

STUDENTS' ATTITUDES TOWARDS THE USE OF ICT IN SECONDARY SCHOOLS IN ARUNACHAL PRADESH

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Abstract: The present study was undertaken to find out the attitude related to ICT among secondary school students of Arunachal Pradesh. Students' attitudes were evaluated summatively and with respect to gender, race and type of school management. The total sample for the study comprises of 1290 students from 24 secondary schools of Papum Pare, Lower Subansiri and Upper Subansiri districts. Attitude scale was developed for secondary school students to collect the data. The data analysis included percentage, mean, standard deviation and t-test. The finding revealed that students have favourable attitude towards ICT. The significant difference of attitude was found between government and private secondary school students towards ICT. Moreover, this study revealed that there is no significant difference of students' attitudes towards ICT was found with respect of gender and race. Hence, the students should be made more aware of the potential benefits of ICT integration in education by promoting innovative programme related to ICT in school. So that they would be encourage to utilize the ICT for learning effectively.

Index Terms- Attitude, Information and Communication Technology, secondary school student

I. INTRODUCTION

In this 21st century, Information and Communication Technology (ICT) skills are necessary prerequisites for information literacy and life-long learning. The idea that a new generation of student is entering our schools has captured the attention and prompted debate amongst educators and education commentators. Advocates of the notion argue that this new generation has grown up in media rich digital environments and therefore have a greater interest in an aptitude for using information and communication technologies (Sweeney and Geer, 2010). Computer developments have become a common feature in today's society. Burniske (2001) stated students who possess ICT skills will be able to serve as worthy citizens in their communities and understand how society operates in information age. When used appropriately, ICT can help to strength the importance of education to increasingly networked society, raising quality of education by making learning and teaching an active process connected to real life. (zaman, Shamim and Clement, 2011). In line with Choo (2007) which stated that ICT usage can enhance students' innovative and creative skills in dealing with their daily task as a school student. The use of ICT in learning process enables the student to learn at their home, or everywhere else outside classroom setting. This means that the students have learning flexibility in which they do not have in the classroom (Shodin, 2013). The flexibility of learning gives students more option about how they learn. ICT usage also helped students to get ideas from various sources such as websites and interact with people virtually by using computer and the internet. With the new way of learning, students are expected to be independent or become an autonomous learner. With the physical absence of the teacher, students were encouraged to be able to overcome their problems through collaborative learning with the help of ICT tool (Dlaska, 2002). If students believe that ICT is a good medium for achieving a productive learning, the technology integration can be realized more easily and successfully (Malahi and Mohamed, No year). Elsewhere students attitudes towards the use of computers according to Jana and Pavol, (2008) in a study carried out in school found out that school had a major effect on behavior dimensions of attitude towards ICT. Accordance with study conducted by De-Sousa, Pavon and Ortiz, (2012) which revealed that the use of ICT promotes changes in attitudes, behavior and values and also in cognitive and perceptive processes, it also revealed that the use of ICT tools such as computer and internet changed students learning attitudes and behaviors. When ICT involved in students learning the process, they showed more self-directed and self managed behaviors in their learning. Attitudes towards computers can be seen as significant determinants of behavior that may influence computer utilization (Ottensen, 2006). Hence, attitudes are considered to be a good sign to determine whether students appreciate the utilization of computers in their learning or not. Therefore, the essence of this study is to find out the exact position as regards attitude of secondary school students towards the use of ICT in secondary education.

II. STATEMENT OF THE PROBLEM

Students' Attitudes towards the Use of ICT in Secondary Schools in Arunachal Pradesh

III. OBJECTIVES OF THE STUDY

The study under consideration has the following objectives:

1. To study the attitude of secondary school students towards the use of ICT.
2. To find the difference between male and female secondary school students attitudes towards the use of ICT.
3. To find the difference between APST (Arunachal Pradesh Schedule Tribe) and Non-APST secondary school students attitudes towards the use of ICT.
4. To find the difference between government and private secondary school students attitudes towards the use of ICT.

IV. HYPOTHESES OF THE STUDY

The following hypotheses have been formulated for the present study:

- I. There exists no significant difference between the attitude of male and female students towards the use of ICT.
- II. There exists no significant difference between the attitude of APST and Non-APST secondary school students towards the use of ICT.
- III. There exists no significant difference between the attitude of government and private secondary school students towards the use of ICT.

V. RESEARCH METHODOLOGY

The descriptive survey method is used to study this problem.

Population and Sample

The population of the present study comprises of 16440 secondary school students in 73 secondary schools in the academic year of 2015-16 in the three selected districts namely Papum Pare, Lower Subansiri and Upper Subansiri districts of Arunachal Pradesh. For this study the researcher selected 1290 secondary school students of class 10th standard from the selected 24 (12 government and 12 private) secondary schools by adopting random sampling technique. The sample represents 7.8 percent and 33 percent of the total secondary school students and secondary schools of three selected district of the state.

Tool used

The attitude scale towards ICT for secondary school students was constructed by the researcher which consisted of 15 items. The scale was adopted the procedure based on Likert's five point's scale which possesses five options i.e. SA, A, U, D, SD for respondent. The scale was contained 12 positive and 3 negative statements. The weightage for each positive response of the statement was given 5,4,3,2 and 1 points to SA, A, U, D and SD respectively. The scoring was reversed for the statements that were negative. The minimum score on this scale is 15 while the maximum score is 75. The reliability of this attitude scale test re-test method was adopted through which the co-efficient of reliability was found .88 and the validity of the scale ensured by taking the opinions of the content experts.

Statistical Techniques used

Percentage, mean, standard deviation and t-test were employed to analyse the collected data.

Delimitation of the study

The study had been delimited in the following manner:

- i. 1290 students randomly selected from 24 secondary schools (12 government and 12 private) of Papum Pare, Lower Subansiri and Upper Subansiri districts Arunachal Pradesh.
- ii. Class 10th standard school students.

VI. RESULTS AND DISCUSSION

Objective 1: To study the attitude of secondary school students towards the use of ICT.

Table-I: Showing the frequency distribution of Attitude Scores of Secondary School Students towards ICT in three selected districts of Arunachal Pradesh.

Class Interval	Frequency	x	fx	fx^2	f in %
69 – 75	34	2	68	136	2.64%
62 – 68	267	1	267	267	20.69%
55 – 61	553	0	0	0	42.87%
48 – 54	304	-1	-304	304	23.57%
41 – 47	105	-2	-210	420	8.14%
34 – 40	20	-3	-60	180	1.55%
27 – 33	7	-4	-28	112	0.54%
	N= 1290		$\sum fx = (-239)$	$\sum fx^2 = 1419$	100%

The table 1 indicates that the attitude mean score of secondary school students towards ICT came out to be 56.70 and the attitude scale of possesses minimum 15 marks and maximum 75 marks, therefore, the average score of the attitude scale was taken as 45 marks. The computed attitude mean score of 1290 secondary school students was found 56.70 which is greater than the mean score (45) of the attitude scale. Therefore, it is interpreted that the majority of (89.77%) of secondary school students had shown favourable attitude towards ICT in three districts of Arunachal Pradesh. The table also shows that 10.23% secondary school students had shown unfavourable attitude towards ICT. The computed standard deviation (7.23) is indicative of wide variations of attitude scores among the secondary school students. Thus, it is concluded that the students have a favourable attitude towards ICT in Papum Pare, Lower Subansiri and Upper Subansiri districts of Arunachal Pradesh.

Objective 2: To find the difference between male and female secondary school students' attitudes towards the use of ICT.

Hypothesis I: There exists no significant difference between the attitude of male and female students towards the use of ICT.

Table 2: Showing the Computed Attitude Mean Scores, SD and t-value of the Attitude Scores of Secondary Male and Female School Students towards ICT in Three Selected districts of Arunachal Pradesh.

Group of students	N	Mean	SD	SE_D	t-value	Remark
Male Students	606	56.82	7.32	0.4	1.35	P < .05 Not Significant
Female Students	684	56.28	7.05			

The table 2 reveals that the computed t-value found out to be 1.35 which is smaller than the criterion t-value (1.96) at .05 level of confidence for 1288 df. Therefore, the formulated hypothesis, "There is no significant difference between the attitude mean score of secondary male and female school students towards ICT in Papum Pare, Lower Subansiri and Upper Subansiri districts of Arunachal Pradesh" got accepted. It is indicated that the secondary male and female students did not differ in their attitude towards ICT in three selected districts of Arunachal Pradesh and both the groups of students have shown equally favourable attitude towards ICT so far the mean scores are concerned.

Objective 3: To find the difference between APST and Non-APST secondary school students' attitudes towards the use of ICT.

Hypothesis II: There exists no significant difference between the attitude of APST and Non-APST secondary school students towards the use of ICT.

Table 3: Showing the Computed Attitude Mean Scores, SD and t-value of the Attitude Scores of Secondary APST and Non-APST School Students towards ICT in Three Selected districts of Arunachal Pradesh.

Group of students	N	Mean	SD	SE _D	t-value	Remark
APST Students	1091	56.60	7.19	0.55	1.02	P< .05(1.96) Not Significant
Non-APST Students	199	56.04	7.15			

The table 3 depicts that the computed t-value estimated to be 1.02 which is smaller than the criterion t-value (1.96) at .05 level of confidence for 1288 df. Therefore, the computed t-value (1.02) has not been considered significant and the formulated hypothesis, “There is no significant difference between the attitude mean score of secondary APST and Non-APST school students towards ICT in Papum Pare, Lower Subansiri and Upper Subansiri districts of Arunachal Pradesh” gets accepted. It means that the secondary APST and Non-APST students did not differ in their attitude towards ICT in three selected districts of Arunachal Pradesh and both the groups of students had shown equally favourable attitude towards ICT so far the mean scores are concerned.

Objective 4: To find the difference between government and private secondary school students attitudes towards the use of ICT.

Hypothesis III: There exists no significant difference between the attitude of government and private secondary school students towards the use of ICT.

Table 4: Showing the Computed Attitude Mean Scores, SD and t-value of the Attitude Scores of Government and Private Secondary School Students towards ICT in three selected districts of Arunachal Pradesh.

Group of students	N	Mean	SD	SE _D	t-value	Remark
Govt. School Students	725	54.80	7.32	0.39	10.54	P> .01 Significant
Private School Students	565	58.91	6.52			

The table 4 shows that the computed t-value found out to be 10.54 which is greater than the criterion t-value (2.58) at .01 level of confidence for 1288 df. As, the computed t-value (10.54) has been considered significant, therefore, the formulated hypothesis, “There is no significant difference between the attitude mean scores of government and private secondary school students towards ICT in Papum Pare, Lower Subansiri and Upper Subansiri districts of Arunachal Pradesh” got rejected. And, it is understood that the government and private secondary school students did differ in their attitude towards ICT in three selected districts of Arunachal Pradesh. However, the finding shows that the attitude score of private school students (58.91) is significantly higher than the government school students (54.80) which mean that the private school students had more favourable attitude than the government school students towards ICT so far the mean scores are concerned.

VII. CONCLUSION

From the study it is revealed that the secondary school students have a favourable attitude towards the use of ICT in three selected districts of Arunachal Pradesh. The findings agreed with the earlier findings of **Shaukenova (2016)**, **Nutakor (2014)**, **Judi, Amin, Zin, Nam and Latin (2011)**, **Milizenska and Sztendur (2010)**, **Das (2003)** and **Mahajan, Arun and Rajiv (1997)**. According to **Kubiatko (2010)** an effective use of ICT could have the additional benefit of improving attitudes and computers skills, which in turn could improve the effective of ICT, thus creating a positive feedback spiral. This study also reveals that there is no significant difference of students’ attitudes towards ICT was found with respect of gender and race. The finding is similar to what **Sarfo, Amarti, Adentwi and Brefo (2011)** and **Bedi and Khatkar (2016)** reported that generally students’ attitudes towards technology do not differ in terms of gender. Further, the significant difference of attitude was found between government and private secondary school students towards the use of ICT, this finding contradicts in the finding of **Bedi**

et al. (2016). Students who perceived the usefulness of computer and confident in using it, appear to be more positive in their attitudes towards ICT, thus tend to use computer more (Noiwan, Piyamat and Norcio, 2005). Hence, the students should be made more aware of the potential benefits of ICT integration in education by promoting innovative programme related to ICT in school. So that they would be encourage to utilize the ICT for learning effectively.

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