

ATTITUDE TOWARDS INFORMATION AND COMMUNICATION TECHNOLOGY AMONG STUDENT TEACHERS OF COLLEGES OF EDUCATION

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ABSTRACT

Teachers' ICT needs may be looked in the wider context of information literacy, i.e., the ability to search for, identify and critically evaluate information content and quality; select, adapt, present and communicate to meet particular learning needs (their own as well as those of their pupils) and to reflect critically on that process (Carter and Monaco, 1987). Hence, the present study is aimed to find out whether there is any significant difference among student teachers of colleges of education with regard to certain background variables namely subject, year of study, medium of instruction, locality of college of education and usage of social media network by them. The information and communication technology attitude scale developed by the investigator (2012) is used to collect the data. The sample consists of 100 student teachers doing B.Ed., programme in the Colleges of Education in Salem District. The data are analyzed by mean, standard deviation and 't' test techniques. The results indicate that there is significant difference between I year and II year student teachers in their attitude towards ICT and the I year student teachers are higher in their attitude towards ICT than the II year student teachers.

1. INTRODUCTION

Education is one major sector which has undergone the influence of innovations in ICT. Starting from providing online content service, platform for organizing learning experiences to managing learning and assessment has been changed greatly by ICT developments. Students, teachers and educational administrators and every stakeholder in education have been benefitted by the integration of ICT in education. Information and Communication Technologies (ICT) have become common place entities in all aspects of life. Across the past twenty years, the use of ICT has fundamentally changed the practices and procedures of nearly all forms of endeavours within business and governance. Within education, ICT has begun to have a presence but the impact has not been as extensive as in other fields. Education is a very socially oriented activity and quality education has traditionally been associated with strong teachers having high degrees of personal contact with learners. The use of ICT in education lends itself to more student-centred learning settings and often this creates some tensions for some teachers and students.

2. NEED AND SIGNIFICANCE OF THE PRESENT STUDY

According to Becta and Manitoba (2001), the use of ICT resources across curricular areas helps students to exhibit substantial improvement in learning and those who have acquired ICT skills are able to support higher order skills within subjects and to support independent learning, thus improving academic performance. ICT is a powerful tool for teaching and learning and it can be employed in different ways in the course, Christies and Michael (2002). Information and Communication Technology knowledge is essential in the teaching and learning process. In today's knowledge and technological explosions, the student teachers need to upgrade their ICT based knowledge and getting updated with ICT knowledge and applications have become a boon for rural and young student teachers. Keeping in mind the need of encouraging the student teachers with favourable attitude towards ICT for improving the teaching and learning environment, the investigator prepares his mind to do a systematic study on the attitude of student teachers towards ICT with respect to certain background variables.

3. STATEMENT OF THE PROBLEM

The problem selected for the present study is to find out whether there is significant difference if present among student teachers of colleges of education in their attitude towards ICT with regard to the background variables namely subject, year of study, medium of instruction of student teachers and the locality of the institution. Also the investigator has taken the background variable 'holding an account and holding no account for using internet resources by student teachers' for the present study. The study is helpful in establishing the utilization of ICTs in teaching and learning process among student teachers of colleges of education.

4. TITLE OF THE STUDY

“Attitude towards Information and Communication Technology among Student Teachers of Colleges of Education”

5. OPERATIONAL DEFINITIONS

5.1 Information and Communication Technology

ICTs stand for information and communication technologies and are defined as a “diverse set of technological tools and resources used to communicate, create, disseminate, store and manage information.” In simpler terms, it is the scientific and technological discipline which deals with collection, storing and dissemination of information to the individuals.

5.2 Attitude

Attitude is the predisposition of concepts, beliefs and values of student teachers of colleges of education towards information and communication technology.

5.3 Student Teachers of Colleges of Education

By 'Students of Colleges of Education', the investigator means the students studying in the B.Ed., colleges of Salem District in Tamil Nadu State. 'B.Ed.,' is the abbreviation of 'Bachelor of Education'.

6. OBJECTIVES OF THE PRESENT STUDY

- i. To find out whether there is significant difference between arts group and science group student teachers in their attitude towards Information and Communication Technology.
- ii. To find out whether there is significant difference between I year and II year student teachers in their attitude towards ICT.
- iii. To find out whether there is significant difference between Tamil medium and English medium student teachers in their attitude towards ICT.
- iv. To find out whether there is significant difference between student teachers of rural and urban colleges of education in their attitude towards ICT.
- v. To find out whether there is significant difference between student teachers those who are holding account and holding no account for using social media network in their attitude towards ICT.

7. NULL HYPOTHESES

- i. There is no significant difference between arts group and science group student teachers in their attitude towards Information and Communication Technology.
- ii. There is no significant difference between I year and II year student teachers in their attitude towards ICT.
- iii. There is no significant difference between Tamil medium and English medium student teachers in their attitude towards ICT.
- iv. There is no significant difference between student teachers of rural and urban colleges of education in their attitude towards ICT.
- v. There is no significant difference between student teachers those who are holding account and holding no account for using social media network in their attitude towards ICT.

8. METHOD USED FOR THE PRESENT STUDY

For the present study, survey method is employed. By administrating the questionnaires, necessary data will be collected.

9. TOOL USED IN THE PRESENT STUDY

ICT Attitude Scale (2012) developed and validated by the investigator is used to collect necessary data.

10. SAMPLE OF THE PRESENT STUDY

The student teachers (B.Ed., Students) of the colleges of education in the Salem District will be the population of the present study. From the population, 100 student teachers (50 students from I year and 50 students from II year) will be selected by means of stratified random sampling technique from two B.Ed. colleges. The sampling will be stratified on the basis of the background variables namely subject, year of study, medium of instruction of the student teachers and the locality of the institution. Also the investigator has taken the background variable 'holding an account and holding no account for using internet resources by student teachers' for the present study.

11. STATISTICAL TECHNIQUES USED

For analyzing the collected data, mean, standard deviation and 't' test are employed.

12. ANALYSIS OF DATA

Null Hypothesis - 1

There is no significant difference between arts group and science group student teachers in their attitude towards Information and Communication Technology.

Table - 1

Mean score difference between arts group and science group student teachers in their attitude towards Information and Communication Technology

Subject	N	Mean	SD	't' value	Remarks at 5% Level
Arts	56	111.42	11.47	0.949	NS
Science	44	109.25	11.29		

(At 5% level of significance, the table value is 1.96)

The above table shows that there is no significant difference between arts group and science group student teachers in their attitude towards ICT as the calculated 't' value 0.949 is less than the table value 1.96 at 5% level of significance. Hence the null hypothesis is accepted.

Null Hypothesis - 2

There is no significant difference between I year and II year student teachers in their attitude towards Information and Communication Technology.

Table - 2

Mean score difference between I year and II year student teachers in their attitude towards Information and Communication Technology

Year of Study	N	Mean	SD	t value	Remarks at 5% Level
I Year	50	107.58	11.15	2.61	S
II Year	50	113.36	10.98		

(At 5% level of significance, the table value is 1.96)

The above table shows that there is significant difference between I year and II year student teachers in their attitude towards ICT as the calculated 't' value 2.61 is greater than the table value 1.96 at 5% level of significance. While comparing the mean scores, I year student teachers are higher in their attitude towards ICT than the II year student teachers. Hence the null hypothesis is rejected.

Null Hypothesis - 3

There is no significant difference between Tamil medium and English medium student teachers in their attitude towards Information and Communication Technology.

Table - 3

Mean score difference between Tamil medium and English medium student teachers in their attitude towards Information and Communication Technology

Medium of Instruction	N	Mean	SD	't' value	Remarks at 5% Level
Tamil	75	109.44	11.37	1.57	NS
English	25	113.56	11.09		

(At 5% level of significance, the table value is 1.96)

The above table shows that there is no significant difference between Tamil medium and English medium student teachers in their attitude towards ICT as the calculated 't' value 1.57 is less than the table value 1.96 at 5% level of significance. Hence the null hypothesis is accepted.

Null Hypothesis - 4

There is no significant difference between student teachers of rural and urban colleges of education in their attitude towards Information and Communication Technology.

Table - 4

Mean score difference between student teachers of rural and urban colleges of education in their attitude towards Information and Communication Technology

Locality	N	Mean	SD	't' value	Remarks at 5% Level
Rural	77	110.79	12.05	0.516	NS
Urban	23	109.79	8.98		

(At 5% level of significance, the table value is 1.96)

The above table reveals that there is no significant difference between student teachers of rural and urban colleges of education in their attitude towards ICT as the calculated 't' value 0.516 is less than the table value 1.96 at 5% level of significance. Hence the null hypothesis is accepted.

Null Hypothesis - 5

There is no significant difference between student teachers those who are holding account and holding no account for using social media network in their attitude towards Information and Communication Technology.

Table - 5

Mean score difference between student teachers those who are holding account and holding no account for using social media network in their attitude towards Information and Communication Technology

Using Social Media	N	Mean	SD	't' value	Remarks at 5% Level
Holding no account	58	110.86	12.12	0.403	NS
Holding account	42	109.92	10.42		

(At 5% level of significance, the table value is 1.96)

The above table reveals that there is no significant difference between student teachers those who are holding account and holding no account for using social media network in their attitude towards ICT, because the calculated 't' value 0.403 is less than the table value 1.96 at 5% level of significance. Hence the null hypothesis is accepted.

13. MAJOR FINDINGS

- i. There is no significant difference between arts group and science group student teachers in their attitude towards Information and Communication Technology.
- ii. There is significant difference between I year and II year student teachers in their attitude towards ICT. While comparing the mean scores, I year student teachers are higher in their attitude towards ICT than the II year student teachers.
- iii. There is no significant difference between Tamil medium and English medium student teachers in their attitude towards ICT.
- iv. There is no significant difference between student teachers of rural and urban colleges of education in their attitude towards ICT.
- v. There is no significant difference between student teachers those who are holding account and holding no account for using social media network in their attitude towards ICT.

14. INTERPRETATIONS AND DISCUSSION

The investigator with his limited observations and experience in the field of educational research and being a teacher educator has come out with the following interpretations to the findings of the present study.

The 't' test results reveal that there is no significant difference among student teachers in their attitude towards ICT with regard to the background variables namely subject, medium of instruction of student teachers and the locality of the institution. Also the investigator has taken account holding for using internet resources by student teachers as a background variable for the present study and there is no significant difference in the attitude towards ICT between student teachers holding account for using ICT network resources and those who do not hold account for using ICT network resources. The findings of the study conducted by Amit Kumar Sharma et al., (2015) on the student teachers revealed that there was no significant difference in the attitude of student teachers towards using internet with regard to gender, subject, qualification and marital status and the findings coincide with the results of the present study and support the same.

But with regard to the background variable Year of Study, there is significant difference between I year and II year students. While comparing the mean scores, the I year students are higher in their attitude towards ICT than the II year student teachers. The entry level anxiety and the curiosity among I year student teachers may be the reason for their higher level attitude towards ICT when compared with their II year counter parts.

This is to be realized that the rapid advancement in Information and Communication Technologies and their applied benefits of the various components have been greatly influencing the teaching and learning process of teacher education students. Moreover, the integration of ICT in the classroom activities helps to

create a very congenial environment for the students which in turn constructively help them to gain meaningful and sustainable learning experiences.

15. CONCLUSION

The ICTs in teacher education are very important with regard to the process of modernizing the student teachers' communication techniques in their teaching and learning process. In nutshell, it is realized that the Information and Communication Technology (ICT) is a boon to the present century. The development in ICT field is a scientific gift to the learners and to the present day education system which serves to overcome the existing problems in the different walks of information and communication world in general and educational institutions in particular. More to state that ICT gives the learners essential accessibility to the teachers and the students at their fingertips those who are keeping pace with the changing aspirations, needs and demands of the educational systems of the society. In this connection, neither a teacher nor a student can remain a transmitter of knowledge and culture. In addition, one has to be a motivator and a coordinator fully aware of modern techniques and recent developments in pedagogical approaches and other dynamic ICT components like multimedia systems etc., Because, in the fast changing world and the educational systems, the role of the teachers too are changing so fast that any fixed amount of pre-service or in-service training can hardly cope with the expectations of the changing society. From the information and communication technologies point of view, the teachers as well as the student teachers are to be provided with extensive exposure to the dynamic components of ICT and made to gain wide and broad experiences with their application aspects that would make the end users to imbibe not only with required skills and competencies but also help them develop favourable attitude towards their teaching profession. It is suggested that many innovative methods and techniques of ICTs may be introduced in to the B.Ed., programme during the internship training period itself so that the student teachers will become well versed in using the various components of ICTs and will develop favourable attitude towards Information and Communication Technology.

16. References

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