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ATTITUDE TOWARDS THE USE OF INFORMATION TECHNOLOGY IN TEACHING LEARNING PROCESS AMONG STUDENT TEACHERS

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ABSTRACT

Technology has influenced the ways of education at all levels. For the educational practices to benefit from technology in an optimum way, a number of factors need to be taken into consideration. Two important factors of these are attitudes of teachers and students towards the use of the computer in teaching-learning. But it is very important to know the attitude of student teachers towards the use of the computer in teaching learning because they are the prospective teachers of society. In order to become an efficient and effective teacher, the training periods of the prospective teachers should be taken into consideration. The present paper examined the student teacher's attitude towards the use of the computer in teaching and learning. Respondents were 100 student teachers of teacher education colleges of Jalpaiguri District. Attitude scale towards information technology (Dr. Nasrin and Dr. Fatima Islahi 2012) was used to collect data from the respondents. Findings revealed that majority of the student teachers have a positive attitude towards the use of IT in teaching-learning process and no significant difference was found in attitude towards the use of IT in the teaching learning process in relation to gender variable. But significance difference was found in teachers' interest and acceptance dimension of ASTITT scale in relation to gender variable.

KEYWORDS: *Attitude towards the Use of Information Technology, Teacher Education, Student Teacher and Gender Difference*

INTRODUCTION

Society has given the highest respect to the Teachers because they are committed to bringing about the comprehensive and harmonious development of the student's personality. In 1906-1956, the program of teacher preparation was called teacher training. It prepared teachers as mechanics or technicians. It had narrower goals with its focus being only on skill training. The perspective of teacher education was therefore very narrow and its scope was limited. As W.H. Kilpatric put it, ―Training is given to animals and circus performers, while education is to human beings. Teacher education encompasses teaching skills, sound pedagogical theory, and professional skills.

Student teachers are the prospective teachers. And it is very important to nourish them with quality education so that they develop themselves as an effective and efficient future teacher. The curriculum of teacher education programme includes the development of professional skills, and use of information technology comes under this category. Hence it is very important to know the attitude of student teachers towards the use of information technology in teaching-learning process. Today, educators realize that computer literacy is an important part of a student's education. Integrating

technology into a course curriculum is appropriate to enhance and extend the learning experience for faculty and students. Use of online notes to extend topic discussions and explore critical issues with students and colleagues or discipline-specific software to increase student understanding of difficult concepts are the advantages of ICT. Students come to teacher education programme with varying degrees of computer literacy. To use technology regularly it is necessary to provide some basic skill level instruction to the student teachers. But the outcome of this programme always depends on the attitude of the student teachers. Teacher training typically focuses on the explicit knowledge about ICT and its use in teaching, while prospective teachers lack understanding and competence about how to really do it in the classroom. So, research should be conducted on the attitude of student teachers towards the use of information technology in teaching-learning process.

Lim and Barnes (2002) in their case study described, how a teacher who succeeded in using a digital application had long experience in using ICT in teaching, and he had the necessary attitude, skills, and knowledge to identify the cognitive opportunities and limitations of the program, and to plan and organize activities to exploit its opportunities and address its limitations. In service, Teachers differ in their age and gender, both of which are essential factors behind ICT use found by (Karagiorgi & Charalambous, 2006). In a study concerning teachers' ICT training (conducted in the UK; Galanouli, Murphy, & Gardner, 2004), the results were somewhat negative. The main critical issues were lack of time given to training, and the exploitation of teachers' own time and expense, as well as the lack of technical and social support, and good equipment and resources. In a Nordic survey, two third of the teachers in the study had participated in ICT training during the previous three years. However, only one-third of the teachers trust in their skills, and they have not noticed that the training would have had an effect on the use of ICT in the classroom (Pedersen et al., 2006).

Simply having ICT in schools will not guarantee their effective use. Regardless of the quantity and quality of technology placed in classrooms, the key to how those tools are used is the teacher; therefore teachers must have the competence and right attitude towards technology (Kadel, 2005). Attitudes refer to one's positive or negative judgment about a concrete subject. Attitudes are determined by the analysis of the information regarding the result of an action and by the positive or negative evaluation of these results (Ajzen & Fishbein, 1980). More positive attitudes towards the computer were associated with a higher level of computer experience (Dyck & Smither, 1995; Teo, 2008). It is also reported that the attitude of pre-service and in-service teachers towards computer and technology skills can be improved by integrating technology into teacher education (Zammit, 1992). Findings have revealed a significant relationship exists between computer attitude and its use in institutions for pre-service teachers (Khine, 2001). Recent developments of innovative technologies have provided new possibilities to teaching profession but at the same time have placed more demands on teachers to learn how to use these technologies in their teaching (Robinson & Latchem, 2003). Student teachers' attitude towards ICT may provide useful insight into the future of technology integration, acceptance and usage in teaching and learning in Indian teacher education institutions and other developing countries (Hiremath, 2011; Teo, 2008).

Rationale of the Study

Computer education is the most necessary education in the present society. For each and every area of education the teachers, administrators is using ICT as well as the important part of ICT that is Computer. It is the responsibility of teacher educator to make efficient and effective future teacher so that they can adjust with the new trend of society by

using a computer in teaching-learning process. Hence, it is very important to know the attitude of student-teacher towards the use of IT in teaching and learning because they are the prospective efficient teacher. They should know and learn clearly all the method and strategies of teaching and learning. Teacher attitudes toward computer technology may be a significant factor in the Implementation of computers in teaching and learning process.

Most of the researches were done on the perception and attitude of school and college teachers and teacher educators towards the use of the computer in the teaching learning process but it is very important to know the attitude of the student teacher. The investigator found that a very few researches have been conducted in this context in India as well as in West Bengal. No study was conducted in this context in the Jalpaiguri District. The investigator belongs to this area. In these districts, computer education is made compulsory in school. For that to know the attitude of the student teacher of these districts towards the use of IT is very essential. It will clearly describe their opinion on the problems, importance, interest, acceptance of information technology. Therefore, the investigator tried to investigate the attitude of student teachers of Jalpaiguri District towards the use of IT in the teaching learning process.

The Present Study is an Endeavor to Seek an Answer to Some of the Important Questions Like:

What is the attitude of student teachers towards the use IT in the teaching learning process?

How does gender determine the attitude towards the use of IT?

A significant and systematic study was conducted to answers these questions, so that the student-teachers can be guided regarding the use of IT for their better academic achievement.

Objectives of the Study

In the light of the above rationale, the main objectives of the study were

- To study the attitude of student-teachers towards the use of IT.
- To compare the attitude of male and female student-teachers towards the use of IT.

Hypothesis

$H0_1$: There is no significance difference in attitude towards the use of IT between male and female student teachers.

RESEARCH METHODOLOGY

Design

By its nature, the study falls under the category of descriptive research. Thus, the survey method was adopted to determine the status of the present phenomenon.

Sample and Sampling Technique

Simple Random sampling technique was adopted to select a sample of 100 student-teachers wherein 50 student-teachers belonged to male and 50 student-teachers to female.

Research Tool

Attitude towards information technology tool developed by Dr. Nasrin and Fatima Islahi (2012) was used for this study. The reliability of this scale was calculated. The obtained Cronbach's alpha is 0.89. The face validity of the measure is fairly high and content validity of this scale also established by the panel of expert. The scale was developed using Likert Method. It consisted of 30 highly discriminating items.

Data Analysis and Interpretation

Data analyses were done by using descriptive and inferential statistics.

Table 1: Interpretation of Scores According to ASTITT Scale

Range of Raw Score	No of Student Teachers	% of Student Teachers	No of male Student Teachers	No of Female Student Teachers	Levels of Attitudes for IT
143 and above	4	4	3	1	Extremely favourable
126-142	8	8	5	3	Highly favourable
109-125	**34**	**34**	**22**	**12**	**Positively favourable**
85-106	32	32	10	22	Moderately favourable
68-84	11	11	3	8	Unfavourable
50-67	7	7	5	2	Highly unfavourable
49 and less	4	4	2	2	Extremely unfavourable
Total	**100**	**100**	**50**	**50**	

The above table revealed that the male and female student-teachers had a positively favorable attitude towards the use of ICT as the score on ASTITT falls between the range of 109-125 which is in accordance to Dr. Nasrin and Fatima Islahi (2012). The scores were analyzed using Microsoft Office Excel 2007. The mean scores of male student-teachers were 108.3 and of female student teachers were 100.7.

Gender Wise Difference of Student Teachers in Attitude towards the Use of IT in Teaching Learning Process

Table 2: Significance of Difference between Attitudes of Male-Female Student Teachers Towards the Use of IT

Contrast	Variation	No	Mean	SD	SE	"T"	REMARK
Male	Gender	50	108.3	28.3	5.17	1.47	Not significant
Female		50	100.7	23.12			

In the case of gender difference on attitude towards IT of student teachers, the calculated "t" 1.47 was found to be not significant as its value less than the table value. This was 1.98 at 0.05 level and 2.63 at 0.01 levels. Thus the null hypothesis **H_{o1} there is no significant difference in attitude towards IT of student teachers in relation to their gender variation was accepted.** So, it reveals that the gender difference of student teachers does not play an important role in their attitude towards IT.

Gender Wise Difference in Attitude towards Use of IT of Students Teachers on Four Different Dimensions

Table 3: Component Wise Analysis of Data

Category	Gender	Mean	SD	SE_D	"T"	Level of Significance	Remark
IMPACT OF ICT	Male	24.74	4.94	0.87	O.69	0.05	Not significant
	Female	24.14	3.64				
USESFULNESS OF ICT	Male	25.43	4.32	0.83	1.12	0.05	Not significant
	Female	24.5	4.00				
PRODUCTIVITY FOR TEACHING	Male	24.53	4.94	0.91	0.91	0.05	Not significant
	Female	23.70	4.24				
TEACHERS INTEREST AND ACCPEPTANCE	Male	30.20	5.21	1	2.2	0.05	Significant
	Female	28.00	4.82				

It is observed from the above table that the "t" values offirst three -dimensions has found to be less than the table value 1.98 at 0.05 level of significance in 98 degrees of freedom, which is not significant. So the null hypothesis that there is no significant difference in attitude towards IT of male and female student teachers on the impact of IT, the usefulness of IT, productivity for teaching, dimensions of IT are accepted.

But the "t" value of teachers' interest and acceptance dimensions has found to greater than the table value 1.98 at 0.05 level in 98 degrees of freedom, which are significant. So the null hypothesis that there is no significant difference in attitude towards IT of male and female student teachers on teachers' interest and acceptance dimensions of IT was not accepted. It was found that male student teacher's interest was more than female student teachers to use IT in their classroom. Female student teachers highlighted that the importance of ICT in teaching-learning process but they indicated they were not so much comfortable to use of ICT in their classroom.

RECOMMENDATIONS

As the difference was found in the attitude towards use of IT between male and female teachers in the interest and acceptance dimensions, and male teachers showed more favorable attitude than female, it is very important to develop the attitude of female teachers towards use of IT by organizing some guidance and training programme in ICT in the field of teacher education. The teacher education curriculum should include the practical use of ICT rather than only a theoretical concept.

CONCLUSIONS

Teacher education is a means to support the ICT skills of student teachers. In-service training is one of the ways in which teachers typically have been given support to achieve ICT skills. It helps to transform teachers' professional activities such as preparing lessons or administration. The teacher's professional knowledge always develops through practice, in classroom events and activities. It is challenging to change or to develop their knowledge because new knowledge cannot be learned independently of the situation in which it will be used. An attitude of student teachers toward the use of IT indicates how they use IT in their classroom. In recent era use of IT in schools is very essential to develop the interest of the students in learning. Hence, it is important to develop the attitude of student teachers towards use of IT in their teaching-learning process especially for female student teachers as they are the prospective teachers of future, in order to develop the quality of teaching learning process.

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