

Attitude Towards Using New Technology Among Higher Secondary School Teachers

Gawher Ahmad*¹ & Javaid Aziz Bhat²

¹ Department of Education, University of Kashmir, Srinagar-190006 (India)

² Department of Linguistics, University of Kashmir, Srinagar-190006 (India)

*Corresponding author: gawhereduku@gmail.com

Abstract: The present study was conducted with an objective to compare the attitude of higher secondary schools teachers towards ICT. The sample for the proposed study consisted of 60 higher secondary school teachers (Govt. N= 30; Science = 15; Arts N= 15, Private N= 30; Science N= 15; Arts = N=15) belonged to different areas of Zone Dreygam District Budgam. Random sampling strategy was followed to draw the sample for the study. The data was subjected to various statistical treatments. The results reveal the Govt secondary school teachers have altogether favourable attitude towards ICT than the private secondary school teachers.

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Key words: ICT, attitude, Random sampling, Govt secondary school teachers

Introduction

Information and communication technologies (ICTs) are a major factor in shaping the society mostly the education sector in fundamental ways, e.g., the nature of education- where and how learning takes place and the roles of students and teachers in the learning process. Educational systems around the world are under increasing pressure to use the new information and communication technologies (ICTs) to teach students the knowledge and skills they need in the 21st century. It predicts the transformation of the teaching-learning process and the way teachers and learners gain access to knowledge and information. To effectively harness the power of the new information and communication technologies (ICTs) to improve learning, the following essential conditions must be met: Students and teachers must have sufficient access to digital technologies and the Internet in their classrooms, schools, and teacher education institutions. High quality, meaningful, and culturally responsive digital content must be available for teachers and learners. For many teacher education programmes, this daunting task requires the acquisition of new resources, expertise and careful planning.

A teacher is a highly valued personality in a society and teaching is considered to be the most sacred and distinctive profession. History is full of evidence about the nations where education has distinguished progress. Work and worth of teachers has brought name and fame to nations. The teacher has become the focus of attention in modern world because of his unique roles in the society. In the pre-technology education context, the teacher is the sender or the source, the educational material is the information or message, and the student is the receiver

of the information. In terms of the delivery medium, the educator can deliver the message via the “chalk-and- talk” method. In other words, the teacher delivers the lecture content and the students listen to the lecture. Thus, the learning mode tends to be passive and the learners play little part in their learning process (Orlich et al., 1998).

Teachers are the members of the recognized profession therefore, collected and planned efforts should be undertaken to inculcate in the teacher the positive attitude towards their profession. Attitude can be determined on the basis of how teacher performs his role fulfils his professional’s commitment. It has been seen that positive attitude make the task of teacher more satisfying and rewarding. The behavior of the student to a great extent is moulded by a teacher in the classroom. While spending most of his time in association with his students, his attitudes, actions, emotions, tastes and above all manners exert a great influence on the behavior of the student. One of the major factors affecting people’s attitudes toward a new technology is the attributes of the technology itself (Rogers, 1995). Rogers identified main attributes of technology that affect its acceptance and subsequent adoption i.e. relative advantage, compatibility, complexity, observability and trialability. Thus, a new technology will be increasingly diffused if potential adopters perceive that the innovation: (i) has an advantage over previous innovations;(ii) is compatible with existing practices, (iii) is not complex to understand and use, (iv) shows observable results, and (v) can be experimented with on a limited basis before adoption. Technology opens up new world to gather knowledge and to manipulate our knowledge as our need. 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'. It 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.

For last two decades numerable studies are made to examine the usefulness of technologies in 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 (Pan, 2014). Technically, ICT plays a vital role in representing the information. LCD, OHP, and slide projectors are used. Here the information can be shown visually by using audio and video, the information will reach the student easily. The student also observes the class with enjoyment and the student may not forget the learned information. The student also keeps more interest while observing the class. Large amount of information can be represented in a simple manner and it saves the time. ICT makes the way that, within short duration particular information can be given to the student in an effective way. The main use of ICT is to keep the class interesting and makes the learners to understand (Prabhu, 2013). Technology and multimedia change the thinking pattern which leads to a devastating change from practice of memorizing to a problem solving area.

The integration of ICT into education has been assumed as the potential of the new technological tools to revolutionize an outmoded educational system (Albrini, 2006). In the last 20 years, initiatives, projects and implications related to use of Information and Communication Technologies (ICT) into education motivate teachers to gain necessary knowledge and skills in using ICT in their instruction. Pelgrum (2001) has noted that ICT is "not only the backbone of the Information Age, but also an important catalyst and tool for inducing educational reforms that change our students into productive knowledge workers". ICT plays a critical role in information societies' educational systems. In these societies, the stakeholders of educational policy, redesign and reconstruct their educational systems based on the new educational paradigms such as constructivist theory so that both teachers and students develop the necessary knowledge and skills sought in this digital age. Hence, most countries around the world are focusing on approaches to integrate ICT in learning and teaching to improve the quality of education by emphasizing competencies such as critical thinking, decision-making, handling of dynamic situations, working as a member of a team,

communicating effectively (Anderson & Weert, 2002). The new technologies is seen as a cognitive tool that has the potential of encouraging inquiry based learning, reinforcing instructional concepts and fostering active and creative learning by engaging students in the process. If used effectively, these technologies have the potential to change the classroom dynamics and foster new pedagogical approaches. In present information societies, the stakeholders of educational policy redesign and reconstruct their educational systems based on the new educational paradigm such as constructivist theory so that both teachers and students develop the necessary knowledge and skills sought in this digital age.

Objectives of the study

1. To find and compare the attitude towards new technology of Govt. and Private higher secondary school teachers.
2. To find and compare the attitude towards new technology of Science and Arts higher secondary school teachers.
3. To find and compare the attitude towards new technology of Govt. and Private Science higher secondary school teachers.
4. To find and compare the attitude towards new technology of Govt. and Private Arts higher secondary school teachers.

Hypothesis of the study

1. There will be significant difference between the attitude towards new technology of Govt. and Private higher secondary school teachers.
2. There will be significant difference between the attitude towards new technology of Science and Arts higher secondary school teachers.
3. There will be significant difference between the attitude towards new technology of Govt. and Private Science higher secondary school teachers.
4. There will be significant difference between the attitude towards new technology of Govt. and Private Arts higher secondary school teachers.

Methodology

The sample

The sample for the proposed study consisted of 60 higher secondary school teachers (Govt. N= 30; Science = 15; Arts N= 15, Private N= 30; Science N= 15; Arts = N=15) belonged to different Zones of Dreygam, District Budgam. Random sampling strategy was followed to draw the sample for the study.

The breakup of the sample consists of 60 higher secondary school teachers belonging to different groups is shown as under:

Group	Govt. Hr. Sc. school teachers	Pvt. Hr .Sc. school teachers	Total
Arts. Hr. Sc. School teachers	15	15	30
Science Hr. Sc. School teachers	15	15	30
Total	30	30	60

Tools used: For the present study the investigator has to construct self-constructed tool with Likert type rating.

Statistical treatment:

The data collected was subject to following statistical techniques: Percentages mean, SD, t-test.

Analysis and interpretation

In the present research the investigator has tried to handle the statistical analysis carefully in order to draw out sound inferences and conclusions.

Table 1.0 Showing the level of percentage of Govt. and Private higher secondary school teachers on attitude towards using new technology (N=60)

Level	Govt. Teachers		Private Teachers	
	N	%age	N	%age
Highly Unfavourable Attitude	2	6.67	5	16.70
Unfavourable Attitude	8	26.67	9	30.0
Neutral	5	16.67	6	20.0
Favourable Attitude	9	30.00	5	16.70
Highly Favourable Attitude	6	20.00	5	16.70
Total	30	100	30	100

The above table shows the level of percentage of Govt. and Private higher secondary school teachers on attitude towards using new technology. The table shows that highest percentage i.e. 30% Govt. higher secondary school teachers have favorable attitude and 30% private higher secondary school teachers have unfavorable attitude. The table further indicates that

6.67% highly unfavorable attitude, 26.67% unfavorable attitude, 16.67% neutral attitude and 20% highly favorable attitude in Govt. higher secondary school teachers. In case of private higher secondary school teachers 16.70% highly unfavorable attitude, 20% neutral attitude, 16.70% favorable attitude and highly favorable attitude towards using the new technology.

Table 1.1 Showing the level of percentage of Science and Arts higher secondary school teachers on attitude towards using new technology (N=60).

Level	Science Teachers		Arts Teachers	
	N	%age	N	%age
Highly Unfavourable Attitude	0	0.00	3	10.0
Unfavourable Attitude	4	13.33	7	23.30
Neutral	8	26.67	8	26.70
Favourable Attitude	10	33.33	6	20.0
Highly Favourable Attitude	8	26.67	6	20.0
Total	30	100	30	100

The above table shows the level of percentage of Science and Arts higher secondary school teachers on attitude towards using new technology. The table shows that highest percentage i.e. 33.33% science higher secondary school teachers have favorable attitude and 26.70% arts higher secondary school teachers have neutral attitude towards using the new technology. The table further depicts that 0% highly

unfavorable attitude, 13.33% unfavorable attitude, 26.67% neutral attitude and 26.67% highly favorable attitude in science higher secondary school teachers towards using new technology. Arts higher secondary school teachers have 10% highly unfavorable attitude, 23.30% unfavorable attitude, 20% favorable attitude and highly favorable attitude towards using new technology.

Table 1.2 Showing the level of percentage of Govt. and Private Science higher secondary school teachers on attitude towards using new technology (N=60)

Level	Govt. Science Teachers		Private Science Teachers	
	N	%age	N	%age
Highly Unfavourable Attitude	1	3.33	4	13.30
Unfavourable Attitude	5	16.67	9	30.0
Neutral	7	23.33	7	23.30
Favourable Attitude	8	26.67	5	16.70
Highly Favourable Attitude	9	30.00	5	16.70
Total	30	100	30	100

The above table shows the level of percentage of Govt. and Private Science higher secondary school teachers on attitude towards using new technology. The table shows that the highest percentage i.e. 30% of Govt. Science higher secondary school teachers have highly favorable attitude towards using new technology and 30% of private science higher secondary school teachers have unfavorable attitude towards using new technology. The table further shows that 3.33% highly

unfavorable attitude, 16.67% unfavorable attitude, 23.33% neutral attitude and 26.67% favorable attitude of Govt. Science higher secondary school teachers towards using new technology. In case of private science higher secondary school teachers, 13.30% highly unfavorable attitude, 23.30% neutral attitude, 16.70% favorable attitude and highly favorable attitude towards using the new technology.

Table 1.3: Showing the level of percentage of Govt. and Private Arts higher secondary school teachers on attitude towards using new technology (N=60)

Level	Govt. Arts Teachers		Private Arts Teachers	
	N	%age	N	%age
Highly Unfavourable Attitude	1	3.33	3	10.0
Unfavourable Attitude	2	6.67	9	30.0
Neutral	8	26.67	5	16.7
Favourable Attitude	10	33.33	7	23.3
Highly Favourable Attitude	9	30.00	6	20.0
Total	30	100	30	100

The above table shows the level of percentage of Govt. and Private Arts higher secondary school teachers on attitude towards using new technology. The table indicates that 33.33% of Govt. Arts higher secondary school teachers have favorable attitude, 30% have highly favorable attitude, 26.67% have neutral attitude, 6.67% have unfavorable attitude, 3.33% have

highly unfavorable attitude towards new technology. The table further depicts that 23.3% of Private Arts higher secondary school teachers have favorable attitude, 20% have highly favorable attitude, 16.7 have neutral attitude, 30% have unfavorable attitude and 10% show highly unfavorable attitude towards using new technology.

Table 2.0: Showing the mean comparison between Govt. and Private higher secondary school teachers on attitude towards using new technology (N=60).

Group	N	Mean	SD	t-value	Level of significance
GHSST	30	114.32	13.24	2.76	Sig. at 0.05 level
PHSST	30	106.21	9.17		

(Where GHSST= Govt. Higher Secondary School Teachers; PHSST= Private Higher Secondary School Teachers)

The above table indicates the significance of mean difference between the Govt. and Private higher secondary school teachers on attitude towards using new technology. The result reveals that there is significant mean difference between Govt. and Private higher secondary school teachers on attitude towards using new technology and the difference was found to

be significant at 0.05 levels. As the mean difference favors the Govt. higher secondary school teachers (M=114.32) which confirms Govt. higher secondary school teachers have better attitude than Private higher secondary school teachers (M=106.21) on attitude towards using new technology.

Table 2.1 Showing the mean comparison between Science and Arts higher secondary school teachers on attitude towards using new technology (N=60).

Group	N	Mean	SD	t-value	Level of Significance
SHSST	30	114.47	10.80	3.09	Sig. at 0.01 level
AHSST	30	107.47	9.77		

(Where SHSST = Science Higher Secondary School Teachers; AHSST= Arts Higher Secondary School Teachers)

The above table shows the significance of mean difference between Science and Arts higher secondary school teachers on attitude towards using new technology. The result reveals that there is significant mean difference between Science and Arts higher secondary school teachers on attitude towards using new technology and the difference was found to be

Significant at .01 Levels. As the mean difference favors Science higher secondary school teachers (M=114.47) which confirms Science higher secondary school teachers have better attitude than Arts higher secondary school teachers (M=107.47) on attitude towards using new technology.

Table 2.2: showing the mean comparison between Govt and private Science higher secondary school teachers on attitude towards using new technology (N=30)

Group	N	Mean	SD	t-value	Level of Significance
GSHSST	15	112.47	12.49	2.0	Sig. at 0.05 level
PSHSST	15	104.47	9.12		

(Where GSHSST=Govt. Science Higher Secondary School Teachers; PSHSST=Private Science Higher Secondary School Teachers)

The above table depicts the significance of mean difference between Govt. and Private Science higher secondary school teachers on attitude towards using new technology. The result reveals that there is significant mean difference between Govt. and Private Science higher secondary school teachers on attitude towards using new technology and the difference was

found to be Significant at .05 Levels. As the mean difference favors Govt Science higher secondary school teachers (M=112.47) which confirms Govt Science higher secondary school teachers have better attitude than Private science higher secondary school teachers(M=104.47) on attitude towards using new technology.

Table 2.3 Showing the mean comparison between Govt. and private Arts higher secondary school teachers on attitude towards using new technology (N=30)

Group	N	Mean	SD	t-value	Level of Significance
GAHSST	15	105.47	8.12	2.69	Sig. at 0.01 level
PAHSST	15	98.47	6.14		

(Where GAHSST = Govt. Arts Higher Secondary School Teachers; PAHSST = Private Arts Higher Secondary School Teachers)

The above table shows the significance of mean difference between Govt. and Private Arts higher secondary school teachers on attitude towards using new technology. The result reveals that there is significant mean difference between Govt. and Private Arts higher secondary school teachers on attitude towards using new technology and the difference was found to be Significant at .01 Levels. As the mean difference favors Govt. Arts higher secondary school teachers (M=105.47) which confirms Govt. Arts

higher secondary school teachers have better attitude than Private Arts higher secondary school teachers(M=98.47) on attitude towards using new technology.

Conclusions of the study

1. It was found that highest percentage i.e. 30% Govt. higher secondary school teachers have favorable attitude and 30% private higher secondary school

teachers have unfavorable attitude towards using the new technology.

2. It was found that highest percentage i.e. 33.33% science higher secondary school teachers have favorable attitude and 26.70% arts higher secondary school teachers have neutral attitude towards using new technology.

3. It was found that highest percentage i.e. 30% of Govt. Science higher secondary school teachers have highly favorable attitude towards using new technology and 30% of private science higher secondary school teachers have unfavorable attitude towards using new technology.

4. It was found that highest percentage i.e. 33.33% of Govt. Arts higher secondary school teachers have favorable attitude and 30% have unfavorable attitude towards using the new technology.

5. Science Higher Secondary School Teachers have shown greater mean score and thus possess high Attitude towards Using New Technology (ATUNT) in comparison to arts Higher Secondary School Teachers.

6. It was found that there is significant mean difference between Govt. and Private science Higher Secondary School Teachers on Attitude towards Using New Technology (ATUNT).

7. It was found that Govt. Science higher secondary school teachers have better attitude than Private science Higher Secondary School teachers on Attitude towards Using New Technology.

8. It was found that there is significant mean difference between Govt. and Private Arts Higher Secondary School Teachers on Attitude towards Using New Technology (ATUNT).

9. It was found that Govt. Arts Higher Secondary School Teachers have better attitude than Private Arts Higher Secondary School teachers on Attitude towards Using New Technology.

Suggestions

The investigator feels that the following suggestions should be taken into consideration while conducting a study similar to the present study:

1. It will be worthwhile to replicate this study on large sample consisting of college teachers.

2. A comparative study may be conducted to look into the attitude towards using new technology among teachers serving in professional and academic colleges.

3. In order to validate the results, this study may be replicated by assessing the teaching attitude and attitude towards new technology with the help of other standardized tools.

4. A follow up studies should be conducted on the same variable to confirm the results of present study.

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