



A Study on Attitudes Towards Using New Technologies among the Secondary School Teachers of Hooghly District in Relation to Their Gender, Strata, Subject Group and Experience

KEYWORDS

Teaching Attitudes, Secondary School, ICT, CAI

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ABSTRACT *The present study is a quantitative study and tries to measure the attitude level in using new technologies of the secondary school teachers in relation to their gender, strata, subject group and experience. Samples are drawn from the secondary schools of Hooghly District through random sampling technique. Samples are categorised into gender, strata, subject group and experience wise. For data analysis mean, SD, and t-test are computed. The study shows that attitudes towards using new technologies differ in relation to gender, strata, subject group and experience. Males have better attitudes in using technologies than their female counterparts. Urban teachers have better teaching aptitudes than rural teachers. Science teachers have better attitudes in using technologies than their counterparts. Above 10 years experienced teachers have lower attitudes in technologies than their counterparts. This study helps us to understand that how much teachers are effective in use technologies during their teaching learning process.*

Introduction:

Technology and multimedia change the thinking pattern which leads to a devastating change from practice of memorizing to a problem solving area. The word technology is derived from Greek word 'techno' means art or skill and 'login' means science or study. Technology opens up new world to gather knowledge and to manipulate our knowledge as our need. According to Unwin (1969) technology concerning the 'application of modern skills and techniques to requirements of education and training. This includes the facilitation of learning by manipulation of media and methods, and the control of environment in so far as this reflects on learning'. Technology helps us in storing data, e-learning, e-content development, web casting, testing of time table management etc. New technology increase two ways of interaction student-student interaction and student-teacher interaction. Technology bringing a necessary shift in teachers role from a knowledge transmitter to a learning facilitator, knowledge guide, knowledge navigator, and an active co-learner with his students. Technology helps in the use of appropriate teaching strategies to present varieties of learning experience to the learner. In this context Reid (2002) remarked that after incorporation of new technologies in classroom teachers functions transformed as facilitators and co-learner. Technologies in classroom teaching increase the opportunities of individualised instructions, self learning, quality teaching improvement, and adequate transfer of learning. Last two to three decades lots of studies are made to examine the usefulness of technologies in classroom teaching. National Policy on Information and Communication Technology in School Education (2012) give emphasis upon the ICT literate community so that all ICT resources are used in teaching learning process.

Objectives:

- To find out the attitudes levels of secondary teachers in using new technologies in teaching learning process.

- To find out the attitude of secondary school teachers towards using new technologies in relation to gender, strata, subject group and experience.

Hypothesis:

Ho1- There is no significant difference in attitude towards using new technologies of the secondary school teachers in relation to gender.

Ho2- There is no significant difference in attitude towards using new technologies of the secondary school teachers in relation to strata.

Ho3- There is no significant difference in attitude towards using new technologies of the secondary school teachers in relation to subject group.

Ho4- There is no significant difference in attitude towards using new technologies of the secondary school teachers in relation to experience.

Methodology:

Population:

All the secondary school teachers of Hooghly district are the population of this study.

Sample:

200 secondary school teachers are taken through random sampling technique as sample. The sample contains equal number of male and female teachers. The sample is drawn from urban and rural region secondary schools of Hooghly district. Sample also categorised into subject group, and experience wise.

Tool used for this study:

An attitude towards using new technology scale of Rajasekar is used to measure the attitude towards using new technologies of secondary school teachers. The scale is five point rating scale and contains 30 items. The scale contains 13 positive items and 17 negative items.

Table – 1

Nature of the Items	Items serial no	Total
Positive	2, 3, 5, 10, 14, 17, 18, 20, 22, 24, 25, 27, 29	13
Negative	1, 4, 6, 7, 8, 9, 11, 12, 13, 15, 16, 19, 21, 23, 26, 28, 30	17

Variables:

Major variable is attitude towards using new technologies.

Categorical variables are: Gender (male and female)

Strata (rural and urban)

Subject groups (science and humanities)

Experience (above 10 years and below 10 years)

Data Analysis and Interpretation:

Ho1- There is no significant difference in attitude towards using new technologies of the secondary school teachers in relation to gender.

Ho2- There is no significant difference in attitude towards using new technologies of the secondary school teachers in relation to strata.

Ho3- There is no significant difference in attitude towards using new technologies of the secondary school teachers in relation to subject group.

Ho4- There is no significant difference in attitude towards using new technologies of the secondary school teachers in relation to experience.

Table-2

Major variables	Categorical variables	Mean	t-value	df	P (T<=t) two tail	Sig-nificant status
Attitude towards using new technologies	Male	123.81	2.94	198	0.00	S (0.05 levels)
	Female	119.26				
Attitude towards using new technologies	Rural	119.09	2.59	198	0.01	S (0.05 levels)
	Urban	123.36				
Attitude towards using new technologies	Humanities	118.24	3.95	198	0.00	S (0.05 levels)
	Science	124.62				
Attitude towards using new technologies	Experience > 10 years	118.16	3.86	198	0.00	S (0.05 levels)
	Experience < 10 years	124.44				

From the above table-2 it is found that the value of t=2.94 and P= 0.00 (P<0.05). Hence the null hypothesis Ho1 is rejected. It is safely concluded that attitude towards using new technologies of secondary school teachers differ significantly in relation to gender.

From the above table-2 it is found that the value of t=2.59 and P= 0.01 (P<0.05). Hence the null hypothesis Ho2 is rejected. It is safely concluded that attitude towards using new technologies of secondary school teachers differ significantly in relation to strata.

From the above table-2 it is found that the value of t=3.95 and P= 0.00 (P<0.05). Hence the null hypothesis Ho3 is rejected. It is safely concluded that attitude towards using new technologies of secondary school teachers differ significantly in relation to subject group.

From the above table-2 it is found that the value of t=3.86 and P= 0.00 (P<0.05). Hence the null hypothesis Ho4 is rejected. It is safely concluded that attitude towards using new technologies of secondary school teachers differ significantly in relation to experience

Result and Discussion:

The study shows that secondary school teachers have favourable attitudes towards using new technologies during teaching learning process. Evans (2002) also stated that teacher effectively use CAI in teaching learning process. But the present finding contradicts with the finding of Rao (1984). He made a study on factors influencing the effective use of audio visual equipment and materials in classroom teaching and reported that the availability and use of technologies are very poor in classroom teaching. Male teachers working at secondary levels have better attitude towards using new technologies than their female counter parts. This finding is similar with the finding of Solachi (1991) where he established that male teachers use more technologies in the classroom than their counterparts. Urban teachers have better attitudes towards using new technologies than their counterparts. This finding contradicts with the finding of Wad (1984) where he established that rural areas teachers are keener on using radio and T.V. programme in teaching learning process. The study also shows that science teachers have better attitudes towards using new technologies than their humanities counter parts. This finding coincides with the finding of Solachi, (1991) where he established that science teachers use better technologies than humanities teachers. The study also shows a significant difference in attitudes towards using technologies between above 10 years experienced teachers and below 10 years experienced teachers. Above 10 years experience teachers have lower attitudes in using technologies than their counter parts.

Conclusion:

The study shows male teachers are superior in using new technologies in teaching learning process. Urban teachers have better teaching attitudes towards using new technologies than their rural counterparts. This finding appears due to lack of infrastructural facilities in rural region schools. Few teachers of rural region schools mention that they have no opportunities to use ICT based technologies or CAI in teaching learning process because such facilities are not available in their schools. Science teachers have better attitudes in using new technologies in classroom teaching. Teachers of Humanities group says that they have very few opportunities to use technologies in their content because their content portion oriented

in such a way that they have no scope to use experimental based learning or project oriented learning. Below 10 years experience teachers have better attitudes than above 10 years experienced teachers. This arises due to better literacy in technologies especially on ICT and CAI of newly appointed teachers. Old teachers generally follow the traditional way of teaching. The study also indicates that teachers are not able to use new technologies effectively because their attitudes in using new technology are only favourable attitudes. They need to achieve high favourable attitudes in using new technologies without this they are failed to conduct effective teaching. There need to arrange in service training programme on ICT based technologies so that their literacy and attitudes developed in technologies. Through in-service training programme technology integration capacity is increased among the teachers. Technology integration helps them in the selection of accurate tools which make teaching learning process easier to students (Grazzi and Vergara, 2012).

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