

## UTILIZATION OF ICT FACILITIES OF TEACHER EDUCATORS

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### ABSTRACT

Information provides a base for our knowledge and understanding about them and the environment surrounding them. For this purpose the learner must be able to learn the art of getting information, store and make its use as and when desired. Such type of activities concerning information are said to be the part and parcel of the science and technology known as the information and communication technology. However, the use of such information as well as access to such information remains incomplete without the involvement of the art of communication. Communication as a two way process standing for the sharing of ideas, thoughts, beliefs and information with others. The mutual sharing between the source of information and receiver of the information ultimately help in building up knowledge as well as getting involved in the knowledge acquiring process. If we like to have efficiency and effectiveness in the activities related to information and communication, we will take the help of information and communication technology. So the present study investigates the utilization of ICT facilities of teacher educators. Here the investigator used survey method to collect data from a sample of 126 teacher educators working in Colleges of Education in Kanyakumari district. Tool used for collection of data was ICT Usage Scale constructed and validated by the investigator. The four dimensions for the ICT usage scale includes teaching-learning, research, sharing information and knowledge upgradation. Arithmetic mean, standard deviation and t- test are the statistical techniques used for data analysis. The findings of the study reveal that no significant difference exists between male and female teacher educators in their utilization of ICT facilities. No significant difference is revealed between teacher educators of arts and science stream in their utilization of ICT facilities except the dimension research. No significant difference is revealed between teacher educators having teaching experience below 5 years and above 5 years in their utilization of ICT facilities.

### INTRODUCTION

In this age of rapid change and uncertainty, there is one thing of which certain teachers will need to adapt to change if they have to survive and keep pace with new methods and technologies. Arguably the area of most rapid change is that of Information and Communication Technology. Technology offers the opportunity to change the roles of teachers that they have traditionally played. With the emerging new technologies, the teaching profession is evolving from an emphasis on teacher-centered, lecture-based instruction to student-centered, interactive learning environments. ICT is a generic term referring

to technologies, which are being used for collecting, storing, editing and passing on information in various forms. It also stands for “diverse set of technological tools and resources used to communicate, and to create, disseminate, store and manage information”. The teacher remains a component in integration of technology in the educational setting. Teachers are the torch bearers for the future society and being a pivot in the process of teaching and learning, knowledge of ICT and skill to use ICT in teaching-learning has gained immense importance for today’s teacher. ICTs have the potential to enhance access, quality and effectiveness in education in general and to enable the development of more and better teachers in particular.

### **SIGNIFICANCE OF THE STUDY**

Today we are living in a knowledge based society, and knowledge based global world where knowledge is a great power, economy and strength of an individual and the asset of a nation. So we are in need of new technologies to have access and proper use of this in fast growing knowledge. Moreover a mere acquisition of knowledge is not enough, we must have a complete access and mastery over the knowledge getting process. It can only happen with the assistance of the science of information and communication technology. ICT knowledge for a teacher is inevitable to impart proper training and guidance to the student at each level to meet the present and future requirements. A computer literate teacher is a boon to the student in the true sense. To maintain standard or quality in education, one should make use of computer technology in teaching-learning process. The application of ICT for teaching and learning in real classroom depends very much on the ICT skills that the teacher possesses.

As the teachers remain central to the learning process so their attitude should be new and modernized. The role of teachers is pivotal, as the success of ICT integration depends upon the positive attitude of teacher rather than upon technological infrastructure. For, it is the teacher who will ultimately determine the extent that ICT is used to enhance the learning process. The teachers are to be educated concurrently with the increase in the use of ICT. New knowledge based on the latest research and new interpretations of existing knowledge can in a few seconds be distributed globally with the use of information technology and electronic communication.

### **TITLE OF THE STUDY**

The study is entitled as “Utilization of ICT Facilities of Teacher Educators”.

### **OBJECTIVES**

To find out significant difference, if any, in the utilization of ICT facilities of teacher educators with regard to gender, subject specialized and teaching experience.

**HYPOTHESES**

- i. There is no significant difference between male and female teacher educators in their utilization of ICT facilities.
- ii. There is no significant difference between teacher educators of arts and science stream in their utilization of ICT facilities.
- iii. There is no significant difference between teacher educators having teaching experience below 5 years and above 5 years in their utilization of ICT facilities.

**DESIGN OF THE STUDY**

**SAMPLE**

The present investigation is carried out in Kanyakumari district in Tamilnadu. 126 teacher educators working in Colleges of Education in Kanyakumari district were selected using simple random sampling technique. The investigator has adopted survey method for conducting the study.

**TOOL USED**

The tool used for the present study was ICT Usage Scale constructed and validated by the investigator. The four dimensions for the ICT usage scale includes teaching-learning, research, sharing information and knowledge upgradation.

**STATISTICAL TECHNIQUES**

The data collected were analyzed using statistical techniques like arithmetic mean, standard deviation and t- test.

**ANALYSIS AND INTERPRETATION OF DATA**

The collected data were subjected to statistical analysis to arrive at conclusions.

**Table 1**

**Difference between male and female teacher educators in their utilization of ICT facilities**

Dimension of utilization of ICT	Gender	N	Mean	Std. Deviation	t-value	p-value	Remarks
Teaching-Learning	Male	41	16.85	1.389	1.118	.267	NS
	Female	85	16.55	1.468			
Research	Male	41	24.10	2.596	0.231	.818	NS
	Female	85	24.21	2.596			
Sharing Information	Male	41	25.41	3.256			

	Female	85	24.85	3.597	0.886	.378	NS
Knowledge Upgradation	Male	41	24.56	2.702	0.411	.682	NS
	Female	85	24.35	2.567			

(NS – Not Significant)

It is inferred from the above table that the calculated ‘p’ value is greater than 0.05 for all the dimensions viz., Teaching-Learning, Research, Sharing Information and Knowledge Upgradation. Hence there is no significant difference between male and female teacher educators in their utilization of ICT facilities and the null hypothesis is accepted.

**Table 2**  
**Difference between teacher educators of arts and science stream in their utilization of ICT facilities**

Dimension of utilization of ICT	Subject	N	Mean	Std. Deviation	t-value	p-value	Remarks
Teaching-Learning	Arts	63	16.54	1.305	0.863	.390	NS
	Science	63	16.76	1.573			
Research	Arts	63	23.40	2.803	3.527	.001	S
	Science	63	24.95	2.098			
Sharing Information	Arts	63	24.62	3.612	1.333	.185	NS
	Science	63	25.44	3.335			
Knowledge Upgradation	Arts	63	24.32	2.361	0.444	.658	NS
	Science	63	24.52	2.839			

(NS – Not Significant, S – Significant)

It is inferred from the above table that the calculated ‘p’ value is greater than 0.05 for the dimensions viz., Teaching-Learning, Sharing Information and Knowledge Upgradation and hence there is no significant difference between teacher educators of arts and science stream in their utilization of ICT facilities and the null hypothesis is accepted except the dimension Research.

**Table 3**  
**Difference between teacher educators having teaching experience below 5 years**  
**and above 5 years in their utilization of ICT facilities**

Dimension of utilization of ICT	Teaching Experience	N	Mean	Std. Deviation	t-value	p-value	Remarks
Teaching-Learning	Below 5 years	51	16.43	1.552	1.376	.172	NS
	Above 5 years	75	16.80	1.356			
Research	Below 5 years	51	23.94	2.803	0.812	.419	NS
	Above 5 years	75	24.33	2.435			
Sharing Information	Below 5 years	51	25.55	3.233	1.409	.162	NS
	Above 5 years	75	24.68	3.629			
Knowledge Upgradation	Below 5 years	51	24.18	2.644	0.863	.390	NS
	Above 5 years	75	24.59	2.579			

(NS – Not Significant)

It is inferred from the above table that the calculated ‘p’ value is greater than 0.05 for the dimensions viz., Teaching-Learning, Research, Sharing Information and Knowledge Upgradation. Hence there is no significant difference between teacher educators having teaching experience below 5 years and above 5 years in their utilization of ICT facilities and the null hypothesis is accepted.

**FINDINGS AT A GLANCE**

On the basis of the above tables, the following findings have been emerged.

i.No significant difference is revealed between male and female teacher educators in their utilization of ICT facilities. This may be due to the fact that both male and female are spending most of their time with computers and internet since there is shift from traditional to technological focus. Also they apply pedagogical approaches by integrating Information and Communication Technology (ICT) in the teaching – learning process.

ii.No significant difference is revealed between teacher educators of arts and science stream in their utilization of ICT facilities except the dimension research. This may be due to the fact that both are interested in integrating ICT in the teaching-learning process and now-a-days teaching fully depends on

technology and a teacher who is teaching has to refer many web resources. So subject is a not barrier in ICT usage.

iii.No significant difference is revealed between teacher educators having teaching experience below 5 years and above 5 years in their utilization of ICT facilities. This may be due to the fact that both are acquainted with the use of technology in the classroom and they are adopting innovative methods with the help of ICT.

### **EDUCATIONAL IMPLICATIONS**

i.The management should arrange experts' talk, seminars, symposia and workshops for all teacher educators time to time to overcome the phobia of using new technologies in their teaching. So the management should take steps to install ICT facilities in all classrooms.

ii.The Government can provide opportunities for organising orientation programmes, refresher courses, seminars and symposia to teachers about ICT. This may encourage the teachers as well as students to learn with the help of ICT.

iii.The Government should enact various policies regarding the use of digital libraries in Colleges of Education.

iv.The Colleges of Education can have their own college website and the academic progress reports of B.Ed trainees can be updated in the college website by the teacher educators of the concerned department.

v.The trainees can be encouraged to send the assignments to the respective teacher educators through e-mail.

### **CONCLUSION**

ICT is the gift of the modernized world which helps every individual to show their potential capabilities in sharing, transforming and accessing information powerfully. ICTs are a major factor in shaping the new global economy and producing rapid changes in society. Within the past decade, the new ICT tools have fundamentally changed the way people communicate and do business. They have produced significant transformations in industry, agriculture, medicine, business, engineering and other fields. They also have the potential to transform the nature of education-where and how learning takes place and the role of students and teachers in the learning process. It is clear that ICTs can provide powerful tools to help learners access vast knowledge resources, collaborate with others, consult with experts, share knowledge, solve complex problems using cognitive tools and represent their knowledge with text, images, graphics, and video.

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