EUROPEAN ACADEMIC RESEARCH
Vol. VIII, Issue 3/ June 2020

Impact Factor: 3.4546 (UIF)
DRJI Value: 5.9 (B+)

ISSN 2286-4822
www.euacademic.org

Attitude of Senior Secondary School Teachers towards E-Learning

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Abstract

The article is outcome of the study conducted to examine senior secondary school teachers' attitude towards e-learning. A scale was developed to assess the attitude towards e-learning. It was administered to 120 senior secondary school teachers of 3 districts of the State of Haryana.

The senior secondary school teachers were of different subjects and were picked up through random sampling. Only 39% of teachers were found to be having positive attitude towards e-learning. The second most important finding was that the Teachers of unaided senior secondary schools showed more approving attitude compared to Government Aided and purely Government run school teachers. The study is going to explore new paradigm in the field of e-learning and its role in future ahead.

Keywords: Senior Secondary School Teachers, e-learning, Haryana

1. INTRODUCTION

A learning system supported formalised teaching but with the assistance of electronic resources is understood as E-learning. While teaching is often based in or out of the school rooms, the utilization of computers and therefore the Internet forms the main component of E-learning. E-learning also can be termed as a network enabled transfer of skills and knowledge, and therefore the delivery of education is

formed to an outsized number of recipients at the same or different times. Earlier, it had been not accepted wholeheartedly because it was assumed that this technique lacked the human element required in learning.

The schools which use E-learning technologies are a step before those which still have the normal approach towards learning. No doubt, it's equally important to require forward the concept of non-electronic teaching with the assistance of books and lectures, but the importance and effectiveness of technology-based learning cannot be taken lightly or ignored completely. It is believed that the human brain can easily remember and relate to what's seen and heard via moving pictures or videos. It has also been found that visuals, aside from holding the eye of the scholar, also are retained by the brain for extended periods.

Involvement in e-learning is not going to mean that teachers will spend hours sitting ahead of computer screens; e-learning is not going to replace libraries, friends, colleagues and many of the existing social networks that contribute to a satisfying learning and teaching experience. The flexibility, availability and adaptability of the internet environment must serve the needs of both e-teachers and e-learners. Teachers are the learning and information architects of e-education and the experiences they have will enhance and challenge their e-teaching in the most unexpected ways. The e-teacher is surrounded by rapidly changing e-environments and technologies. The ability of teachers to communicate via the internet, accessing and publishing information is very diverse. It is not unusual to find teachers storing information, but to actually make the move towards e-teaching is the next brave step.

2. OBJECTIVES OF THE STUDY

2.1) To study the attitude of Senior Secondary School level teachers towards e-learning.
2.2) To study the attitudinal difference among Senior Secondary School level teachers with respect to their following demographic variables;

i. Gender
ii. Locale
iii. Subject of Teaching

iv. Qualification
v. Training in Computers
vi. Type of school
vii. Teaching Experience

3. HYPOTHESES

In pursuance of the objectives of the study, the following null hypotheses were formulated.

3.1.There is no significant difference in attitude towards e-learning among senior secondary schoolteachers with respect to their gender.

3.2. There is no significant difference in attitude towards e-learning among senior secondary school teachers with respect to their locale.

3.3. There is no significant difference in attitude towards e-learning among senior secondary school teachers with respect to their subject of teaching.

3.4. There is no significant difference in attitude towards e-learning among senior secondary school teachers with respect to their qualification.

3.5. There is no significant difference in attitude towards e-learning among senior secondary school teachers with respect to their training in computers.

3.6. There is no significant difference in attitude towards e-learning among senior secondary school teachers with respect to their type of school.

3.7. There is no significant difference in attitude towards e-learning among senior secondary school teachers with respect to their teaching experience.

4. METHODOLOGY OF THE STUDY

The present study employed survey method and is descriptive in nature.

5. SAMPLING PROCEDURE

5.1 Selection of schools

Stratified random sampling was used for the selection of senior secondry schools. There are 160 senior secondary schools in the Gurugram District. Out of 160 schools, 24 schools were selected for

the present study. i.e. 12 from rural and 12 from urban back ground representing the 3 categories namely Government, Aided and Unaided/private schools. 4 Government, 4 Aided and 4 unaided schools were selected from rural and urban areas respectively.

5.2 Selection of teachers:
A total number of 120 teachers were selected by using stratified random sampling technique. Here the units in the sample are proportional to their presence in the population. The population is divided into different strata by characteristics like type of school (such as government, aided and unaided.) And from each of these smaller homogenous groups falling in each strata, the investigator has drawn randomly a predetermined number of units. In addition to randomness, stratification introduces a senior secondary element of control as a means of increasing precision and representation. Here the stratification factors are gender, type of school and locale. As mentioned earlier 12 schools each from rural and urban area were selected for the research study which include 4 government, 4 aided and 4 unaided schools. 20 teachers from each type of school giving equal representation of male and female were selected for the study.

Thus, the sample comprises of ***60*** teachers from rural and 60 from urban area. Out of 120 teachers 60 male and 60 female teachers were taken up for the study.

6. TOOLS

An attitude scale was developed in the present study in order to find the attitude of senior secondary school teachers towards e-learning.

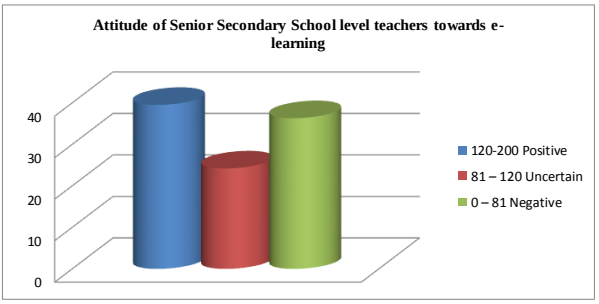
6.1 Attitude towards e-learning scale: To study the attitude of teachers about e-learning, the investigator developed attitude towards e-learning scale. This tool consists of 40 items - 22 positive items and 18 negative items. It is a 5 point rating scale adopting Likert's summative technique. The 5-point responses range from Strongly Agree (SA) Agree (A), Un Decided (UD), Disagree (D) and Strongly Disagree (SD).

7. ANALYSIS & INTERPRETATION

7.1 To find an answer for the research question 1, attitude of Senior Secondary School level teachers towards e-learning, the investigator analyzed the data collected through attitude scale, which is as follows:

Table 1: Levels of attitude of teachers towards e-learning

Class	Category	F	%
120 – 200	Positive	44	39.5
81 – 120	Uncertain	29	24.2
0 – 81	Negative	49	36.3



It is found that only 39.5% of the teachers showed a positive attitude and 24.2% of the teachers showed uncertainty in their attitude towards e-learning. 36.3% of teachers show negative attitude towards e-learning.

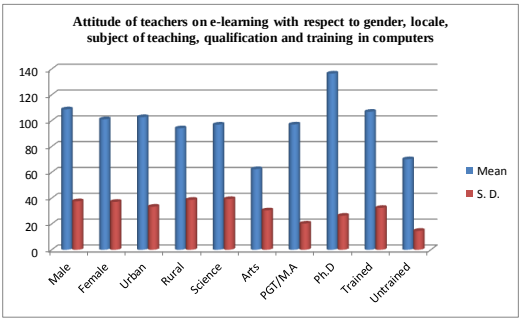
From the data it is very clear that majority of teachers have shown a negative and an uncertainty in their attitude towards e-learning. This may be because of the initial resistance of the teachers towards the usage of new technology.

7.2 Attitude of teachers on e-learning with respect to gender, locale, subject of teaching, qualification and training in computers.

To test the hypotheses 1 to 5, mean, standard deviation and t value were calculated and given in the table -2:

Table 2

VARIABLE	Groups	N	Mean	S. D.	t-value	Sig. Level
Gender	Male	60	108.73	37.55	1.553	.125
	Female	60	101.05	37.08		
Locale	Urban	60	102.73	33.34	3.613	.000
	Rural	60	94.05	38.69		
Subject of Teaching	Science	65	96.88	39.27	5.365	.000
	Arts	55	62.47	30.48		
Qualification	PGT/M.A	110	97.00	20.28	12.355	.000
	Ph.D	10	136.46	26.35		
Training in computers	Trained	90	106.87	32.41	3.559	.000
	Untrained	30	70.11	14.66		



From the analysis, it was found that there is a significant difference in the attitude of teachers towards e-learning with respect to locale, subject of teaching, their qualification and the training except the variable gender. In concurrence of the above finding, Sivakumar & Arunachalam (2012) also found in their study on Attitude towards E-Learning among Prospective Teachers that there is significant difference in the mean scores of attitude towards E-Learning among the Prospective Teachers with respect to their sex, residence, and those having computer at home.

It is also clear from the Table 2 that mean score of urban, science, post graduate and computer trained teachers were found to have higher favourable attitude when compared to rural, Arts, trained graduate and computer untrained teachers.

This may be because of the exposure and facilities available to them. E-facilities schedule reveals that the urban teachers are having more opportunities and exposed to the e-learning compared to the rural teachers. Urban schools provide more computer access to teachers. Internet connectivity is also readily available in urban schools compared to the rural schools. As they are aware of usage and

were using in their daily routine, it helped in developing a favourable attitude among them. This may be one of the reasons for the favourable attitude of urban teachers.

7.3 Attitude of teachers on e-learning with respect to type of school

To test hypothesis 6 & 7, one way ANOVA was used. The Mean, S.D. and F-value are given in the tables -3given below:

Table 3: Mean, S.D. of the teacher's attitude with respect to Type of school

Type of school	N	Mean	Std. Deviation
Govt.	40	108.35	30.59
Aided	40	104.95	37.18
Unaided	40	111.88	45.53
Total	120	108.39	38.04

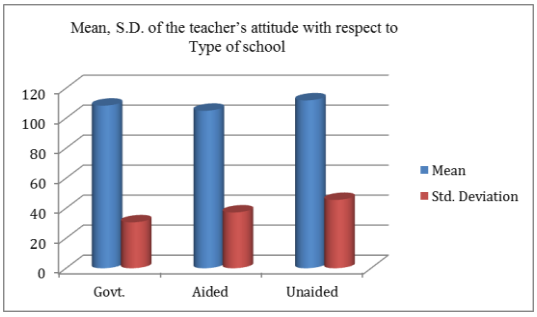


Table 4 Results of one way ANOVA for Type of school

Source of Variation	Sum of squares	Df	Mean Square	F-Value	Significant
Between groups	958.217	2	479.608	0.318	0.701
Within groups	172255.4	117	1453.721		
Total	1722214.6	119			

The F-value from the Table 4, is 0.318 is found to be not significant at 0.05 level. It indicates that there is no significant difference in the attitude of senior secondary teachers with regard to the type of school (Govt. aided, unaided). So it can be concluded that there is no significant difference is attitude towards e-learning with respect to type of school. Therefore, the null hypothesis Ho6 is accepted.

7.4 Attitude of teachers on e-learning with respect to the teaching experience.

The results of one-way ANOVA used for finding out the difference in the attitude of teachers on e-learning with respect to the teaching experience are given in the following tables.

Table 5: Mean, standard deviation of the teachers' attitude with respect to their teaching experience.

Teaching experience	N	Mean	Std. Deviation
Between 5	9	141.89	35.89
6 – 10	40	119.95	40.12
11 – 15	35	97.91	83.89
16 – 20	26	95.96	30.56
20+	10	101.00	37.86

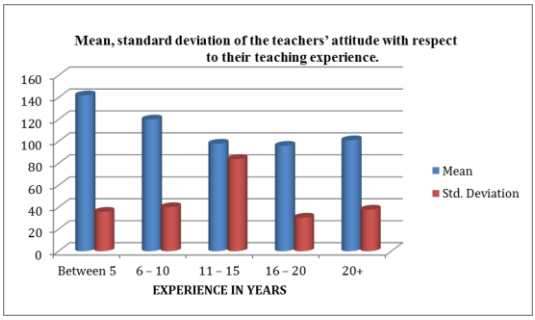


Table 6 : Results of One Way ANOVA for teaching experience

Source of variation	Sum of Square	df	Mean Square	F-value	Significance
Groups	23848.098	4	5962.025	4.312	.002
With Groups	148366.5	115	1290.143		
Total	172214.6	119			

The F-value from the Table 6 is found to be 4.312, it is found to be significant 0.05 levels. It indicates that there is a significant difference among the teachers attitude with respect to their teaching experience. It indicates teachers with below 5 years of experience (m=131.89) have better attitude compared to the other categories of teachers namely teachers with 6-10 years (mean = 119.95), 11-15years (m= 97.91), 16 – 20 years (m=95.96) and above 20 years (m=101.00). From the table 6, the F- value (4.312) is found to be significant and

hence the null hypothesis Ho7 is rejected. The reason for this attitudinal difference that is having below 5 years of experience is that they are fresh graduates with better computer awareness than the experienced teachers.

Major findings of the study

1. Only 39% of teachers were having positive attitude towards e-learning. 24% of teachers were uncertain on e-learning. 37% of teachers were found to have negative attitude towards e-learning.
2. Overall analysis of attitude towards e-learning of teachers revealed that there exists significant difference in locale of school, type of school, teaching experience, subject of teaching, qualification and training in computers.
3. Unaided teachers showed more favourable attitude (Mean value = 111.88) compared to Aided (Mean value = 104.95) and Government (Mean value = 108.35) school teachers.
4. Urban teachers have better attitude (Mean value 120.73) compared to rural (Mean value 96.05) teachers.
5. With regard to the gender, male teachers (Mean value 113.73) have a better attitude compared to female teachers (Mean value 103.05).
6. Teachers having higher qualification i.e. Ph.D a better attitude (Mean value 136.46) than /M.A./PGTs (Mean value 97).
7. It was found that science teachers have a better attitude (Mean value = 96.88) than the arts teachers (Mean value = 62.47).
8. It is also found that most of the schools do not have proper facilities to carry out e-learning effectively. Almost 80% teachers have attended training programme and were of the opinion that training programme was adequate to only some extent to implement e-learning in schools. So majority of teachers stressed a need for further training programme in the areas of e- learning, internet etc.

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