ICT Integration in Primary Class Rooms: Attitude and Concerns of Primary School Teachers of Kerala

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Abstract- *The use of technology in the classroom improves student's motivation and attitude about themselves and about learning. For this technology needs to be effectively integrated into formal classroom teaching and learning conditions. In this study researchers studied the attitude of primary school teachers of kerala towards ICT integration in class room. 130 primary school teachers of Kerala were selected as the sample for the study. Data collected by using Attitude scale towards ICT integration and Questionnaire on problems of ICT Integration. Results of the study revealed that primary school teachers of Kerala posse's positive attitude towards ICT integration in class room. Study also analysed the different problems faced by the primary school teachers while integrating ICT in class room.*

Key terms: ICT Integration, attitude, Primary school teachers

Introduction

ICTs can facilitate learning of learners various ICTs have been used to support learning, which include traditional media (such as chalk board, text book, OHP etc.) and electronic media (such as computers interactive audio-video, multimedia systems etc.) Technology such as online/internet is available 24 hours a day. With the use of internet and world wide web, a wealth of learning materials in almost every subject can accessed from anywhere at any time by an unlimited number of learners. Computer and internet are the tools for learning and developing skills.

In order to use technology effectively, educators need to be trained in using technology and they need to develop a good understanding of it. Technology is used to enhance learning; therefore it is important for educators to be comfortable using it to ensure that students get the full advantages of educational technology. Teaching with technology is different from teaching in a typical classroom. Teachers must be trained in how to plan, create, and deliver instruction within a technological setting. It requires a different pedagogical approach. Teachers must find a way to assess students on what they take away from a class and meaningful, known knowledge, especially within an eLearning setting. Education will only change when our design methods,

perspectives, and values change. Teachers have many roles when instruction is designed. They can be artists, architects, craftspeople, and engineers. Technology does not mean that using interactive electronic boards and LCD PowerPoint presentation is the most effective. So many more applications are available for students to be hands-on with their learning and gain deeper knowledge than they could before.

Philomina and Amutha (2016) conducted studied awareness towards ICT among Indian teacher educators. The results revealed that that Indian teacher educator's awareness towards ICT differs regarding gender and subject. Their study suggested that in India teacher educators' awareness on ICT integration needs to be strengthened. George (2015) studied the attitude of high school teachers towards ICT implementation in classroom. Study showed that majority of the high school teachers in Kerala posse's moderate level of attitude. Das (2012) made an attempt to find Initiatives and challenges to Integrating ICT in the teaching-learning frame-work in India

This study is a humble effort to analyze the attitude of primary school teachers towards ICT integration in class room, problems while integrating ICT in class and to provide proper suggestions for the qualitative improvement of ICT integration in class room. It is hoped that the result of the study will be a guideline for the stakeholders of education and for the qualitative improvement of ICT integration in the primary schools.

Objectives of the Study

1. To find the attitude of primary school teachers towards integration of ICT in class room
2. To find whether there exist any significant difference in attitude of primary school teachers toward ICT integration based Gender, subject, locale, Medium of instruction and type of management.
3. To find the problems faced by primary school teachers while integrating ICT in Class room transaction.

Methodology

Present study is a survey type study.

Sample: Primary school teachers of Kerala was selected as the population of the present study. 130 primary school teachers from wayanad districts of Kerala state were drawn from the population as the sample for the study.

Tools used for the study: the following tools used for collecting data from sample

1. Attitude scale towards ICT integration (Arshitha.P and Dr. Sheeba.M, 2014)
2. Questionnaire on problems of ICT Integration

Analysis and Interpretation

Collected data were analyzed using the appropriate statistical techniques viz**.**, mean, percentile analysis and independent sample t test**.** Data analysis and interpretation are presented under relevant headings**.**

Attitude of Primary school teachers towards Integration of ICT in class room

Mean and percentile analysis are used to find Attitude of Primary school teachers towards Integration of ICT in class room**.** Data and result of mean and percentile analysis were presented in table**.**1

Table1 : Mean and Percentile analysis of attitude towards ICT integration

Mean		**76.64**
Standard Deviation		**13.17**
Percentiles	10	57.00
	20	66.00
	30	70.00
	40	72.40
	50	76.50
	60	80.00
	70	84.00
	80	90.80
	90	95.00

From Table.1 it is clear that obtained mean score is 76.64. Mean value is more than the middle score of the tool. So it can be say that attitude of primary school teachers towards ICT integration in class room is positive. Percentile score also support the above finding. 50^{th} percentile score is 76.50. i.e., 50 % teachers score above 76.64 and 50 % teachers score below 76.64.

Mean comparison of attitude towards ICT integration based on Gender, Subject, Locale, Medium of Instruction and type of Management

To compare the mean score of attitude towards ICT integration based on Gender, Subject, Locale, Medium of Instruction and type of Management independent sample t test were used. Data and results are presented in table.2

Table2 : Mean comparison of attitude towards ICT integration based on relevant sub sample

Sample	Sub Sample	N	Mean	SD	t - value	Sig. Level
Gender	Male	60	80.12	12.88	2.863	0.01
	Female	70	73.66	12.76		
Subject	Humanities	87	75.24	13.89	1.73	NS

	Science	43	79.46	11.20		
Locale	Rural	99	75.37	12.83	1.98	0.05
	Urban	31	80.67	13.65		
Medium of Instruction	English medium	42	75.69	11.54	0.565	NS
	Malayalam medium	88	77.09	13.92		
Type of Management	Government	68	78.39	14.21	1.60	NS
	Aided	62	74.71	11.74		

NS-Not Significant

From table.2 it is clear that there was a significant difference in the scores for Male (M=80.12, SD=12.88) and Female (M=73.66, SD=12.76) primary school teachers; t (128) = 2.863,p = 0.005. That means attitude of male and female primary school teachers towards ICT integration in class room differ significantly at 0.01 levels. Mean score shows that attitude is high for male primary school teachers.

Above table also revealed that there was a significant difference in the scores of Rural (M=75.37, SD=12.83) and Urban (M=80.67, SD=13.65) primary school teachers: t (128) = 1.98, p = 0.05. Obtained t value showed that there exists a significant difference in attitude of Urban and Rural primary school teachers towards ICT integration in Class room at 0.05 level. Mean score showed that urban school teachers have more positive attitude than rural school teachers.

Table clearly showed that there is no significant difference in the scores for Humanities (M=75.24, SD=13.89) and Science (M=79.46, SD=11.20) primary school teachers; t (128) = 1.73, p = 0.08. there is no significant difference in the scores for English medium (M=75.69, SD=11.54) and Malayalam medium (M=77.09, SD=13.92) primary school teachers; t (128) = 0.565, p = 0.57. There is no Significant difference in the scores for government (M=78.39, SD=14.21) and aided (M=74.71, SD=11.74) primary school teachers; t (128) = 1.60, p = 0.11.

Graphical representation of mean comparison attitude towards ICT integration of primary school teachers based on gender and locale presented in figure.1

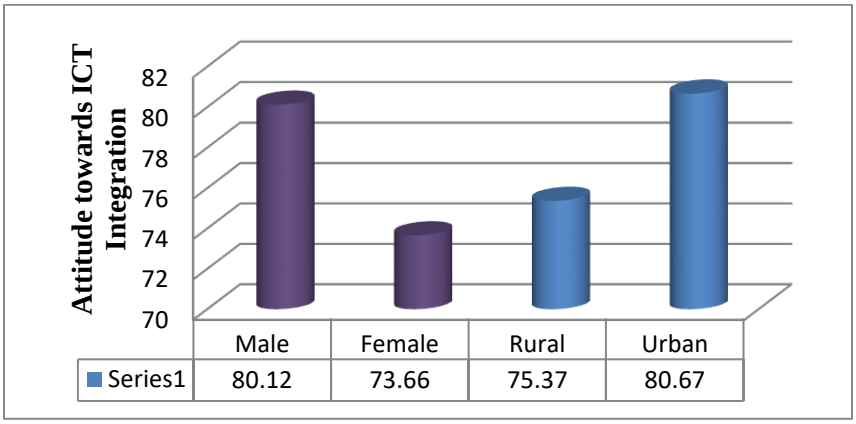

Figure1: Mean comparison attitude towards ICT integration based on Gender and Locale

Problems faced by primary school teachers while integrating ICT in class room

Problems faced by the primary school teachers while integrating ICT in class room is collected by using questionnaire on problems of ICT Integration. collected data were analysed using percentage analysis. Data and results of percentage analysis are presented in table.3.

Table3 : Percentage analysis of problems of ICT Integration

S.No.	Problems faced	Yes		No	
		N	%	N	%
1	Schools with limited ICT facilities	85	65	45	35
2	Lack of technical skills	77	59	53	41
3	Students Discipline	38	29	92	71
4	Lack of digital teaching materials	108	83	22	17
5	High expenditure	79	60	51	40
6	Lack of sufficient time	87	66	43	34
7	Tensions between students and teachers	45	34	85	66
8	Lack of proper training	54	41	76	59
9	Affect lesson time and flow	92	71	38	29
10	Lack of Support from Management/Government	40	31	90	69

From Table3 it is clear that 83% of primary school teachers are facing the problem of lack of sufficient digital teaching material. 71% of teacher's class room affects the lesson time and flow while integrating ICT in class room. 66% teachers face lack of sufficient time. 65% of teachers facing the problem of limited ICT facilities in schools. High expenditure associated with the ICT integration is considered as problem of ICT integration by 60% of primary school teachers. 59% of primary school teachers facing lack of technical skills. 41% teachers facing lack of proper training. 34% teachers experienced tension between student and teachers while taking ICT integrated classes. Only 31% teachers feels there is a lack of support from school management/government. 29% teachers fail to maintain class room discipline in an ICT integrated class.

Conclusion

Information and Communications Technology has become an integral and accepted part of teaching – learning process. Researcher studied the attitude of primary school teachers towards ICT integrated class room. Present study revels following major findings.

1. Attitude of primary school teachers towards ICT integration in class room is positive.
2. Attitude of male and female primary school teachers towards ICT integration in class room differ significantly at 0.01 levels.

3. There exists a significant difference in attitude of Urban and Rural primary school teachers towards ICT integration in Class room at 0.05 level.
4. there is no significant difference in the attitude of teachers based on subject, medium of instruction and type of management.
5. Most of the primary school teachers are facing the problem of lack of sufficient digital teaching material.

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