Attitude of Teachers working in Higher Education institute towards ICT

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Abstract: *The present study has been designed to find out the attitude of teachers working in higher educational institutes towards ICT (Information Communication Technology). The survey was conducted on 160 teachers from Delhi NCR. The study followed the design of a descriptive survey method. The results obtained showed that there is no significant difference between male and female teachers on the scores of attitude towards ICT (Information Communication Technology). It finds that there is no significant difference between teachers working in government and private institutes on the scores of attitude towards ICT (Information Communication Technology). Also there is no significant interaction between type of institute and gender of the teachers on the scores of attitude towards ICT (Information Communication Technology). The study concluded that there is a need to develop ways and means to enhance the teachers' positive attitude towards ICT.*

Key Words: ICT *(Information Communication Technology),* Attitude towards *ICT (Information Communication Technology) & Teachers working in higher educational institutes.*

1. INTRODUCTION:

Information and communication technologies (ICT) is an essential part of teaching learning process as digitalization has reached up to every aspect of life. Across the past twenty years the use of ICT has fundamentally changed the practices and procedures of nearly all forms of efforts within education, business, administration and governance. Education is the most important aspect of a society and an interactive medium of change and development. The use of ICT in education lends itself to more student-centred learning settings. But with the world moving rapidly into digital media and information, the role of ICT in education is becoming more and more important and this importance will continue to grow and develop in the 21st century. ICT been divided into two broad categories: ICTs for Education and ICTs in Education. ICTs for education refers to the development of information and communications technology specifically for teaching/learning purposes, while the ICTs in education involves the adoption of general components of information and communication technologies in the teaching learning process. Attitude is a feeling or opinion about something or someone, or a way of behaving that is caused by something actually affects the approach of any person towards his/her work, life and surroundings. Attitude always determines the importance and priorities of a person. Attitude towards ICT being most vital aspect of any educational setting indicates the importance of study. Present study is an attempt to know the attitude of teachers towards use of ICT, as they are the key resource for all the learners.

2. Definition of Key words

ICT(Information Communication Technology)

Information and Communications Technology (ICT) is an umbrella term for information communications and the integration of telecommunications (telephone lines and wireless signals), computers as well as necessary enterprise software, and multimedia with internet.

Attitude towards *ICT (Information Communication Technology)*

Attitude is a settled way of thinking or feeling about something. It means teachers' opinion or feelings about, prejudice or biases, preconceived nation, ideas, fears, threats and conviction about ICT.
ICT is an acronym that stands for (Information Communication Technologies). Information and communication technologies are an umbrella term that includes all technologies for the manipulation and communication of information. ICT considers all the uses of digital technology that already exists to help individuals, business and organization.

Teachers working in higher educational institutes

Higher education is considered one of the important mechanisms to develop a knowledge society. Higher education encompasses teaching, research, extension, practical and training. It is usually being imparted as

undergraduate, postgraduate, vocational degree programs and researches**.** Teachers working in higher educational institutes are mostly qualified according to University Grants Commission's norms and are Doctorate or NET (National Eligibility Test) qualified.

3. STATEMENT OF THE PROBLEM:

Study of attitude of Teachers working in higher educational institutes towards ICT

4. REVIEW OF RELATED LITERATURE:

The field of education has been affected by ICTs, which have undoubtedly affected teaching, learning and research ***(Yusuf, 2005)*** .ICTs have the potential to accelerate, enrich, and deepen skills, to motivate and engage students, to help relate school experience to work practices, create economic viability for tomorrow's workers, as well as strengthening teaching and helping schools change ***(Davis and Tearle, 1999; Lemke and Coughlin, 1998; cited by Yusuf, 2005).*** In a rapidly changing world, basic education is essential for an individual be able to access and apply information. Such ability must find include ICTs in the global village. The integration of information and communication technologies can help revitalize teachers and students. This can help to improve and develop the quality of education by providing curricular support in difficult subject areas. To achieve these objectives, teachers need to be involved in collaborative projects and development of intervention change strategies, which would include teaching partnerships with ICT as a tool. According to ***Zhao and Cziko (2001)*** three conditions are necessary for teachers to introduce ICT into their classrooms: teachers should believe in the effectiveness of technology, teachers should believe that the use of technology will not cause any disturbances, and finally teachers should believe that they have control over technology. Researches suggests that the infrastructure if available to teachers, few educators are effectively integrating ICTs in curriculum delivery (***DeCorte, 1990***; ***Becta, 2003***). It can be said, that there are also non-technical factors that affect the adoption of ICTs for curriculum delivery and affect the attitude towards it. Thus the study on attitude is important to understand the better uses of ICT in higher educational institutes.

5. OBJECTIVES OF THE STUDY:

The present study was designed to achieve the following objectives:

- To study the attitude of Teachers working in higher educational institutes towards ICT in relation to the gender of teachers.
- To study the attitude of Teachers working in higher educational institutes towards ICT in relation to the type of the institute (private or Government).

6. HYPOTHESES OF THE STUDY:

- There is no significant difference between male and female teachers of higher educational institute on the scores of attitude towards ICT.
- There is no significant difference between government and private higher educational institute's teachers on the scores of attitude towards ICT.
- There is no significant interaction between type of institute and gender of teachers on the scores of attitude towards ICT.

7. SAMPLE FOR THE STUDY:

Five government higher educational institutes and five private institutes were selected randomly from Delhi and NCR for the collection of data. Attitude scale was administered on 160 teachers selected at random from each institute. Therefore, the sample was collected from eighty teachers working in government institutes and eighty teachers from private institutes.

7.1 Tools used

In line with the objective of the study, the survey instrument developed by researcher was used for this research. The questionnaire was Likert-type scale with 40-item, 5-point with anchors labeled as 1= not at all to 5=strongly agree. The forty items are grouped into five constructs to evaluate how frequently, or to what degree, individuals believe that they engage in forty specific categories of attitude toward ICT. Attitude towards ICT has been observed by classroom settings, lectures and other facilities available to teachers for the use of ICT ; which indicates the behavioral aspects, motivational aspects and interest with attitude towards it.

8. ANALYSIS AND CONCLUSION:

The data obtained was been analyzed under the following 3 heads:

1. *2x2 ANALYSIS OF VARIANCE (ANOVA) ON THE SCORES OF ICT IN RELATION TO THE GENDER AND TYPE OF INSTITUTE OF THE TEACHERS*

In order to analyze the variance in scores of ICT, the obtained scores were subjected to ANOVA. The results are presented below in table 1.

Table 1: Summary of ANOVA for 2×2 Factorial Design in respect of ICT

Source of Variation	Some of Squares	Df	Mean Squares	F-ratio
Gender of teachers (A)	193.6	1	193.6	0.4389
Type of school (B)	714.025	1	714.025	1.6189
Interaction (A×B)	235.225	1	235.225	0.53333
Within	68803.55	156	441.0484	
Total	69946.40	159(N-1)		

Hypothesis 1

"There is no significant difference between male and female teachers working in higher educational institutes on the scores of attitude towards ICT"

It may be observed from **Table 1** that the F ratio (F=0.4389) for the difference between the male and female teachers on the scores of attitude towards ICT was not found to be significant even at .05 level of confidence. It clearly indicates that these two groups do not differ significantly on attitude towards ICT. Therefore, the null hypothesis viz, **"there is no significant difference between male and female teachers working in higher educational institutes on the scores of attitude towards ICT**" could not be rejected. Hence, it may be concluded that male and female teachers have the same or nearly same attitude towards ICT. They use the given facilities and even wishes to improve their skills for better use of ICT resources. Compulsion of uses and techno friendly educational setup as boosted the acceptance and interest in ICT for teachers.

Hypothesis 2

"There is no significant difference between teachers working in government and private higher educational institutes on the scores of attitude towards ICT"

It may be observed from **Table 1** that the F- ratio (F=1.6189) for the difference between teachers working in government and private institute on the scores of attitude towards ICT was not found to be significant even at .05 level of confidence. It indicates that these two groups do not differ significantly on attitude towards ICT. Therefore, the null hypothesis viz**, "there is no significant difference between teachers working with government and private on the scores of attitude towards ICT"** could not be rejected. Hence, it may be concluded that government and private secondary school teachers have the same or nearly same attitude towards ICT. Teachers do take interest in ICT and various types of teaching learning tools available. Availability of online teaching learning material, power point presentations, videos, audios and other technology supported knowledge resources are in demand and popular among all teachers.

Hypothesis 3

"There is no significant interaction between type of institute and gender of the teachers on the scores of attitude towards ICT".

It may be observed from **Table 1** that the F ratio (F=0.53333) for the interaction between the gender of teachers and type of school on the scores of attitude towards ICT was not found to be statistically significant even at .05 level of confidence which indicates that there is no interaction between these two groups on attitude towards ICT. Therefore, the null hypothesis **"there is no significant interaction between type of institute and gender of the secondary school teachers on the scores of attitude towards ICT"** could not be rejected. Hence, it may be concluded that male and female teachers have no interaction with the teachers working in government and private with respect to attitude towards ICT that is, means of the subgroups do not differ significantly.

9. CONCLUSION:

In order to conclude we will try to proceed to synthesize from a general viewpoint the results obtained, taking into consideration the relevant aspects of the literature. The results provided by study suggest teachers are keen and taking interest in using ICT in their day to day class room settings. Their attitude towards ICT is positive and there is need to work on use of ICT and to motivate teachers towards the use of ICT. Teachers should be allowed to learn, to

attend refreshers related to ICT, to encourage, To be facilitate with required equipments and assistance. These possibilities can have an impact on student performance and achievement. Similarly wider availability of best practices and best course material in education, which can be shared by means of ICT, can foster better teaching and improved academic achievement of students.

The study also revealed that the capacity for using ICT for teaching in the colleges was low though the teachers were ready and equipped for uses. This indicates the low level of preparedness of institutes for ICT enabled teaching learning process in trms of availability of facilities and training and refresher of staff towards uses and new technologies.

The overall analysis suggests that successful ICT integration in education relates towards attitude of teachers. Just putting equipments and setup labs for ICT with the necessary items neither improves the quality of instruction nor creates more effective learning environments. However, embracing a broader vision and philosophy, institutes should revise present teaching programs, practices and resources, and ICT should be integrated into all levels of educational system in all kind of teaching and learning activities. Thus, "Teachers must receive adequate ongoing training, technology use must be matched to curriculum's philosophy and theory of learning, and adequate numbers of computers must be conveniently located within the classroom" (Al-Bataineh & Brooks (2003), p. 479). As also concluded by Kington, Harris and Leask (2002) "…it is not necessarily the technology that has to be innovative, but the approach to teaching and learning must be" (p. 35).

10. EDUCATIONAL IMPLICATIONS:

- It has been found that both male and female teachers have shown positive attitude towards ICT in private as well as government institutes, so the institutes should try to design curriculum in such a way that it provides scope for more effective implementation of the ICT in teaching learning.
- Another important finding of the study was that there is a positive and significant correlation between attitudes of teachers towards ICT. This implies that there is a need to develop ways and means to enhance the teachers' positive attitude towards ICT.
- ICT has vast potential in education but its effective use must be carefully tried out and planned by researchers and teachers who know what to do with it in the teaching-learning process. They have to determine what strategies are needed for certain learning situations and how learning processes can be enhanced using the technology.

REFERENCES:

1. Al-Bataineh, A., & Brooks, L. (2003). Challenges, advantages and disadvantages of instructional technology in the community college classroom. Community College Journal of Research and Practice, 27, 473-484.
2. Banerjee, S. &Behera, S.K. (2014). An investigation into the attitude of secondary school teachers towards ICTin Purulia district of west bengal, India, *Academic research Journals,* April,2(3),56-53.Retrieved May10,2014 at 12:30 p.m. from http://www.academicresearchjournals.org/IJARER/PDF%202014/ April/Banerjee%20and%20Behera.pdf
3. BECTA (2003). What the research says about using ICT in Maths. British Educational Communications and Technology Agency. Retrieved December 24, 2009 from http://partners.becta.org.uk/page_documents/research/wtrs_maths.pdf
4. Bottino, R. M. (2003),'ICT, national policies, and impact on schools and teachers' development' 'CRPIT '03: Proceedings of the 3.1 and 3.3 working groups conference on International federation for information processing', Australian Computer Society, Inc., Darlinghurst, Australia, Australia, 3-6.
5. Brannigan, N. 2010. "Enhancing Leadership Capacity in ICTs in Education through Technology Enabled Collaboration". Research Report-CS7035 Pedagogy for Technology Enhanced Learning, Retrieved from www.gesci.org on 08/01/2016.
6. Collis, B. (1989). Using information technology to create new educational situations.(Pp. 19). Paris: UNESCO International Congress on Education and Informatics
7. Daniels J.S. (2002) "Foreword" in Information and Communication Technology in Education–A Curriculum for Schools and Programme for Teacher Development. Paris:UNESCO.
8. Davis, N.E., & Tearle, P. (Eds.). (1999). A core curriculum for telematics in teacher training. Available: www.ex.ac.uk/telematics.T3/corecurr/tteach98.htm
9. Davis, N.E., & Tearle, P. (Eds.). (1999). A core curriculum for telematics in teacher training. Available: www.ex.ac.uk/telematics.T3/corecurr/tteach98.htm
10. DeCorte E (1990). Learning with new information technologies in schools: Perspectives from the psychology of learning and instruction. Journal of Computer Assisted Learning, 6, 69-87

11. Gurr, D. 2000. "School Principals and Information and Communication Technology". Paper presented at the International Conference 2000, Melbourne, Australia retrieved from http://technologysource.org/extra/243/document/2/
12. Hope, W. C., Kelley, B., and Kinard, B. 1999. "Perception of Training Need: Principals' Use of Computer Technology in the School Environment". In proceeding of Annual Conference of the Society for Information Technology and Teacher Education, San Antonio, TX, USA.
13. Kington, A., Harris, S., & Leask, M. (2002). Innovative practice using ICT in schools: findings in two case studies. Management in Education, 16 (1), 31-35.
14. Proceedings of National Conference on ICT in Education, Ministry of Education, Brunei.
15. Yuen, A.H.K., Law, N., and Wong, K.C. 2003. ICT Implementation and School Leadership: Case Studies of ICT Integration in Teaching and Learning. Journal of Educational Administration, vol. 41(2), 158-170.
16. Yusuf, M.O. (2005). Information and communication education: Analyzing the Nigerian national policy for information technology. International Education Journal Vol. 6 No. (3), Pp; 316-321.
17. Zhao, Y. & Cziko, G. A. (2001). Teacher adoption of technology: a perceptual control theory perspective. Journal of Technology and Teacher Education, Vol. 9, No. (1), Pp; 5-30.