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A Study of Attitude of Secondary School Teachers of Tumkur District towards Computer Assisted Instruction

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ABSTRACT

This research paper deals with the welfare and the prosperity of the country the training of youth is necessary. The prosperity of the nation depends on student of the schools and colleges. There are many modes of assisting the students to learn in the schools. Therefore the present study has made an attempt to study the attitude of secondary school teachers of tumkur district towards computer assisted instruction. The sample of 450 teachers was selected by random sampling technique from secondary schools of Tumkur Educational District. The data was collected by using the tool "Computer Assisted instruction attitude scale" (CAIAS) which was developed and standardized by Dr. Haseen Taj, Dept. of Education Jnanabharathi, Bangalore. The findings reveal that there was a significant difference in the attitude of male and female teachers of secondary schools towards computer assisted instruction. So it is necessary to provide appropriate instructional materials and techniques and providing them with computer facilities in schools and encouraging male teachers to acquire positive attitude towards computers assisted instruction.

1. Introduction

The destiny of the nation is now being shaped in classrooms. This will believe no more rhetoric, it is education that determine the level of prosperity welfare and security of the people. It is national system of education that can reach all the people (Education Commission 1964-66).

Education is a process which draws out the best in the individual with the aim of producing well balanced personalities, culturally refined, emotionally stable ethically sound, mentally alert, moral upright, physically strong, socially efficient, spiritually upright, vocationally self sufficient and internationally liberal.

Education is the only media through which everything will be changed to suit the needs of the people. People change their pattern of life, way of thinking and acting on the basis of education they get. Education was influenced by the historical and political development, customs and traditions which helps in the development of the personality of the individual.

Computer is one of the important technological devices used in teaching. It is an effective device in communicating information , changing attitudes and arousing interest in the subject. It can provide immediate individualized feed back.

It is an attempt to create awareness among school teachers about the computer and its uses in teaching-learning process in modern world. So that they make full benefit of information and communication technology in their daily life and in education at every level. Having learned about computer, it is worth to ponder over whether computer can support the classroom communication and help in developing the ability to think in the learner.

2. Variables of the study

In the present study gender and length of teaching experience were considered as independent variables while attitude of the teachers towards Computer Assisted instruction is considered as dependent variable.

2.1 Dependent Variable

a) Attitude of the teachers towards CAI

2.2 Independent Variables

a) Type of school management
b) Qualification of teachers
c) Locality of the school – Rural, Urban and Semi-urban
d) Subjects taught – Arts, Science

3. Objectives of the study

The objectives listed below were framed for the present study.

1. To study the attitude of teachers towards the use of computers in the classroom teaching.
2. To study the impact of the type of management of schools on the use of computers in the classroom teaching.
3. To study the impact of age of the teachers on the use of computers in the classroom teaching.
4. To study the impact of teachers qualification on the use of computers in the classroom teaching.
5. To study the impact of locality of school on the use of computers in the classroom teaching.
6. To study the impact of teaching subject of the teachers on the use of computers in the classroom teaching.

4. Hypotheses

1. There is no significant difference in the attitude of semi-urban and rural secondary school teachers towards computer assisted instruction.
2. There is no significant difference in the attitude of rural , urban, Semi urban secondary school teachers towards Computer Assisted Instruction

3. There is no significant difference in the attitude of government , aided, un-aided secondary school teachers towards computer assisted instruction.
4. There is no significant difference in the attitude of secondary school teachers teaching arts and science subjects towards computer assisted instruction.
5. There is no significant difference in the attitude of secondary school teachers with PG qualification and without PG qualification towards computer assisted instruction.

5. Methodology

In this method the researcher first divides his whole population into different stratum on the basis of certain characteristics and random sample is drawn from each stratum. The stratification of the population makes different small homogeneous groups of the population and simple random sampling technique can be applied to each group to select the required sample to study the attitude of secondary school teachers towards computer assisted instructions. The present study is restricted to secondary school teachers working in Tumkur district. Sample consists of 450 teachers working in Tumkur District.

Table 1: Showing the number of secondary schools selected for the study included government high schools, private aided high schools, private unaided high schools of Tumkur District:

Attempt was made to select equal number of teacher from each stratum

Type of school management	Locality			Total
	Urban	Semi-urban	Rural	
Government school	50	50	50	150
Private Aided	50	50	50	150
Private unaided	50	50	50	150
Total	150	150	150	450

Tools of research

The researcher has used the following tool for the collection of data in the study

"Computer Assisted Instruction Attitude Scale" (CAIAS) which was developed and standardized by Dr. Haseen Taj, Dept. of Education Jnanabharathi, Bangalore.

Statistical Techniques

The data was analyzed by using the statistical techniques like t-test

6. Analysis and Interpretation of the Data

Table-2: Showing Number, Mean, SD, Mean Difference, Standard error difference and t-value of attitude of teachers of semi-urban and rural school teachers towards CAI.

Locality		N	Mean	S.D	Mean difference	Std. Error difference	df.	t - value
Attitude towards CAI	Rural	150	154.41	13.808	1.033	1.647	298	0.627 (N.S.)
	Semi urban	150	155.41	14.701				

(N.S. Not Significant)

In above table, t – value 0.627 is lesser than the table value 1.96 at 0.05 level of significance for df 298. Therefore the null hypothesis stated is accepted. It means that the obtained t-value is found to be not significant. It is inferred that no significant difference in the attitudes of rural high school teachers and Semi urban School teachers towards CAI.

Table-3: Showing Number, mean, SD, Mean Difference, Standard error difference and t-value of attitude of teachers of Rural and Urban schools teachers towards CAI

Locality		N	Mean	S.D	Mean difference	Std. Error Difference	df.	t - value
Attitude towards CAI	Rural	150	154.41	13.808	3.747	1.387	298	2.702 *
	Urban	150	150.66	9.888				

(* Significant at 0.05 level and 0.01 level of significance)

In the above table t – value 2.702 is greater than the table value 1.96 at 0.05 levels of significance for df 298. It means that the obtained t – value is found to be significant. Therefore the null hypothesis is rejected, So that the alternative hypothesis is accepted. i.e. there is a significant difference in the attitude of rural and urban secondary school teachers towards computer assisted instructions. This shows that Rural Teachers have more + ve attitude towards Computer assisted instruction than the urban teachers.

Table- 4. Showing Number, mean, S.D. Mean difference and standard error difference and t – value of attitude of Semi-urban school Teachers and Urban schools teachers towards CAI

Locality		N	Mean	S.D	Mean difference	Std. Error difference	df.	t - value
Attitude towards CAI	Semi Urban	150	155.44	14.701	4.780	1.447	298	3.304 *
	Urban	150	150.66	9.888				

(* Significant at 0.05 level and 0.01 level of significance)

In the above table t – value 3.304 is greater than the table value 1.96 at 0.05 level of significance for df 298. It means that the obtained t – value is found to be significant. Therefore the null hypothesis is rejected. so that the alternative hypothesis is accepted. i.e. there is a significant difference in the attitude of semi urban and urban secondary school teachers towards computer assisted instructions.

Table 5 showing Number, mean, S.D. mean difference and Standard Error difference and t – value of Attitude of teachers of Government School and Aided schools Teachers towards CAI.

Type of Management		N	Mean	S.D	Mean difference	Std. Error difference	df.	t - value
Attitude towards CAI	Government	150	154.75	11.379	2.500	1.376	298	1.817 (N.S.)
	Aided	150	152.25	12.426				

(N.S. – Not Significant)

In the above table t – value 1.817 is less than the table value 1.96 at 0.05 and 0.01 level of significance for df 298.It means that the obtained t-value is not significant. Therefore the null hypothesis stated is accepted. It is inferred that no significant difference in the attitudes of Government and Aided Schools Teachers towards CAI.

Table. 6 showing Number, mean, S.D. mean Difference, Standard Error difference and t – value of attitude of teachers of Government Schools and Un - Aided schools towards CAI

Type of Management		N	Mean	S.D	Mean difference	Std. Error Difference	df.	t - value
Attitude towards CAI	Government	150	154.75	11.379	1.233	1.549	298	0.796 (N.S.)
	Un - Aided	150	153.51	15.174				

(N.S. – Not significant)

In the above table t – value 0.796 is less than the table value 1.96 at 0.05 level of significance for df 298. It means that the obtained t-value is found to be not significant. Therefore the null hypothesis stated is accepted. It is inferred that no significant difference in the attitudes of Government school teachers and un aided school teachers towards Computer Assisted Instruction.

Table-7: Showing Number, mean, S.D. Mean difference, standard error mean difference and t – value of Attitude of teachers of Aided school teachers and Un-aided school teachers towards CAI.

Type of Management		N	Mean	S.D	Mean difference	Std. Error difference	df.	t - value
Attitude towards CAI	Aided	150	152.25	12.425	1.267	1.601	298	0.791 (N.S.)
	Un – Aided	150	153.51	15.174				

(N.S.- Not significant)

In the above table t – value 0.791 is less than the table value 1.96 at 0.05 level of significance for df 298. It means that the obtained t-value is found to be not significant. Therefore the null hypothesis stated is accepted. i.e. there is no significant difference in the attitudes of Aided and un aided school teachers towards Computer Assisted Instruction.

Table-8:Showing Number, mean, S.D. Mean Difference, Standard error difference and t – value of attitudes of teachers of Arts teachers and Science teachers towards CAI

Educational Background		N	Mean	S.D	Mean difference	Std. Error difference	df.	t - value
Attitude towards CAI	Arts	268	152.79	13.033	1.758	1.260	448	1.399 (N.S.)
	Science	182	154.55	13.169				

(N.S.- Not significant)

In the above table t – value 1.399 is less than the table value 1.96 at 0.05 level of significance for df 448. It means that the obtained t- value is found to be not significant. Therefore The null hypothesis stated earlier is accepted. i.e. there is no significant difference in the attitudes of Arts and Science secondary school teachers towards Computer Assisted Instruction.

Table- 9: Showing Number, Mean, S.D. Mean Difference, Standard Error difference and t – value of attitude of teachers with P.G and without P.G. towards CAI

Qualification		N	Mean	S.D	Mean difference	Std. Error Diffrence	df.	t - value
Attitude towards CAI	Without P.G.	295	153.89	12.585	1.140	1.345	448	.877 (N.S.)
	With P.G.	155	152.75	14.046				

(N.S. – Not significant)

In the above table t – value 0.877 is less than table value 1.96 at 0.05 level of significance for df 448. It means that the obtained t value is not significant. Therefore The Null hypothesis stated earlier is accepted i.e. there is no significant difference in the attitudes of PG and without PG secondary school teachers towards computer assisted instruction.

7. Educational implications

1. t-test analysis of the data reveal that there was no significant difference in the attitude of secondary school teachers of semi urban and rural school teachers (t-0.627) towards CAI.
2. t-test analysis of the data reveal that there was a significant difference in the attitude of secondary school teachers of rural and urban teachers (t-2.702) towards CAI. This clearly implies that Rural teachers have more positive attitude towards CAI. So it is necessary to provide appropriate instructional materials and techniques and provide them with computer facilities in the urban school.
3. t-test analysis of the data reveal that there was significant difference in the attitude of secondary school teachers of semi-urban and urban schools teachers (t-3.304) towards CAI. This shows the semi-urban teachers have more positive attitude towards CAI. So it is necessary to provide appropriate instructional materials and techniques and provide them with computer facilities in the semi-urban school.
4. There was no significant difference in the attitude of secondary school teachers of government and aided school teachers (t-1.817) towards CAI.
5. There was no significant difference in the attitude of secondary school teachers of government and unaided school teachers (t-0.796) towards CAI.
6. There was no significant difference in the attitude of secondary schools aided and unaided school teachers (t-0.791) towards CAI.
7. There was no significant difference in the attitude of secondary school arts and science teachers (t-1.399) towards CAI.
8. There was no significant difference in the attitude of secondary school teachers with PG qualification and without PG qualification towards computer assisted instruction.

8. Suggestions for further study

1. The present study was confined to the Tumkur district. Therefore, the study may be undertaken at state and national levels.
2. The study was limited to secondary school teachers of Tumkur district only. Hence, studies may be undertaken including the sample of other teachers (PU and First grade college teachers)
3. For the present study only a few variables were considered in relation to locality, types of institutions, teaching subject and qualification . The same study may be taken including the other variables also.

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