



ATTITUDE OF SECONDARY SCHOOL TEACHERS TOWARDS E-LEARNING IN RELATION TO THEIR SELF-EFFICACY

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Abstract: The increasing technology advancements have caused significant changes in education, from of the old Gurukul institution to the contemporary school. The educational procedures will undoubtedly have been through significant modification when the schooling institution does. The broad aim of the present study was to investigate an empirical-based examination of the relationship among attitude of secondary school teachers towards E-learning in relation to their Self-efficacy. The objectives of the study were to ascertain if there exists any relationship between gender, locality, type of school and between Attitude towards E-learning and Self-efficacy. The present study aimed to investigate the Teachers' attitude towards E-learning in relation to their Self-Efficacy. The study was carried out on a sample of 200 teachers from government and private secondary schools situated in Meerut, Uttar Pradesh. 100 teachers were selected from government schools and 100 from the schools that are managed privately. The data were collected by using Self-efficacy tool by Dr Vishal Sood and Ms. Sapna Sen and a self-made E-learning tool. The findings revealed that no gender difference existed in attitude as well as perceived Self-efficacy of secondary school teachers. The teachers working in private schools were found to be having significantly favourable attitude towards E-learning and high level of perceived Self-efficacy than those working in government schools. It was also found that teachers with high level of Self-efficacy have favourable attitude towards E-learning than those with low level of Self-efficacy. On the basis of the findings of the study it is suggested that efforts should be made by the authorities to provide Pre-service as well as In-service training to teachers to enhance their skills in E-learning so that they develop a positive outlook towards using E-learning in their classrooms.

Keywords: teachers' attitude, E-learning, Self-efficacy, Secondary School Teachers.

INTRODUCTION

Teachers are essential to the successful integration of new technologies in the classroom because of the rapidly expanding use of digital technology in schools. The acceptance and incorporation of technology have indeed been connected to teachers' attitudes and opinions about it. Self-efficacy, which would be widely described as a strong religion in their ability to influence or attain particular outcomes, is a critical element of these attitudes. An important topic of research has been focused on the relationship among teacher beliefs and subsequent E-learning integration, especially in light of the possible educational benefits of technology use, including such individualised learning and correlations to positive student performance [1-5].

Self-efficacy has a significant influence in the acceptability and adoption of technology within the classroom because it is closely related to attitudes regarding competence as well as the usefulness and usefulness of devices. Self-efficacy examines the intricate interplay of cognitive ideas, environment, abilities, emotions, and behaviour as a key tenet of social cognition. It is regarded as essential to a person's capacity for change, affecting decisions about novel situations or abilities, such as using the classroom's technology. Achievement is correlated with Self-efficacy, which has also been favourably correlated with accomplishment results, self-regulation, and cognitive learning techniques. Additionally, greater persistence with new tasks has been associated with higher levels of Self-efficacy [6-9].

Self-efficacy concentrates on a person's religious beliefs about their proven performance for a specific task that has not yet been completed in a specific situation, in contrast to related notions like self-concept or self-esteem. A person with a strong sense of self-esteem is more likely to be inspired and put forth more effort when confronted with new difficulties and tasks, especially if they believe success is attainable. There could be delays as far as how rapidly new Self-efficacy converts into altered self-efficacy when it comes to the relationship among Self-efficacy and altered attitudes or success in particular domains. In order to explore the nature of Self-efficacy shifts over time, long term studies (like the one used for this inquiry) are advantageous [10-14].

Mastery (or active/actual encounters), modelling (subjective thoughts and feelings), teaching (persuasion techniques), and physiological responses are the four basic sources of knowledge that affect Self-efficacy judgments. The most significant source of knowledge for the growth of Self-efficacy is benefits, with achievement typically increasing Self-efficacy and failure generally diminishing it. The purpose of this study was to determine whether Self-efficacy was among the most important sources of data for determining a teacher's level of effectiveness in the use of mobile technology [15-16].

Online Self-efficacy, device-specific efficacy, and classroom technology integration confidence are a few of the different domains that technological Self-efficacy can be broken down into. Enactive mastery has a similar impact on self-efficacies associated with technology as it does in various domains. Authors agree because when tackling the incorporation of technologies in the classroom, a critical factor that needs to be taken into account is technology Self-efficacy. The confidence that comes from "little victories" and giving teachers time to investigate new technologies are crucial components for developing technological Self-efficacy [17-28].



Fig 1. Self-efficacy in E-learning

OVERVIEW OF THE RELATED LITERATURE

As per the reviews and studies done by researcher, she has found that: E-learning in Education sector is getting affected by teacher's attitude around the globe and not only in India. One of the main reasons for the downfall of E-learning in education sector is lack of infrastructure in secondary schools and support of schools towards E-learning culture. Negative teacher's attitude towards E-learning has also caused a serious damage to both academic performance of students and the development of education system in India. On the other hand, the researcher has not found the studies which talked about the difference between the attitude of male and female teachers of secondary school towards E-learning and also teachers' attitudes on the use of E-learning in the arts and science stream.

OBJECTIVES

- To assess the attitude towards E-learning of Secondary School Teachers on the basis of gender, locality and type of school.
- To assess the Self-efficacy of Secondary School Teachers with gender, locality and type of school.
- To study the relationship of attitude towards E-learning with Self-efficacy among Secondary School Teachers.

HYPOTHESES

All the hypotheses were formulated in null form for testing as elucidated below:

H₀₁: There will be no significant difference between male and female teachers with respect to attitude towards E-learning.

H₀₂: There will be no significant difference between government and private school teachers with respect to attitude towards E-learning.

H₀₃: There will be no significant difference between rural and urban teachers with respect to attitude towards E-learning.

H₀₄: There will be no significant difference between Secondary School Teachers' Self-efficacy with the male and female teachers.

H₀₅: There will be no significant difference between Secondary School Teachers' Self-efficacy with urban and rural localities of the school.

H₀₆: There will be no significant difference between Secondary School Teachers' Self-efficacy with government and private schools.

H₀₇: There will be no relationship between attitude towards E-learning with Self-efficacy among school teachers.

PARTICIPANTS OF THE STUDY

In the present study, the researcher has used random sampling method, for targeting the teachers of class 9th and 10th. Researcher will collect the data from Government and Private secondary schools of Meerut district, Uttar Pradesh only

The present study was delimited to the 200 (100 male and 100 female) Secondary Teachers of government and private schools from both urban and rural areas of Meerut, U.P.

TOOLS USED

In the present study, the researcher has used two tools: **Attitude towards E-learning and Teacher Self-efficacy**.

The researcher has developed one tool as per the requirement of the study on "Attitude towards E-learning".

- **Attitude towards E-learning Scale by the Researcher (2022)**

Attitude towards E-learning tool by researcher (2022) was used to assess attitude towards E-learning among Secondary School Teachers.

Based on the review of related literature, the researcher came across a tool on attitude towards E-learning by Dimple Rani (2008) which was administered on students but the researcher's present study was to assess the secondary school teachers'

attitude towards E-learning. So, she has used a self-made tool in order to perform her study. The scale has 30 items and was prepared by keeping in mind the three major areas, viz., 1. E-learning interest, 2. Usefulness, 3. "Ease of E-learning".

- **Teacher Self-efficacy Scale by Dr. Vishal Sood and Sapna Sen (2016)**

The scale consists of 56 statements which deals with personal characteristics and qualities of a teacher. The scale has five response alternatives, viz. Always True, Mostly True, Sometimes True, Rarely True and Never True.

The author has discussed that efficacious teachers create classroom climates in which academic rigour and intellectual challenge are accompanied by the emotional support and encouragement necessary to meet that challenge and achieve academic excellence. Teacher efficacy includes two dimensions i.e., personal teaching efficacy and general teaching efficacy.

TECHNIQUES OF DATA-ANALYSIS

Data was collected using questionnaire tools. Descriptive statistics was used for the interpretation of the scores in relation to the objectives stated and hypotheses formulated.

STATISTICAL ANALYSIS

't' test and co-relation test was done to find differences if any in Teacher's attitude and Self-efficacy in relation to gender, locality and type of school.

RESULTS AND DISCUSSION

Assessment of Attitude Towards E-Learning of Secondary School Teachers.

Objective 1: To assess the attitude towards E-learning of Secondary School Teachers on the basis of gender, locality, and types of school.

The mean and standard deviation values of attitude towards E-learning scores were calculated for the entire sample. Based on mean and standard deviation of attitude towards E-learning Secondary School Teachers were divided into different group's namely high, average, and low level of attitude towards E-learning by using normal probability curve method. The various level of attitude towards E-learning of Secondary School Teachers was categorized by using $M \pm 1\sigma$. The value range and interpretation of data are given below in table 1

Table 1

Level of Attitude Towards E-Learning of Secondary School Teachers

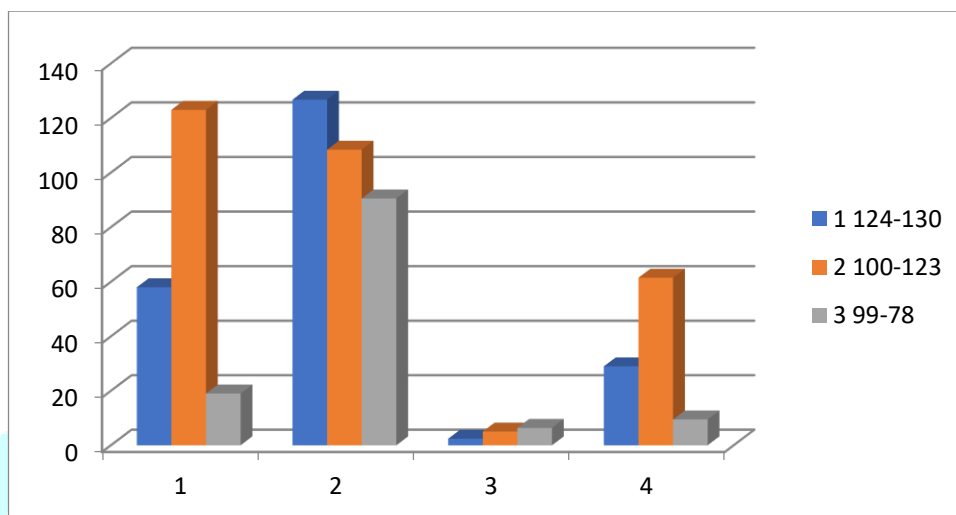
Norms	Score Range Limit	Category	Level of Attitude
M+1σ	Greater than 112+11.7	124-130	High Attitude
Between M±1σ	Between 112+11.7 to 112-11.7	123-100	Average Attitude
M-1σ	Less than 100	99-0	Low Attitude

To Assess the Level of Attitude of Secondary School Teacher's towards E-Learning:

The various level of attitude of Secondary School Teachers towards E-learning are presented in table 2

Table 2**Various Level of attitude of Secondary School Teachers towards E-learning**

Sr. No	Score Range	N	M	SD	%	Level
1	124-130	58	126.72	2.4	29	High Attitude
2	100-123	123	108.4	5.05	61.5	Average Attitude
3	99-78	19	90.52	6.4	9.5	Low Attitude

**Fig 2: Various Level of attitude of Secondary School Teachers towards E-learning**

It is clear from table 2 that among 200 secondary teachers, 29 % (N=58) of Secondary School Teachers have more favourable attitude (M=126.72), 61.5 % (N=123) of Secondary School Teachers have favourable attitude (M=108.4) and 9.5 % (N=19) of Secondary School Teachers have unfavourable attitude (M=90.52) towards E-learning.

Objective 2: To assess the Self-efficacy of Secondary School Teachers with gender, locality, and types of school.

The various level of self-efficacy of Secondary School Teachers are presented in table 3

Table 3**Various Level of self-efficacy of Secondary School Teachers**

Sr. No	Score Range	N	M	SD	%	Level
1	244-275	38	256.36	7.9	19	High Self-Efficacy
2	166-243	150	202.5	20.6	75	Average Self-Efficacy
3	118-165	12	136.6	2.5	6	Low Self-Efficacy

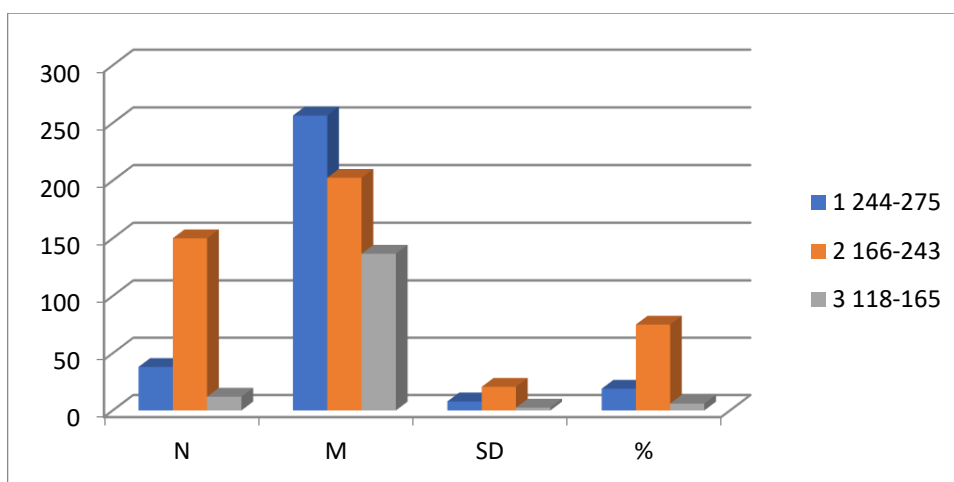


Fig 3: Various Level of self-efficacy of Secondary School Teachers

It is revealed from table 3 that among 200 Secondary School Teachers 19 % (N=38) of Secondary School Teachers have Self-Efficacy, (M= 256.36), 75 % (N=150) of Secondary School Teachers have Self-Efficacy, (M=202.5) and 6 % (N=12) of Secondary School Teachers have Self-Efficacy, (M=136.6).

To Assess the Self-Efficacy among Secondary School Teachers

The self-efficacy among Secondary School Teachers scores obtained and analyzed. The mean and standard deviation of whole sample and different groups are presented in table 4

Table 4
Means and standard deviation of secondary school teacher's self-efficacy of the whole sample and different groups

Variable	Sub Variable	N	Mean	SD
Total	Whole sample	200	205	39.3
Gender	Male	100	205	17.5
	Female	100	203	13.2
Locality	Urban	100	227	14.8
	Rural	100	185	12.8
Types of School	Government	100	190	21.03
	Private	100	230	20.4

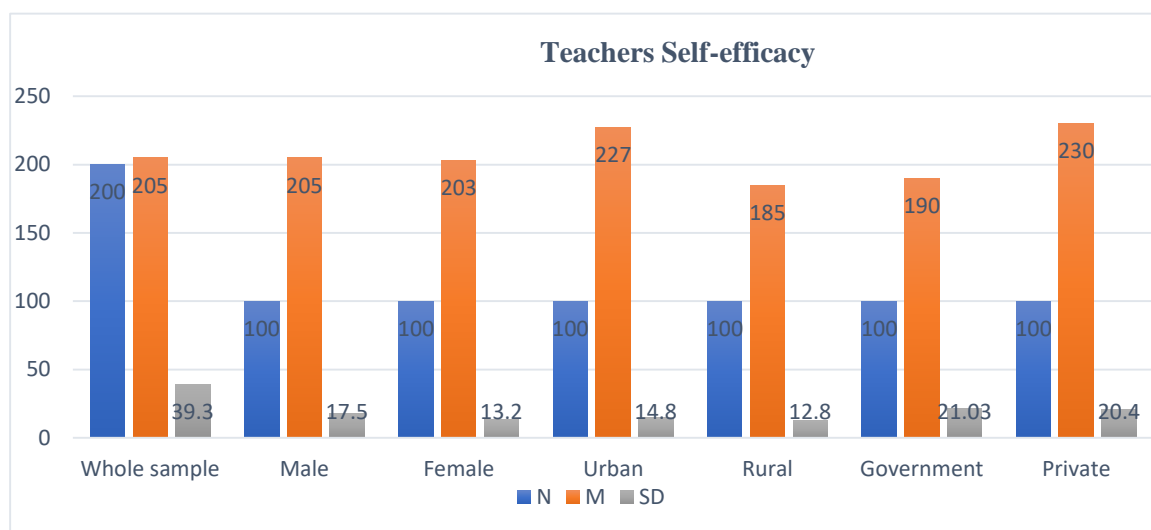


Figure 4: Secondary school teacher's self-efficacy of the whole sample and different groups graphs

It is show from table 4 that the mean value of whole sample (N=200) is 205 and standard deviation is 39.3. Among the different groups, male Secondary School Teachers (N=100) have more favorable self-efficacy mean score is 205 and SD is 17.5 than female Secondary School Teachers (N=100) mean score 203 and SD is 13.2. Urban Secondary School Teachers (N=100) have more self-efficacy mean score is 227 and SD is 14.8 than rural Secondary School Teachers (N=100) mean score 185 and SD is 12.8. Private Secondary School Teachers (N=100) have more self-efficacy mean score is 190 and SD is 21.03 than government Secondary School Teachers (N=100) mean score 230 and SD is 20.4.

Objective 3: To study the relationship of attitude towards E-learning with Self-efficacy among Secondary School Teachers.

In this section researcher analyze correlation 'r' between teacher's Self-efficacy and attitude towards E-learning in secondary schools of Meerut division Uttar Pradesh. The results are presented in following table 5.

Table 5

Means and correlation (r) between Self-efficacy and attitude towards E-learning of Secondary School Teachers

Variable	N	Mean
Self -efficacy	100	205
Attitude towards E-learning	100	112

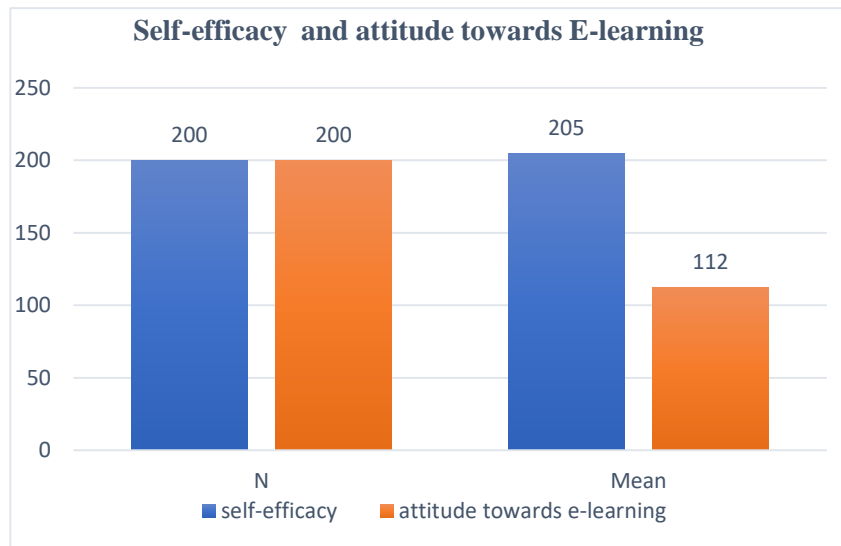


Figure 5: Means and correlation (r) between Self-efficacy and attitude towards E-learning of Secondary School Teachers

FINDINGS FROM THE STUDY

- There is significant difference between male and female Secondary School Teachers with respect to attitude towards E-learning
- There is significant difference between urban and rural Secondary School Teachers with respect to attitude towards E-learning
- There is significant difference between government and private Secondary School Teachers with respect to attitude towards E-learning
- There is no significant difference between Secondary School Teachers Self-efficacy with the male and female teachers
- There is significant difference between Secondary School Teachers Self-efficacy with the urban and rural localities of school
- There is significant difference between Secondary School Teachers' Self-efficacy with government and private schools
- There is no relationship between attitude towards E-learning with Self-efficacy of Secondary School Teachers

CONCLUSION

First, the study discovered that the majority of teachers have a high level of self-efficacy. Secondary school instructors are eager to take on and complete responsibilities. The findings are consistent with those of Goulao (2014), who discovered that respondents exhibit a high level of self-efficacy. The survey also discovered that the majority of instructors have favourable views towards the incorporation of E-learning in teaching and learning. The finding supports Eickelmann and Vennemann's (2017) discovery that teacher typologies of attitudes towards and ideas about E-learning in teaching and learning are corroborated by data on computer used in schools. Similarly, it agrees with Mwila (2018) that both male and female teachers possessed positive attitudes towards incorporating E-learning into their teaching process.

However, it was discovered that there is actually a significant difference in attitudes towards the integration of E-learning in teaching and learning between male and female teachers, which contradicts Mwila's (2018) finding.

Finally, there is no statistically significant relationship between Self-efficacy and teachers' attitudes towards E-learning integration in teaching and learning. According to Hickson (2016), there is no statistically significant association between teacher self-efficacy and capacity to integrate E-learning in the classroom. However, it contradicts the findings of Gbemu, Sarfo,

Adentwi, and Aklassu-Ganan's (2020) study, which revealed that teacher educators' lack of belief in their capacity to use E-learning to teach resulted in them not using these tools in their teaching.

The debate suggests that basic school instructors would exert energy in their work due to their high degree of self-efficacy. More importantly, given the resources, skills, and knowledge of its use, they are more likely to integrate E-learning in teaching and learning. Given this conclusion, men instructors are more inclined to do so than female ones. Finally, it is possible to conclude that teacher' positive attitudes towards the incorporation of E-learning in teaching and learning are unaffected by their high level of self-efficacy.

RECOMMENDATIONS FOR FUTURE RESEARCH

Based on our findings, we advocate that policymakers provide teachers with the necessary teaching and learning resources in order for E-learning to be successfully integrated into teaching and learning. Furthermore, stakeholders must provide periodic E-learning workshops for in-service teachers through the Ministry of Education to keep them up to date on current E-learning technologies in teaching and learning. Cooperating organisations, such as telecommunications providers, must direct their assistance to community schools in order to assist instructors in the field of E-learning and its application. They should guarantee the establishment of suitably resourced E-learning laboratories, especially in remote places, to ensure consistency in the study and use of E-learning. Finally, the E-learning curriculum for preservice teacher education must be updated to place a stronger emphasis on skill development.

SUGGESTIONS FOR FURTHER RESEARCH RELATED TO ATTITUDE OF SECONDARY SCHOOL TEACHERS TOWARDS E-LEARNING IN RELATION TO THEIR SELF-EFFICACY

Since the topic is very new to us, the upcoming researchers will be having many opportunities to do detailed research in this area and to expand it in a vast level and even in a detailed form.

- As the study was limited to Meerut, the researchers can compare between two districts or can take another district.
- The study can be expanded in terms of comparing other State Boards; rural and urban areas and increasing sample size.
- Take any other variables that can show the impact of the Attitude of Secondary School Teachers towards E-learning in Relation to their Self-efficacy.
- Change of population by taking teachers and students; parents and students and teachers and parents.
- As the present study was focused on secondary school teachers only so, a similar study can be done on college/University teachers also.

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