

Prospective Teacher's Attitude towards the Use of ICT: A Comparative Study between C.C.S. University, Meerut & Kurukshetra University, Kurukshetra

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ABSTRACT

The present study is an attempt to investigate prospective teacher's attitude towards the use of ICT: a comparative study between C.C.S. University, Meerut & Kurukshetra University, Kurukshetra. The objectives of the study were (1) To compare the attitude towards the use of ICT between male prospective teachers of C.C.S. University, Meerut and male prospective teachers of Kurukshetra University Kurukshetra. (2) To compare the attitude towards the use of ICT between female prospective teachers of C.C.S. University, Meerut and female prospective teachers of Kurukshetra University Kurukshetra. The sample for the study comprised of 80 prospective teachers of Saharanpur district and 80 prospective teachers of Yamuna Nagar district. "ICT Attitude Scale" was developed and standardized by the researcher with the help of his guide. The findings of the study indicate that there were no significant differences between prospective male teachers of C.C.S.U. Meerut and prospective male teachers of K.U. Kurukshetra on the dimension of "Knowledge", "Presentation" and total "ICT Attitude Scale". There were no significant differences between the attitude toward the use of ICT scores of prospective female teachers of C.C.S.U. Meerut & prospective female teachers K.U. Kurukshetra on the dimension of "Knowledge", and female prospective teachers of K.U. Kurukshetra have more positive attitude rather than female prospective teachers of C.C.S. University Meerut on "Presentation" dimension of ICT attitude scale it is significant at 0.05 and 0.01 level of significant. There were no significant differences between the attitude toward the use of ICT scores of prospective female teachers of C.C.S.U. Meerut & prospective female teachers K.U. Kurukshetra on total "ICT Attitude Scale".

Keywords: Prospective teachers, attitude, ICT, C.C.S.U. Meerut, K.U. Kurukshetra

Gurukul System of Education was in trend in India. The main characteristics of Gurukul System were dedicated and "Knowledgeable teachers, individualized and learner centre teaching and self-motivated students eager to learn. This system changed due to increase in number of students. Consequently the number of teachers increased. Some teachers are born but rests of them have to be given rigorous training so as to develop required competency to become a teacher. Teachers have been conscious about the quality of their teaching. To enhance the quality, some teachers use teaching aids, like, charts, models – static &

working, specimen, slides, etc. because teachers are given training both in preparation and use of Audio-visual Aids. It is a known fact that majority of schools do not have appropriate teaching aids related to the school content. So teachers have no facility to use Audio-visual Aids during teaching. The use of Audio-visual Aids get further restricted due to unmotivated persons becoming teachers. Central Government realized the need of improving quality of education through the use of Television wherein most competent teacher teaches the topic with the help of most appropriate teaching aids. This helped in improving the quality of teaching

in schools having no teacher to teach the subject, less competent teacher, schools having poor or no facility of teaching aids, etc. Even the Video Instructional Materials were produced and made available to teachers; still majority of schools did not make use of them. Some of the reasons were no facility of TV and VCR, no electricity, TV and VCR not in working condition, not incorporated in the time table, lack of initiation on the part of teacher and Principal, etc. Along with Audio-visual Aids, the print media has to go a long way in improving the quality of teaching and learning. Format in which the textbooks were written was not beneficial for teachers and students. Researchers started thinking and using different Theories of Learning for developing Instructional Material. This gives birth to Programmed Learning Material based on Operant Conditioning Theory of Learning. Programmed Learning Materials were compared with that of Lecture Method or Conventional Method.

Existing literature on the application of ICT in classrooms is substantial. Prior to 2006, several studies suggested inadequate, insufficient or unsatisfactory teacher education for ICTs. Several of these studies base their conclusions on survey of teacher and student perception. Amutha (2008) reported that ICT "Knowledge" among prospective teacher educators. They recommended that teacher education institutions should play a new role in the coming years in promoting the use of information and communication technology in their education through a variety of teacher education programmes. Singaravelu (2007) reported that the full benefit of technology skill of faculty and students ensuring adequate system support and providing the funds necessary to build a new academic framework around the new resources. Silla *et al.* (2008) identified that e-learning resources to support teachers of disabled children. They suggested that educational institutions in developing countries need to recognize the specialized support available to special education teachers in the developed world so that they might replicate such practice locally. Paily (2006) suggested that the education sector and teacher education in particular need to take a leadership role in the transformation of educational processes to reap the full benefits of ICT. According to thinkers and educationists, education is the 'third

eye' of a person. It gives him insight into all affairs. It teaches him how to act justly and rightly. It leads him to realize the true significance of life. It removes darkness and shatters illusion. Education increases our fame. It makes us cultured and pure. Education nourished us like a mother. It directs us to the proper path; it guides us to reach our destination.

PURPOSE OF THE STUDY

The study of prospective teacher's attitude towards the use of ICT: a comparative study between C.C.S. University, Meerut & Kurukshetra University, Kurukshetra is very important from the view of modernizing the teacher student communication technique in the educational system. Most of the Governments of various countries have adopted useful measures for the use of ICT in the educational and training programmes. Some provisions of incentives have also been made for computerization and automation to improve the system of communication between teacher and student in the institute and universities. ICT is being considered as the backbone of the education system in the modern days. The student now gets to learn through internet based system, submitted their assignment on line, hold discussion with the educators and counselors, study groups and their guides.

Computerized record and data base in the education system have clear advantage and benefits. The pupils are also ready to contribute for the use of ICT in educational infrastructure. But the use of any system depends upon the attitude of the students towards the system. The student should made better use of technology to acquire skill and "Knowledge" but a teacher cannot design a better system of teaching without the "Knowledge" of attitude of the students towards the use of ICT. It is a dynamic force in life which affects all people, their physical, mental, emotional, social and ethical aspects. It allows you to make an original contribution to human life. Realizing the significance of educational program, Government has adopted several measures to facilitate acquisition of ICT equipment for enhancement of education.

REVIEW OF RELATED LITERATURE

Adebayo Oyeronke and Michael Fagbohun (2013) conducted the study on "An Assessment of

Computer and ICT Skills Among Secondary School Teachers in Ota Ogun State". This paper focuses on the computer and ICT skills of secondary school teachers in Ota, Ogun state of Nigeria. The purpose was to find out if the teachers were computer and ICT literate and to examine if they employ computers and ICT in their teaching activities. The study shows that the respondents are aware of the fact that being computer and ICT literate is very important in their profession. The paper concludes that the Government in conjunction with the Ministry of Education inculcates computer and ICT training into the curriculum of teacher training schools.

Shakila, J. (2012) Examined the study on "A Study of the Awareness of Online Learning among Teacher Trainees", to find out the awareness of online learning awareness and online learning habits of student-teachers. For this study the researcher selected the 200 student-teachers by stratified random sampling technique. The study was conducted by the survey method. From this study it is found that the student-teachers are found, having very high awareness of online learning and more than three fourth of the total sample of the teacher trainees have very high awareness of online learning. The study shows that there is a significant difference between male and female student-teachers in awareness of online learning and there is no significant difference between urban and rural and science and social student-teachers in awareness of online learning.

Upadhyaya, P. (2013) Conduct a study on attitude towards computer among B. Ed. students. The objectives of the study were (i) to compare attitude towards computer of male and female B. Ed. students (ii) to compare attitude towards computer of B. Ed. students of Arts and Science stream. The sample for the study comprised of 68 students of Allahabad city. Computer Attitude Scale developed by T. Khatoon and M. Sharma was used as a tool for the study. The findings of the study indicate that male and female B. Ed students do not differ from one another on their attitude towards computer; and B. Ed students of Science stream have more favourable attitude towards computer than their Arts stream counterparts.

Gupta M.M. (2015) Conduct a study on "attitude of prospective teachers towards the use of information

and communication technology (ICT) in teacher education". The objectives of the study were:

1. To study the attitude of prospective teachers towards the use of ICT in teacher education.
2. To assess the attitude of male and female prospective teachers towards the use of ICT in teacher education.
3. To compare the attitude of rural and urban prospective teachers towards the use of ICT in teacher education.
4. To study the attitude of science and arts background prospective teachers towards the use of ICT in teacher education.

The sample for the study comprised of 150 students of Yamuna Nagar district. "ICT ATTITUDE SCALE" were developed and standardized by M.M. Gupta with the help of his guide. He found that the mean of male prospective teachers is 38.81 and that of female prospective teachers is 38.72. the "t" ratio for above two groups is 0.133 which is not significant at any level of significance. This means that there is no significant difference between the attitude of male and female prospective teachers towards the use of ICT in teacher education. The mean of urban prospective teachers 27.44 and that of rural prospective teachers is 26.10. The "t" ratio obtained from above two groups is 2.117 which is significant at the levels of significance i.e. 0.05 and 0.01 level. This means that there is significance difference between urban and rural attitude of prospective teachers towards the use of ICT in teacher education. The mean of science prospective teachers is 40.90 and that of arts prospective teachers is 41.28. The "t" ratio for above two groups is 0.431 which is not significant at any levels of significance. This means that there is no significant difference between attitude of science and arts prospective teachers towards the use of ICT in teacher education.

Objectives

The present study is based on the following objectives:

- ♦ To compare the attitude towards the use of ICT between male prospective teachers of C.C.S. university, Meerut and male prospective teachers of Kurukshetra University Kurukshetra.
- ♦ To compare the attitude towards the use of ICT

between female prospective teachers of C.C.S. university, Meerut and female prospective teachers of Kurukshetra University Kurukshetra.

Hypothesis

Keeping in view the objectives, the present study is carried out on the basis of following hypotheses:

- ♦ There is no significant difference between the attitude towards the use of ICT of male prospective teachers of C.C.S. University, Meerut and male prospective teachers of Kurukshetra University, Kurukshetra.
- ♦ There is no significant difference between the attitude towards the use of ICT of female prospective teachers of C.C.S. University, Meerut and female prospective teachers of Kurukshetra University, Kurukshetra.

Delimitation of the Study

Due to the lack of time resources and finance this study is confined only to the Colleges of Education in Saharanpur district of Uttar Pradesh and Yamuna Nagar district of Haryana state.

Design of the Study

The study follows normative survey type of descriptive research together the data.

Population

All the students studying in B.Ed. course being offered by colleges of education affiliated to Ch. Charan Singh University, Meerut and Kurukshetra University, Kurukshetra constituted the population for present study.

Sample & Sampling Technique

To study the sample for present study the researcher selected the 5 colleges who are offering B.Ed. courses situated in Saharanpur district and 5 colleges of Yamuna Nagar district by using lottery method of random sampling technique. From these selected 10 colleges, 16 prospective teachers were selected from each college. Therefore the total sample consists of 160 prospective teachers.

Tool Used

To obtain the data, the data gathering device- "ICT ATTITUDE SCALE" was prepared by

the investigator over two dimensions e.g. (1) "Knowledge" and (2) "Presentation" and it had been given to some of the experts for the content validity and preliminary try out was made on the sample size -50. There were 25 prospective teachers from C.C.S. University Meerut and 25 were Kurukshetra University, Kurukshetra. The reliability of the tool was established by split half method and test retest method by computing coefficient of correlation by Karl Pearson Method. The value of coefficient of correlation was found be 0.83. The tool consists of 30 statements involving positive as well as negative items. Thus the tool was standardized by the research investigator with the help of his guide.

Scoring Procedure of "ICT Attitude Scale"

The "ICT Attitude Scale" was constructed by the investigator is a scale having 30 statements of which 23 of them positive statements and the remaining 7 were negative statements.

Scores for Positive Statements

- ♦ 5 for Strongly Agree opinion (SA)
- ♦ 4 for Agree opinion (A)
- ♦ 3for Undecided opinion (U)
- ♦ 2 for Disagree opinion (D)
- ♦ 1 for Strongly Disagree opinion (SD)

Scores for Negative Statements

- ♦ 1 for Strongly Agree opinion(SA)
- ♦ 2 for Agree opinion(A)
- ♦ 3 for Undecided opinion(U)
- ♦ 4 for Disagree opinion(D)
- ♦ 5 for Strongly Disagree opinion(SD)

The sample prospective teachers were asked to tick any one response out of given five alternatives for each statement. There are total 30 items in the present attitude scale. The maximum possible scores on the whole attitude were 150 and the minimum possible scores were 30.

STATISTICAL ANALYSIS

To get the meaningful results from the present study the researcher used mean, standard deviation and 't'-test to analyze the data.

Analysis and Interpretation of Data

Table 1: Mean & S.D. Scores of Prospective Male Teachers of C.C.S.U. Meerut & Prospective Male Teachers of K.U. Kurukshetra on "Knowledge" Dimension of "ICT Attitude Scale" (ICTAS)

| Respondents | N | Mean | SD | t-value (df 78) |
|---------------------------------------------|----|-------|-------|-----------------|
| Prospective Male Teachers(C.C.S.U Meerut) | 40 | 63.14 | 6.416 | 0.673 (N.S.) |
| Prospective Male Teachers(K.U. Kurukshetra) | 40 | 62.20 | 4.44 | |

Not significant

Table 1 shows that the mean score is 63.14 & 62.20 and SD scores are 6.416 & 4.44. The t-value calculated from above two groups is 0.673 which is not significant at any level. The analysis of the above table revealed that there were no significant differences between the attitude towards ICT scores of prospective male teachers of C.C.S.U. Meerut & prospective male teachers K.U. Kurukshetra on "Knowledge" Dimension of "ICT Attitude Scale" (ICTAS).

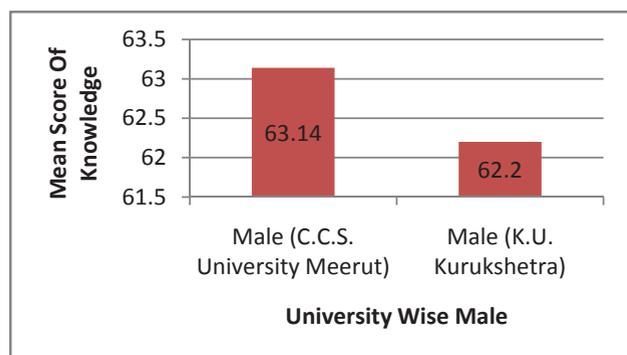


Fig. 1: Shows the Mean value of Prospective Male Teachers of C.C.S.U. Meerut & Prospective Male Teachers of K.U. Kurukshetra on "Knowledge" Dimension of "ICT Attitude Scale" (ICTAS)

Table 2 shows that the mean score is 57.58 & 56.08 and SD scores are 4.457 & 3.787. The t-value calculated from above two groups is 1.620 which is not significant at any levels. The analysis of the above table revealed that there were no significant differences between the attitude towards the use of ICT scores of prospective male teachers of C.C.S.U.

Table 2: Mean & S.D. Scores of Prospective Male Teachers of C.C.S.U. Meerut & Prospective Male Teachers of K.U. Kurukshetra on "Presentation" Dimension of "ICT Attitude Scale" (ICTAS)

| Respondents | N | Mean | SD | t-value (df 78) |
|----------------------------------------------|----|-------|-------|-----------------|
| Prospective Male Teachers (C.C.S.U Meerut) | 40 | 57.58 | 4.457 | 1.620 (N.S.) |
| Prospective Male Teachers (K.U. Kurukshetra) | 40 | 56.08 | 3.787 | |

*Not significant

Meerut & prospective male teachers K.U. Kurukshetra on "Presentation" dimension of "ICT Attitude Scale" (ICTAS).

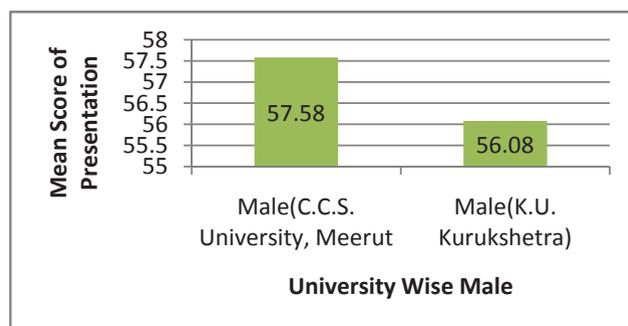


Fig. 2: Shows the Mean Value of Prospective Male Teachers of C.C.S.U. Meerut & Prospective Male Teachers of K.U. Kurukshetra on "Presentation" Dimension of "ICT Attitude Scale" (ICTAS)

Table 3: Mean & S.D. Scores of Prospective Male Teachers of C.C.S.U. Meerut & Prospective Male Teachers of K.U. Kurukshetra on "ICT Attitude Scale" (ICTAS)

| Respondents | N | Mean | Std. Deviation | t-value (df 78) |
|----------------------------------------------|----|--------|----------------|-----------------|
| Prospective Male Teachers (C.C.S.U Meerut) | 40 | 120.72 | 8.259 | 1.406 (N.S.) |
| Prospective Male Teachers (K.U. Kurukshetra) | 40 | 118.28 | 7.238 | |

*Not significant

Table 3 shows that the mean score is 120.72 & 118.28 and SD scores are 8.259 & 7.238. The t-value calculated from above two groups is 1.406 which is not significant at any level. The analysis

of the above table revealed that there were not significant differences between attitude toward the use of ICT scores of prospective male teachers of C.C.S.U. Meerut & prospective male teachers K.U. Kurukshetra on "ICT Attitude Scale" (ICTAS).

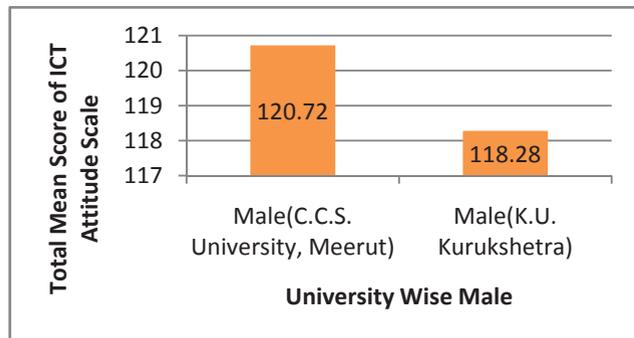


Fig. 3: Shows the Mean Value of Prospective Male Teachers of C.C.S.U. Meerut & Prospective Male Teachers of K.U. Kurukshetra on "ICT Attitude Scale" (ICTAS)

Table 4: Mean & S.D. Scores of Prospective Female Teachers of C.C.S.U. Meerut & Prospective Female Teachers of K.U. Kurukshetra on "Knowledge" Dimension of "ICT Attitude Scale" (ICTAS)

| Respondents | N | Mean | Std. Deviation | t-value (df 78) |
|------------------------------------------------|----|-------|----------------|-----------------|
| Prospective female Teachers (C.C.S.U Meerut) | 40 | 62.90 | 6.49 | 0.356 (N.S.) |
| Prospective female Teachers (K.U. Kurukshetra) | 40 | 62.34 | 7.55 | |

*Not significant

Table 4 shows that the mean score is 62.90 & 62.34 and SD scores are 6.49 & 7.55. The t-value calculated from above two groups is 0.356 which is not significant at any level.

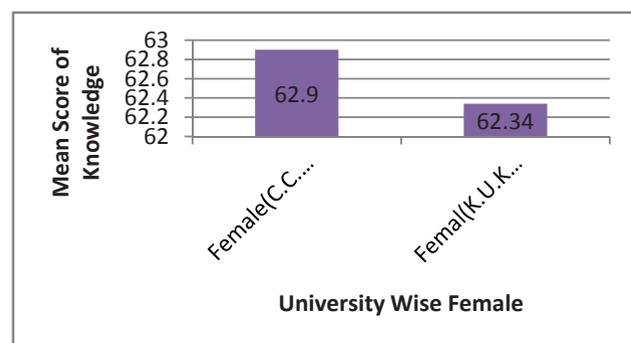


Fig. 4: Shows the Mean Value of Prospective Female Teachers of C.C.S.U. Meerut & Prospective Female Teachers of K.U. Kurukshetra on "Knowledge" Dimension of "ICT Attitude Scale" (ICTAS)

The analysis of the above table revealed that there were no significant differences between the attitude toward the use of ICT scores of prospective female teachers of C.C.S.U. Meerut & prospective female teachers K.U. Kurukshetra on "Knowledge" dimension of "ICT Attitude Scale" (ICTAS).

Table 5: Mean & S.D. Scores of Prospective Female Teachers of C.C.S.U. Meerut & Prospective Female Teachers of K.U. Kurukshetra on "Presentation" Dimension of "ICT Attitude Scale" (ICTAS)

| Respondents | N | Mean | Std. Deviation | t-value (df 78) |
|------------------------------------------------|----|-------|----------------|-----------------|
| Prospective female Teachers (C.C.S.U Meerut) | 40 | 57.13 | 4.12 | 2.811* (Sign) |
| Prospective female Teachers (K.U. Kurukshetra) | 40 | 60.63 | 6.71 | |

*Significant at 0.05 & 0.01 level

Table 5 shows that the mean score is 57.13 & 60.63 and SD scores are 4.12 & 6.71. The t-value calculated from above two groups is 2.811 which is significant at 0.05 and 0.01 level. The analysis of the above table revealed that the prospective female teachers of K.U. Kurukshetra have more positive attitude toward the use of ICT rather than prospective female teachers of C.C.S.U. Meerut on "Presentation" dimension of "ICT Attitude Scale" (ICTAS).

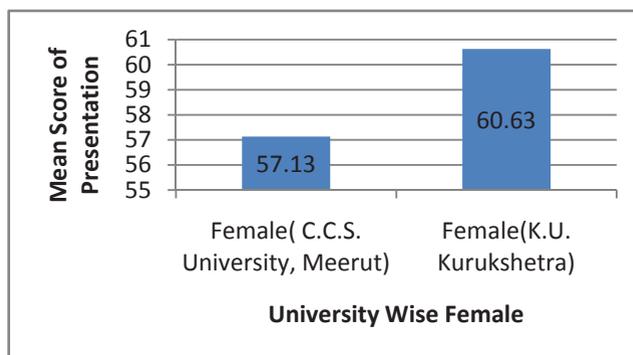


Fig. 5: Shows the Mean Value of Prospective Female Teachers of C.C.S.U. Meerut & Prospective Female Teachers of K.U. Kurukshetra on "Presentation" Dimension of "ICT Attitude Scale" (ICTAS)

Table 6 shows that the mean score is 120.03 & 122.97 and SD scores are 7.132 & 8.212. The t-value calculated from above two groups is 1.709 which is not significant at any level. The analysis of the above table revealed that there were no significant

differences between the attitude toward the use of ICT scores of prospective female teachers of C.C.S.U. Meerut & prospective female teachers K.U. Kurukshetra "ICT Attitude Scale" (ICTAS)

Table 6: Mean & S.D. Scores of Prospective Female Teachers of C.C.S.U. Meerut & Prospective Female Teachers of K.U. Kurukshetra of "ICT Attitude Scale" (ICTAS)

| Respondents | N | Mean | Std. Deviation | t-value (df 78) |
|------------------------------------------------|----|--------|----------------|-----------------|
| Prospective female Teachers (C.C.S.U Meerut) | 40 | 120.03 | 7.132 | 1.709 (N.S.) |
| Prospective female Teachers (K.U. Kurukshetra) | 40 | 122.97 | 8.212 | |

*Not significant

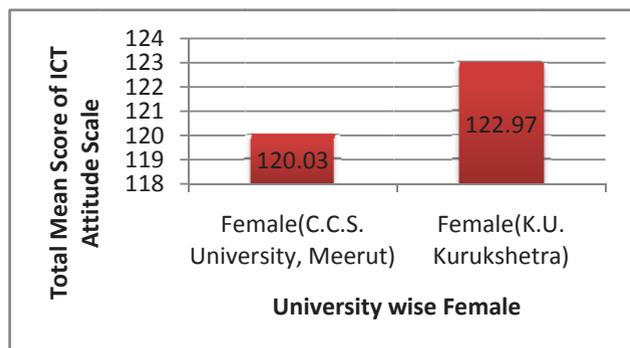


Fig. 6: Shows the Mean Value of Prospective Female Teachers of C.C.S.U. Meerut & Prospective Female Teachers of K.U. Kurukshetra on "ICT Attitude Scale" (ICTAS)

Findings of Study

The first null hypothesis that there is no significant difference between the attitude towards the use of ICT of male prospective teachers of C.C.S. University, Meerut and male prospective teachers of Kurukshetra University, Kurukshetra is accepted. The findings related to above hypothesis are as follows:

- ♦ There were no significant difference the attitude towards the use of ICT of male prospective teachers of C.C.S. University, Meerut and male prospective teachers of Kurukshetra University, Kurukshetra on Knowledge dimensions of ICTAS.
- ♦ There were no significant difference the attitude towards the use of ICT of male prospective

teachers of C.C.S. University, Meerut and male prospective teachers of Kurukshetra University, Kurukshetra on Presentation dimensions of ICTAS.

- ♦ There were no significant difference the attitude towards the use of ICT of male prospective teachers of C.C.S. University, Meerut and male prospective teachers of Kurukshetra University, Kurukshetra on total ICTAS.

The second null hypothesis that there is no significant difference between the attitude towards the use of ICT of female prospective teachers of C.C.S. University, Meerut and female prospective teachers of Kurukshetra University, Kurukshetra is partially accepted and partially rejected. The findings related to above hypothesis are as follows:

- ♦ There were no significant difference the attitude towards the use of ICT of female prospective teachers of C.C.S. University, Meerut and female prospective teachers of Kurukshetra University, Kurukshetra on Knowledge dimensions of ICTAS.
- ♦ There were significant difference the attitude towards the use of ICT of female prospective teachers of C.C.S. University, Meerut and female prospective teachers of Kurukshetra University, Kurukshetra on Presentation dimensions of ICTAS.
- ♦ There were no significant difference the attitude towards the use of ICT of female prospective teachers of C.C.S. University, Meerut and female prospective teachers of Kurukshetra University, Kurukshetra on total ICTAS.

Educational Implications

The present study is an attempt to investigate prospective teacher's attitude towards the use of ICT: a comparative study between C.C.S. University, Meerut & Kurukshetra University, Kurukshetra. The ICT awareness becomes an urgent need of the hour in present scenario. Now, the time has come to use the ICT equipments in the class rooms.

Furthermore the study makes contribution through its findings by revealing the difference between various groups of students and their attitude towards the use of ICT is concerned.

1. On the basis of the results of this study it is suggested that the institutional of

learning should organize some seminars and conferences on ICT awareness. In order to improve ICT awareness of students, their participation should be made mandatory in such events.

2. The college should also invite educationist for sharing their views with the students.
3. This study will encourage students to take some corrective measures such as ICT awareness, competency in ICT, and attitude towards ICT.
4. ICT awareness programme should be made compulsory at all levels of teacher education.
5. ICT labs should be constituted in the school, colleges and universities.

Suggestion for Further Researches

On the basis of the finding of the present investigation the investigator would like to suggest following for further research:

- ♦ The present study is delimited to the comparison of the attitude of prospective teachers of Ch. Charan Singh University, Meerut and Kurukshetra University Kurukshetra. The same can be extended to different universities.
- ♦ The present study is confined only to the U.P. state and Haryana state, similar study may also be conducted in different state of India.
- ♦ The present study is confined only to district Saharanpur and Yamuna Nagar, similar study may also be conducted in different district of U.P. and Haryana state.

- ♦ Present study is deals with a sample of 160 prospective teachers. A large number of samples can be used.
- ♦ In the present study is only prospective teachers were taken, for further research similar study can also be conducted with various levels of teachers.
- ♦ The present study is related only to the B.Ed. students in the same way study can be conducted on M.Ed. students also for measuring their attitude towards the use of ICT in teacher education.

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