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Teacher's attitude towards the use of Information and Computer Technology (ICT) in Classroom Teaching

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Abstract: The Information and Communication Technology (ICT) is an electronic system that is used for communication between individuals or groups. ICT has become a powerful driving force of globalization and made continual impact both on the society and on our life. The emergence of novel global economy and the application of ICT provided us new insights in teaching-learning processes and evolved as a part and parcel of the education system. Through ICT, complex processes are made easier to understand and to function as a facilitator of active learning by providing opportunities to access information in abundance using multiple information resources. Moreover, it also helps students in receiving direct information that is updated, timely and reliable. A teacher should also realize the need of presenting different learning experiences in various ways by adopting updated teaching-learning methodologies *i.e.* ICT. The main focus of this paper is to know the attitude of secondary school teachers' towards the use of ICT. Our study reveals that teachers approach towards ICT is influenced by gender, course stream as well as teaching experience. This study also finds out that the extended use of ICT equipments enhances the richness and quality of teaching-learning process.

Key Words: Teacher education, Information and Communication Technology (ICT), Classroom teaching, secondary school teachers

INTRODUCTION

We are living in an era of information and knowledge explosion. This information explosion is so speedy that for an educated person it becomes difficult to keep abreast with the latest advancements. According to Tinio (2009), globalization and technological change have created a new global economy that is powered by technology, fueled by information and driven by knowledge. The progress in information and communication technology has changed the scenario of education system. It has been observed that development in ICT has become a crucial factor to cater the demand of changing education system (Chao, 2015). The different uses of ICT help in strengthening the quality of education to make teaching-learning an active process that is connected to real life situation. The use of ICT in education will not only improve the learning process but will also change the content of education, institutional infrastructure and the pattern of education system. ICT is a tool that supports the learning process and holds the promise to new solutions for the challenges that education is facing today (Oduma & Ile, 2014). Education is a social activity and quality education is associated with competent teachers having high degrees of personal contact with

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learners. The role of ICT in education is becoming more important as we are moving rapidly into the world of digital media and information.

Meaning of ICT

ICT stands for Information and Communication Technology. It is the combination of two terms *i.e.* Information Technology and Communication Technology.

"Information Technology is a scientific, technological and engineering discipline and management technique used in handing the information, it's application and association with social, economical and cultural matters."- UNSECO (2002)

Communication Technology is the electronic system that facilitates communication between individuals and the groups, who are not physically present at the same location. For this purpose, gadgets such as Telephone, Telex, Fax, Radio, T.V., Smart phones, video and recent computer-based technologies including electronic data interchange and e-mail are used. According to Prytherch (2000), *"ICTs are networks that provide new opportunities for teaching, learning and training through delivery of digital content."*According to Blurton, C. (2002), ICTs stand for *information and communication technologies* and are defined as a *"diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information."*

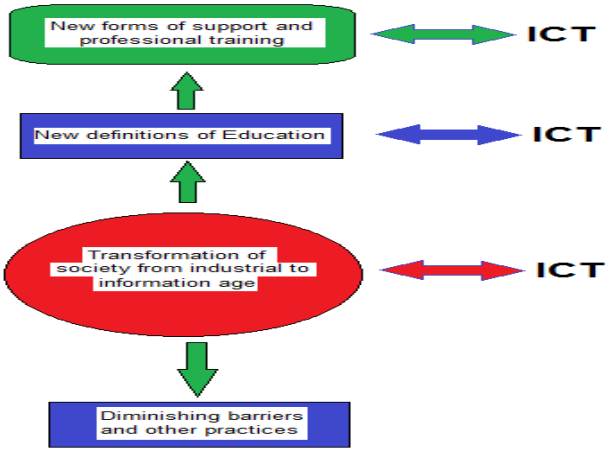

Figure-1: Flow diagram showing impact of ICT on education

Summarily, the above figure shows the impact of ICT on education in bringing the transformation of society from industrial to information-based society. This transformation reveals the new definition of education that leads to new forms of development and professional training. For this, change in the attitude of teacher educators, teachers as well as of the society towards learning process is required.

OBJECTIVES OF THE STUDY

The present study is aimed at achieving the following objectives:

1. To assess the attitude of secondary school teachers towards the use of ICT.
2. To compare the attitude of male and female secondary school teachers towards the use of ICT.
3. To compare the attitude of Arts/Social Science and Science/Mathematics background teachers towards the use of ICT.
4. To compare the teachers of various levels of experience on their attitude towards ICT.

HYPOTHESES

1. There will be no significant difference between the attitude of Male and Female teachers towards the use of ICT.
2. Arts/Social Science and Science/Mathematics background teachers do not differ significantly on their attitude towards ICT.
3. Teachers of various levels of experience do not differ significantly on their attitude towards ICT.

METHODOLOGY OF THE STUDY

An attitude scale towards Information and Communication Technology was developed by the investigators to collect the data. The reliability of this scale was calculated by test-retest method and it was found as r= 0.842, and its content validity was also found very high when examined by many

experts. The data was analyzed by using Mean, Standard Deviation, t-test and ANOVA.

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Population and sample

The population comprised of secondary school teachers of Aligarh Muslim University, Aligarh. The sample consists of 200 teachers including both male and female.
The details of the sample are as follows:

Table-1: Details of the sample

Name of Schools	Male Teachers	Female Teachers	Total
City High School	38	07	45
ST High School	25	18	43
Abdullah Girls High School	10	19	29
ABK Union School (Boys)	15	26	41
ABK Union School (Girls)	12	30	42
Total	100	100	200

ANALYSIS AND INTERPRETATION OF DATA

Objective-1:

To assess the attitude of secondary school teachers towards the use of ICT.

Table-2: Assessment of attitude scores of secondary school teachers

Categorization of attitude score	No. of teachers (%)
High (Above 75)	27 (13.5%)
Medium/Average (50-75)	163 (81.5%)
Low (Below 50)	10 (5%)

Interpretation

From Table-2, it can be observed that out of 200 teachers 27 teachers (13.5%) have high positive attitude, 163 (81.5%) have moderate or average attitude and only 10 teachers (5%) have low attitude towards Information and Communication Technology. Hence, it can be said that most of the teachers have a favorable attitude towards Information and Communication Technology.

Objective-2:

To compare the attitude of male and female secondary school teachers towards the use of ICT.

Hypothesis-2.1.

There will be no significant difference between the attitude of Male and Female teachers towards the use of ICT.

Table-3: Showing the difference between the mean scores of the attitude of Male and Female teachers towards ICT.

Variable	N	Mean	Standard Deviation	d.f.	Calculated *t*-value	Tabulated *t*-value	Levels of significance
Male	100	67.25	10.705	198	2.963	1.97	Significant at 0.05 level
Female	100	63.20	8.498				

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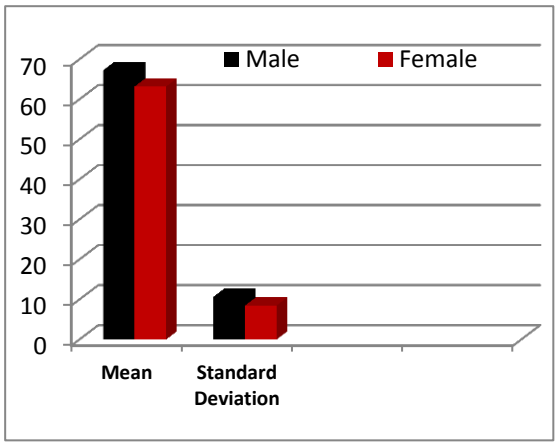

Figure-2: Shows the difference between the attitude scores of male and female teachers

Interpretation In Table- 3, the calculated t-value (2.963) is more than the tabulated t-value at 0.05 level of significance and it is also clarified by the Fig. 2. It means that null hypothesis-1 # 2.1 is rejected. Hence, there is a significant difference between the attitude of male and female teachers towards Information and Communication Technology (ICT). Male teachers have more favorable attitude towards ICT in comparison to female teachers.

Objective 3:

To compare the attitude of Arts/Social Science and Science/Mathematics background teachers towards Information and Communication Technology (ICT).

Hypothesis-2: Arts/Social Science and Science/Mathematics background teachers do not differ significantly on their attitude towards ICT.

Table-4:

Showing the difference between the mean scores of the attitude of Arts/Social Science and Science/Mathematics background teachers towards ICT.

Variable	N	Mean	Standard Deviation	d.f.	Calculated *t*-value	Tabulated *t*-value	Levels of significance
Arts/Social Science	119	64.87	9.892	198	0.610	1.97	Not Significant at 0.05 level
Science/Mathematics	81	65.74	9.831				

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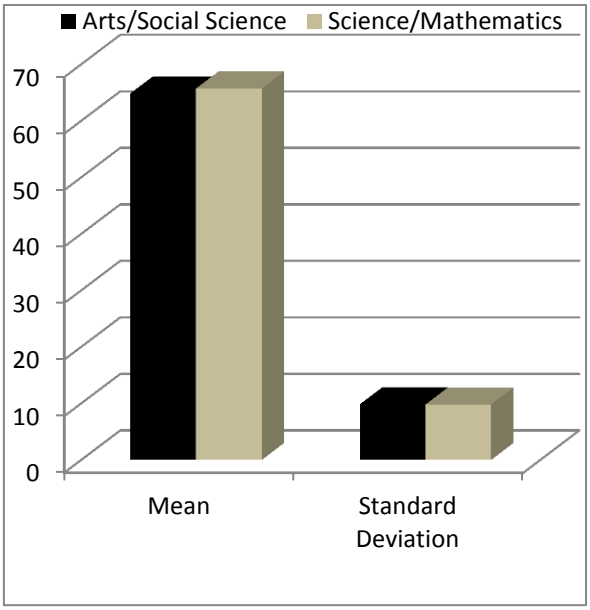

Figure- 3: Showing the difference between the attitude of Arts/Social Science and Science/Mathematics teachers

significance (1.97), which means that teachers of mathematics/science and arts/social science stream do not differ significantly on their attitude

Arts/Social Science and Science/Mathematics background teachers towards ICT. Science/Mathematics teachers have slightly more favorable attitude towards ICT as their mean score (65.74) is more than the mean score of arts/social science teachers(64.87).

Objective 4: To compare the teachers of various levels of experience on their attitude towards

score and it is also shown in the Figure-3. Thus hypothesis-2 is accepted. Hence, there is a no significant difference between the attitude of

Information and Communication Technology (ICT).

Hypothesis: Teachers of various levels of experience do not differ significantly on their attitude towards ICT.

Table-5: Showing attitude score of teachers with various levels of experience towards ICT.

Teaching Experience	N	Sum of scores	Mean	Variance
0 to 10	55	3676	66.84	83.25
10 to 20	75	4866	64.88	83.73
20 to 30	53	3447	65.04	117.34
30 & Above	17	1056	62.12	137.74

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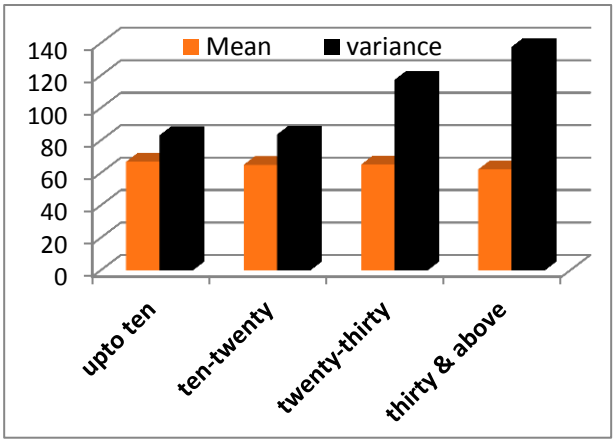

Figure-4: Showing attitude scoreis no significant difference between the attitude of teachers with various levels of experience towards ICT.

Table-6: Calculation of ANOVA calculation

Source of Variation	Sum of score	d.f.	Mean of scores	Calculated F-value	Tabulated F-value	Levels of significance
Between Groups	317.74	3	105.91	1.09	2.65	Not Significant at 0.05 level
Within Groups	18997.14	196	96.92			
Total	19314.88	199				

Interpretation

In Table-5, the calculated F-value is less than the tabulated F-value at 0.05 level of significance and In Table-5, the calculated F-value is less than the tabulated F-value at 0.05 level of significance and it is also clarified by the figure.4 it means that hypothesis-3 is accepted. Hence, there

FINDINGS OF THE STUDY

- Most of the teachers have favorable attitude towards ICT. Male teachers possess slightly more favorable attitude than female teachers towards Information and Communication Technology (ICT).
- There is a significant difference between the attitude of male and female teachers towards Information and Communication Technology (ICT).
- Science/Mathematics background teachers have a more favorable attitude than Arts/Social Science background teachers towards Information and Communication Technology (ICT).
- There is a significant difference between the attitude of Arts/Social Science and Science/Mathematics background teachers

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towards Information and Communication Technology (ICT).

- ❖ There is a no significant difference in the attitude of teachers with levels of experience towards Information and Communication Technology (ICT).
- ❖ The lowest group of teachers in terms of experience i.e. 0-10 years, have more favorable attitude than the other three groups i.e. 10-20, 20-30, 30 & above, towards Information and Communication Technology (ICT).

EDUCATIONAL IMPLICATIONS

- Use of ICT in education helps in developing critical and scientific thinking among the students and the teachers. It motivates the learner to participate in learning activities at anytime and from anywhere.
- It helps in exchange and share ideas among teachers for the professional growth.
- ICT have also used to improve access and the quality of teacher training. ICT tools enhance teaching and facilitate learning using multi-modal courseware, Integrate ICT using pedagogical innovations to develop higher order thinking skills among learners.
- ICT tools such as radio, T.V., Internet, computer, laptop, tablets and many other hardware and software applications can be utilize in teaching-learning process. These tools can give benefits in the areas of content, curriculum, instruction and assessment.
- In India, mainly education has three levels that are primary or elementary level, secondary and senior secondary level and higher level. The quality of all these level can be easily improved by the use of ICT tools and techniques.

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REFERENCES

- Tinio, V. L. (2009). ICT in Education. UNDP Bureau for development policy, New York.
- UNESCO (2002). *Information and Communication Technologies in Teacher Education: A Planning Guide*, UNESCO Publication.
- Prytherch, R., ed. Harrod's Librarians' Glossary and Reference Book: A Directory of Over 9,600 Terms, Organizations, Projects and Acronyms in the Areas of Information Management, Library Science, Publishing and Archive Management. 9th ed. Aldershot: Gower, 2000.
- Blurton,C. "New Directions of ICT-Use in Education". Available online http://www.unesco.org/education/ educprog/lwf/dl/edict.pdf; accessed 7 August 2002 (c.r. https://en.wikibooks.org/wiki/ICT_in_Education/Notes#4; 2016).
- Chao, GM. (2015). Impact of Teacher Training on Information Communication Technology Integration in Public Secondary Schools in Mombasa County. Human Resource Management Research. 5(4): 77-94.
- Oduma, C. A. and Ile, C.M. (2014). ICT Education for Teachers and ICT Supported Instruction: Problems and Prospects in the Nigerian Education System. African Research Review. Vol. 8 (2): 199-216

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