

Attitude and Awareness of Secondary and Senior Secondary School Teachers` towards Information and Communication Technology

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ABSTRACT

The use of ICT in schools opens a new area of knowledge which is very useful and helpful in the teaching-learning process. Computer knowledge may be started as 'knowing about the various fundamental aspects of computers and basic skills involve in the operations of computers'. ICT helps the learner to know about the subject he/she wants to learn with the help of the latest technology. Unless the teacher possess a favourable attitude towards ICT, the may not be interested in it. The present study focuses on the study of awareness and attitude of secondary and senior secondary school teachers of Patna towards information and communication technology (ICT). For this a random sample of hundred and fifty teacher was drawn from six secondary and senior high schools of Patna. Self-constructed questionnaires were used for data collection. The finding indicates that the availability of resources with respect to ICT in the schools is adequate, and the opinion of teachers about impact of attitude and awareness of ICT on teaching-learning process is observed to be remarkable positive. Based on the finding, the implication of the finding has been suggested.

Keywords: **ICT, Attitude, Awareness, Secondary, Higher Secondary, School Teachers**

Introduction:

Information and Communication Technology (ICT) is the scientific, technological and engineering disciplines and the management technologies used in the handling of information, processing and application related to computers. It is also concerned with the interactions with man and machines; and associated socio-economics and cultural matters (UNESCO in Osuagwu, 2001).

Information and Communication Technology (ICT) consist of the hardware, software, networks and media for collection, storage, processing, transaction and presentation of information (voice, data, text, images), as well as related service. ICT can be divided into two components, Information and Communication Infrastructure (ICI) which refers to physical telecommunication system and networks (cellular, broadcast, cable, satellite, postal) and the service that utilize those (internet, voice, mail, radio and television), and the Information Technology (IT) that refers to the hardware and software of information

collection, storage, processing and presentation (World Bank, 2000).

Often, the definition of ICTs is also done in terms of "old" and "new" as if to distinguish between the analogue and digital. But what is "old and what is "new"? Living stone (1999), in an extensive exploration of the idea of newness, has argued that the notion of "new" can either be seen with reference to the "newness of technology" or in the context of "what's new for society" about these media. Living stone further argues that what is new for the western world is not necessarily so for the rest of the world. Within a social context, the introduction of radio or television may be as "new" as the introduction of Internet. While there is much euphoria about the ICTs, after more than half a century of research, social scientists are still sceptical about tall and ill defined claims about potential societal changes that may follow a technological innovation. This means that 'new' cannot merely be defined either in terms of time and time

scales or in terms of the technology innovation.

Information and Communication Technology (ICT) deals with the handling and processing of information, using all kinds of electronic devices (NCET, 1998). These electronic systems can be used for broadcasting, telecommunications and all forms of computer-mediated communications. Information and Communication technology centered education covers the use of computers, on-line self-learning packages, interactive CDS, satellites, radio, optical fiber technologies, tele presence systems and all types of Information Technology (IT) hardware and software (Akindolu, 2002; Adebayo, 2002).

NCF (2005) pronounces, "ICT is an important tool for bridging social divides. ICT should be used in such a way that it become an opportunity equalizer by providing information, communication and computing resources in remote area".

The use of ICT in schools is crucial for the development of economic and social change worldwide. Similarly, ICT plays a major role in the developing countries to go through economic, political, social and cultural development. This implies that ICT has a profound impact on how teachers teach and students learn, and how people live, business and communicate in the day to day activities. It provides opportunities to stimulate learning and increase motivation that enables teachers and students to interact productively with neighboring communities and global economy in a wider and higher scope. There is substantial evidence that Information and Communication Technology promote a quality education and effective teaching- learning atmosphere for both a student and teacher. Several research studies indicate that Information and communication technology (ICT) provides educational opportunities and environmental readiness for classroom instruction. More essentially, ICT plays a greater role in generating of knowledge and processing information for problem solving and further exploration. However, it remains to be seen how teachers use, integrate and invite students to learn, access, gather, process, analyze, transmit and simulate information. The usage of ICT into classroom instruction is a more practical,

interactive and innovative aspect rather than theoretical. In effect, the impact of ICT on education is one of the most critical issues. It's powerful instrument that enables practical environment and assists new ways of teaching and learning, and helps students to develop knowledge and skills for cooperation, communication and problem solving. The use of ICT into classrooms instruction, however, remains as a sole role of teachers. The future of students is very challenging in the present age of information and communication technology (ICT).

Teacher's awareness and attitude on using ICT in education:

A majority of teachers perceive ICT to offer advantages to classroom learning but may also struggle to see specific benefits and methods for use. A number of studies have identified these contrasting perceptions from teachers (Korte & Husing 2007, Blanskatet 2006, Becta 2008). The Empirical survey found that a fifth of Indian teachers felt that using computer in class did not have 'significant learning benefits for pupils (Korte & Husing 2007).

Integration of Information and Communication Technologies (ICT) in to education has been an important concern in many countries. However, as in many developing countries, ICT tool are provided to teachers without considering their attitudes towards ICT. The purpose of this study was to reveal Secondary and Senior Secondary School teachers' awareness and attitude towards ICT in education. The researcher had selected this topic acknowledging the status of education through ICT. It is a matter of fact that ICT incorporation in teaching learning is going through a troublesome phase due to wrong and negative attitude of teachers towards its use. Also large number of teachers (especially in Bihar) does not possess adequate knowledge about its need and importance which is preventing them from making efficient use of this tool. Also the optimum and effective application of this tool depends largely upon the outlook and attitude of teachers who eventually have to make use of it for enhancing the quality of teaching learning process.

Therefore the present study focused on the

attitude and awareness of secondary and senior secondary school teacher towards ICT of Patna.

Objective Of The Study:

1. To find out whether there is significant difference between male and female secondary and senior secondary school teachers in their attitude towards ICT.
2. To find out whether there is significant difference between male and female secondary and senior secondary school teachers in their awareness towards ICT.
3. To find out the relationship between secondary and senior secondary school female teachers in

their level of awareness and attitude towards ICT.

4. To find out the relationship between secondary and senior secondary school male teachers in their level of awareness and attitude towards ICT.
5. To find out the relationship between secondary and senior secondary school teachers in their level of awareness and attitude towards ICT.

Methods:

Sample:

The present study consisted of 150 secondary and senior secondary school teachers of six different schools of Patna. The random sample technique was used for the data collection.

School wise distribution of sample

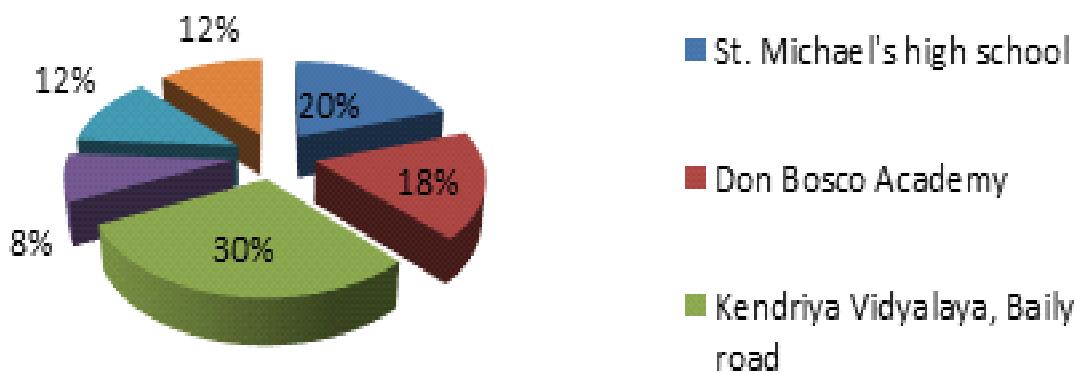


Fig- 1

Table: 1
School wise distribution of the sample

Sl. no.	Name of the school	No. of teachers	Percentage
1.	St. Michael's high School	30	20%
2.	Don Bosco Academy	27	18%
3.	Kendriya Vidyalaya, Baily Road	45	30%
4.	St. Paul's Academy	12	8%
5.	Scholar's Abode	18	12%
6.	Sharon's Public School	18	12%
	Total	150	100%

Gender wise distribution of sample

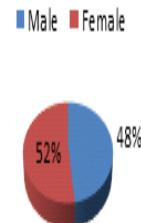


Fig-2

Table: 2
Gender wise distribution of the sample

Gender	No. of school teachers	Percentage
Male	72	48%
Female	78	52%
Total	150	100%

Tools of the study:

Relevant data were gathered with the help of two tools viz:

1. Information and Communication Technology Attitude Questionnaire
2. Information and Communication Technology Awareness Questionnaire

Both questionnaire were developed by researcher, mainly based on discussion in the related studies, was used to collect data for this research study. Both were objective questionnaires, consisted of 30 items each.

Statistical treatment:

Mean, S.D. and "t" ratio were used.

Results and discussion

Table: 3
Percentage of attitude of secondary and senior secondary school male and female teachers towards ICT

Male				Female			
Total	High	Average	Low	Total	High	Average	Low
72	13	47	12	78	10	57	11
100%	18%	65%	17%	100%	13%	73%	14%

Among the sample of secondary and senior secondary school teachers 18% of the secondary school male teachers have high attitude towards ICT where as 65% are average in their attitude and only 17% of the male teachers have low attitude towards ICT and 13% of secondary and senior secondary school female teachers have high attitude towards ICT where as 73% average in their attitude and only 14% of the female teachers have low attitude towards ICT.

Table: 4
Percentage of awareness of secondary and senior secondary school male and female teachers towards ICT

	Male			Female			
Total	High	Average	Low	Total	High	Average	Low
72	11	50	11	78	11	57	10
100%	15%	70%	15%	100%	14%	73%	13%

Among the sample of secondary and senior secondary school teachers 15% of the secondary school male teachers have high awareness towards ICT where as 70% are average in their level of awareness and only 15% of the male teachers have low level of awareness towards ICT and 14% of secondary and senior secondary school female teachers have high awareness towards ICT where as 73% average in their awareness and only 13% of the female teachers have low awareness towards ICT.

Table: 5

Attitude towards ICT of male and female secondary and senior secondary school teachers

Gender	N	Mean	SD	't' value	Level of Significance
Male	72	85.16	14.89	0.48	NS
Female	78	84.02	13.94		

Table: 6
Awareness towards ICT of male and female secondary and senior secondary school teachers

Gender	N	Mean	SD	't' value	Level of significance
Male	72	94.47	14.75	0.66	NS
Female	78	93.08	10.29		

Table: 7
Attitude and awareness towards ICT of secondary and senior secondary school Female

Attitude of female Teachers		Awareness of female Teachers			N	r	Level of significance
Σx	Σx^2	ΣY	ΣY^2	ΣXY	78	-0.12846	NS
6554	565682	7261	684085	608690			

Table : 8
Attitude and awareness towards ICT of secondary and senior secondary school Male Teacher

Attitude of female Teachers		Awareness of female Teachers			N	r	Level of significance
Σx	Σx^2	ΣY	ΣY^2	ΣXY	72	0.153204	NS
6132	537994	6802	658054	581694			

Table: 9
Attitude and awareness towards ICT of secondary and senior secondary school teachers

Attitude of female Teachers		Awareness of female Teachers			N	r	Level of significance
Σx	Σx^2	ΣY	ΣY^2	ΣXY	150	0.038118	NS
12686	1103676	14063	1342139	1190384			

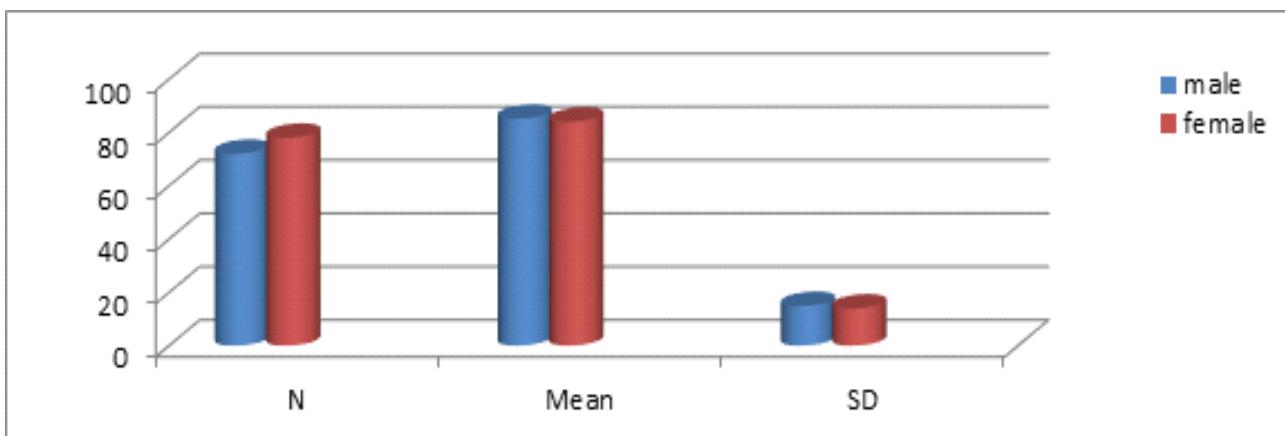


Fig.3

Gender wise distribution of sample for level of awareness towards ICT

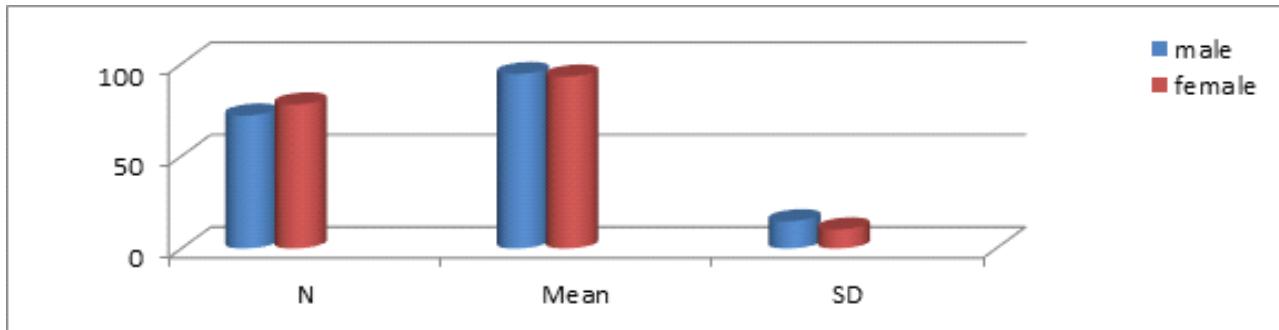


Fig.- 4

Finding :

Following are the findings of the study:

1. There is no significant difference between male and female secondary and senior secondary school teachers in their attitude towards ICT.
2. There is no significant difference between male and female secondary and senior secondary school teachers in their awareness towards ICT.
3. There is no significant relationship between secondary and senior secondary school female teachers in their attitude and level of awareness towards ICT.
4. There is no significant relationship between secondary and senior secondary school male teachers in their attitude and level of awareness towards ICT
5. There is no significant relationship between secondary and senior secondary school teachers in their attitude and level of awareness towards ICT.

Conclusion:

It can be concluded from the study titled 'Attitude and Awareness of secondary and senior secondary and senior secondary school teachers towards ICT successful;' produced the results. It was found that the majority of teachers were less aware of use of ICT in classroom and their attitude towards ICT was also not sufficient. But on an overall basis it was found that there was no significant difference between the attitude of teachers of secondary and senior secondary schools towards ICT on the basis of their gender. It may be due to the fact that both male and female make use of ICT according to their own pace and ability. It was also found that there is no significant difference between the awareness of teachers of secondary and senior secondary schools towards ICT on the basis of their gender. This may be due to the fact both are given equal educational opportunity.

It was found that there is no significant relationship between the attitude and level of

awareness of secondary and senior secondary school female teachers towards ICT. It may be due to the fact that female could not spare much time at home in learning these technological skill because many of them are busy in some home affairs. It was also found that there is no significant relationship between the attitude and level of awareness of secondary and senior secondary school male teachers towards ICT. It may be due to the fact that they possess a positive outlook towards ICT but due to lack of in-service training in ICT in school, they are not much aware about use of ICT. The study successfully served its purpose and the hypotheses formulated in the beginning of this research work were properly verified with the finding of the study.

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