



ORIGINAL RESEARCH PAPER

Botany

GENDER DIFFERENCES IN ATTITUDES TOWARDS USAGE OF COMPUTERS AND INFORMATION TECHNOLOGY AMONG SECONDARY SCHOOL TEACHERS.

KEY WORDS: Gender Difference, Attitude, And ICT

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ABSTRACT

Computers are fast becoming a popular educational tool, used by both teachers and students to support the teaching and learning processes that take place in early primary classrooms and secondary schools. The investigator has undertaken the proposed to study attitudes of secondary school teachers on usage of computers and importance Information and Communication Technology (ICT) Hyderabad district. Researcher found that the favorable attitude towards the uses of *ICT* among the male teachers is marginally higher than their female counterpart, and there is a significant positive correlation between the extent of use of *ICT* by female teachers and their attitude towards *ICT*. It is therefore of paramount importance for teacher from preparatory institutions to aim at development of ICT pedagogical competencies in order to ensure that these teachers help the country to bring to the positive side of the digital divide and keep pace on the information superhighway. And Efforts of teachers using *ICT* should be recognized and outstanding achievements of its teachers should be celebrated, so that it increases their attitude towards *ICT*.

1.1 INTRODUCTION:

The 21st century is an era of acute modernization and both teacher and students will have to cope with the changes and challenges. The information age requires a higher level of skill and knowledge of all individuals. Teachers' professional knowledge, skill and capabilities are enhanced by ICT as their subject knowledge is expanding. ICT enables teachers in planning and preparing them for more efficient teaching. Their reluctance to use ICT is mainly due to their negative views towards accepting technology as part of their new teaching methodologies (Summar, 1990). Akbaba and kurubacack (1999) also reported that if teachers already have negative perception towards the use of technology, this may affect not only their teaching effectiveness but more importantly they may become incompetent in using technology. The act of teaching along with high teacher morale, positive attitude towards ICT and technology competence enforces the teacher to use ICT productively to enhance the effectiveness of teaching and learning process for giving the best output from the curriculum in the limited time in hand. It is important to evaluate teachers' attitude towards ICT and their technology competence as ICT s are being implemented in both private and government schools. Thus it is essential to investigate the impact of their attitude and competencies towards ICT in determining the success of educational system. A perusal of research studies reveals that teacher effectiveness is related to factors like high teacher morale, positive attitude towards ICT and technology competence of teachers. So, the researcher has undertaken this Study to find out the significance of teachers' morale, attitude towards ICT and level of technology competence of secondary school teachers in the productive use of ICT.

1.2 STATEMENT OF THE PROBLEM

The proposed research study is on: "Gender Differences in Attitudes towards Uses of Computers and Information Technology among Secondary School Teachers.

1.3 NEED AND SIGNIFICANCE OF THE STUDY

Computers are fast becoming a popular educational tool, used by both teachers and students to support the teaching and learning processes that take place in early primary classrooms and secondary schools. Many educators believe that the appropriate use of computers creates a more stimulating and enjoyable learning experience for students, and has a positive effect on their achievements. Research also encourage many students, the computer is a catalyst for information sharing, language development and decision making. Although secondary teachers of certain schools approve the use of computers to promote teaching and learning, schools lack the basic infrastructure and facilities that are required to integrate technology with pedagogy. The

situation is much better in the elite schools as they are equipped with the necessary resources. In view of the above, the investigator has undertaken the proposed to study attitudes of secondary school teachers on usage of computers and importance Information and Communication Technology (ICT)

1.4 OBJECTIVES OF THE STUDY

1. To study the attitude towards Uses of Computers and Information Technology of the secondary school teachers of government and private schools.
2. To study the attitude of male and female secondary school teachers of government and private towards Uses of Computers and Information Technology
3. To assess the extent of use of ICT by Secondary School teachers.
4. To study the relationship between use of ICT by teachers and their attitude towards ICT use.

1.5 HYPOTHESES OF THE STUDY

The investigator formulated the following hypotheses for investigation.

1. There is a significant difference in attitude towards Uses of Computers and Information Technology of secondary school teachers with respect to their gender.
2. There is a significant difference in Asses Uses of ICT of secondary school teachers with respect to their gender.
3. There is a significant difference in Asses Uses of ICT of Government secondary school teachers with respect to their gender
4. There is a significant difference in Asses Uses of ICT of Private secondary school teachers with respect to their gender
5. There is a significant positive relationship between the extent of *ICT* use by teachers and their attitude towards *ICT*

1.6 DELIMITATIONS OF THE STUDY

The study is delimited to:

- i. The opinions of secondary schools teachers of Hyderabad district of Telangana.
- ii. The secondary schools of rural and urban areas in Telangana only.
- iii. The secondary school teachers who teaches science and languages in Hyderabad district.

1.7 VARIABLES OF THE STUDY

1. Independent Variables: Gender
2. Dependent variables: Attitude towards the Uses of computer and ICT, Asses uses of ICT.

1.8 POPULATION:

The population of the study consisted of teachers working secondary schools of Hyderabad district of Telangana to collect the opinions on Uses of computers and Information & Communication Technology.

1.9 SAMPLING

Stratified random Sampling technique was employed for the collection of data. 10% of the sample schools were selected from 50 schools, which come to 50 secondary school teachers of the 200 teachers the data was collected from 100 male and 100 female teachers from Government and private school teacher.

1.10 TOOLS USED IN THE STUDY

- **ICT Attitude Scale** :Self developed tool
- **Scale to Assess Use of ICT**

1.11 DATA ANALYSIS

Hypothesis 1: There is a significant difference in attitude towards Uses of Computers and Information Technology of secondary school teachers with respect to their gender.

VARIABLES	N	MEAN	S.D	“t” VALUE	LEVEL OF SIGNIFICANCE
Private					
Male	100	131.46	14.40	0.51	NS
Female	100	130.52	11.22		

NS- No Significant

The obtained t values for Attitude towards Uses of Computers and Information Technology of secondary school teachers in relation to gender are not significant at any level of the table value. The results indicate that both male and female in the two categories of school have shown the similar attitude levels. Therefore the hypothesis is rejected in this case.

Hypothesis 2: There is a significant difference in Asses Uses of ICT of secondary school teachers with respect to their gender.

Dimensions	Variables	N	MEAN	S.D	“t” value	LOS
Use for Classroom Instructions	Male	100	33.61	4.97	0.05	NS
	Female	100	33.56	4.99		
Use for Administrative active purpose	Male	100	21.81	4.59	0.22	NS
	Female	100	21.11	4.78		
Use for Personal Development	Male	100	25.24	3.84	1.33	NS
	Female	100	25.88	3.00		
Overall Asses Uses of ICT	Male	100	80.21	10.21	0.32	NS
	Female	100	80.65	9.39		

NS-No Significant

From the above table it could be observed that the calculated mean score of the female teachers is almost all equal to the male mean score their counterparts in the overall assess Uses of ICT of teachers and the same is repeated for the dimensions viz. ,Use for classroom Instructions ,Use for Administrative active purpose and Use for Personal Development and the obtained mean score for both the groups is almost same with regard to all dimensions. Therefore the hypothesis is rejected.

Hypothesis 3: There is a significant difference in Asses Uses of ICT of Government secondary school teachers with respect to their gender

Dimensions	Variables	N	MEAN	S.D	“t” value	LOS
Use for Class\room Instructions	Male	50	33.00	5.22	1.05	NS
	Female	50	31.86	5.56		
Use for Administrative active purpose	Male	50	21.06	4.54	0.13	NS
	Female	50	21.16	5.27		

Use for Personal Development	Male	50	24.74	3.92	1.31	NS
	Female	50	25.66	3.00		
Overall Asses Uses of ICT	Male	50	78.80	9.91	0.12	NS
	Female	50	78.58	11.67		

The table- indicates that there is no significant difference in Asses Uses of ICT of Government secondary school teachers with respect to their gender. The mean of the male teachers being 78.80 and that of female teachers is 78.58 which shows a slight difference between the two groups and the obtained t value is found to be statistically non significant even at .05 level of confidence. This indicates that so far (68%) as Uses of ICT government secondary school teachers are concerned, there is no significant difference in Overall Asses Uses of ICT of Government secondary school teachers with respect to their gender. Dimension -wise results of 't' test reveal that both the teachers has similar Asses Uses of ICT.

Therefore the hypothesis is there is a significant difference in Asses Uses of ICT of Government secondary school teachers with respect to their gender is rejected in all dimensions.

Hypothesis 4: There is a significant difference in Asses Uses of ICT of Private secondary school teachers with respect to their gender

Dimensions	Variables	N	Mean	S.D	“t” value	LOS
Use for Class\room Instructions	Government	100	32.43	5.50	2.39*	0.05
	Private	100	34.73	3.99		
Use for Administrative active purpose	Government	100	21.06	4.96	0.48	NS
	Private	100	21.51	4.37		
Use for Personal Development	Government	100	25.2	3.81	1.02	NS
	Private	100	25.92	3.22		
Overall Asses Uses of ICT	Government	100	78.12	10.95	2.02*	0.05
	Private	100	82.16	8.48		

NS-No Significant

It could be observed from table - that the mean scores of the male and female private school teachers groups could not able to bring the 't' value significant for all the dimensions. The obtained 't' value is not significant even for the overall Asses uses of ICT of teachers. It shows that private school teachers were is not a significant factor for influencing Asses uses of ICT of teachers with respect to their gender. It influenced the overall Asses uses of ICT the private female teacher group is supposed to get higher score in their Asses uses of ICT of teachers Therefore the hypothesis that there will be a significant difference in Asses Uses of ICT of Private secondary school teachers with respect to their gender is rejected.

Hypothesis 5: There is a significant positive relationship between the extent of ICT use by teachers and their attitude towards ICT

Dimensions	Variables	N	Mean	S.D	df	R	LOS
Overall School Teachers	Uses of ICT	200	80.42	9.97	198	0.43	0.01
	Attitude towards the ICT	200	130.46	12.95			
Female Teachers	Uses of ICT	100	80.65	9.39	98	0.52	0.01
	Attitude towards the ICT	100	130.52	11.22			
Male Teachers	Uses of ICT	100	131.46	3.81	98	0.34	0.01
	Attitude towards the ICT	100	134.40	3.22			

****level of significance 0.01**

It can be observed from the table that mean and S.D. values for the independent variable i.e. 'Use of ICT' by teachers are 80.42 and 9.79 respectively and that of the independent variable i.e. 'Teachers' Attitude towards ICT' are 130.46 and 12.95 respectively. The calculated coefficient of correlation between the two variables comes out to be $r = 0.43$ i.e. average positive correlation. This is more than the table value 0.181 at .01 level of significance. Therefore, it is significant at .01 level. It suggests that there is a significant positive correlation between the extent of use of ICT by teachers and their attitude towards ICT. Thus, the hypothesis, which states that there is a significant positive relationship between the extent of ICT use by teachers and their attitude towards ICT, is **accepted**. It can be interpreted that as the attitude towards ICT of teachers is positive, the extent of use of ICT by teachers increases i.e. the teachers having positive attitude towards ICT use ICT more/ in a better way.

MAJOR FINDINGS OF THE STUDY

- There is a significant difference between male and female teachers in the Attitude towards the uses of computer and ICT was rejected.
- Attitude towards the use of ICT. It indicates that the favorable attitude towards the uses of ICT among the male teachers is marginally higher than their female counterpart.
- In the Asses uses of ICT with respect gender we found that there is no significant difference in Asses uses of ICT of secondary school teachers with respect gender. But gender has no significant effect attitude towards the uses of ICT and also Assess uses of ICT.
- Here female teachers more favorable attitude towards ICT and its attitude reflected on assess uses of ICT rather than male teachers. Female teacher were uses of ICT especially for personal development.
- The retention of the hypotheses of the study There is a positive relationship between the extent of ICT use by teachers and their attitude towards ICT, which indeed has the special impact on teachers' teaching in present scenario of technology and communication, making teaching and learning an effective, purposeful and appropriate, especially at the secondary school level.
- Finally gender is not able to influence the Attitude towards the uses of ICT and also Assess of use of ICT of Secondary school teachers.
- In Government Secondary school female teacher high level attitude towards uses of ICT rather than and Private Secondary school teachers male teachers high level attitude towards of uses of ICT rather than female teachers. Here there is significant difference in attitude towards uses of computer and ICT of Private secondary School with respect to gender.
- The mean professional adjustment score is 57.79%, which indicated the average level professional adjustment of mathematics school assistants and there is a scope for improvement of their professional adjustment.
- Positive significant relationship is found between the attitude towards ICT of teachers and extent of use of ICT.
- The study revealed that as the attitude towards ICT of male teachers is positive the extent of use of ICT by male teachers increases i.e. the male teachers having positive attitude towards ICT use ICT more/ in a better way.
- The disclosed that there is a significant positive correlation between the extent of use of ICT by female teachers and their attitude towards ICT. Thus it can be said that as the attitude towards ICT of female teachers is positive the extent of use of ICT by female teachers increases.

5.9 CONCLUSIONS

On the basis of the above findings, the following conclusions are drawn.

This study explored the effective use of ICT by teachers in

relation to important factors that influence the secondary school teachers to use ICT effectively in their classrooms. Present research also examined domains to assess the morale level, attitude of teachers towards ICT and technology competence of secondary school teachers.

This study primarily aimed at studying extent of use of ICT by secondary school teachers, adjudging their morale level, attitude towards ICT and technology competence level. The secondary aim was to see the relationship of use of ICT with other variables and also the difference of these variables in terms of use of ICT with respect to gender.

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