



## TEACHER EDUCATORS' KNOWLEDGE OF E-RESOURCES AND APPLICATION OF ICT

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### **Abstract:**

The main goal of this paper is to find about the teacher educators' knowledge of e-resources and application of ICT. Normative survey method has been used and by using random sampling technique 500 teacher educators' were selected. Gathered data was analyzed by using appropriate statistical technique. The results show that the level of teacher educators' knowledge of e-resources is high and application of ICT is favourable. There is significant difference in the knowledge of e-resources and application of ICT among teacher educators with regard to working knowledge about computer. There is no significant difference in the knowledge of e-resources and application of ICT among teacher educators with regard to gender. There is significant of the correlation among knowledge of e-resources and application of ICT of teacher educators.

### **Introduction:**

Electronic resources (e-resources) are one of emerging environment in libraries and information communication in the competitive world. E-resources usually consist of e-book, e-journal e-article e-newspaper, database and CD-ROMs, which is likely to be the alternative to the print media. All the updated information is published in those e-resources. The main aim of this study is to identify how electronic resources are utilized by teacher educators and specific trends that can be seen among them.

Information and communication technologies (ICTs) are a diverse set of technological tools and resources used for creating, storing, managing and communicating information. For educational purposes, ICTs can be used to support teaching and learning as well as research activities including collaborative learning and inquiry. One of the main applications of the ICTs in education is teaching and learning based on these new technologies.

Rapid progress of information and communication technologies is considered as one of the key factors of change in humankind society. The main impact of ICT in education can be seen in improving the capabilities of instructors, changing the educational structure, creating opportunities for greater and more comprehensive learning, enhancing educational quality and improving teaching skills.

### **Need and Importance of the Study:**

The teacher plays a very important role in shaping students future career choices, as well as their attitude and spirit. The teacher educators are the means of changing the view and practices of future teachers. New versions of learning have entered in education, so the knowledge of teacher educators have to be developed according to recent trends in teaching. Among many trends, e-resources and ICT are more powerful tool for teacher educators. Teachers educators with knowledge of e-resources can able to make their classes more efficient, more compelling, informative, varied, interesting, accessible, discussions more free ranging and challenging. ICT be used to support change and extend existing teaching practices. ICT can be used to reinforce existing pedagogical practices as well as to change the way teachers and students interact. Teacher educator's requires extensive, on-going exposure to ICT's to able to evaluate and select most appropriate resources. E-resources have significant role to play in teaching and learning and hence it is high time for the teacher educators to get knowledge of these resources for their academic growth. The most significant thing is that the utility and knowledge of e-resources and application of ICT effects a positive working attitude among students.

### **Review of Related Literature:**

Ani, Okon E. and Ahiauzu, B. (2008), states that "the transition from print to electronic medium apart from resulting in a growth of electronic information has provided users with new tools and applications for information seeking and retrieval. Electronic resources are invaluable research tools that complement the print-based resources in a traditional library setting.

Subbaiah, S. (2005) investigated the application of information and Communication technology in teacher education with reference to certain selected variables and to identify the information and communication technology needs, knowledge and skills among the teacher educators. It revealed that the focus of computer equipment problem had both quantity problem (not enough computers) as well as quality problem.

Salaam and Adegbore (2010) discovered that search engines are an essential electronic resources for students of private universities in Ogun State, with 51 (49.59%) of the total population of 111 using them very frequently.

**Definition of Key Terms:**

The key terms of the title are defined below for their operational meaning in the study for better understanding of the study.

**Knowledge of E-Resources:**

The knowledge of E-Resources in this study refers to present day's technology's offspring in the education arena that is knowledge about email in sharing information to the students in various topics and in circulating some academic information, internet to search and explore new ideas related to teaching, social media like facebook, whatsapp, twitter, etc in order to communicate and disseminate information to group of students in various titles and to like or interact with the information posted by means of multimedia and even some links to particular web sites, e-journals to publish scholarly articles and access to get information, e-books, bibliographic databases in obtaining various needed information in various formats, online storage of data or information for future retrieval websites like Google drive or Diginet.

**Application of ICT:**

It refers to the utilization of 'stand alone' applications including word processing, CD-ROM and entertainment, Internet based applications including email, chat, social media, etc.

**Information and Communication Technology:**

It refers to a diverse set of technological tools and resources used to communicate, create, disseminate, store and manage information

**Teacher Educators:**

It refers to the teaching faculty who handle B.Ed., M.Ed., and M.Phil., programme in the college of education affiliated to TNTEU and other universities of Tamil Nadu.

**Method and Sample Used:**

Normative survey method is adopted in this study. Random sampling method is used for collection of data. The present study consists of 500 teacher educators'.

**Statistical Technique Used:**

In the present study the investigator had applied the following statistical technique.

- ✓ Descriptive Analysis
- ✓ Differential Analysis
- ✓ Correlation Analysis

**Tools Used for the Present Study:**

The following tools used in the present study:

- ✓ Knowledge of E-resources scale will be constructed and validated by the investigator (2016).
- ✓ ICT practice scale (BIPS) is standardized by BeaWi's (2010)

**Description of the Tool:**

**Knowledge of E-Resources Scale by Investigator (2016):**

The investigator prepared a tool for the pilot study with 87 statements. The tool consists of multiple choices statement, 4 choices are given in each item out of which the respondent is to indicate one choice which represents their best. The pilot study was undertaken for sample of 100 teacher educators. After finding out the 't' value of 87 statement, 55 statements were selected for final study.

**ICT Practice Scale by Bea Wi's (2010):**

The total number of items in the ICT practice scale is 46. The maximum score of the scale is 230 and the minimum score 46.

**Objectives of the Study:**

- ✓ To find out the level of teacher educators' knowledge of e-resources.
- ✓ To find out the level of teacher educators' application of ICT.
- ✓ To find the significant difference, if any, in knowledge of e-resources among teacher educators with regard to Gender and Working Knowledge about computer.
- ✓ To find the significant difference, if any, in the application of ICT among teacher educators with regard Gender and Working Knowledge about computer.
- ✓ To find the significant relationship, if any, among knowledge of e-resources and application of ICT of teacher educators.

**Hypotheses of the Study:**

- ✓ The level of teacher educators' knowledge of e-resources is high.
- ✓ The level of teacher educators' application of ICT is favourable.
- ✓ There is no significant difference in the knowledge of e-resources among teacher educators with regard to gender.
- ✓ There is no significant difference in the knowledge of e-resources among teacher educators with regard to working knowledge about computer.
- ✓ There is no significant difference in the application of ICT among teacher educators with regard to gender.

- ✓ There is no significant difference in the application of ICT among teacher educators with regard to working knowledge about computer.
- ✓ There is no significant relationship between knowledge of e-resources and application of ICT of teacher educators.

**Data Analysis and Interpretation:**

**Hypothesis Testing 1:** The level of teacher educators’ knowledge of e-resources is high.

Table 1.1: The level of teacher educators’ knowledge of e-resources

Variable	Sample	Mean	Standard Deviation
Knowledge of E-Resources	500	37.81	8.68

From the table 1.1, the mean knowledge of e-resources for the whole sample is 37.81 for a maximum of 55 that is 68.74 percentage. It is inferred that the level of teacher educators’ knowledge of e-resources is high.

**Hypothesis Testing 2:** The level of teacher educators’ application of ICT is favourable.

Table 1.2: The level of teacher educators’ application of ICT

Variable	Sample	Mean	Standard Deviation
Application of ICT	500	144.66	29.84

From the table 1.2, the mean application of ICT for the whole sample is 144.66 for a maximum of 230 that is 62.89 percentage. It is inferred that the level of teacher educators’ application of ICT is favourable.

**Hypothesis Testing 3:** In order to find out the significant difference in the knowledge of e-resources among teacher educators with regard to gender, t test, the test of significance was used and the result were given table 1.3, after framing the following null hypothesis.

“There is no significant difference in the knowledge of e-resources among teacher educators with regard to gender”

Table 1.3

Gender	N	Mean	SD	t Value	Significant at 0.05 level
Male	185	38.00	8.514	0.367	Not Significant
Female	315	37.70	8.798		

From the table 1.3 it is found that the calculated t value is 0.367 which is less than the table value and not significant at 0.05 level. Hence the hypothesis is accepted. It is evident from the result that there is no significant difference in the knowledge of e-resources among teacher educators with regard to gender.

**Hypothesis Testing 4:** In order to find out the significant difference in the knowledge of e-resources among teacher educators with regard to working knowledge about computer, t test, the test of significance was used and the result were given table 1.4, after framing the following null hypothesis.

“There is no significant difference in the knowledge of e-resources among teacher educators with regard to working knowledge about computer”

Table 1.4

Working Knowledge about Computer	N	Mean	SD	t value	Significant at 0.05 level
Yes	403	38.49	8.02	3.596	Significant
No	97	35.00	10.60		

From the table 1.4 it is found that the calculated t value is 3.596 which is greater than the table value and significant at 0.05 level. Hence the hypothesis is rejected. It is evident from the result that there is significant difference in the knowledge of e-resources among teacher educators with regard to working knowledge about computer.

**Hypothesis Testing 5:** In order to find out the significant difference in the application of ICT among teacher educators with regard to gender, t test, the test of significance was used and the result were given table 1.5, after framing the following null hypothesis.

“There is no significant difference in the application of ICT among teacher educators with regard to gender”

Table 1.5

Gender	N	Mean	SD	t value	Significant at 0.05 level
Male	185	145.99	29.99	0.765	Not Significant
Female	315	143.87	29.78		

From the table 1.5 it is found that the calculated t value is 0.765 which is less than the table value and not significant at 0.05 level. Hence the hypothesis is accepted. It is evident from the result that there is no significant difference in the application of ICT among teacher educators with regard to gender.

**Hypothesis Testing 6:** In order to find out the significant difference in the application of ICT among teacher educators with regard to working knowledge about computer, t test, the test of significance was used and the result were given table 1.6, after framing the following null hypothesis.

“There is no significant difference in the application of ICT among teacher educators with regard to working knowledge about computer”

Table 1.6

Working Knowledge about Computer	N	Mean	SD	t value	Significant at 0.05 level
Yes	403	146.94	29.28	3.524	Significant
No	97	135.18	30.46		

From the table 1.6 it is found that the calculated t value is 3.524 which is greater than the table value and significant at 0.05 level. Hence the hypothesis is rejected. It is evident from the result that there is significant difference in the application of ICT among teacher educators with regard to working knowledge about computer.

**Hypothesis Testing 7:** In order to find out the significant relationship between knowledge of e-resources and application of ICT of teacher educators, the product moment correlation was used and the result were given table 1.7, after framing the following null hypothesis.

“There is no significant relationship between knowledge of e-resources and application of ICT of teacher educators”

Table 1.7

Variables	r' Value	Significant at 0.01 level
Knowledge of E-Resources and application of ICT	0.602	Significant

From the table 1.7 it is found that the calculated ‘r’ value is 0.602 which is significant at 0.01 (0.115) level. Hence the hypothesis is rejected and then it is evident from the result that there is significant relationship between knowledge of e-resources and application of ICT of teacher educators.

**Findings of the Study:**

The following are the important findings obtained from the present investigator:

- ✓ The level of teacher educators’ knowledge of e-resources is high.
- ✓ The level of teacher educators’ application of ICT is more favourable.
- ✓ There is no significant difference in the knowledge of e-resources among teacher educators with regard to gender.
- ✓ There is significant difference in the knowledge of e-resources among teacher educators with regard to working knowledge about computer.
- ✓ There is no significant difference in the application of ICT among teacher educators with regard to gender.
- ✓ There is significant difference in the application of ICT among teacher educators with regard to working knowledge about computer.
- ✓ There is significant relationship between knowledge of e-resources and application of ICT of teacher educators.

**Conclusion:**

The present investigation has revealed that the level of teacher educators’ knowledge of e-resources is high and application of ICT is also favourable. It is found that the teacher educators have good computer knowledge but the facility to apply and integrate computer education in educational institution is titalar. In limited sense only the teacher educators who are professionally qualified are utilizing internet in their day to day academic updates and developing their skills. Since the teacher educators having more favourable knowledge of e-resources and application of ICT, it is essential that the Institution should provide proper climate and facilities to improve the quality teaching. Then we can produce better teacher to meet the challenges of the present and future society.

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