

ATTITUDE TOWARDS INFORMATION TECHNOLOGY: A STUDY OF SECONDARY SCHOOL TEACHERS

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Abstract

The objective of the study was to study the attitude of SSC and ICSE school teachers towards Information technology and to compare the attitude of SSC and ICSE school teachers towards Information technology. The researcher collected data from the SSC and ICSE school teachers. In the present study, a three- stage sampling technique was used. The total sample consisted of 313 teachers. The present research is of a comparative type. The researcher used a scale developed by Dr. (Mrs.) Nasrin and Dr. (Mrs.) Fatima Islahi (2011) - Attitude scale towards Information Technology for Teachers. 't'-test was used to compare the mean scores of Attitude towards Information technology of teachers on the basis of the school board and gender. The present study reveals that there is a significant difference in the attitude of SSC and ICSE teachers towards information technology. The study also shows that there is a significant difference in the attitude of female and male teachers from SSC and ICSE boards. The attitude of the female and male teachers from ICSE board is higher than the female and male teachers from SSC board. The study also shows that there is no significant difference in the attitude of female and male teachers towards information technology on the basis of gender. This may be due to the fact that both female and male teachers are equally exposed to ICT resources.

Keywords- Attitude towards Information Technology, SSC-Secondary School Certificate, ICSE-Indian Certificate of Secondary Education , IT- Information Technology



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Introduction

If we teach today's students as we taught yesterday's, we rob them of tomorrow. – John Dewey. Technology can never replace teachers... But teachers who use technology will probably replace teachers who do not. One may disagree, but one cannot ignore how closely knit technology and educational advances have come to be. From homes to offices, corporate sectors to even a regular house-hold, technology is an integral part of everyone's daily life so also with school education. With vigilance from the teaching community, integrating technology into education can prove beneficial for the student community. It opens doors to globalized resources on varied subjects. It helps to keep abreast with quick updates on any subject under the sun. Rather than look upon it as a distraction, teachers who can keep up with the newer ways of learning will go a long way in helping students incorporate an attitude of adaptability.

Rationale of the Study

The study throws light upon the need of developing positive attitude among secondary teachers towards information technology as the knowledge of information technology is the demand of today and need of the hour. However it is imperative to study the use and impact of ICT and its productivity among the secondary school teachers of different boards and gender.

Need of the Study

The use of Information Technology in school poses a challenge for teachers who already have their own established ways of teaching and may not know much about IT. To promote a positive attitude towards integrating technologies in the classroom, it is important to assess current technology attitudes amongst teachers and to promote the use of interventions to change negative attitudes. Examining the attitudes of secondary school teachers could answer some questions relating to acceptance and usage of technology in teaching and learning process. Few researches have been conducted in this topic therefore there is a need to conduct more studies in it.

Review of Related Literature

Bulent CAVAS et al (2009) conducted a study on science teachers' attitudes toward information and communication technologies in education. The purpose of this study was to reveal Turkish primary science teachers' attitudes toward ICT in education and then explore the relationship between teachers' attitudes and factors which are related to teachers' personal characteristics (gender, age, computer ownership at home, and computer experience). In order to collect data, an instrument (STATICTE) was developed by researchers and administered to 1071 science teachers almost uniformly distributed in 7 geographic regions of Turkey. In data analyses, descriptive statistics were used to describe and summarize the properties of the mass of data collected from the respondents. The results indicate that Turkish science teachers have positive attitudes toward ICT and although teachers' attitudes toward ICT do not differ regarding gender, it differs regarding age, computer ownership at home and computer experience. It is hoped that the outcomes of this study can be used in shaping innovational practices in the Turkish Educational System.

Ana-Belén et al (2012) conducted a study on in service teachers' attitudes towards the use of ICT in the classroom. The purpose of this study is to investigate teachers' attitudes towards the use of ICT in the classroom. One hundred and seventy in-service teachers from

kindergarten to high school participated in the study. A 154-item survey was elaborated (Cronbach $\alpha = .89$) containing three main sections: (1) general information; (2) attitudes towards ICT and use of computer resources in the classroom; (3) level of satisfaction towards the training. A quasi-experimental study with one non-randomized study group (n=85) was also conducted using a pre-and post-test design with the purpose of searching for differences before and after training. Besides, 11 semi-structured interviews were carried out with the purpose of deepening into teachers' major motivations and beliefs. The results show that teachers' attitudes towards ICT are highly positive but the use of them in class is scarce and it is subjected to innovative processes. Secondly, there were no significant differences after instruction. Main conclusions indicate that new ways of teacher training need to be developed.

Singh K.S (2012) conducted a study on teachers' attitude towards information and communication technology (ICT). There is a close relationship between the quality of education and the quality of teachers. The quality of education depends upon the knowledge and attitude of teachers towards the ICT. Teacher educators are the facilitators in any educational reform movement. In order to effectively implement the prescribed curriculum and to achieve its objectives of preparing better future teachers, teacher, educators should themselves be psychologically and academically competent. This research paper discusses the difference between male female, senior junior and art - science teacher redactors in curious dimensions.

Angad G. R. (2014) conducted a study on teachers' attitude towards information and communication technology (ICT). There is a close relationship between the quality of education and the quality of teachers. The quality of education depends upon the knowledge and attitude of teachers towards the ICT. Teacher educators are the facilitators in any educational reform movement. In order to effectively implement the prescribed curriculum and to achieve its objectives of preparing better future teachers, teacher, educators should themselves be psychologically and academically competent. The research paper discusses the difference between male-female, senior-junior and arts -science teacher educators.

Paul Albert. A (2016) conducted a study on higher secondary teachers attitude towards the use of ICT in teaching learning process. The purpose of the study is to measure the higher secondary teachers' attitude towards using ICT in teaching learning process. The sample of the study consisted of 50 teachers working in higher secondary schools. In order to collect

data, an instrument (Attitude towards using new technology scale) devised by Rajasekar.S, (2009) was used and 6 schools were taken. In data analysis, descriptive statistics were used to describe and summarize the results of data collected from respondents. The results indicated that the higher secondary teachers have neutral attitude towards using new technology in teaching. Male and female teachers differ significantly in their attitude towards using new technology.

Concept of Attitude towards Information Technology

Educational systems around the world are under increasing pressure to use new technologies to teach students the knowledge and the skill they need in 21st century. It is an effective alternative to traditional teaching methods. The use of IT in education opens a new era of knowledge and offers a tool that has the potential to change many of the existing educational method. The teacher is a key to the effective use of this resource in educational system.

Worldwide research has shown that ICT can lead to improved student learning and better teaching methods. A report made by the National Institute of Multimedia Education in Japan, proved that an increase in student exposure to educational ICT through curriculum integration has a significant and positive impact on student achievement, especially in terms of Knowledge, Comprehension, Practical skill and Presentation skill in subject areas such as mathematics, science, and social study.

Aim of The Study

To study the attitude of secondary school teachers' towards Information technology.

Objectives of The Study

1. To study the attitude of SSC and ICSE school teachers towards Information technology.
2. To compare the attitude of SSC and ICSE school teachers towards Information technology.

Research Question

Is the attitude of SSC teachers higher than that of ICSE teachers towards information technology?

Hypotheses of the Study

1. There is no significant difference between the attitude of SSC and ICSE school teachers' attitude towards Information technology.

2. There is no significant difference between the male and female SSC and ICSE school teachers' attitude of towards Information technology.
3. There is no significant gender difference in school teachers' attitude towards information technology.

Operational Definition of the Study

1. **Attitude towards Information Technology** - predisposition to respond positively or negatively towards technology and the effective use of it in the teaching learning process.

Sampling Technique of the Study

In the present study, a three- stage sampling technique was used. The stratifying factor was the type of school. The data were collected from different school Boards. In the first stage, sampling involved the selection of schools from Greater Mumbai based on the type of school using the stratified random technique. Here the two strata were the SSC and ICSE board schools. The second stage of sampling was the selection of school teachers from selected schools. The third stage, of the sampling technique involved the gender of the teachers. The researcher collected data from the SSC and ICSE school teachers. The sample consisted of secondary school teachers. The total sample consisted of 313 teachers. 146 teachers from SSC and 167 teachers from ICSE board schools.

Table 1.1 – Sample Size of Secondary School Teachers

School Board	Gender	N	Total
SSC	Female	90	146
	Male	56	
ICSE	Female	111	167
	Male	56	
			313

Methodology of the Study

The present study is of a comparative type. The main objective of this type of research is to compare the attitude of school teachers of SSC and ICSE schools towards Information Technology

Tool of the Study

In the present study the researcher used a scale developed by Dr. (Mrs.) Nasrin and Dr. (Mrs.) Fatima Islahi (2011). The name of the scale was Attitude scale towards Information Technology for Teachers. The tool consisted of 30 items. These statements are categorized into 4 dimensions, impact of IT, usefulness for students, productivity for teaching and teacher's interest and acceptance. The statements consists of both negative and positive

statements. The items in each dimension are as follows - Impact of Information Technology - 19, 21, 29, 30, 15, 18, 23. The positive statements are - 19, 21, 29, 30 and negative statements are- 15, 18, and 23. Usefulness for student are- 4, 20, 22, 26, 27, 13 and 17. The positive statements are - 4, 20, 22, 26 and 27 and negative statements are- 13 and 17. Productivity for teaching are- 1, 8, 11, 24, 6, 7 and 14. The positive statements are - 1, 8, 11 and 24 negative statements are- 6, 7 and 14. Teacher's interest and acceptance are- 2, 3, 10, 12, 28, 5, 9, 16 and 25. The positive statements are - 2, 3, 10, 12 and 28 negative statements are- 5, 9, 16 and 25. The scoring pattern was 5, 4, 3, 2, 1 for positive statements and 1, 2, 3, 4, 5 for negative statements. It is a Likert type scale ranging from Strongly Agree to Strongly Disagree.

Statistical Analysis

't'-test was used to compare the mean scores of Attitude towards Information technology of teachers on the basis of the school board and gender.

Findings of the Study

The following table shows the relevant statistics of comparison of mean score of teachers' attitude towards information technology on the basis of school boards and gender.

Table- 1.2: Significance of Difference in the Mean Attitude Scores of Teachers' towards Information Technology (IT) on the basis of school boards and gender.

Variables	N	M	p- Value	Lo.s	
School Boards	SSC	146	109.95	<.0001	Significant
	ICSE	167	128.27		
Gender by School Type	SSC (Female)	90	109.88	< 0.0001	Significant
	ICSE (Female)	110	128.40		
	SSC (Male)	56	110.07	< 0.0001	Significant
	ICSE (Male)	57	128.01		
Gender	Female	200	120.07	0.057523	Not Significant
	Male	113	119.12		

{Los= Level of Significance}

1. The preceding table shows the comparison of school teachers' attitude towards information technology on the basis of school boards. The mean score of SSC teachers is 109.95 and mean score of ICSE teachers is 128.27. The p- value is < 0.0001 which is significant. This means that there is a statistically significant

difference in the attitude of SSC and ICSE teachers towards information technology on the basis of school boards.

2. The above table shows the comparison of school teachers' attitude towards information technology on the basis of gender by school type. The mean score of SSC female teachers is 109.88 and the mean score of ICSE female teachers is 128.40. The p- value is < 0.0001 which shows that there is a statistically significant difference in the attitude of SSC and ICSE teachers towards information technology on the basis of gender by school type, whereas the mean score of SSC male teachers is 110.07 and the mean score of ICSE male teachers is 128.01. The p- value is < 0.0001 which shows that there is a statistically significant difference in the attitude of SSC and ICSE teachers towards information technology on the basis of gender by school type.
3. The above table shows the comparison of school teachers' attitude towards information technology on the basis of gender. The mean score of female teachers is 120.07 and the mean score of male teachers is 119.12. The p- value is 0.057523 which shows that there is no significant difference in the attitude of female teachers and male teachers towards information technology on the basis of gender.

Conclusion:

The present study reveals that there is a significant difference in the attitude of SSC and ICSE teachers towards information technology. This may be due to the difference in the curriculum and the curricular activities that they follow. The study also shows that there is a significant difference in the attitude of female and male teachers from SSC and ICSE boards. The attitude of the female and male teachers from ICSE board is higher than the female and male teachers from SSC board. The reason could be that the ICSE teachers are more exposed to the use of ICT than the SSC teachers. The training of teachers in ICSE could be rigorous and frequent in comparison with SSC board. The process of curriculum transaction adopted by the ICSE teachers may be different than that of SSC boards. ICT facilities are better and updated frequently. The study also shows that there is no significant difference in the attitude of female and male teachers towards information technology on the basis of gender. This may be due to the fact that both female and male teachers are equally exposed to ICT resource.

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