

## **The Knowledge of ICT: A Pathway to Quality Enhancement in Teacher Education**

**Dr. Kusumlata Kumari**

*Mahabodhi Mahavidyalaya B.Ed, Nalanda  
Bihar, India*

---

### **ABSTRACT:**

It's also the age of computer and its matter of sorrow that in spite of being in computer age we generally communicate by traditional methods. Effective communication does not mean only better pronunciation; it refers to a broader sense. Information should be communicated by different multi-media like as Community radio, T.V, Computer, Internet, Film and Video Conferencing etc. By the help of these multi-media we can draw a proper attention of learners and we can make a proper environment of learning. The dimensions of education have also been changing in this advance age. In this respect the knowledge of ICT is quite essential for the Prospective Teachers. This knowledge will certainly be beneficial in improving the quality of teaching, learning and research bent of mind. The present paper focuses on how the domain of ICT plays a very vital role in improving the quality of teacher education in all aspects. The purpose of the study is to find out the significance difference if any in the ICT knowledge of Prospective Teachers on the basis of Gender, Habitation and Educational Qualification. Random sampling method was drawn from 50 prospective teachers from B.Ed. College, Nalanda. For collection and analysis of data respectively a self constructed tool t-ratio were used for this study.

The result reveals that, there exist more positive attitude of Prospective Teachers of urban areas and who are more qualified. So, we have to give more emphasis on the use of ICT for better Quality Enhancement of Prospective Teachers in Rural areas.

**KEY WORD:** Information and Communication Technology, Prospective Teachers

---

Date of Submission: 25-08-2020

Date of Acceptance: 09-09-2020

---

### **I. INTRODUCTION**

In the fast changing scenario of global world there is a need of creating a learning society. The whole world is shrinking to a global village due to the faster change in Information and Communication Technology. The dimensions of education have also been changing in this advance age. In this respect the knowledge of ICT is quite essential for the Prospective Teachers. This knowledge will certainly be beneficial in improving the quality of teaching, learning and research bent of mind. The present paper focuses on how the domain of ICT plays a very vital role in improving the quality of teacher education in all aspects.

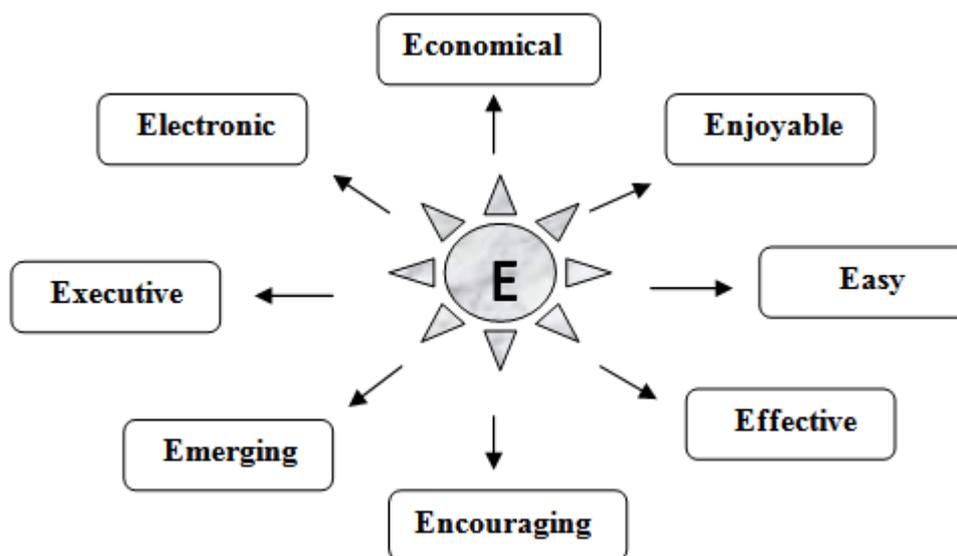
Education is a continuous, complex, dynamic and life long process. Now a day's technology occupies the prominent place in teaching-learning process. The purpose of educational technology is to improve the effectiveness of teaching-learning process in formal or informal setting and to utilize scientific principles. Educational technology is the development, application and evaluation of system, techniques and teaching aids to improve the process of human learning. It will help the teachers to teach well as well as the learners to learn well in this context, every teacher should be aware of educational technology. It complements traditional learning and puts the learner in the centre of learning instead of the teacher. It is dynamic, operates in real time, empowering individual and comprehensive, effective and quick. By e-learning we can provide borderless, timeless, space less, and paperless education. Now-a-days anywhere, anytime education is made possible. The practice of providing education with the help of modern technologies is termed as e-education or e-learning. Moreover the B.Ed. trainees must have adequate knowledge of educational technology. Since today's trainees are the tomorrow's teachers.

### **Importance of e-learning education**

Electronic learning or e-Learning is a general term used to refers to computer-enhanced or technology enhanced learning. It can be as simple as high school students/ college students watching a video documentary in class or as complex as an entire university course provided online. There are various e-materials collectively

establishing effective e-Learning environment. They are e-Books, e-Journals, e-Content, e-Magazines, e-Paper, e-Business, e-Pen, e-Notebook, e-Reader, e-Mail, e-Publishing and e-pedagogy.

So, e-learning is important in teacher education because it can improve the quality of learning experience and extend the reach of every teacher educator. Here e in e-Learning represents different thesaurus like as:



#### Successful e-Learning environment by ICT

**1. Varying the types of content:**

Images, sounds and text works together to build memory in several areas of the brain and result in better retention of the material.

**2. Creating interaction to engage attention:**

Games, puzzles and manipulation of something on screen create more interest, which in turn builds better e-Learning.

**3. Providing instant feedback:**

We can get immediate feedback in e-learning. The more immediate the feedback, better the learning is, because each step of learning builds upon the previous step.

**4. Encouraging interaction with other e- learners and an e- educators:**

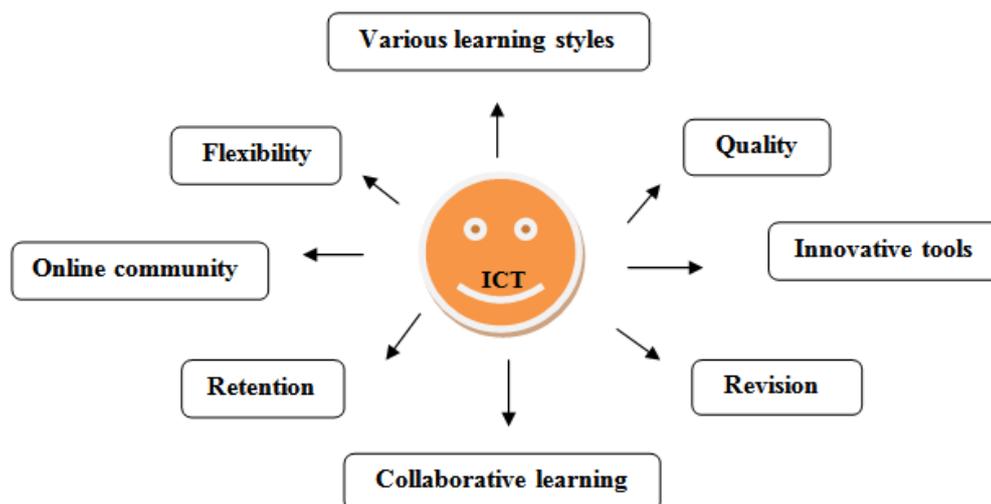
Chat rooms, discussion boards, instant messaging and e-mail all offer effective interaction for e-learners. It is equivalent to classroom discussion.

#### Significance of ICT in Teacher Education

The knowledge of ICT not only helps the teacher educator to improve their intellect competency in teaching and learning but also assists them to undertake meaningful research project which will in turn widen their mental horizon refine their reactions and sharpen their intellect.

Teacher is expected to acquire necessary required knowledge and skills to meet the demands and needs of today's children. It is not sufficient if teacher has acquired mastery over the content and methodology of teaching but teacher has to meet the demands of the present society by catering to the needs of the present day children. It is frequently said the ICT will play a major role in today's society and it undoubtedly effect the field of education. It has changed the role of the teacher and the definition of classroom.

ICT play a vital role in educational field in different ways mainly:



The prospective teachers are at the threshold of entering the career of teaching. They prepare themselves to deal effectively with pupils so that it is highly desirable that they acquire more adequate knowledge about ICT. Hence keeping the vast importance of ICT in teacher education we decide to check ICT knowledge among prospective teachers of Nalanda.

Seeing all aspect of ICT finally we choose our topic “**The Knowledge of ICT : A Pathway to Quality Enhancement in Teacher Education**”.

**Objectives**

1. To find out the difference in ICT knowledge of prospective teachers with respect to gender.
2. To find out the difference in ICT knowledge of prospective teachers with respect to habitation.
3. To find out the difference in ICT knowledge of prospective teachers with respect to educational qualification.

**Null Hypotheses**

1. There is no significant difference between male and female prospective teachers in their ICT knowledge.
2. There is no significant difference between urban and rural prospective teachers in their ICT knowledge.
3. There is no significant difference between graduate and post graduate prospective teachers in their ICT knowledge.

**Method of Study**

The investigators followed the “survey” method for this present study.

**Population and Sample**

In the present study population consisted of prospective teachers of Nalanda district. 50 prospective teachers of Veerayatan B.Ed. College, Pawapuri, Nalanda were taken as sample by random sampling technique.

**Tool Used**

The investigator has used self constructed Questionnaire as tool for the collection of data. It consisted of 50 items related to ICT knowledge. For its validity the questionnaire was verified by a number of experts and whatever suggestions given by them it was reconstructed again and again.

**Scoring Procedure**

In self constructed Questionnaire each item had four alternative answers out of which one is correct. Each response was required to be scored in the following manner.

**Scoring Scheme for Self constructed Questionnaire**

S.No.	Response	Score
1.	Right	1
2.	Wrong	0

**Statistical Techniques Used**

The obtained data is first of all organised which includes editing, classifying and tabulating the information in proper manner. The responses received from respondent were quantified on the line of objectives and hypotheses and then statistical techniques were given to test the hypotheses. For this Mean, Standard Deviation and t-test were used.

**Testing of Null Hypotheses**

**Null Hypothesis – 1**

There is no significant difference between male and female prospective teachers in their ICT knowledge.

**Table : 1**  
**Difference in ICT knowledge of prospective teachers with respect to Gender**

Gender	N	Mean	SD	df	t-value	Level of Significance
Male	19	23.68	3.91	48	0.15	Not Significant (At 5% LS)
Female	31	23.48	5.47			

**For df 48, at 5% Level of Significance table value = 2.01**

Table 1 shows the calculated ‘t’ value 0.15 is less than table value 2.01 for df =48 at 0.05 level of significance. Hence the null hypothesis is accepted. It is concluded that there is no significant difference in the mean score of male and female prospective teachers in their ICT knowledge.

**Null Hypothesis – 2**

There is no significant difference between urban and rural prospective teachers in their ICT knowledge.

**Table : 2**  
**Difference in ICT knowledge of prospective teachers with respect to Habitation**

Habitation	N	Mean	SD	df	t-value	Level of Significance
Urban	24	26.12	4.97	48	2.92	Significant (At 1% LS)
Rural	26	21.19	6.87			

**For df 48, at 1% Level of Significance table value = 2.68**

Table 2 shows the calculated ‘t’ value 2.92 is more than table value 2.68 for df =48 at 0.01 level of significance. Hence the null hypothesis is rejected. It is concluded that there is significant difference in the mean score of urban and rural prospective teachers in their ICT knowledge. This shows that the urban prospective teachers have more ICT knowledge than the rural prospective teachers.

**Null Hypothesis – 3**

There is no significant difference between graduate and post graduate prospective teachers in their ICT knowledge.

**Table : 3**  
**Difference in ICT knowledge of prospective teachers with respect to Edu. Qualification**

Edu. Qualification	N	Mean	SD	df	t-value	Level of Significance
Graduate	36	21.33	5.94	48	3.39	Significant (At 1% LS)
Post Graduate	14	29.28	3.72			

**For df 48, at 1% Level of Significance table value = 2.68**

Table 3 shows the calculated 't' value 3.39 is more than table value 2.68 for df =48 at 0.01 level of significance. Hence the null hypothesis is rejected. It is concluded that there is significant difference in the mean score of graduate and post graduate prospective teachers in their ICT knowledge. It shows that post graduate prospective teachers have more ICT knowledge than the graduate teachers.

## **II. FINDINGS**

From the above tables it is found that

1. There is no significant difference between male and female prospective teachers in their ICT knowledge.
2. There is significant difference between urban and rural prospective teachers in their ICT knowledge.
3. There is significant difference between graduate and post graduate prospective teachers in their ICT knowledge.

## **III. CONCLUSION**

The present study shows that B.Ed. Trainees of Nalanda District have adequate awareness on ICT. They can use ICT in their classes and make the teaching learning process more effective and efficient. In conclusion it can be said that there is significant difference in ICT knowledge of prospective teachers on the basis of habitation and educational qualification but they did not differ on the basis of gender. Hence, in our opinion that we have to give more emphasis on the use of ICT for better Quality Enhancement of Prospective Teachers in Rural areas and who are less qualified.

## **REFERENCE:**

- [1]. Natesan A.K., Jahitha Begum. A., Sridevi S., Quality Concerns in Teacher Education, A.P.H. Publishing Corporation, New Delhi, 2010.
- [2]. Saxena J., Shireesh P., Quality Concerns in Professional, A.P.H. Publishing Corporation, New Delhi, 2010.
- [3]. Kurhade, M.S., A Pathway to Quality Education, University News, Vol. 46.
- [4]. National Council for teacher education " Anweshika" Indian Journal of Teacher Education, vol. 3 june 2006.

Dr. Kusumlata Kumari. "The Knowledge of ICT: A Pathway to Quality Enhancement in Teacher Education." *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, 25(9), 2020, pp. 23-27.