized into two groups as dependent variable and demographic variables. Attitude towards ICT is the dependent variable while gender, marital status and the locality of residence are demographic variables.

6.4 Tool Used In the Study

Attitude Towards Using New Technology Scale (ATUNTS) developed by Dr. S. Rajasekar (2009), Annamalai University, Tamilnadu was used for the present study. The scale consisted of 30 statements, out of which 13 were positive items and 17 were negative items with a five Point Likert's type scale. The 30 statements were divided into 3 domains namely Hardware, Software and E-Resource. The minimum and maximum possible score for this scale ranges from 30 to 150.

6.5 Pilot Study

Before going for the final study a pilot study was done involving 150 B.Ed. student teachers from three different colleges of education from Namakkal District. Among them 58 were male and 92 were female. The tool was validated by establishing reliability and validity. The reliability of the tool was established as 0.76 using split half technique and the validity was established through content validity and face validity.

6.6 Final Study

In the final study, the standardized Attitude towards Using New Technology Scale (ATUNTS) was administered to a sample of 724 B.Ed. student teachers studying in ten different Colleges of Education in Namakkal District of Tamilnadu. The collected questionnaires were properly scored and later on various statistical techniques were carried out to get the results. The statistical techniques used in the present study are frequency, mean, standard deviation and 't' test.

7. Findings and Inferences

a) Hypothesis 1: Level of B.Ed. student teachers' attitude towards ICT based on the demographic variables viz., gender, marital status and locality.

The respondents were classified into Low, Medium and high based on the level of their Attitude towards ICT. The respondents whose Level of Agreeability scores were 'less than or equal to mean scores minus half of the Standard Deviation' were classified as 'Low Agreeability Group'. The respondents whose Level of Agreeability scores were 'above or equal to mean scores plus half of Standard Deviation' were classified as 'High Agreeability Group'. The scores falling between the 'Cut off values of high and low Agreeability scores' were classified as the 'Medium Agreeability Group'. The frequency distribution of respondents coming under each category is given below.

Table 1: Level of Attitude towards ICT among B.Ed. Student Teachers Based on the Demographic Variables

Variables		Attitude towards ICT			
		Low	Medium	High	Total
Male	N	68	95	121	284
	Percentage	23.9	33.5	42.6	100
Female	N	98	176	166	440
	Percentage	22.3	40	37.7	100
Total	N	166	271	287	724
	Percentage	22.9	37.4	39.6	100
Married	N	33	64	60	157
	Percentage	21	40.8	38.2	100
Unmarried	N	133	207	227	567
	Percentage	23.5	36.5	40	100
Total	N	166	271	287	724
	Percentage	22.9	37.4	39.6	100
Rural	N	128	216	233	577
	Percentage	22.2	37.4	40.4	100
Urban	N	38	55	54	147
	Percentage	25.9	37.4	36.7	100
Total	N	166	271	287	724
	Percentage	22.9	37.4	39.6	100

From the above table it was found that majority (42.6%) of the Male B.Ed. student teachers have high level of ICT attitude, 33.5% have medium level of ICT attitude and 23.9% have low level of ICT attitude. Among the Female B.Ed. student teachers majority of them 40% have medium level of ICT attitude, 37.7% have high level of ICT attitude and only 22.3% have low level of ICT attitude.

It is also found that majority of the Married B.Ed. student teachers (40.8%) have medium level of ICT attitude, 38.2% have high level of ICT attitude and 21% have low level of ICT attitude. Among the Unmarried B.Ed. student teachers majority of them 40% have high level of ICT attitude, 36.5% have medium level of ICT attitude and 23.5% have low level of ICT attitude.

It is also found that majority of the Rural B.Ed. student teachers (40.4%) have high level of ICT attitude, 37.4% have medium level of ICT attitude and 22.2% have low level of ICT attitude. Among the Urban B.Ed. student teachers majority of them 37.4% have medium level of ICT attitude, 36.7% have high level of ICT attitude and 25.9% have low level of ICT attitude.

b) Hypothesis 2: There is no significant difference in the attitude of B.Ed. student teachers towards ICT with regard to gender.

Table 2: Attitude of B.Ed. Student Teachers towards ICT With Regard to Gender

Gender	N	Mean	Std. Deviation	't'	Remarks @ 5% level of Sig
Male	284	90.62	7.290	1.386	NS
Female	440	91.43	7.896		

It is clear from the table that there is no significant difference between male and female B.Ed. student teachers in their attitude towards ICT as the calculated 't' value 1.386 is less than the table value 1.96 at 5% level of significance. Hence the null hypothesis is accepted.

c) Hypothesis 3: There is no significant difference in the attitude of B.Ed. student teachers towards ICT with regard to their Marital Status.

Table 3: Attitude of B.Ed. Student Teachers towards ICT With Regard to Their Marital Status

Marital Status	N	Mean	Std. Deviation	't'	Remarks @ 5% level of Sig
Married	157	91.06	7.611	0.094	NS
Unmarried	567	91.13	7.692		

It is inferred from the table that there is no significant difference between the married and unmarried B.Ed. student teachers in their attitude towards ICT. Since the calculated 't' value 0.094 is less than the table value 1.96 at 5% level of significance. Hence the null hypothesis is accepted.

d) Hypothesis 4: There is no significant difference in the attitude of B.Ed. students towards ICT with regard to their Locality of Residence.

Table 4: Attitude of B.Ed. Student Teachers towards ICT With Regard to Their Locality of Residence

Locality	N	Mean	Std. Deviation	't'	Remarks @ 5% level of Sig
Rural	577	91.01	7.779	0.700	NS
Urban	147	91.51	7.232		

It is clearly understood from the table that there is no significant difference between Rural and Urban B.Ed. student teachers in their attitude towards ICT as the calculated 't' value 0.700 is less than the table value 1.96 at 5% level of significance. Hence the null hypothesis is accepted.

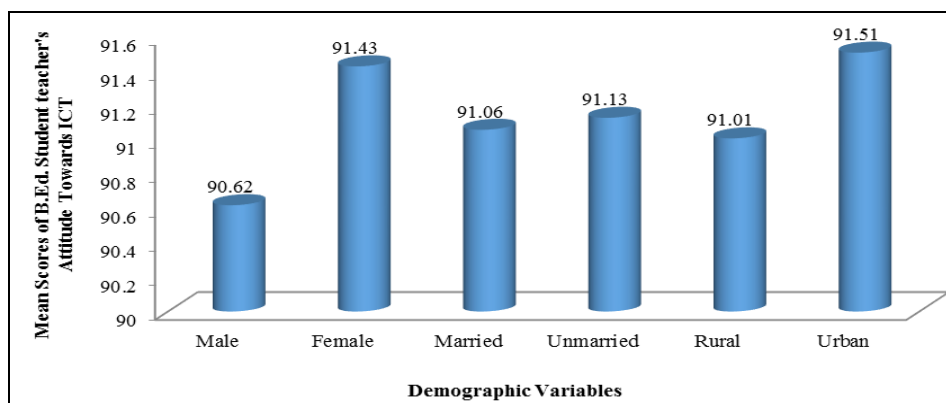


Fig 1: Showing the Mean Scores of B.Ed. Student Teachers' Attitude towards ICT Based on Demographic Variables

8. Major Findings

1. Majority of the Male B.Ed. student teachers (42.6%) have high level of ICT attitude whereas majority of the Female B.Ed. student teachers (40%) have medium level of ICT attitude.
2. Majority of the Married B.Ed. student teachers (40.8%) have medium level of ICT attitude whereas majority of the Unmarried B.Ed. student teachers (40%) have high level of ICT attitude.
3. Majority of the Rural B.Ed. student teachers (40.4%) have high level of ICT attitude whereas majority of the Urban B.Ed. student teachers 37.4% have medium level of ICT attitude.
4. There is no significant difference in the attitude of B.Ed. student teachers towards ICT with regard to their gender
5. There is no significant difference in the attitude of B.Ed. student teachers towards ICT with regard to their marital status
6. There is no significant difference in the attitude of B.Ed. student teachers towards ICT with regard to their Locality.

9. Discussions

The present study revealed that majority of Male B.Ed. student teachers have high level of attitude towards ICT. This is supported by the findings of Annaraja P. and Nima M Joseph (2006) ^[2] where in their study "Teacher Trainees' Attitude Towards Information and Communication Technology" found that majority of Male B.Ed. student teachers had high level of attitude towards ICT. But in the case of Female B.Ed. student teachers, the present study revealed that majority of them have medium level of attitude towards ICT. This is in contradiction to the findings of Annaraja P. and Nima M Joseph (2006) ^[2] where the majority of Female B.Ed. student teachers had high level of attitude towards ICT.

The 't' test results of the present study reveal that there is no significant difference between male and female B.Ed. student teachers in their attitude towards ICT which confirms with the finding of Suganthi M. (2013) ^[15] and findings of Arul Sekar M.J. and Arul Lawrence A.S. (2015) ^[3]. Suganthi, in her study "Attitude of B.Ed. Students Towards Information and Communication Technology" and Arul Sekar M.J. and Arul Lawrence A.S. (2015) ^[3] in their study "Attitude of B.Ed. Students Towards Information and Communication Technology" revealed that there is no significant difference in the attitude of B.Ed. student teachers with regard to their gender.

It is found from the present study that there is no significant difference between B.Ed. students' attitude towards ICT and their marital status. This finding is supported by Amit Kumar Sharma and *et al.*, (2015) ^[1] from their study and Survey of B.Ed. Students' Attitude towards Using Internet, which concluded that there were no significant difference in the attitude towards ICT regarding the Gender, subject, qualification and marital status of B.Ed. students.

Significant differences was not found between rural and urban B.Ed. student teachers' attitude towards ICT by Mohit Dixit and Manpreet Kaur (2015) ^[12] in his study "Attitude of Teachers Trainees towards ICT Teaching" and Arul Sekar M.J. and Arul Lawrence A.S. (2015) ^[3] which supports the present study where there is no significant difference between rural and urban B.Ed. student teachers' attitude towards ICT.

10. Conclusion

A good training results in better understanding, confidence and hence efficient result. It is important that many innovative techniques and methods of ICT application can be introduced for the B.Ed. student teachers during their pre service training itself so that they can become well versed in using those applications and develop high level of positive attitude towards using ICT.

11. References

1. Amit Kumar Sharma, Rekha Pyase, Sapna Jain. A Study & Survey of B.Ed. Students' Attitude towards Using Internet: International Journal of Science and Research (IJSR). 2015; 4(12). www.ijsr.net
2. Annaraja P, Nima M Joseph. Teacher Trainees' Attitude Towards Information and Communication Technology: DESIDOC Bulletin of Information Technology. 2006; 26(2)37-40. © 2006, DESIDOC.
3. Arul Sekar JM, Arul Lawrence AS. Attitude of B.Ed. students towards information and communication technology (ICT): International Journal of Applied Research. 2015; 1(8):785-787. ISSN Print: 2394-7500, ISSN Online: 2394-5869 www.allresearchjournal.com
4. Askar P, Umay A. Pre-service elementary mathematics teachers' computer self-efficacy, attitudes towards computers, and their perceptions of computer enriched learning environments. In Proceedings of Society for Information Technology and Teacher Education International Conference 2001 (Eds C. Crawford, D.A. Willis, R. Carlsen, I. Gibson, K. McFerrin, J. Price & R. Weber), AACE, Chesapeake, VA. 2001, 2262-2263.
5. Mohit Dixit, Manpreet Kaur. Attitude of Teachers Trainees towards ICT Teaching. International Journal of Pure and Applied Researches. 2015; 1(1).
6. Suganthi M. Attitude of B.Ed. Students towards Information and Communication Technology: Indian Journal of Applied Research. 2013; 3(9). ISSN - 2249-555X.