

Teacher Educators Attitude of West Bengal towards ICT

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*Abstract— Teacher education today is an integral part of any educational system. ICT has taken a key role in this system of the present knowledge society. Now ICT has become important part of Indian school curriculum as well as teacher education. The importance of ICT in empowering teachers and learners, and enhancing teaching and students' achievement has been highlighted in several studies. This study assessed attitude of teacher educators towards ICT. To achieve the goal of the study, the researcher developed and standardized 5 point Likert type scale "Scale for attitude towards ICT", which is highly reliable is ($\alpha = 0.727$). A survey was conducted on 180 (One hundred and eighty) samples selected from 30 (Thirty) teacher education colleges in West Bengal, through simple random sampling technique. Collected data were analyzed through SPSS 22.0 Version and significance of *t* values and *F* values were tested at 0.05 level. The results Show that most of the teacher educators have positive attitude towards the use of ICT. Overall no significant difference was established between male and female teacher educators attitude towards ICT.*

Index Terms— ICT, Attitude, Teacher educators

I. INTRODUCTION

The potentials of information and communication technology (ICT) to facilitate improve teaching, students learning and enhance institutional administration had been established in literature. The use of information and communication technology as a tool for enhancing teacher's instructions and students learning for improving access to quality education and everyday life. The use of ICT in education especially in higher education can play a huge role in effectively and quickly transferring and receiving knowledge and in making education more universal and richer. In India, the use of ICT is spreading very fast across all age barriers. The Government of India has, therefore, developed a policy on ICT. However, the success of this project has implications for attitudinal change

towards ICT and display for attitude of teacher educators towards ICT.

1.1 RESEARCH PROBLEM

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1.2 STATEMENT OF THE PROBLEM

The role of ICT in teaching and learning is rapidly becoming one of the most important and widely discussed issues in contemporary education policy. Teaching, being both a skill and an art, was found amenable to transmission in the early years of the 19th century. Now teacher education is no longer limited to primary or secondary levels of teachers but extends far beyond. The creation of the academic staff college under the aegis of the UGC is a case in point. No wonder then that teacher education has emerged as an important area of educational research.

1.3 OPERATIONAL DEFINITION OF KEY TERMS/ VARIABLES

ICT: For the present study ICT (Information and Communication Technology) means (computers for word processing, power point, spreadsheet, CAI (Computer Assisted Instruction) and related software, internet for e-mail, chat, searching, web designing, and for giving project work, LCD projector for Power Point presentation, and T.V .presentation and OHP, Television, and Radio) meant for classroom practice, professional development and personal development of teachers and students.

Attitude of Teacher educators towards ICT: Operationally, in this present research attitude of teacher educators indicates, attitude of teacher educator is the teacher educator degree of like or dislike depending on the positive or negative views that a teacher educator has and he/she tend to behave according to his view towards ICT.

Teacher Educator: A trained or qualified person (as per NCTE and UGC norms & standards) who engages himself or herself in providing training or education

through teaching in any Secondary teacher education institution is a teacher educator.

Academic Discipline: A branch of knowledge that is taught in higher education. In this study Academic Discipline is a special field of study that the teacher educator has graduated (like Arts, Science and Commerce) and is teaching in the related special branch (like Language Education, Science Education and Social Science Education) in any teacher education institution.

1.4 OBJECTIVES OF THE STUDY

The present study is based on the following objectives:

1. To study the attitude of teacher educators towards ICT.
2. To study the attitude of teacher educators towards ICT in relation to their Sex.
3. To study the attitude of teacher educators towards ICT in relation to their academic discipline.

1.5 HYPOTHESES OF THE STUDY

Based on the research questions the following hypotheses are derived:

Ho1: Teacher educators do not have positive attitude towards ICT.

Ho2: There is no significant difference in the attitude of teacher educators towards ICT in relation to their Sex.

Ho3: There is no significant difference in the attitude of teacher educators towards ICT in relation to their academic discipline.

II. REVIEW OF RELATED LITERATURE

Dhara. R & Banerjee. N (2021) in their study revealed that the level of attitude towards teaching profession is being moderate in West Bengal, India. And female students was comparatively more favourable attitude than the male graduate students towards teaching profession as well as urban graduate students is comparatively more positive attitude towards teaching profession.

Devi, T. (2020) found that a significant positive correlation between the climate setting and their attitude towards the ICT of college teachers for gender, locality, and duration of the experience. The majority of both rural and urban college teachers who

experienced a moderate level of the perception of organizational climate had an average level of attitude towards ICT.

Hew & Brush (2007) in their study found that negative attitudes of teachers and the limited knowledge of teachers about technology integration are the main barriers for the technology integration in education

Sarangi (2003) found that teacher educators have a low positive attitude for ICT though not negative. Teacher educators had a limited idea about how the available ICT equipments could be used in teaching-learning situation.

Al-Oteawi (2002) found that most teachers who showed negative or neutral attitudes toward the use of ICT in education lacked knowledge and skills about computers that would enable them to make “informed decision”

Kumar (1993) found that the majority of teachers and students considered academic discipline and ICT courses useful. It was observed that academic discipline and ICT play a crucial role in inculcating honesty, discipline, creativity, leadership, tolerance, happiness, generosity, friendliness, and scientific attitude.

Maria Kyriakidou. et. al (1999) found that majority of student-teachers in Cyprus have positive attitudes towards computers for personal use.

III. METHODOLOGY OF THE STUDY

3.1 DESIGN OF THE STUDY

In the light of critical appraisal of previous literature, it is found that Attitude of teacher educators towards ICT has some relevance to the sex and academic discipline. Therefore samples were categorized in different levels: sex (Male and Female) and academic discipline. In order to get the proper reflection the researcher used survey research design of descriptive research method in his study. A survey of secondary level teacher educators of B.Ed colleges recognized by the N.C.T.E. and affiliated to “The West Bengal University of Teachers' Training, Education Planning and Administration” regarding Attitude of teacher educators towards ICT was done. Since the Attitude of teacher educators towards ICT existing among the

teacher educators are in different extents, survey research method is quite effective.

3.2 POPULATION

All fulltime teacher educators of different secondary teacher education colleges in West Bengal recognized by the N.C.T.E. and affiliated to The West Bengal University of Teachers' Training, Education Planning and Administration were considered as population of the study.

3.3 SAMPLE

A total of 180 (One hundred and eighty) teacher educators were selected from 30 (Thirty) teacher education colleges in West Bengal, through simple random sampling technique. Teacher educators were taken from Sex and academic discipline wise.

Table 1: Sex and academic discipline wise distribution of sample.

Academic discipline	Male	Female	Total	%
Language	28	28	56	31.11
Social science	34	34	68	37.78
Science	28	28	56	31.11
Total	90	90	180	
%	50	50		100

3.4 VARIABLES

In this study the researcher considered two types of variables. These were given below:

- Major Variable: Attitude of teacher educators towards ICT.
- Categorical Variables: Sex and academic discipline.

3.5 RESEARCH TOOL

The following tool used to collect data from the respondents.

- Scale for Attitude towards ICT

It was properly Standardized by researcher with the help of supervisors and other university external subject experts and having high content validity (0.81) and reliability (($\alpha = 0.727$)).

3.6 COLLECTION OF DATA

Data was collected through “Scale for Attitude towards ICT” from 30 (Thirty) teacher education colleges in West Bengal.

3.7 METHOD OF ANALYSIS OF DATA

Descriptive and Inferential statistical analyses were done here. Descriptive statistics like mean, standard deviation were calculated for all the groups and for all the scores. After that, t-test and ANOVA were done to find out the mean differences of two and three groups respectively. The Significance of t values and F values were tested at 0.05 level of Significance. The data were analyzed through SPSS 22.0 Version.

IV. PRESENTATION, ANALYSIS AND INTERPRETATION OF THE DATA

Based on this ground of analysis the results of the data are demonstrated in the different tables and its interpretation follows below:

For Objective 1. To study the Attitude of teacher educators towards ICT, the Hypothesis 1 is tested here. The Result is presented in table 4.1

Table 2: Result of Group statistics based on attitude of teacher educators towards ICT.

Group Statistics					
Sex		N	Mean	Std. Deviation	Std. Error Mean
attitude of teacher educators towards ICT	Female	90	113.9222	7.50614	0.79122
	Male	90	114.2778	8.86101	0.93403

Descriptive Statistics					
Attitude of teacher educators towards ICT	N	Minimum	Maximum	Mean	Std. Deviation
	180	81.00	128.00	114.1000	8.19054

Results as presented in table 4.1 reveal that in attitude scale the mean value of scores lies in between 105.9 -

122.3. This may imply that most of the teacher educators agree with the items given in the Scale for Attitude towards ICT. Overall attitude of teacher educators was found to be positive towards ICT. Hence, the research hypothesis no.1 is rejected.

For Objective 2. To study the Attitude of teacher educators towards ICT in relation to their sex, the Hypothesis 2 is tested here. The Result is presented in table 3 & 4

Table 3: Result of Descriptive Statistics

Descriptive Statistics					
Sex		N	Mean	Std. Deviation	Std. Error Mean
attitude of teacher educators towards ICT	Female	90	113.9222	7.50614	0.79122
	Male	90	114.2778	8.86101	0.93403

Table 4: Result of Independent sample 't' test based on attitude of teacher educators towards ICT in relation to their sex.

Independent Samples Test				
t-test for Equality of Means				
Attitude of teacher educators towards ICT	t	df	Sig. (2-tailed)	Mean Difference
	-0.290	178	0.772	-0.35556
	-0.290	173.314	0.772	-0.35556

The result in table 3 reveal that basis of Mean, overall attitude towards ICT between Male & Female teacher educators is approximately same. It may indicate that Male & Female teacher educators do not differ significantly with respect to their Attitude towards

ICT. It is found from the table 4 that computed values of 't' are not Significant (p>0.05). Overall attitude of teacher educators was found to be positive towards ICT in relation to their sex. In the light of present finding the research hypothesis H₂ has been accepted.

For Objective 3.To study the Attitude of teacher educators towards ICT in relation to their academic discipline, the Hypothesis 3 is tested here. The Result is presented in table 5 & 6

Table 5: Result of Descriptive statistics based on Attitude of teacher educators towards ICT in relation to their academic discipline.

Descriptive Statistics					
	Academic discipline	N	Mean	Std. Deviation	Std. Error
attitude of teacher educators towards ICT	Language	51	113.3333	8.36341	1.17111
	Social science	78	114.7179	8.35246	0.94573
	Science	51	113.9216	7.84562	1.09861
	Total	180	114.1000	8.19054	0.61049

Table6: Result of ANOVA based on Attitude of teacher educators towards ICT in relation to their academic discipline.

ANOVA						
	Academic discipline	Sum of Squares	df	Mean Square	F	Sig.
attitude of teacher educators towards ICT	Between Groups	61.386	2	30.693	0.455	0.635
	Within Groups	11946.814	177	67.496		
	Total	12008.200	179			

Table 5 shows that teacher educators belonging to the three academic discipline groups i.e. Language, Social Science and Science did not differ overall attitude towards ICT with respect to their Mean value. And table 6 revealed that 'F' value is not significant at 0.05 level of significance ($p > 0.05$). Therefore the null hypothesis is accepted. This means that significant differences do not exist among Attitude of teacher educators towards ICT with respect to their academic discipline.

4.1 MAJOR FINDINGS CONCLUSION OF THE STUDY

The statistical treatment of the data reveals the following major findings of the study:

1. For Objective 1 to study the attitude of teacher educators towards ICT, the result of the study found that Overall Attitude of teacher educators was found to be positive towards ICT.
2. For Objective 2 to study the attitude of teacher educators towards ICT in relation to their sex, the result of the study found that, there is no significant difference in the attitude of teacher educators towards ICT in relation to their sex.
3. For Objective 3 to study the attitude of teacher educators towards ICT in relation to their academic discipline, the result of the study found that there is no significant difference in the attitude of teacher educators towards ICT in relation to their academic discipline.

The study points out to the fact that almost all the teacher educators were willing to use technology in their courses effectively as understood by their positive teacher educators' attitude towards ICT. As per the findings of present study, there is no significant difference in the attitude of teacher educators towards ICT in relation to their sex and their academic discipline.

4.2 EDUCATIONAL IMPLICATIONS FOR THE STUDY

1. All Universities of West Bengal should enrich their B.Ed. curriculum with a view to incorporating the usage of ICT- based teaching-learning system as per NCFTE (2009) and NPICTSE (2010).

2. Moreover, educational policy makers, educational planners and administrators should be given importance to use of ICT in the field of teacher education.
3. Educational stakeholders may get a synoptic view about attitude of teacher educators towards ICT of West Bengal.

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