



Attitude towards ICT and Competency in ICT among secondary school teacher in relation to gender

Raj Laxmi

PhD Research Scholar

Department of Education,

Lalit Narayan Mithila University, Darbhanga, Bihar

Dr. Shaguftah Jabin

Assistant Professor (Supervisor)

Department of Education,

Directorate of Distance Education, LNMU

Abstract

The study examines the attitude towards ICT and competency in ICT secondary school teachers in relation to gender. Descriptive survey method was having been used and using random sampling technique. 300 secondary school teachers were selected. Collected data was analysed by using the Statistical Techniques mean, SD and t test. The results show that attitude towards ICT is favourable and competency in ICT is high. There is not significant relationship between attitude towards ICT and competency in ICT. There is not significant relationship between attitude towards ICT of male and female secondary school teachers. There is a significant relationship between competency in ICT of male and female secondary school teachers.

keywords: ICT, attitude towards ICT, competency in ICT. secondary school teachers

Introduction

Every field of education activities uses ICT to carry out their daily routine. The education is not left out. ICT has indeed changed the way things were formerly done in education, be it learning, research and teaching. ICT as a tool for facilitating their learning process, achieving their full potential and contributing to the development of the country as a result. ICT is the technological tools and resources which are engaged to communicate, create and manage information. ICT can enhance teaching and learning process by increasing students' motivation, if used effectively by competent teachers. Altun (2018) show that ICT resources as a computer, laptops, overhead projector, internet, cell phone, Interactive whiteboard, games and video music player should be used in the classroom for effective teaching learning process. The teacher's effectiveness depends mainly on the teacher's attitude and competency in ICT. The schools are provided with laptops and computers for learning and teaching process, teachers need to be competent in the use of the different skills. The knowledge of the ICT skills is very essential because they can appeal to learners visual and auditory senses if used effectively.

Review of related literature

A large number of studies show that teachers ICT competency is a significant predictor of their attitude towards ICT. One of them is

Mohana, D and R. (2012) focused on the attitude of secondary school teachers towards ICT in relation to gender, locality and type of a school. The attitude towards ICT is high and not significant difference in the attitude towards ICT in respect of gender, locality and type of a school.

Singh, B.K. (1988) studied growth and development of ICT in education in secondary schools in Bihar in Patna district the objectives of the study were to study the growth and development of educational technology in the secondary school of Bihar with and investigation of its impact in science. The findings of the study were there is a very less use of technology in the secondary schools in Patna district those Secondary School which were using the advanced technology were brighter than other schools. There were very few schools where advanced technology used while teaching.

S.K. Pandey studied Teacher's attitude towards ICT in relation to sex, age and experience. The objectives of the study knew the level of teacher's attitudes towards use of computers in secondary schools of Bihar. There was no significant difference between male and female teachers of computer education and also in rural and urban teachers' attitude in a relation to utility of computer in their classroom.

Rosenfeld & Martinez Pons (2005) found in their study that competence in the use of technology in the classroom proved to be a direct function of the degree of Technology utilization.

Olalube (2006) concluded that there are significant differences in effectiveness between professionally trained teachers and untrained teachers in their ICT instructional material utilization competencies.

Need of the study

Today with the use of ICT, education has become more learners centric, individualized, interactive and relevant to the learners need. The quality of teaching and learning depends upon the quality and attitudes of teachers. ICT is an important instrument which can transfer teacher centred learning environment, books entered into reach student Centred called as the interactive learning environment. ICT aims at the transforming the old traditional paradigm of learning. Teachers need to have the knowledge and skills to use the computer trying to use of email, internet integrate ICT in the classroom. The teachers have confidence in using the ICT they will positive attitudes which influences on the teaching and learning process. The purpose of this study was therefore to determine the attitude towards ICT among secondary school teachers use of ICT and competency in ICT.

Objectives

1. To find out the Attitude towards ICT among secondary school teachers
2. To find out the Competency in ICT among secondary school teachers
3. To find out the relation between Attitude towards ICT and Competency in ICT among secondary school teachers
4. To compare the Attitude towards ICT of male and female secondary school teachers
5. To compare the Competency in ICT of male and female secondary school teachers

Hypothesis

1. There is no significant relationship between Attitude towards ICT and Competency in ICT among secondary school teachers
2. Male and female secondary school teachers do not differ significantly in their Attitude towards ICT
3. Male and female secondary school teachers do not differ significantly in their Competency in ICT

Methodology of the study

A descriptive cum survey method was adopted for the study in which the investigation attempted to find out the difference competency in ICT of secondary school teacher in Bihar district of Patna.

Population of the study

All secondary school teachers teaching in Secondary School affiliated rural and urban located in Patna are taken as a population of the study sample. There are 23 blocks in the Patna district Bihar. Of these blocks 5 were randomly selected. The random sampling method was applied for selecting the sample of school and stratified random sampling method for selecting teachers as a sample for this study. The present study was conducted 300 secondary school teachers teaching in Secondary School. 30 secondary schools were randomly selected from these blocks. 10 secondary school teachers from each school in male female urban and rural was a randomly selected.

Tools for data collection

Attitude towards ICT and competency in ICT questionnaire were design and standardized by myself 2021 used for the data collection in Patna district Bihar.

Statistical Techniques used in this study

The following statistical methods have been used by researcher in this study presented percentage, mean, SD, correlation and t test were used to the analysis data.

Delimitation of this study

The present study has been the limited to the following conditions

1. The researchers should restrict to only is secondary school teachers in Patna district.
2. This research should confine 300 sample size.

Results and discussion

The statement of the problem is concerned there is independent variables which is gender. The attitude towards ICT and competency in ICT scale were are achieved on selected sample teachers and t value was completed to measure the teacher effectiveness of the secondary school teachers in relation to their gender. The analysis of information is offered as for the hypothesis.

Hypothesis I

There is not significant relationship between attitude towards ICT and competency in ICT among secondary school teachers.

Sr. No.	Variable	N	Mean	S.D	t	r	Level of Significance
1	Attitude towards ICT	300	106.91	10.60	4.3	0.688	Not Significant at 0.01 level
2	Competency In ICT	300	89.07	16.72			Reject

Table value of df 298 at 0.05 level = 1.962

and at 0.01 level = 2.581

Interpretation:

The calculated t- value is 4.3 is greater than the table valued 2.58 at the level of 0.01 and 1.96 at the level of 0.05. Therefore, it can be said that there is not significant difference between attitude towards ICT and competency in ICT. Hence the null hypothesis of research was rejected.

It can be observed that mean and S.D. values for the Attitude towards ICT are 106.91 and 10.60 and Competency in ICT are 89.07 and 16.72 respectively. The calculated coefficient of correlation 'r' between the two variables comes out to be 0.688 i.e., high positive correlation, which is more than the table value 2.581 at .01 level of significance. Therefore, it is not significant at 0.01 level. It suggests that there is not significance positive correlation between Attitude towards in ICT and competency in ICT. Thus, the hypothesis, which states that there is not significant relationship between Attitude towards in ICT and competency in ICT, is rejected.

Hypothesis II

Male and female secondary school teachers don't differ significantly in their attitude towards ICT

Sr. No.	Variable	N	Mean	S.D	t- value	r	Level of Significance
1	Attitude towards ICT of male	160	113.70	17.37	6.15	0.690	Not Significant at 0.01 level
2	Attitude towards ICT of Female	140	99.11	11.05			Reject

Table value of df 158 at 0.05 level = 1.984

and at 0.01 level = 3.390

Interpretation:

The calculated values show that mean and S.D. values for Attitude towards ICT of male are 113.70 and 17.37 respectively and Attitude towards ICT of female are 99.11 and 11.05 respectively. The calculated coefficient of correlation 'r' between the two variables comes out to be 0.690 i.e., high positive correlation. This is more than the calculate value 6.15 at .01 level of significance. Therefore, it is significant at .01 level. It suggests that there is not significance positive correlation between the Attitude towards ICT of male and female. It can be interpreted that as the attitude of male teachers increases, female teachers also increase i.e., the male teachers having high Attitude towards *ICT*.

Hypothesis III

Male and female secondary school teachers do not differ significantly in their competency in ICT

Sr. No.	Variable	N	Mean	S.D	t-value	r	Level of Significance
1	Competency in ICT of male	140	93.84	51.71	0.339	0.686	Significant at 0.01 level Accept
2	Competency in ICT of Female	160	89.17	15.90			

Table value of df = 148 at 0.05 level = 1.984

and at 0.01 level = 3.390

Interpretation:

The calculated values show that mean and S.D. values for the Competency in ICT of male are 93.84 and 27.71 respectively and that of the Competency in ICT of female 89.17 and 15.90 respectively. The calculated coefficient of correlation 'r' is 0.686 i.e., high positive correlation. This is less than the table value 0.339 at 0.01 level of significance. Therefore, it is significant at 0.01 level. There is a significance positive correlation between the Competency in ICT of male and female secondary school teachers. Thus, the hypothesis, which states that there is significant positive relationship between the Competency in ICT of male and female secondary school teachers, is **accepted**.

Findings of the study

1. There is significant difference between attitude towards ICT and competency in ICT among Secondary School Teachers. The teachers are favorable attitude towards ICT and compare as high level of competency in ICT.
2. There is significant difference in the attitude of secondary school teachers on gender basis towards ICT. Male teachers are higher level of favorable attitude towards ICT as female teacher.
3. There is not significant difference has been focused in the competency in ICT of male and female secondary school teachers. The teachers of the male and female both are considered the utility and its influence in teaching works.

Suggestion for the study

1. The attitude of primary level teachers can also be studied.
2. The research studies can also the attitude and effectiveness of teacher in this research study.
3. This research study can also be done to find out the attitude of students.
4. The competency of higher-level teachers can also be studied.
5. This research study can also be done to find out the competency of students.
6. This similar study can also be done by increasing the sample.

Conclusion

Education is always concerned with the development of the potential of individuals for the future, not only among teachers. ICT has a lot of rewards, and it has a positive influence on people and businesses day to day lives. Amazing ICT teaching strategies improve student participation in the classroom while minimizing teaching time. The present study is concluded that male and female secondary school teachers have significant difference in their attitudes towards Information and Communication Technology (ICT). The level of competency in ICT is high. Based on the findings of this study it was concluded that the teachers process adequate ICT competencies and Interactive whiteboard needed for secondary school teachers. Therefore, the teacher should be properly equipped with computer operation, ppt and Interactive whiteboard skills for effective teaching in Secondary Schools. The knowledge of ICT usage improves the human capacity in every field of human in endeavors, including business, transaction, industrial Corporation, educational programs and life in general. Increase the quality of competence in ICT of teachers to become better through the proper digital workshop. It was concluded that most teachers have personal computers /laptops but have little and no competence in the usage of ICT. Majority of the teachers related their competency its utility.

References

- Angadi,G.R Teachers attitude information and communication technology(ICT). *International Journal of Education & Psychological Research (IJEPR)* 3.2014 (2014)
- B.Cavas, P.Cavas, B.Karaoglan and T.Kisla, “ A study on science teachers attitudes towards information communication technologies in education “ *The Turkish online Journal of Educational Technology* , vol.8.no.2, page 20-32, 2009
- Chandini(2016). ‘Attitudes of Secondary school teachers towards the use of computers in education’. *International Journal of Current Research and Modern Education (IJCRME)*. ISSN(ONLINE):2455-5428 volume 1 Issue II Page No. 237
- Garrett, H.E.2005.Statistics in Psychology and Education. New Delhi: Paragon international publication.
- Koul, Lokesh, 2006.Methodology of Educational Research. New Delhi: Vikas publication
- Mangal, S.K. 2002. Education Technology. Ludhiana: Tandon publication
- Sharma, R.A. 2006. Educational Technology. Meerut: R, Lall Book Depot
- S. Saini, An exploratory of use of ICT by teachers in relations to them to morale, attitude towards ICT and technology competence, thesis, Kurukshetra university, Kurukshetra.2005
- T. Gautam, “An investigation of computers attitude of secondary school teachers in relation to gender, experience and educational qualification” thesis. Institutes of Advanced Studies in Education, University of Lucknow, India-2014
- V. Mehra, and D. Newa, “school teachers’ attitude towards information and communication technology” *Edu tracks*, p.p. 25-26.2009