



A COMPARATIVE STUDY OF COGNITIVE AND AFFECTIVE COMPUTER ATTITUDES OF SECONDARY TEACHERS

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ABSTRACT

The present study examines Cognitive and Affective Computer Attitudes of Secondary Teachers 300 teachers (170 male and 130 female – belonging to Urban area – 160 and Rural area – 140) were randomly selected from Secondary Schools of Nandurbar District.

Computer attitudes scale (Cognitive and Affective) developed by D.Kumaran and K. Selvaraju was used for data collection. The result indicate that –

- (a) Teachers have a favourable computer attitude.
- (b) Sex and subject of specialization (faculty) have no significant influence on cognitive computer attitude, affective computer attitude and computer attitude.
- (c) Urban teachers have more favourable cognitive computer attitude, affective computer attitude and computer attitude than Rural teachers.
- (d) In urban group, male teachers have more favourable affective computer attitude and computer attitude than those of female teachers, whereas both male and female teachers do not differ in respect of cognitive computer attitude.



KEYWORDS : Computer attitudes scale , Rural teachers , affective computer attitude .

INTRODUCTION :

Computer technology is beginning to have significant impact on almost every aspect of our lives. It is hard to imagine an organization, whether large or small, that could not advantageously use a computer in its operations. It has become an integral part of the present education system. Even the curriculum at the primary level itself has included computer education. Computer education can succeed towards computer. An attitude is a predisposition or readiness to respond in a predetermined manner to relevant stimuli. Attitude helps us process social information (Pratkanist 1989); guides our behaviour (Sanbonmatsu and Frazio 1980); and influence our social judgements and decisions (Jamieson & Zanna 1989). If our teachers do not have favourable cognitive and affective computer attitudes, they cannot integrate and transfer learning from one situation to another. As the success of the computer education primarily depends on the attitude of teachers towards computer it is necessary to find out the attitude that teachers possess about computers since the study on cognitive and affective computer attitudes of teachers was not available, the present investigators undertook this investigation.

OBJECTIVES OF THE STUDY :

The present study had the following objectives :

01. To identify the computer attitude of teachers.
02. To identify the cognitive computer attitude of teachers.
03. To identify the affective computer attitude of teachers.
04. To study whether teachers differ significantly in computer attitude, cognitive computer attitude and affective computer attitude with respect to (a) their sex, (b) subject specialization (faculty) and (c) locale.

HYPOTHESIS :

01. Male and female teachers do not differ significantly in respect of computer attitude, Cognitive computer attitude and Affective computer attitude.
02. Teachers from Arts faculty and Science faculty do not differ significantly in respect of computer attitude, cognitive computer attitude and affective computer attitude.
03. Urban and Rural teachers do not differ significantly in respect of computer attitude, cognitive computer attitude and affective computer attitude.
04. Urban male and female teachers do not differ significantly in respect of computer attitude, Cognitive computer attitude and affective Computer attitude.

SAMPLE :

The sample consisted of 300 teachers who have completed their B.Ed. training (170 male and 130 female) randomly selected from the Secondary Schools of Nandurbar District.

TOOL :

Computer attitude scale (Cognitive and affective) developed by D.Kumaran and K.Selvaraju was used for data collection.

The details of the scale are :

Tool	No. of Items	Coefficient of Reliability	Validity
Cognitive Attitude	16	0.89	0.94
Affective Attitude	20	0.73	0.84
Computer Attitude	36	0.78	0.88

The scale was administered to the sample selected. The items were rated on 5 point scale, i.e. Likert type format was followed and High score indicated more favourable computer attitude.

ANALYSIS & INTERPRETATION :

The data collected were analyzed using descriptive and inferential statistics.

Table 1: Comparison of male and female teachers in respect of computer attitude, cognitive computer attitude and affective computer attitude.

Variable	N	Cognitive Computer Attitude		Affective Computer Attitude		Computer Attitude	
		Mean	SD	Mean	SD	Mean	SD
Male	170	42.94	7.77	46.22	14.18	90.17	14.62
Female	130	43.51	7.26	44.16	9.68	87.68	11.31
t-value		0.68 Not Significant		1.59 Not Significant		1.77 Not Significant	

Table 1 reveals that male and female teachers do not differ significantly in respect of computer attitude, cognitive computer attitude and affective computer attitude as per obtained t-values are not significant at 0.05 level of significance. Hence the first null hypothesis 'Male and female teachers do not differ significantly in respect of computer attitude, Cognitive computer attitude and Affective computer attitude' has been retained.

Table 2 : Comparison of Arts and Science Teachers in respect of computer attitude, cognitive computer attitude and affective computer attitude.

Variable	N	Cognitive Computer Attitude		Affective Computer Attitude		Computer Attitude	
		Mean	SD	Mean	SD	Mean	SD
Male	226	42.69	7.73	44.61	13.85	88.32	13.70
Female	124	43.95	7.28	47.17	10.80	91.19	13.32
t-value		1.57 Not Significant		1.92 Not Significant		1.86 Not Significant	

Table 2 also reveals no significant difference between Arts and Science Teachers with respect to computer attitude as the obtained t-values are not significant at 0.05 level of significance. Hence the Second null hypothesis, 'Teachers from Arts faculty and Science faculty do not differ significantly in respect of computer attitude, cognitive computer attitude and affective computer attitude' is accepted.

Table 3 : Comparison of Urban and Rural teachers in respect of computer attitude, cognitive computer attitude and Affective computer attitude.

Variable	N	Cognitive Computer Attitude		Affective Computer Attitude		Computer Attitude	
		Mean	SD	Mean	SD	Mean	SD
Urban	160	44.41	6.85	48.49	10.56	92.02	13.16
Rural	140	42.04	8.03	43.73	14.40	14.40	13.60
t-value		3.03 Significant		3.57 Significant		3.54 Significant	

Table 3, however indicates that Urban teachers and Rural teachers differ significantly in respect of computer attitude, cognitive computer attitude and affective computer attitude as the obtained t-values are significant at 0.05 and 0.01 level of significant. Hence the third null hypothesis stands rejected and the alternative hypothesis that, 'Urban teachers and Rural teachers differ in respect of computer attitude, cognitive computer attitude and affective computer attitude' has been accepted.

Table 4 : Comparison of Urban male and female teachers with respect to computer attitude, cognitive computer attitude and affective computer attitude.

Variable	N	Cognitive Computer Attitude		Affective Computer Attitude		Computer Attitude	
		Mean	SD	Mean	SD	Mean	SD
Male (Computer literate)	108	44.33	7.03	50.09	10.14	94.44	13.71
Female (Computer literate)	52	44.59	6.61	42.09	9.72	87.18	10.43
t-value		0.23 Not Significant		4.57 Significant		5.33 Significant	

Table 4 reveals that Urban male teachers have more favourable affective computer attitude and computer attitude than Urban female teachers as the obtained t-values are significant at 0.05 and 0.01 level of significance. However Urban male and female teachers do not differ significantly in respect of cognitive computer attitude.

FINDINGS :

01. Both male and female teachers have favourable computer attitude.
02. Sex and the object of specialization (faculty) has no significant influence on cognitive computer attitude, affective computer attitude and computer attitude.
03. Urban teachers have more favourable cognitive computer attitude, affective computer attitude and computer attitude than Rural teachers.
04. In Urban group, male teachers have more favourable affective computer attitude and computer attitude than those of female teachers, whereas both male and female teachers do not differ in respect of cognitive computer attitude.

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