International Research Journal of Education and Technology
ISSN 2581-7795

A study on Teachers' ICT Skills

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Abstract

The objective of this study is to find out the Teachers' ICT Skills. For the present study, Normative survey method has been adopted and the investigation was conducted in the area of Thiruvannamalai, Cuddalore, Vellore and Villupuram Districts of Tamil Nadu, India. Random sampling technique was used in the selection of the sample of 520 Teachers. Teachers' ICT Skills Scale - constructed and validated by Turel, Y.K et al (2017) used for this study. The findings shows that the Teachers are havinghigh level of ICT Skills and the demographic variables are having significant difference between them with regard to the ICT skills.

Key Points: Teachers, Secondary, Higher Secondary

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Introduction

Teachers require specialised training to improve their abilities to use ICT for formative assessments, individualised education, online resource access, and student involvement and cooperation (Dunleavy, M., Dextert, S. and Heinecke, W.F. 2007). Not only should this form of ICT training improve teachers' overall attitudes toward ICT in the classroom, but it should also provide specialised recommendations on ICT teaching and learning in each discipline. Teachers are more likely to utilise ICT for skill-based applications without this support, which limits student intellectual thinking (Smeets, E. 2005). Education managers, supervisors, teacher educators, and decision makers must be taught in ICT use in order to support teachers as they modify their teaching practises (Chapman, D., and Mahlck, L. 2004).

ICT skills of teachers

Teachers must have ICT skills in order to adapt technological improvements. A computer problem could be caused by a number of things. Whatever the issue, troubleshooting will always be a trial and error process-in some cases, we may need to

attempt multiple different approaches before finding a solution; in other cases, the problem may be straightforward.

In order to adopt millennium models of teaching-learning settings that modified traditional relationships between teachers and students, school administrators and staff must have a technology-ready attitude. Teachers were recast from Sage on the Stage to Guide on the Side (Collins & Halverson, 2018; Lim & Newby, 2019). Technology integration into teaching and learning has evolved into a complex process in which technology-ready teachers easily facilitate this integration while others may face a variety of challenges as a result of negative attitudes, beliefs, and a refusal to incorporate technology, which infuses alienation and gradually reduces their engagement (Agogo, 2015; Efilti&Coklar, 2019).

Objective of the Study

The following are the objectives for the present study:

1. To find out the Teachers' level of ICT Skills.
2. To find out whether there is any significant difference in the Teachers' level of ICT Skills with respect to Gender.
3. To find out whether there is any significant difference in the Teachers' level of ICT Skills with respect to Locality.
4. To find out whether there is any significant difference in the Teachers' level of ICT Skills with respect to Type of School.

Hypotheses of the Study

Following are the Hypotheses formulated on the basis of selected objectives:

1. There is no significant difference in the Teachers' level of ICT Skills with respect to Gender.
2. There is no significant difference in the Teachers' level of ICT Skills with respect to Locality.
3. There is no significant difference in the Teachers' level of ICT Skills with respect to Type of School.

Method of Study

For the present study, Normative survey method has been adopted.

Location of this Study

The present investigation was conducted in the area of Thiruvannamalai, Cuddalore, Vellore and Villupuram Districts of Tamil Nadu, India.

Sample

Random sampling technique was used in the selection of the sample of 520 Teachers.

Tool used for this study

Teachers' ICT skills Scale constructed and validated by Turel, Y.K et al (2017) used for the present study.

Analysis of Mean and Standard Deviation of Teachers' ICT Skills Scores

The ICT Skills scale has been administered to 520 Teachers. The mean and Standard Deviation were calculated for the entire sample and its sub-sample and are give in Table No. 1.

Table No. 1

The Mean and Standard Deviation of ICT Skills scores of Teachers

Demographic Variables	Sub sample	N	Mean	SD
Gender	Male	232	48.72	6.404
	Female	288	47.13	6.358
Locality	Urban	275	47.29	6.317
	Rural	245	48.46	6.494
Type of School	Government	403	48.21	6.235
	Private	117	46.58	6.907
Entire Sample		520	47.84	6.421

The entire sample of Teachers are having high level of ICT Skills (M=47.84).

The mean value for the sub sample of gender of Teachers indicates that Male (M=48.72) Teachers are having higher level of ICT Skills than female Teachers (M=47.13).

The mean value for the sub sample of locality of Teachers indicates that rural (M=48.46) Teachers are having higher level of ICT Skills than urban (M=47.29) Teachers.

The mean value for the sub sample of Type of School of Teachers indicates that Government school (M=48.21) Teachers are having higher level of ICT Skills than Private school (M=46.58) Teachers.

Differential analysis

Analysis of mean scores of Male and Female Teachers with respect to their ICT Skills

Null Hypothesis

There is no significant difference between male and female Teachers with respect to their ICT Skills**.**

In order to test the above null hypothesis‘ t’ value is calculated

Table No. 2

The significance of difference between male and female Teachers with respect to their ICT Skills

Gender	N	Mean	Standard Deviation	t-value	Significance at 0.05 level
Male	232	48.72	6.404	2.827	Significant
Female	288	47.13	6.358		

It is found from the Table No. 2, that the calculated ‘t’ value (2.827) is greater than the critical value (1.96) at 0.05 level of significance, Hence the null hypothesis is rejected and it is concluded that there is significant difference between male and female Teachers with respect to theirICT Skills.

Null Hypothesis

There is no significant difference between Urban and Rural Teachers with respect to their ICT Skills.

In order to test the above null hypothesis ‘t’ value is calculated.

Table No. 2

The significance of difference between Urban and Rural Teachers with respect to their ICT Skills

Locality	N	Mean	Standard Deviation	t-value	Significance at 0.05 level
Urban	275	47.29	6.317	2.078	Significant
Rural	245	48.46	6.494		

It is found from the Table No. 2, that the calculated ‘t’ value (5.814) is greater than the critical value (1.96) at 0.05 level of significance. Hence the null hypothesis is rejected and it is concluded that there is significant difference between Urban and Rural Teachers with respect to their ICT Skills.

Null Hypothesis

There is no significant difference between Government and Private Teachers with respect to their ICT Skills.

In order to test the above null hypothesis 't' value is calculated.

Table No. 3
The significance of difference between Government and Private Teachers with respect to their ICT Skills

Type of School	N	Mean	Standard Deviation	t-value	Significance at 0.05 level
Government	403	48.21	6.235	2.292	Significant
Private	117	46.58	6.907		

It is found from the Table No 3, that the calculated 't' value (2.292) is greater than the critical value (1.96) at 0.05 level of significance. Hence the null hypothesis is rejected and it is concluded that there is significant difference between Government and Private Teachers with respect to their ICT Skills.

Conclusion

Teachers of Secondary and Higher Secondary schools recorded high level of ICT skills. But, there is significant difference between the sub samples of Gender , Locality and Management of schools. Hence, special concern has to be given to enhance lower achievers of ICT skills among these sub samples.

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