International Journal of Applied Social Science *RESEARCH PAPER*
Volume 5 (11), November (2018) : 1848-1856 ISSN : 2394-1405 (Print)
Received : 07.09.2018; Revised : 15.09.2018; Accepted : 09.10.2018

Attitude towards using ICT in teaching and learning process among the B.Ed teacher trainees in Vellore District

S. VINOTH*[1] AND C. BARATHI[2]
[1]Ph.D Research Scholar and [2]Assistant Professor
[1]School of Education, Bharathiar University, Coimbatore (T.N.) India
[2]School of Education, Tamil Nadu Open University, Chennai (T.N.) India

ABSTRACT

The trend towards a knowledge-based economy has emphasized the importance of universities as repositories of valuable human capital. In particular, the accelerating shift to high technology and information technology economy requires sustained human resource development and training. Information and Communication Technology (ICT) has become one of the basic building blocks of modern society. Many countries now regard understanding ICT and mastering the basic skills and concepts of ICT as part of the core of education, alongside reading, writing, and numeracy. There is a widespread belief that ICTs have an important role to play in changing and modernizing educational systems and ways of learning. Because Education is a very socially oriented activity and quality education has traditionally been associated with strong teachers having high degrees of personal contact with learners. Today, the term information and communication technology has ballooned to encompass many aspects of computing and technology, and the term is more recognizable than ever before. The information technology umbrella can be quite large, covering many fields. When computer and communications technologies are combined, the result is information technology or 'InfoTech'. Information and Communication Technology (ICT) is a general term that describes any technology that helps to produce, manipulate, store, communicate and/or disseminate information. Presumably, when speaking of ICT as a whole, it is noted that the use of computers and information are associated. This paper highlights the Attitude towards using ICT in teaching and learning process among the B.Ed teacher trainees in Vellore District from Tamil Nadu

Key Words : Teaching and learning, ICT, Attitude towards ICT

INTRODUCTION

The education system is the main source of human resource development. Its focus is on the acquisition of knowledge, self-learning, generic and transferable skills in communication, entrepreneurship, management and technology that are the characteristics of the learning society of today. Teachers play a crucial role in the adoption and implementation of ICT in education; however, studies show that teachers lack the necessary ICT knowledge and skills. Information and Communication Technologies (ICTs) are generally accepted as a modern instrumental tool which

How to cite this Article: Vinoth, S. and Barathi, C. (2018). Attitude towards using Ict in teaching and learning process among the B.Ed teacher trainees in Vellore District. *Internat. J. Appl. Soc. Sci.,* **5** (11) : 1848-1856.

enables the educators to modify the teaching methods they use in order to increase the students interest and it is a new medium, a new way of representing, communicating and working with information. In India, there is serious need for increasing the learning abilities of the students with the help of ICT.

Role of ICT in education :

The progress of any country depends upon the quality of education offered and practices. Indian education was well known for its Gurukul System of Education in the Vedic age. Education in India has undergone various phases and stages of development starting in the Vedic age to the Post-independent period. In all stages of development, there was a concern for bringing in quality education reflecting on the practical aspects in education**.**

Teaching and learning in the 21st century should be markedly different from earlier times, as to teaching and learning are now occurring in an increasingly online world. Traditionally, learning environments were restricted to face– to- face delivery or where distance education was undertaken, delivery was largely characterized by the posting of printed resources and communication were often slow and cumbersome.

Integrating technology into teaching-learning transaction has been found to transform the teacher's role from being the traditional 'Sage on the Stage' to also being a 'Guide on the side,' and students' roles also change from being passive receivers of content to being more active participants and partners in the learning process. ICTs offer great potentials and advantages in enhancing students' learning as revealed by Lopez (2003), among others. First, information and communication technologies offer a constructivist approach to learning through the provision of interactive learning experiences. Second, learning through ICTs is more effective as they provide opportunities for using multiple technologies (Video, Computer, Telecommunication, etc.), thereby providing visualization aids in the internationalization and understanding of difficult concepts and processes. This gives opportunities for providing links between theory and practice. Third, ICTs provide opportunities for students to gain valuable computer skills which are germane in today's job market. ICTs also provide students with repertoire of resources to enhance learning. Students have access to current and up-to minute information; with ease students can revise and update learning resources available to them. The use of ICT in education can improve memory retention, increase motivation and generally deepen understanding (Dede, 1998). Selinger (2004) claimed that ICT can improve the quality of education because multimedia contents help to illustrate and explain difficult concepts in ways that were previously inaccessible through traditional teaching resources and methodologies.

Attitudes towards ICT :

Not only students' ICT skills is important, their attitude towards ICT do matter. If students are to adopt computer technologies, they must have the right kind of attitudes towards computers (Tengku, 2005; Hassan *et al*., 2011). Researchers have investigated the relationship between computer attitudes and computer adoption. Students, who perceived the usefulness of computer and feel confident in using it, appear to be more positive in their attitudes toward ICT, thus tend to use computer more (Noiwan *et al*., 2005). In real world, motivation is highly valued because of its consequences where it mobilizes others to act (Ryan and Deci, 2000). The more the learning is intrinsically motivating, the more students will seek the knowledge for its own sake (Schweinle *et al*., 2006).

When individuals learn for the sake of intrinsically motivating purposes, there will be greater

persistency and consequently, this facilitates learning process in the long term (Vansteenkiste *et al*., 2004). Therefore, there is a need to tap into students' intrinsic motivation gained through ICT literacy class as an indicator whether students do enjoy learning the subject in school and perceived themselves as better off than previously.

Review of related literature :

Paul Albert (2016) the purpose of the study is to measure the higher secondary teachers' attitude towards using ICT in teaching learning process. The sample of the study consisted of 50 teachers working in higher secondary schools. In order to collect data, an instrument (Attitude towards using new technology scale) devised by Rajasekar.S, (2009) was used and 6 schools were taken. In data analysis, descriptive statistics were used to describe and summarize the results of data collected from respondents. The results indicated that the higher secondary teachers have neutral attitude towards using new technology in teaching. Male and female teachers differ significantly in their attitude towards using new technology.

Fanai and Chhangte (2016) the study attempts to find out the attitude of secondary school teachers of Aizawl district, Mizoram towards ICT. It also tries to find out whether teaching experience and professional qualification has affect on the teachers' attitude towards ICT. It is found that the teachers have positive attitude towards ICT and also that there is no significant difference between junior and intermediate teachers, intermediate and senior teachers and junior and senior teachers. It is also found that educational qualification does not affect the teachers' attitude towards ICT.

Arul Sekar J.M. and Arul Lawrence A.S. (2015) 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.

Sharma *et al*. (2015) conducted "A Study and 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.

Dixit and Kaur (2015) 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

Yadav (2015) Information and communication technologies (ICT) has emerged as one of the most important aspects of human life and it has affected every aspect of school working including administration, time table, lesson delivery, project work, evaluation, examination system etc. ICT have made teaching-learning process more relevant for the learner and connected to real life. In present study, attitude of secondary school teachers of Rewari district towards the use of information communication technology in education was studied

Suganthi (2013) 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.

Annaraja *et al.* (2006) 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.

Statement of the problem :

Globally, the importance of using ICTs in education, more specifically, e-learning has been well recognized. It has been clearly understood that ICTs have the potential to add more value and provide effective learning for all, anywhere and anytime with real-time interactivity, which as such is not possible through the conventional face- to- face class room learning. Therefore, children from nations who do not adopt ICTs in education will be left behind and result into serious knowledge divide. It is perhaps the first and the last opportunity in the current scenario that a technology of potential to enable education for all, anywhere and anytime, has become a reality. The phenomenon of converging the world into a global village is something that has brought in a paradigm shift in the way future economies will develop. It is this very feature that requires nations to adopt ICTs in the day-to-day lives of their people. The sooner it is done, the better it would be for countries to become part of the global information society. Keeping this in mind the researcher felt the need for the study and coined the research title. In this context, the researcher felt the need to coin the research problem as "Attitude towards using ICT in teaching and learning process among the B.Ed teacher trainees in Vellore District".

Operational definitions :

ICT (Information and Communication Technology) :

ICT is defined as the term used to describe the tools and processes to access, retrieve, store, organize, manipulate, produce and/or exchange information by electronic and automatic means. These include hardware, software and telecommunication in the form of personal computer, scanners, digital canvass, C.D. and D.V.D. players and programmes like data base system and multi-media applications.

Attitude towards using ICT in teaching and learning process :

In this study, attitude towards science is the generalized attitude about the use of learning and teaching. According to the present study the Attitude towards using ICT in teaching and learning process among the B.Ed teacher trainees refers the total scores attained by them for the given questionnaire.

B.Ed students :

According to Rowtree (1981) A Student who is learning to teach *i.e.*, going through a teacher training course. In this study it refers to the B.Ed Students who are undergoing a teacher training course in Tirupattur Educational District.

Objectives of the study :

1. To find the significant difference of Attitude towards using ICT in teaching and learning process among B.Ed Teacher Trainees based on their gender
2. To find the significant difference of Attitude towards using ICT in teaching and learning process among B.Ed Teacher Trainees based on their Medium of Instruction
3. To find the significant difference of Attitude towards using ICT in teaching and learning process among B.Ed Teacher Trainees based on their Medium of Instruction

4. To find the significant difference of Attitude towards using ICT in teaching and learning process among B.Ed Teacher Trainees based on their Type of Family
5. To find the significant difference of Attitude towards using ICT in teaching and learning process among B.Ed Teacher Trainees based on their Parent's Qualification.

Hypotheses of the study :

1. There is no significant difference of Attitude towards using ICT in teaching and learning process among B.Ed Teacher Trainees based on their gender
2. There is no significant difference of Attitude towards using ICT in teaching and learning process among B.Ed Teacher Trainees based on their Medium of Instruction
3. There is no significant difference of Attitude towards using ICT in teaching and learning process among B.Ed Teacher Trainees based on their Medium of Instruction
4. There is no significant difference of Attitude towards using ICT in teaching and learning process among B.Ed Teacher Trainees based on their Type of Family
5. There is no significant difference of Attitude towards using ICT in teaching and learning process among B.Ed Teacher Trainees based on their Parent's Qualification.

METHODOLOGY

Tools used :

The study was carried out in September 2018 in from 321 B.Ed Teacher trainees studying 15 B.Ed Colleges situated in and around Vellore District, Tamilnadu. In this investigation the main aim was to assess the Attitude towards using ICT in teaching and learning process among B.Ed teacher trainees studying in the various B.Ed Colleges Tirupattur Educational District.

For the present investigation the following tools are used,

1) Personal data sheet
2) Attitude towards using ICT in teaching and learning process Scale

Personal data sheet :

In the personal data sheet the details such as Gender, Religion, Medium of Instruction, Locality of residence, Type of family, Parent's Qualification, Parent's Occupation, parent's Monthly Income, are collected in the given format.

Attitude towards using ICT in teaching and learning process scale :

This scale was developed and standardized by Dr. C. Barathi and S. Vinoth (2018). The scale consists of 60 statements. All the items are positive statements.

Scoring :

Scoring was done based on the response of the samples for each item. The responded were request to put a tick mark (v) against any one of the responses. Each statement of this tool carries five alternative responses. The score is given as 5 for Strongly Agree, 4 for Agree, 3 for Undecided, 2 for Disagree and 1 for Strongly Disagree Thus, on the total scale the scores range between 60 - 300.

Statistical techniques used :

In this present investigation, all the analysis is made with the help of SPSS (Version - 20)

package; and the Statistical techniques were used are given below.

Descriptive analysis :

i) Measures of central tendency (mean)
ii) Measures of variability (standard deviation)

Differential Analysis :

i) Independent sample 't' test
ii) One way ANOVA test

RESULTS AND DISCUSSION

Hypothesis 1 :

There is no significant difference of Attitude towards using ICT in teaching and learning process among B.Ed Teacher Trainees based on their gender

Table 1 : Showing the mean Scores of Attitude towards using ICT in teaching and learning process among B.Ed Teacher Trainees Based on their Gender

Variable	Gender	N	Mean	Std. Deviation	SEM	Sig.	Result
Attitude towards using ICT	Male	162	70.17	7.236	0.568	0.230	Not Significant at 0.05 level
	Female	159	70.47	7.612	0.604		

It is clear from the Table 1, the significant value 0.230 is found to be not statistically significant at the 0.05 level. Hence it is clear from the result that there is no significant difference in the mean course of Attitude towards using ICT in teaching and learning process among B.Ed Teacher Trainees based of their gender, Therefore the above hypothesis is accepted.

Hypothesis 2 :

There is no significant difference of Attitude towards using ICT in teaching and learning process among B.Ed Teacher Trainees based on their Medium of Instruction

Table 2 : Showing the mean Scores of Attitude towards using ICT in teaching and learning process Among B.Ed Teacher Trainees Based on their Medium of Instruction

Variable	Medium of Instruction	N	Mean	Std. Deviation	SEM	Sig	Result
Attitude towards using ICT	Tamil	219	69.31	6.895	0.466	0.049	significant at 0.05 level
	English	102	72.48	0.040	0.796		

It is clear from the Table 2, the significant value 0.049 is found to be statistically significant at the 0.05 level. Hence it is clear from the result that there is significant difference in the mean course of Attitude towards using ICT in teaching and learning process among B.Ed Teacher Trainees based of their medium of instruction, therefore the null hypothesis is rejected.

Hypothesis 3 :

There is no significant difference of Attitude towards using ICT in teaching and learning process among B.Ed Teacher Trainees based on their Locality of residence

Table 3 : Showing the mean Scores of Attitude towards using ICT in teaching and learning process among B.Ed Teacher Trainees Based on their Locality

Variable	Locality	N	Mean	Std. Deviation	SEM	Sig	Result
Attitude towards using ICT	Rural	166	69.12	6.948	0.539	0.166	Not significant at 0.05 level
	Urban	155	71.60	7.701	0.619		

It is clear from the Table 3, the significant value 0.166 is found to be not statistically significant at the 0.05 level. Hence it is clear from the result that there is no significant difference in the mean course of Attitude towards using ICT in teaching and learning process among B.Ed Teacher Trainees based of their locality, Therefore the null hypothesis is accepted.

Hypothesis 4 :

There is no significant difference of Attitude towards using ICT in teaching and learning process among B.Ed Teacher Trainees based on their Type of Family.

Table 4 : Showing the mean Scores of Attitude towards using ICT in teaching and learning process among B.Ed Teacher Trainees Based on their Type of Family

Variable	Type of Family	N	Mean	Std. Deviation	SEM	Sig	Result
Attitude towards using ICT	Joint	150	69.82	6.921	0.565	0.267	Not significant at 0.05 level
	Nuclear	171	70.75	7.816	0.598		

It is clear from the Table 4, the significant value 0.267 is found to be not statistically significant at the 0.05 level. Hence it is clear from the result that there is no significant difference in the mean course of Attitude towards using ICT in teaching and learning process among B.Ed Teacher Trainees based of their type of family, Therefore the null hypothesis is accepted.

Hypothesis 5 :

There is no significant difference of Attitude towards using ICT in teaching and learning process among B.Ed Teacher Trainees based on their Parent's Qualification

Table 5 : Showing the mean Scores of Attitude towards using ICT in teaching and learning process among B.Ed Teacher Trainees Based on their Parent's Qualification

Variable	Parents qualification	N	Mean	Std. Deviation	SEM	Sig	Result
Attitude towards using ICT	Below 12	137	69.66	6.976	0.596	0.353	Not significant at 0.05 level
	12 and Above	184	70.81	7.706	0.568		

It is clear from the Table 5, the significant value 0.353 is found to be not statistically significant at the 0.05 level. Hence it is clear from the result that there is no significant difference in the mean course of Attitude towards using ICT in teaching and learning process among B.Ed Teacher Trainees based of their parent's qualification, Therefore the null hypothesis is accepted.

Educational implications :

Based on the major findings of the study the following educational implications are formulated.

– The study is useful to the student who can help their students in developing Attitude towards using ICT through various curricular and co-curricular activities. This will help them to develop their relationship as well as qualities of co-operation and co-existence.

– Such relationships help in collaborative study on ICT in which they may enhance their Attitude towards using ICT without any stress.

– The school administration may be able to device suitable small group activities wherein more freedom and autonomy is provided to students which help in the emergence of Attitude towards using ICT they may be able to develop leadership qualities as well as qualities of co-operation and good

Conclusion :

The purpose of the present investigation was to study the present level Attitude towards using ICT in teaching and learning process. The study is to find some usefulness in the field of education and findings of the study can serve as a database for further research.

REFERENCES

Annaraja, P. and Joseph, Nima M. (2006). Teacher Trainees' Attitude Towards Information and Communication Technology. *DESIDOC Bull. Information Technol.*, **26**(2) : 37-40.

Dede, C. (1998) Learning about teaching and vice versa. Paper presented at Conference of Society for Information Technology in Education. Washington D.C., USA.

Dixit, Mohit and Kaur, Manpreet (2015). Attitude of Teachers Trainees towards ICT Teaching. Internat. *J. Pure & Appl. Researches*, **1**(1).

Fanai, Lallianzuali and Chhangte. Ruatpuii (2016). A Study of the Attitude of the Secondary School Teachers towards ICT With Respect to Teaching Experience and Professional Qualification. *Internat. J. Engg. Sci. & Computing*, **6** (8) : 2878-2880.

Ganesan *et al.* (2016). Attitude of Teacher Educators towards ICT. *Internat. J. Res.* **4** (**5**: SE): May, 2016

Master, J., Sekar, Arul and Arul Lawrence, A.S. (2015). Attitude of B.Ed. students towards information and communication technology (ICT). *Internat. J. Appl. Res.,* **1**(8): 785-787

Hassan, M.A., Samah, B.A., Shaffril, H.A.M. and D'Silva, J.L. (2011). Socio-Demographic factors affecting attitude towards information and communication technology usage. *Am. J. Applied Sci.,* **8**: 547-553. DOI: 10.3844/ajassp.2011.547.553

Lopez, V. (2003). An exploration of the use of information technologies in the college classroom. *College Quarterly*, **6** (1). Retrieved from file htt://www.collegequarerly.ca/2003-vo106-numoi-fall.lopes.html.

Noiwan, J., Piyawat, T. and Norcio, A. F. (2005). Computer Attitude and Computer Self-Efficacy: A Case Study of Thai Undergraduate Students. Paper presented at the 11th International Conference on Human-

Computer Interaction, Nevada, USA.

Paul, Albert A. (2016). Higher Secondary Teachers Attitude Towards The Use Of Ict In Teaching Learning Process. *Internat. Education & Res. J*., **2** (7)

Rajasekar, S. (2009). Attitude towards using new technology scale, National Psychological Corporation, Agra.

Ryan, Richard M. and Deci, Edward L. (2000).Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development and Well-Being. *American Psychologist,* **55** (1) : 68-78.

Samuel Gnanamuthu (2009). A Tool To Measure The B.Ed Teacher Trainees'

Schweinle, A., Meyer, D.K. and Turner, J.C. (2006). Striking the right balance: students' motivation and affect in elementary mathematics. *J. Edu. Res*., **99**: 271-294.

Sharma, Amit Kumar (2014). A Study and Survey of B.Ed. Students' Attitude towards Using Internet. *Internat. J. Sci. & Res. (IJSR)* ISSN (Online): 2319-7064 Index Copernicus Value (2013): 6.14 | Impact Factor (2014): 5.611

Suganthi (2013). Attitude of B.Ed. Students towards Information and Communication Technology. *Indian J. Appl. Res.,* **3**(9). ISSN - 2249-555X.

Vansteenkiste, M., Simons, J., Lens, W., Sheldon, K.M. and Deci, E.L. (2004). Motivating learning, performance and persistence: The synergistic effects of intrinsic goal contents and autonomysupportive contexts. *J. Per. Social Psychol*., **87**: 246-260.

Yadav, Reena (2015). Attitude of Secondary School Teachers Towards The Use of Information Communication Technology In Education. *Internat. J. Edu. & Information Studies*, **5** (1) : 31-33

****