



RELATIONSHIP BETWEEN TEACHER EFFECTIVENESS AND ATTITUDE TOWARDS DIGITAL PEDAGOGY OF SENIOR SECONDARY TEACHERS

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ABSTRACT Teaching is becoming one of the most challenging professions in the current era of digital teaching-learning Scenario. A digitally smart society requires digitally smart teachers who are able to manage the multi skilled demands of the curriculum. Changes are inevitable and therefore, a teacher is effective if he can use effective tools to promote students' motivation to learn and integrate technology into curriculum: Digital Pedagogy in an example. Digital pedagogy if used properly has the ability to enhance relationship between teachers and students. Highly effective teachers have high attitude towards its adaptation, use and application in teaching and learning process. Taking this into consideration the present study investigates relationship between teacher effectiveness and attitude towards digital pedagogy of senior secondary teachers. 90 senior secondary teachers of Meerut province were selected as sample for the present study. The findings of the study revealed that most of the senior secondary teachers have favourable and positive attitude towards Digital Pedagogy (DP). A positive relationship found between teacher effective and attitude towards DP. Teachers have no any significant different on the basis of their gender.

KEYWORDS : Digital Pedagogy (DP), Teacher's Effectiveness, Attitude

INTRODUCTION:

In the present era of globalization ICTs have brought widespread changes in education and society and the large scale of using technologies narrowed the universe. The new technology is challenging traditional practices both teaching and learning and reorienting how teachers and learners gain access of knowledge.

In ongoing situation, technically skilled professionals are in demands year after year. Teaching is becoming one of the most challenging professions in the current era, where knowledge is expanding rapidly. As new concepts of learning have valued, teachers are expected to facilitate learning and make it meaningful to the students rather than just provide knowledge. Teachers are the key to whether technology is used appropriately and effectively and also increases conversation and sharing between students and teachers. Current researches indicates that the use of technology during teaching and learning process is steadily increasing (Inan and Lowther 2010). Achieving the goal of meaningful technology integration does not depend solely on technology related factors (Ertmer 2005; Tondeur et al., 2008; Kimmons et al. 2015). Teacher's attitude plays a vital role in their classrooms. In this respect Cornu (1995) suggested that innovations in ICT offer very different opportunities and a need to design a new pedagogy: Pedagogical roles for teachers in a digital classroom as defined by Melanghlin and Olives (1999) includes "setting joint tasks, promoting self management techniques for students and scaffolding learning".

A digitally smart society requires digitally smart teachers who are able to manage the multi-skilled demands of the curriculum. In the present era of science and technology, the traditional teaching practices are not adequate enough to arouse interest among students nor they fulfill intellectual, psychological and emotional needs to the learners. But ICTs have brought widespread changes in all aspects. Now teachers should develop student centered teaching, serving as facilitators create personal relationships with them and stay updated their professional knowledge. Teachers must understand their role in technically oriented classrooms. For this teachers need a digital pedagogy. In simple term, "Digital pedagogy is to use technology to change teaching and learning in variety of ways. It provides teachers with the ability to meet new digital technologies and be able to use them effectively in their classrooms." Digital pedagogy is not only about using digital technologies for teaching and learning but rather approaching digital tools from a critical pedagogical perspective. It is as much about using digital tools thoughtfully as it is about deciding when not to use them and about paying attention to the impact of digital tools on learning.

Pedagogy demands innovative tools and conceptual approaches. It is intended to support adaptive and personalized learning and contributive to the design of new creative modes of learning, enrichment of learning experience and improvement of learning outcomes.

Digital pedagogy is relatively a new phenomenon and it has been the

educational researcher's forces.

Literature Review:

Ertmer & Offenbreit (2010) suggest that, to be able to fulfill the needs of current era and to facilitate meaningful learning, teachers must understand how to use technology to make teaching, learning process effective. It is the foremost objective and responsibility of teacher educators to prepare their pupil teachers to become effective teachers who are capable of integrating digital pedagogy in their classrooms.

Hsu et al. (2012) investigated "the effects of incorporating self-explanation principles into a digital tool facilitating learners' conceptual learning about light and shadow with 8-9 years old learners". They found a statistically significant difference in retention scores. Those learners who had paid more attention to the self explanation prompts tended to out perform those in the control group.

Milton and Vozzo (2013) define pedagogy as "teacher construction of knowledge through planning for learning which is based on problem society and higher ordered thinking skills". These skills help develop students' critical analysis, metacognition and reflective thinking. They suggest that teacher need to constantly improve their pedagogy to keep up with latest technology. They need to be creative and innovative with their instructional strategies.

Hess (2014) investigated "the impact of using e-readers and e-books in the classroom among 9-10 years old students." The e-books were used in daily teacher-led-guided reading groups which were replaced by traditional printed books. The study found a significant difference in reading assessment scores for the group using the e-readers scores improved for both male and female learners and the gap between males and females decreased.

Rebecca et al (2018) studied "the impact of a research practice partnership among nine collaborating schools and researchers in Auckland. The objectives were to define digital instruction in ways to improve learning process and achievement. The results of the present study indicate moderate to large effect sizes in writing and small effect sizes in reading and mathematics, increasing effects over time in reading and writing but not in mathematics. These outcomes are discussed in relation to features of the partnership as well as digital pedagogy.

Significance Of The Study:

Secondary education in India is constantly facing challenges of providing quality education to the students. In ongoing scenario teachers are facing many challenges and are trying to keep pace with the continued progress in teaching learning process, changes are inevitable and therefore, a teacher is effective enough, if he/she can use effective tools and techniques to promote students motivation to learn and integrate technology into curriculum. Digital pedagogy, if used properly has the ability to enhance relationship between teachers and students. Highly effective teachers have positive attitude towards its

adaptation, use and application in teaching learning process. The purpose of the present study was that how attitude towards digital pedagogy is related to teacher effectiveness and how it will motivate the teachers to develop positive attitude towards digital pedagogy in order to improve their performance and could help the schools to increase their ability to use technology for fostering student's interaction and collaboration.

Objectives Of The Study:

- The following objectives were determined for the present study:
1. To assess the degree of attitude towards digital pedagogy of senior secondary school teachers.
 2. To study the teachers effectiveness of senior secondary school teachers on the basis of gender.
 3. To study the relationship between teacher effectiveness and attitude towards digital pedagogy of senior secondary school teachers.

Hypotheses Of The Study:

- Following hypotheses were formulated for the present study:
1. There is no significant difference in teacher effectiveness of male and female senior secondary school teachers.
 2. There is no significant relationship between teacher effectiveness and attitude towards digital pedagogy of senior secondary school teachers.

Research Methodology:

Research Method:
Normative survey method was used for data collection.

Population And Sample:

In this study, all secondary school teachers working in state board were constituted as population. Sample of 90 teachers at senior secondary schools teachers of Meerut province were selected.

Tools Used:

- Teacher Effective Scale developed by Dr. Pramod Kumar and Prof. D.N.Mutha.
- Attitude Scale towards Digital Pedagogy developed by the Researcher herself.

RESULT OF THE STUDY:

Objective No.1:

To assess the degree of attitude towards digital pedagogy of senior secondary school teachers.

In order to find out the degree of attitude of senior secondary school teachers towards digital pedagogy, their obtained scores were divided into three groups: Favourable, moderate, unfavourable attitude towards digital pedagogy. Table-1 is showing distribution of teachers in each group and their percentage of attitude towards digital pedagogy:

Table-1 No. Of Senior Secondary School Teachers And Their Percentage Distribution On Attitude Towards Digital Pedagogy

Degree of Attitude	Score Limits	No. of Teachers	Percentage
Favourable	109 and above	47	52.22
Moderate	85-108	17	18.80
Unfavourable	84 and less	26	28.88

Table-2 Mean And S.D. On Attitude Towards Digital Pedagogy Scale

No.	Variable	Mean	S.D.
90	Attitude towards Digital Pedagogy	109.34	64.31

Table-1 showed that 52.22% of senior secondary school teachers are having favourable attitude towards DP. 28.88% are having unfavourable attitude and 18.80% are having moderate attitude towards DP.

Table 2 shown the mean scores on attitude towards DP scale which falls in the score limit of favourable degree of attitude, which again revealed that most of the teachers of secondary school teachers have favourable attitude towards DP.

Objective-2: To study the teacher effectiveness of senior secondary school teachers on the basis of gender.

Hypothesis-1: "There is no significant difference in teacher effectiveness of male and female senior secondary school teachers".

To find out significant difference in the teacher effectiveness of senior secondary teachers on the basis of their gender, independent sample t-test was conducted.

Table-3: Comparison Of Teacher Effectiveness Scores Of Male A& Female Senior Secondary School Teachers

Gender	N	Mean	SD	t
Male	58	369.98	86.013	0.420
Female	32	373.39	84.413	

Table-3 shows the means of male and female on teacher effectiveness are 369.98 and 373.39 and SD is 86.013 and 84.413 respectively. Calculated t-value found to be insignificant at any level. It reveals that gender has no effect on the teacher effectiveness of the senior secondary school teachers.

Thus, the null hypothesis, "there is no significant difference in the teacher effectiveness of male and female senior secondary teachers" is accepted.

Objective-3: To study the relationship between teacher effectiveness and attitude towards digital pedagogy of senior secondary school teachers.

Hypothesis-2: "There is no significant relationship between teacher effectiveness and attitude towards digital pedagogy of senior secondary school teachers".

To find out the relationship between teacher effectiveness and attitude towards DP person product moment correlation was employed. Table 4 is showing the results:

Table-4 Relationship Of Teacher Effectiveness Of Senior Secondary School Teachers And Their Attitude Towards DP

Variable	Unstad.		Stand	t	r
	B	Std. Error			
Teacher Effectiveness	352.101	8.113	0.130	42.114	0.130*
Attitude	0.169	.062		2.612*	

* Significant at .01 level
Table 4 calculated r value .130 revealed that teacher effectiveness and attitude to DP were significantly correlated but of low magnitude. Thus, the null hypothesis 2 "there is no significant relationship between teacher effectiveness and attitude towards digital pedagogy of senior secondary school teachers" is rejected.

Findings Of The Study:

1. Out of total sample 52.22% of senior secondary teachers have positive attitude towards DP, 28.88% teachers have unfavorable attitude towards DP and 18.80% teachers have moderate attitude towards digital pedagogy.
2. Male and female senior secondary teachers have no significant difference on teacher's effectiveness on the basis of their gender.
3. r value (.130; p<0.01) revealed positive and significant relationship between teachers effectiveness and attitude towards digital pedagogy. Though the relationship is weak but positive towards DP of senior towards teachers.

CONCLUSIONS OF THE STUDY:

On the basis of findings most of the senior secondary teachers have positive and favourable attitude towards digital pedagogy. Gender has no effective on the performance of teachers. Both male and female teachers are equally effective. Attitude towards digital pedagogy and teacher effectiveness found to be significant and positively correlated. The teachers who have favourable attitude towards DP are more effective in their performance.

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