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ATTITUDE OF ELEMENTARY SCHOOL TEACHERS TOWARDS ICT ENABLED LEARNING

Abstract

Teachers are change agents in schools. They are key drivers who play crucial roles in technology integration in the schools and classrooms. It is important for them to possess positive ICT attitudes since an attitude has been found to be linked with the usage of successful technology integration in education. In other words, attitude of ICT, whether positive or negative, affect how teachers respond to technology in an instructional setting or learning environment. This in turn it affects the way students react to ICT's in schools in current and future ICT usage. Despite the high level of technology in schools, the extent to which it is optimized depends on the positive attitude of teachers.

Information and Communications Technology has become an integral and accepted part of teaching – learning process. SSA (Sarva Shiksha Abhiyan) implemented many projects for improving the quality of elementary education. One of the recently implemented project is ICT enabled learning. Success of this project depends on teachers' attitude towards this technology. The present study attempts to find the attitude of elementary school teachers towards ICT enabled learning. The results revealed that a very less teachers have positive attitude towards ICT enabled learning. Most of them have moderate attitude towards ICT enabled learning. So the government should provide keen attention towards the monitoring of SSA programmes.

Keywords **–** ICT enabled learning, Teachers, Attitude,

Introduction

The pivotal role of education as an instrument of social change by altering the human perspective and transforming the traditional mindset of society is well recognized and adapted. Universalization of quality elementary education has become the top priority, especially for developing countries. Since independence, there has been a tremendous increase in the number of schools as well as enrollment of children. But the lack of infrastructure in rural schools and non availabilities of good teachers (professionally trained) is adversely affecting the efforts made in elementary education. Technology has dramatically penetrated into every area of society and every aspect of our social and cultural lives. New technologies challenge traditional conceptions of both teaching and learning, by reinforcing how teachers and learners gain access to knowledge and, have the potentials to transform the teaching and learning process. ICTs provide an array of powerful tools that may help in transforming the isolated, teacher-centered and text-bound class rooms into rich, student-centered, interactive, knowledge-based environment.

To meet these challenges, our teachers must embrace new technologies and appreciate new ICT tools for learning and training. Many projects have been done for improving the quality of elementary education. ICT enabled learning is the newly launched project to meet the above aim. Attitude of teachers towards this project decides the extend of success. So the researchers would like to explore the attitude of elementary school teachers towards ICT enabled learning.

Research trends in ICT enable learning

It is fact that the success of any initiatives to implement technology in an educational program depends strongly upon the support and attitudes of teachers involved. It has been suggested that if teachers believed or perceived proposed computer programs as fulfilling neither their own or their students' needs, they are not likely to attempt to introduce technology into their teaching and learning, so result depends upon the thinking pattern of the teachers. Among the factors that affect the successful use of computers in the classroom are teachers' attitudes towards computers (Huang & Liaw, 2005). Attitude, in turn, constitutes various dimensions. Some examples of these are perceived usefulness, computer confidence (Rovai & Childress, 2002), training (Tsitouridou & Vryzas, 2003), gender (Sadik, 2006), knowledge about computers (Yuen, Law & Chan, 1999), anxiety, confidence, and liking (Yildirim, 2000). In many developed countries and in India as well nearly all schools are equipped with the infrastructure to conduct ICT mediated teaching and learning. It is positive teacher attitudes towards computing are very important if computers are to be effectively integrated into teaching learning process. A major reason for studying teachers' attitude towards computer use is that it is a major predictor for future computer use in the classroom (Myers & Halpin, 2002). Khine (2001) studied 184 pre-service teachers and found a significant relationship between computer attitude and its use in the institution. This finding was corroborated by Yuen and Ma (2001) who, using the Chinese Computer Attitude Scale for Teachers (CAST), found that 216 secondary teachers in Hong Kong had reported the instructional use of computers and their results revealed that affective attitudes, general usefulness, behavioural control, and pedagogical use to be significant in determining the use of ICT. Kumar and Kumar (2003) reported that most teachers believe that the amount of computer experience has a positive effect on attitude towards computers. For achieving good result in schools, it is important to ensure that teachers are interested in integrate technology into the curriculum. For doing so we must create a environment from pre-service level or at the time of induction at school. To do otherwise is to produce future teachers with underdeveloped skills in the use of technology. In the course of their training, pre-service teachers should be provided with the tools and experiences that will be useful for the regular activities in their future job: classroom instruction, research, and problem solving. Using technology enables pre-service teachers to arrange their environment and adjust their instructional strategies (Zhang & Espinosa, 1997). On the part of teacher educators, there is a need to understand the dimensions that influence pre-service teachers' attitudes towards computers as a means for effective development of teacher training curriculum that will prepare teachers to face the challenges in the information age (Fisher, 2000).

Background of the problem

SSA (Sarva Shiksha Abhiyan) implemented many projects for improving the quality of elementary education. One of the recently implemented projects is ICT enabled learning. The investigator had a experience of working in an elementary school for about six months handling classes for 1 to 6, teaching the subjects Mathematics, Environmental science and Physics. At that period she felt ICT could be incorporated in a full-fledged manner for teaching learning process at elementary level. Also she had the allied paper Computer Application during her post graduate study. Thus the investigator got the idea of analyzing the attitude of elementary school teachers of Vadodara district for the present study.

Statement of the problem

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Objectives

- To find the nature of attitude of elementary school teachers towards ICT enabled learning.
- To test the significant difference in the attitude of elementary school teachers towards ICT enabled learning in terms of Gender, Type of Management, Medium of instruction, Locale of institution, Academic Qualification and Plus two subject (i.e Arts and Science).

Hypotheses

- There exists a difference in the nature of attitude of elementary school teachers towards ICT Enabled Learning.
- There is a significant difference in the attitude of elementary school teachers towards ICT enabled learning in terms of Gender, Type of Management of schools, Medium of instruction, Locale of institution, Academic Qualification and Plus two subject (i.e Arts and Science).

Methodology- in -brief

Sample of the study:-

A stratified sampling technique was used to select the samples to address objectives of the Study. Data was attained from total 21 schools of Vadodara City and 150 teachers teaching Primary were selected with due representation of study variables.

Method

In this study, the normative survey method was used to determine the attitude of elementary school teachers towards ICT enabled learning.

Tool

Keeping the objectives of the study in mind, the Investigator developed **Attitude Scale towards ICT enabled Learning**.

Statistical techniques

Percentage analysis and Test of significance of difference between the mean scores of large independent samples were used.

Major findings

Nature of attitude towards ICT enabled learning

Level of Attitude	N	Percentage
Negative	26	17.33
Moderate	92	61.33
Positive	32	21.34
Total	150	100

It is quite evident from the above table that more than half of the teachers have a moderate attitude, wherein teachers having positive attitude are high in number than the teachers with negative attitude.

Gender and attitude towards ICT enabled learning

Gender	M	SD	N	't'-value	Significance at 0.01 level
Male	81.22	12.825	69	3.527	S
Female	73.91	12.478	81		

S -denotes significant difference at 0.01 level.

It is quite from the above table that there is a significant difference in the attitude towards ICT enabled learning between male and female teachers. Further attitude towards ICT enabled learning is found to be high among male teachers as compared to the female teachers.

Type of management and attitude towards ICT enabled learning

Type of management	M1	SD1	N1	M2	SD2	N2	't'-value	Significance at 0.01 level
Government vs Aided	78.66	14.41	63	76.52	12.66	44	0.795	N.S
Government vs	78.66	14.41	63	76.00	11.58	43	1.01	N.S

Private								
Aided vs. private	76.52	12.66	44	76.00	11.58	43	0.201	N.S

N.S- denotes not significant at 0.01 level

It is quite evident from the above table that there is no significant difference in the attitude towards ICT enabled learning between different types of school management. Further, it can be understood that Attitude towards ICT Enabled Learning is independent of the type of management of school belonged by the teacher.

Medium of instruction and attitude towards ICT enabled learning

Medium of instruction	**M**	**SD**	**N**	**'t'-value**	**Significance at 0.01 level**
English	76.00	11.58	43	0.753	N.S
Gujarati	77.78	13.69	107		

N.S- denotes not significant at 0.01 level

It is quite evident from the above table that there is a no significant difference in attitude towards ICT Enabled Learning between Gujarati medium teachers and English Medium teachers. Further, it can be understood that attitude towards ICT enabled learning is independent of teaching medium of instruction.

Locale of institution and attitude towards ICT enabled learning

Locale of institution	**M**	**SD**	**N**	**'t'-value**	**Significance at 0.01 level**
Urban	82.2195	13.48983	41	2.903	S
Rural	75.4128	12.53529	109		

S -denotes significant difference at 0.01 levels.

It is quite evident from the above table that there is a significant difference in attitude towards ICT Enabled Learning between Teachers of urban and rural schools. In other ways attitude towards ICT Enabled Learning is found to be highly positive among teachers of urban schools

Plus two subject (i.e. arts and science) **and attitude towards ICT enabled learning**

Plus two subject	**M**	**SD**	**N**	**'t'-value**	**Significance at 0.01 level**
Arts	76.05	13.77	103	1.690	N.S
Science	79.93	11.22	47		

N.S- denotes not significant at 0.01 level

It is quite evident from the above table that there is no significant difference in the attitude towards ICT enabled learning between the teachers belonging to arts and science group during higher secondary. It can be understood further that attitude towards ICT enabled learning is independent the group under higher secondary.

Educational qualification and attitude towards ICT enabled learning

Educational qualification	**M1**	**SD1**	**N1**	**M2**	**SD2**	**N2**	**'t'-value**	**Significance at 0.01 level**
PTC vs B.Ed.	77.51	13.93	71	77.11	13.07	44	0.150	N.S
PTC vs	77.51	13.95	71	77.00	11.68	35	0.185	N.S

Others								
Others vs B.Ed.	77.00	11.68	35	77.11	13.07	44	0.040	N.S

N.S- denotes not significant at 0.01 level

It is quite evident from the above table that there is no significant difference in the attitude towards ICT enabled learning between PTC teachers, B.Ed. teachers and other qualified teachers. Further, it can be understood that attitude towards ICT enabled learning is independent of the educational qualification of teacher.

Teacher's residence and attitude towards ICT enabled learning

Teachers' residence	**M**	**SD**	**N**	**'t'-value**	**Significance at 0.01 level**
Urban	82.51	14.09	39	2.976	S
Rural	75.43	12.29	111		

S -denotes significant difference at 0.01 level.

It is quite evident from the above table that there is a significant difference in the attitude towards ICT enabled learning between teachers from rural and urban habitats. Further, attitude towards ICT enabled learning is found to be high among teachers from urban area as compared to the teachers from rural area.

Training in computer course and attitude towards ICT enabled learning

Training in computer course	**M**	**SD**	**N**	**'t'-value**	**Significance at 0.01 level**
Trained	78.56	12.54	102	1.776	**N.S**
Untrained	74.52	13.98	48		

N.S- denotes not significant at 0.01 level

It is quite evident from the above table that there is no significant difference in the attitude towards ICT enabled learning between the trained and untrained teachers. Further, it can be understood that attitude towards ICT enabled learning is independent of one's training in computer course.

Major conclusions

The major findings of the present study are listed below.

1. Teachers' attitude towards ICT Enabled Learning exists with differences at three different attitudes namely positive, moderate and negative.
2. Majority of elementary school teachers possess moderate attitude towards ICT enabled learning.
3. Teachers' attitude towards ICT Enabled Learning is found to be independent of one's plus two subject (i.e. Arts and Science), educational qualification and training in computer course.
4. Teachers' attitude towards ICT Enabled Learning is independent of type of management of school.
5. Teachers' attitude towards ICT Enabled Learning is better facilitated by male teachers, urban school teachers and teachers from urban habitats.

Educational implications

Teachers are change agents in schools. They are key drivers who play crucial roles in technology integration in the schools and classrooms. It is important for them to possess positive ICT attitudes since attitudes have been found to be linked with the usage of successful technology integration in education. In other words, attitude of ICT, whether positive or negative, affect how teachers respond to technology

in an instructional setting or learning environment. This in turn it affects the way students react to ICT's in schools in current and future ICT usage. Despite the high level of technology in schools, the extent to which it is optimized depends on the positive attitude of teachers.

Information and Communications Technology has become an integral and accepted part of teaching – learning process. SSA implemented many projects for improving the quality of elementary education. One of the recently implemented project is ICT enabled learning. Success of this project depends on teachers' attitude towards this technology. The present study attempts to find the attitude of elementary school teachers towards ICT enabled learning. The results revealed that a very less teachers have positive attitude towards ICT enabled learning. Most of them have moderate attitude towards ICT enabled learning. So the government should provide keen attention towards the monitoring of SSA programmes. It can well furnish the schemes by the following steps.

1. Thorough expertise check -ups.
2. Annual check-ups
3. Periodical check-ups
4. Continuous and endless supervision.
5. Considering need and interest.
6. Demanding formative and summative reports.
7. Regular updating.
8. Providing refresher course to all teachers.
9. Inclusion of adequate raw materials.
10. Implementation with equity.
11. Conducting common achievement test after implementation of the programme.
12. Accepting feedback.
13. Taking remedial measures with practicability.
14. Inclusion of fore coming need.
15. Predictive future plan.
16. Conducting experimental, normative, case study researches.

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