



A Study of the Attitude of the Government and Private High School Teachers towards the use of ICT with Respect to Arts and Science Stream

Aradhana Yadav
Guest Faculty

Department of Computer Science
Tagore Government College of Education, Andaman Nicobar Island, India

Abstract:

Understanding teachers' attitude towards the use of ICT in the classroom is the burning need of this digital era. The use of ICT in the classroom is very important for providing opportunities for the students to learn to operate in an informational age. This study was conducted to find out the attitude of government and private high school teachers of Pondicherry region towards the use of ICT with respect to arts and science stream. The Sample consists of 150 high school teachers of Pondicherry region including government and private schools. A questionnaire is used as a tool for collecting data from the participants. It was found that the high school teachers have positive attitude towards ICT and also there is no significant difference between the attitude of government and private high school teachers with respect to arts and science stream towards the use of ICT in the classroom.

Keywords: Attitude, Information and Communication Technology (ICT), High School Teachers, Arts and Science Stream, Government and Private Schools.

I. INTRODUCTION

Technology has revolutionized our society. The new technology is instrument for change and innovation. In the last two decades, technology has dramatically penetrated into almost all walks of life and education is not an exception to it. The present education system is highly different from what it was in the past, especially with regard to application of technology. There is a shift from Indian pen to computer keyboard, from blackboard presentation to PowerPoint presentation, from paper pencil test to computer based test, from teacher dependent learning to independent learning etc. The new technology is seen as a cognitive tool that has potential of encouraging inquiry based learning, reinforcing instructional concepts and fostering active and creative learning by engaging students in the process. Integrating ICT in Education is important because of its ability to enhance productivity for both teachers and students. A new society demanded new skills and this meant that technology could play an important role in education. Modern technology offers many means of improving teaching and learning in the classroom. ICT have the potential to support education across the curriculum and provide opportunities for effective communication between teachers and students in ways that have not been possible before. ICT in education has the potential to be influential in bringing about changes in ways of teaching. ICT helps in promoting opportunities of knowledge sharing throughout the world. These can help the teachers and students having up to date information and knowledge. Accurate and right information is necessary for effective teaching and learning. Therefore teachers are needed to know much about new technologies and media and treat them with positive attitude. Teachers use ICT to plan lessons more efficiently and more effectively. ICT increases efficiency in planning and preparation of work due to a more collaborative approach between teachers. The National Policy on Education

(NPE) 1986, as modified in 1992, stressed the need to employ educational technology to improve the quality of education. It is well recognized that ICT has a greater potential for improving the teaching learning process. (UNESCO) 2002 stressed that "Educational systems around the world are under increasing pressure to use the new information and communication technology to teach students the knowledge and skills they need in the 21st century." The role of teachers in successful implementation of ICT in education is vital and cannot be undermined in anyway, their attitude, their beliefs, their notions hold an important position.

Need for the study

It was rightly quoted by Dr. Craig Barrett that "All the educational technology in classrooms today is worth nothing if the teachers don't know how to use it effectively. Computers are not magic, teachers are." Education requires innovation and thought provoking learning. ICT helps to a greater extent to achieve both these. A past study reveals that, the successful Implementation of the educational technology depends largely on the attitude of teachers. Bullock (2004) found that, the attitude of teachers is a major enabling/disabling factor in the adoption of the technology. Similarly, Kersaint et al. (2003) found that, the teachers with positive attitudes towards the technology feel more comfortable while using it and them usually incorporate it into their teaching activities. ICT can have the innovative relationship with teaching. Classroom instruction is the heart of the entire educational process. Therefore use of various techniques, methods, media and approaches is must to make the teaching learning process more interesting, effective, goal oriented, need based and different from routine ways of functioning. Therefore, the teachers' attitudes towards ICT are one of the significant factors in enhancing the quality of instruction given to the students. It is the need of the hour to examine and assess the attitude of teachers towards ICT.

Objective of the study

1. To find out the level of attitude towards the use of ICT of high school teachers in Pondicherry region.
2. To find out the significant difference if any in the mean scores of attitude towards the use of ICT between government and private high school teachers.
3. To find out the significant difference if any in the mean scores of attitude towards the use of ICT between arts group and science group high school teachers.

Hypothesis

1. The level of attitude of high school teachers towards using ICT is favorable.
2. There is no significant difference between the mean scores of government and private high school teachers in their attitude towards ICT.
3. There is no significant difference between the mean scores of arts group and science group high school teachers in their attitude towards ICT.

Review of related Literature

Ndibalema, P. (2014) on his study entitled “Teachers attitude towards use of ICT” result indicated that the teachers have a favorable attitude towards the use of ICT. Kiran Kumar and Patil (2013) conducted a research on the topic” Teachers Attitude towards using new technologies.” The study reveals that female teachers and private secondary school teachers are having positive attitude towards using new technology. Sivakumar and Arunachalam (2012) conducted a study on “Attitude towards E-Learning among Prospective Teachers.” The result shows that there is a significant difference in the mean scores of attitude towards E-Learning among the Prospective Teachers with respect to their sex, residence, and those having computer at home. Mohammad AaturRahman (2011) in his paper “Attitude towards use of computer technology in teacher training colleges in Bangladesh.” found that the teacher educators’ possessed their high attitude towards computer. It also determined that there is no significant difference between male and female in terms of their attitudes towards computer technology. Husain (2010) in his study on “Teacher competencies for the use of Information and Communication Technology” found that the teachers have a positive attitude towards ICT and the teachers think that

using ICT skills in developing and presenting information is essential technical competency that teachers need to require.

Research design and tools used in the study

A research design is a planning for selection of subjects, gathering of data and data analysis techniques used in relation to the objective of the study. The normative survey method is adopted in this study which involves the collection of data from different government and private high school teachers of Pondicherry region through the use of a questionnaire. The total sample was 150. Investigator personally visited various government and private high schools of Pondicherry region and administered the questionnaire to the selected schools. To study the attitude of high school teachers towards the use of ICT constructed and standardized by Dr.S. Rajasekar has been adopted by the investigator.

II.ANALYSIS AND INTERPRETATION OF THE STUDY

Table.1. A study of Mean, Median Mode and Standard Deviation of Attitude Scores of High School Teachers in Pondicherry region.

Variable	N	Mean	Median	Mode	Standard Deviation
Attitude	150	104.17	104.00	103.66	11.84

Table 1.0 indicate that the mean and Standard Deviation of the attitude of high school teachers (N=150) is 104.17 and 11.84 respectively. The median is obtained as 104.00. There are 70 high school teachers with below median and 73 with above median. The mode is obtained as 103.66. The attitude of high school teachers (N=150) is obtained in the range of 78 to 134 whereas the actual range is 30 to 150. The obtained mean of attitude (M= 104.17) of high school teachers is above the scale average (scale average=60). Therefore the hypothesis is retained and it is concluded that the level of attitude of high school teachers towards using ICT is favorable.

Table.2. A study of Mean, Standard Deviation, Mean Difference and t-value of Attitude towards use of ICT of High School Teachers in relation to their Type of School in Pondicherry region.

Variable	Sub -Group	N	Mean	S.D	M.D	‘t’ value	df.	Level of Significance
Type of school	Private	80	103.34	12.11	1.79	0.92	148	NS*
	Government	70	105.13	11.55				

NS*- Not Significant at 0.05 level.

The Mean and the Standard Deviation of attitude towards using ICT of high school teachers working in Private Schools (N=80) is obtained as 103.34 and 12.11 respectively. The Mean and the Standard Deviation of attitude towards using ICT of

high school teachers working in Government Schools (N=70) is obtained as 105.13 and 11.55 respectively. In order to check the null hypothesis, the t-test was made. The mean difference in attitude towards using ICT score of high school teachers

caused by the variable, type of school is 1.79 and the corresponding 't' value 0.92 is found to be not significant at 0.05 level for 148 degree of freedom. Since the calculated value 0.92 is lesser than the tabulated value 1.96, the null

hypothesis is accepted. Accepting the null hypothesis it is concluded with 95 percent level of confidence, the high school teachers working in government and private schools do not differ significantly in their attitude towards using ICT.

Table.3. 0 A study of Mean, Standard Deviation, Mean Difference and t-value of Attitude towards use of ICT of High School Teachers in relation to their Subjects in Pondicherry region.

Variable	Sub Group	N	Mean	S.D	M.D	't' value	df.	Level of Significance
Subject Specialization	Arts	63	103.16	10.75	1.75	0.89	148	NS*
	Science	87	104.91	12.59				

NS*- Not Significant at 0.05 level

The Mean and the Standard Deviation of attitude towards using ICT of high school teachers in arts group (N=63) is obtained as 103.16 and 10.75 respectively. The Mean and the Standard Deviation of attitude towards using ICT of high school teachers in science group (N=87) is obtained as 104.91 and 12.59 respectively. In order to check the null hypothesis, the t-test was made. The mean difference in attitude towards using ICT score of high school teachers caused by the variable, subject specialization is 1.75 and the corresponding 't' value 0.89 is found to be not significant at 0.05 level for 148 degree of freedom. Since the calculated value 0.89 is lesser than the tabulated value 1.96, the null hypothesis is accepted. Accepting the null hypothesis it is concluded with 95 percent level of confidence, the arts group and science group high school teachers do not differ significantly in their attitude towards using ICT.

Major Findings:

The level of attitude towards using ICT of high school teachers in Pondicherry region has important major findings as follows:

1. The mean score of attitude towards using ICT of high school teachers is favorable according to the manual of the tool.
2. There is no significant mean difference between the mean scores of attitude of high school teachers working in government and private schools towards ICT.
3. There is no significant mean difference between the mean scores of attitude of high school teachers of arts and science group towards ICT.

III. CONCLUSION:

The present study indicates that the attitude of high school teachers towards using ICT in the classroom is high. It has been rightly said that the level of success in technology integration in schools is not depend on quality of sophistication of the technology, but rather on the teachers' readiness and positive disposition, who eventually determine how they are used in the classroom. Teacher's positive outlook is the major factor in the adoption of technology. It was found that the teachers, who are having positive attitude towards ICT, will get more students' attention and hence give a good result at the time of evaluation. By using ICT in the classroom students will become an active learner and enjoy the process of learning. Using ICT in education results in the increasing productivity

and retention rates, because people remember 20% of what they see, 40% of what they see and hear, but about 75% of what they see and hear and do simultaneously. It means, by using ICT we can create a learning environment, where the communication of the information can be done in a more effective manner and it can be an effective instructional medium for delivering information. It also offers new insights into the learning process, and gives possibilities to represent information and knowledge in a new and innovative way.

IV. REFERENCE:

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