Exploring The Impact Of Gender On Technology Use By The Teachers Of Professional Courses

Dr. NEETA SAHU

Guest Faculty,
Department of Education,
University of Allahabad
Allahabad, U.P. , India

Abstract

As an outcome of a study on use of technology by the teachers of professional courses as B.Ed. and Management, this paper presents some interesting results as the gender of the teachers does not influence the use of technology by them. It does not create any significant difference between means of technology usages by male and female teachers. The 't' value of the difference between means of male and female teachers of Education stream as well as male and female teachers of Management stream were found to be insignificant at 0.05 level.

 Key words:
Use of Technology, Gender, Professional Courses, Impact, Factors.

Today, technology has permeated every field of human life. Every day there is a new gadget or software that makes life easier. Making lives easier is not, however, the only role the technology plays in our life. In fact it is playing key role in making every aspect of life better. Similarly, in the field of education, technology has become a wonderful tool which is changing the traditional role of the stakeholders of the education. New information and communication technologies have not only assisted the teachers to play a role of technologically advanced teacher but these have helped the students at every level of learning.

Now, let's talk about educational technology. When technology is used in the educational settings or it is used for the betterment of teaching and learning process it is called educational technology. Educational technology includes hardware, software aspect of technology. Many educators use the term educational technology, instructional media and instructional technology interchangeably. **According to the Association for Educational Communications and Technology (1996),** one of the principal professional associations representing educational technologists, "Instructional technology is a complex, integrated process involving people, procedures, ideas, devices and organizations for analyzing problem, and devising, implementing evaluating and managing solutions to these problems in situations in which learning is purposive and controlled." Educational technology includes different technologies to provide teachers and students vast quantities of information in an easy accessible manner. Thus, educational technology pervades the whole teaching- learning process to make it meaningful for the teacher who teaches and the learner who learns and modifies his behavior for his own betterment and for the betterment of mankind. However, the use of technology is affected by number of factors, these factors may be individual or environmental. Gender has been found to be one of the factors which may affect the use of technology by the teachers of professional courses.

Emergence of the problem

Researchers have been interested in identifying the effects of gender on the use of technology. **Goktas (2012)** found significant relationship between the attitudes of physical education and sport students and pre- service teachers towards ICT and certain variables as gender, age, grade, computer instruction and computer ownership. **Jang and Tsai (2012)** found that gender had no influence on elementary teachers technology use. **Alrasheedi (2009)** examined the effect of gender and ICT training on teachers' attitude towards ICT and their use of ICT. He found that male teachers' mean attitude was slightly higher than female teachers.

Significance of the study

The study will provide an opportunity to identify the factors that affect use of technology by teachers. By knowing the factors and controlling them it will be possible to motivate teachers to increase the technology usage. Technology supported teaching – learning process will have positive effect on students' outcome. After knowing the influence of gender on technology use management as well as government can play an important role in organizing the required equipment and facilities for the teachers. Special treatment can be given to the teachers. Moreover the misconception regarding the influence of gender and supremacy of one gender can be removed.

Terms defined

Technology Use: In the present study use of technology refers to both hardware and software aspects of technology in teaching and research.

Teachers of Professional Courses: refer to the teachers of higher level of education belonging to the faculty of:

- Education
- Management

Gender: Gender refers to male and female teachers of professional courses.

Objectives of the study

The following objectives were formulated for the study—
- To find out the difference in the use of technology between male and female teachers of professional courses.
- To find out the difference in the use of technology between male and female teachers of Education stream.
- To find out the difference in the use of technology between male and female teachers of Management stream.

Hypotheses of the study

The following hypotheses were formulated for the study—
- There will be significant difference in the use of technology between male and female teachers of professional courses.

- There will be significant difference in the use of technology between male and female teachers of Education stream.
- There will be significant difference in the use of technology between male and female teachers of Management stream.

Methodology

In this study **ex-post facto research design** has been used. A two stage sampling procedure has been used for the selection of the institutions and teachers. In the first stage **systematic random sampling** has been used to select B.Ed. institutes, associated to University of Lucknow and Management institutes, affiliated to Uttar Pradesh Technical University or approved by All India Council for Technical Education. In the second stage, **cluster sampling** technique has been used to select teachers from selected B.Ed. and Management institutes situated in Lucknow city, Uttar Pradesh, India. Sample consisted of 100 teachers from 17 B.Ed institutes and 150 teachers from 20 Management institutes. Sample size was 250. The sample consisted of 39 male teachers and 61 female teachers of Education stream and 88 male teachers and 62 female teachers of Management stream. Total number of male teachers was 127 and total number of female teachers was 123.

Tool

As per requirement there was no readymade tool which the researcher could make use of, a scale to measure technology use of teachers and a personal data sheet to get the personal information of the teachers were constructed and standardized. Use of Technology Scale consisted of 45 items and five dimensions regarding use of technology. All the items were positive in nature. Each item was set against five- point scale— "Always", "Most of the time", "Sometimes", "Seldom", and "Never". 5,4,3,2,1, points were given in that order of positive items. An individual on an item could score maximum five points and minimum one point. Personal data sheet consisted of 14 items, items were open ended, bipolar items and multiple choice items.

Data Collection and Organization

Data were collected from the teachers of randomly selected B.Ed. and Management colleges. Filled up scales and data sheets were taken back and were analyzed carefully. After scoring the data a master sheet was prepared. Then data were organized variable wise. Scores of technology were arranged gender wise; where on the basis of their scores teachers were classified into male and female categories. Further these groups were compared on the basis of their scores to see the difference in their use of technology.

Statistical techniques

't' test was applied to compare the groups to find out the difference in their use of technology.

Level of significance

In the present study 0.05 level was taken as a significance criteria. If p> 0.05 then 't' values were taken insignificant and if p<0.05 then 't' values were significant.

Results

Results indicated that –

Table 01
Significance of Difference in the Use of Technology between
Male and Female and Teachers of Professional Courses

S.No.	Groups	No.	Mean	S.D.	t- value	Significance level
1	Male Teachers	127	138.74	33.89	0.64	
2	Female Teachers	123	136.01	33.57		p>0.05

There is no significant difference in the use of technology by male and female teachers of professional courses. Hence the null hypothesis is accepted. **(P>0.05)** (table 01).

Table 02
Significance of Difference in the Use of Technology between
Male and Female and Teachers of Education Stream

S.No.	Groups	No.	Mean	S.D.	t- value	Significance level
1	Male Teachers (Education)	39	123.05	40.40	1.43	p>0.05
2	Female Teachers (Education)	61	134.31	34.99		

There is no significant difference in the use of technology by the male and female teachers of Education stream. Hence, null hypothesis is accepted **(P>0.05)** (table 02).

Table 03
Significance of Difference in the Use of Technology between
Male and Female and Teachers of Management Stream

S.No.	Groups	No.	Mean	S.D.	t- value	Significance level
	Male Teachers (Management)	88	145.69	28.13	1.57	
	Female Teachers (Management)	62	137.69	32.31		p>0.05

There is no significant difference in the use of technology by the male and female teachers of Management stream. Hence, null hypothesis is accepted **(P>0.05)** (table 03).

EDUCATIONAL IMPLICATIONS

Results of the study imply that there is no difference in the use of technology by the teachers of professional courses in reference to the gender. Both the male and female teachers are using the technology similarly. Hence, there is no need to provide additional facilities or motivation to the teachers on the basis of gender to increase their technology usage.

Results indicated that no difference has been found in the use of technology by male and female teachers of Education stream, which shows gender does not affect their technology use. However, the mean of the use of technology by the female teachers is higher than use of technology of male teachers, yet it could not establish a significant difference between their technology usages. Hence, similar facilities and training should be provided to them and they should not be discriminated in their technology use.

Results implied that no difference has been found in the use of technology by the male and female teachers of Management stream too. Male and female teachers are using technology similarly without being influenced by the gender. Hence, no discrimination in teachers should be made on the basis of gender and they should be provided similar facilities and opportunities, for technology use.

SUGGESTIONS

Use of technology by male and female teachers is found to be similar, therefore, it is suggested that efforts should be made to maintain this situation. In our male dominated society there is a misconception that male are superior and are capable of accomplishing the tasks better than their female counterparts. This thinking is followed in the field of technology too. The results of the present study regarding the use of technology prove this misconception wrong. It is suggested that both male and female teachers should be considered equal. Similar availability of equipment, institutional support and motivation should be provided to both the teachers. Hence, no discrimination in the teachers should be made on the basis of the gender.

Male and female teachers of Education stream are using similar technology. Although there is no significant difference in the use of technology by male and female teachers, yet it can be suggested that male teachers need of more motivation to enhance the use of technology. They may be given some incentives in the form of some weightage to their performance.

Male and female teachers of Management stream are using similar technology. Therefore, they should be given similar facilities and motivation without any discrimination. It is suggested that equal opportunities and motivation should be provided to the teachers without any discrimination on the basis of gender.

References:

Alrasheedi, H. (2009). Information and Communication Technology (ICT): Effects of Gender and Training among Kuwait Teachers. Retrieved from http://www.eric.ed.gov/pdfs/ed513840.

Aggarwal, J. C. (1995). Essentials of Educational Technology: Teaching Learning   Innovations in Education. New Delhi, Vikas Publishing House.

Association For Educational Communications and Technology. (1996).”The Definition of Educational Technology. A Summary.”In Classic Writings on Instructional Technology, Ed. Donald P. Ely and Tjeerd Plomp. Englewood, Co. **In Encyclopaedia of Education**. (2003). (2nded). Vol (7) Guthrie, J. W. (Ed.) USA: Macmillan Reference.2513.

Gay, L. R. (1992). Educational Research Competencies for Analysis and Application. (4thed.). New York, Macmillan Publishing Company.

Goktas, Z. (2012). The Attitudes of Physical Education and Sport Students towards Information and Communication Technologies. Retrieved from http://www.eric.ed.gov/pdfs/ej955649**.**

Jang, S. J. and Tsai, M.F. (2012). Exploring the TPACK of Taiwanese Elementary Mathematics and Science Teachers with Respect to Use of Interactive Whiteboards. Retrieved from http://www.eric.ed.gov/pdfs/ej966977**.**

Kerlinger, F. N. (2004). Foundation of Behavioural Research. (2nded.). Delhi, Surjeet Publications.

Kumari, S. (2004). Increasing Role of Technology in Education. Delhi, Isha Books.

Mohanty, J. (2000). Current Trends in Higher Education. New Delhi, Deep Publication.

Singh, A. K. (1996). Tests, Measurements and Research Methods in Behavioural Sciences. New Delhi, Bharti Bhawan.

Siddiqui, M. H. (2007). Challenges of Educational Technology. New Delhi, APH Publishing Corporation.