A STUDY ON THE TEACHERS' ATTITUDE TOWARDS E-LEARNING IN WEST BENGAL, INDIA IN POST COVID 19 ERA

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Abstract

This paper deals with the exclusiveness of the role of teachers towards e-learning in a post Covid -19 scenario in West Bengal, India. A huge transformation of classroom education has occurred from chalk and duster to the computers.In an era of Net Neutrality, internet or networking is the new source of imparting education. The study mainly focusses on the attitude of the teachers towards e-learning and it was scaled over hundred teachers through TeLRa(four-point)scale test.The main findings of the study are as follows: i) It is found that only 43.15% of teachers in West Bengalhad positive attitude towards e-learning. ii)urban teachers have better favorable attitude compared to rural teachers. iii)With regard to the gender, male teachers have a better attitude compared to female teachers. iv) Teachers of unaided schools[private] showed more favorable attitude compared to Aided and Government school teachers.v) It was found that science teachers have a highly favorable attitude than the arts teachers. vi) Post Graduate Teachers have a better favorable attitude than Trained Graduate Teachers. In a multi-lingual-socio-economic-cultural country like India E-learning is paving its way towards progressiveness.

Key Words: E-learning, teachers' attitude, pandemic, analysis and inference

INTRODUCTION:

Teachers are mainly seen to be associated with chalks, duster and a blackboard. And this has been theprocedure obtained for traditional teaching throughout the ages and is still continuing. E-learning orelectronic learning is a relatively new concept in a developing country like India. It is only in the recentfew years span that the e-learning has gained prevalence. A huge transformation from blackboards to computer screens have not been easy. It has involved computer literacy, technological knowhows, computers, smart phones or gadgets. The teacher student understanding and classroom study have also undergone a huge change. So, the other name of this huge transformation is E-learning.

The concept of digital learning was mostly evolved in the year 2002 - 2003. Digital education made life easier for both students and teachers. The E-learning industry now in India is a prolific one, witnessing a steady growth rate of 25 per cent year-on-year and is projected to be a $1.96 billion industry by 2021. With a network of more than 1.5 million schools and 18,000 higher education institutes, the market for digital education in India is enormous and dynamic.[1]

West Bengal is a state which has comparatively low involvement in e-learning methodology. There are various reasons like poverty, lack of computers or infrastructure in schools, lack of computer literacy, expensive higher education system, engagements with family occupation, a student being one of the earning members of the family and many others which make e-learning a difficult procedure to obtain by the students. The teachers are also suffering from obtaining this technology due to insufficient infrastructural needs, computer literacy, technical knowledge and many others.

Covid-19 pandemic has significantly disrupted the education sector which is a critical determinant of a country's economic future. A large number of Indian students both in India and abroad have suffered a major blow. This pandemic has transformed the centuries-old, chalk–talk teaching model to one driven by technology. This disruption in the delivery of education is pushing policymakers to figure out how to drive education making teachers and students in an inclusive e-learning environment and tackling the digital divide.[2] In West Bengal E-learning methodologies and training should be provided to the teachers and students to shorten this digital divide.

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[1]Kandhari,Monica.E-Learning Is Transforming The Face Of Educationin Indiahttp://www.businessworld.in/article/E-Learning-Is-Transforming-The-Face-Of-Education-In-India/01-12-2018-164717/retrieved May 27th,2020

[2]Chowdhury, Richa.COVID-19 Pandemic: Impact and strategies for education sector in Indiahttps://government.economictimes.indiatimes.com/news/education/covid-19-pandemic-impact-and-strategies-for-education-sector-in-india/75173099retrieved May 27th,2020

E-LEARNING

At first the question arises how to define E- learning? The IndiaTimes[3]describes this learning system as a system based on formal teaching learning process yet with the help of electronic resources. While teaching can be based in or out of the classrooms, the use of computers and the Internet are the major components of E-learning. E-learning can also be termed as a network enabled transfer of skills and knowledge where the delivery of education is made to a large number of recipients at the same or different times. In India with the rapid progress in technology and the advancement in learning systems, it is now embraced by the masses. The introduction of computers was the basis of this revolution and with the passage of time, facilitators and students getting used to smartphones, tablets and other devices have a dominant place in the classrooms and outside for learning.

LITERARY REVIEW

 Books are gradually getting replaced by electronic educational materials and knowledge are being processed through Internet and is made accessible for twenty-four hours anywhere. Biemans& Mulder (2008) in their research had found that the teacher's attitude towards e-learning can be attributed by their opinions about web-based activities, computer-assisted learning and the perceived added value of e-learning environments. Uschanov&Sutinen(2007) in their research had reported differences between teachers in terms of their experience in online instruction and their education in online instruction. Hence, it can be understood that E-learning is obtained very much differently in different socio- cultural-economic backgrounds.

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[3]Definition of 'E-learning'https://economictimes.indiatimes.com/definition/e-learningretrieved May 27th,2020

THE EVOLUTION OF E-TEACHERS

E-teachers are the new generation teachers who are capable to work in an internet environment in both regular and virtual class room situations. They will build new concepts of working using technological knowledge. E-teachers collaborate, collate, build and rediscover new learning communities and explore resources as they interact with information, materials and ideas of their students and colleagues. This is high time to find some answers to make e-teaching and e-learning much more viable in this new global educative scenario.

SIGNIFICANCE OF THE STUDY:

In a challenging post Covid-19 era this system of E-education would be the most viable way of imparting education. In this socially distant yet technologically intact environment E-education would be highly influencing this teaching learning process.[4] So it is very important to know the attitude of the teachers towards E-learning as they are the ones who would initiate this process. Both male and female teachers from three major districts North 24 Parganas, South 24 Parganas and Kolkatahad to undergo tests to validate their motivation towards E-learning.

OBJECTIVES

- To find out the teachers' attitude towards e-education.

- To analyze gender roles towards imparting e-learning.

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[4] Murthy T. Linga, Srishylam P.(2016) "*Attitude Towards E-Education Amongthe Teacher Educators*".International Journal of Innovative Research in Advanced Engineering (IJIRAE), vol 3, issue 12.

Greater Objectives of the test conducted:

- To study the significant difference between male and female educators' attitude towards the use of e-education in teaching.

- To study the significant difference between rural and urban educators' attitude towards the use of e-education in teaching.

- To study the significant difference between science and arts educators' attitude towards the use of e-education in teaching.

- To study the significant difference between Aided and Government school teachers and non-aided [private] educators' attitude towards the use of e-education in teaching.

- To study the significant difference between post-graduate and graduate teachers' attitude towards the use of e-education in teaching

NULL HYPOTHESES:

H0.1: There is no significant difference between male and female educators' attitude towards use the of e-education in teaching.

H0.2: There is no significant difference between rural and urban educators' attitude towards the use of e- education in teaching.

H0.3: There is no significant difference between arts and science teachers' attitude towards the use of e- education in teaching.

H0.4: There is no significant difference between PGT and TGT teachers' attitude towards the use of e- education in teaching.

H0.5: There is no significant difference between computer trained and untrained teachers' attitude towards the use of e- education in teaching.

H0.6: There is no significant difference between unaided and aided Government schools' teachers' attitude towards the use of e- education in teaching.

DELIMITATIONS OF THE STUDY

The present study has been delimited by the following conditions:

1. The teacher sample has been confined to only hundred secondary school teachers.
2. The sample has been taken from three selected districts of West Bengal.
3. The survey has been delimited to West Bengal only.

METHODOLOGY

Usage of Test of e-Learning Related Attitudes (TeLRA) scale has been fruitfully conductedover male and female teachers from three major districts North 24 Parganas, South 24 Parganas and Kolkata to judge their motivation towards E-learning. A questionnaire of thirty-six questions were being asked to hundred teachers of West Bengaland later evaluated based on their answers.TeLRA scale had been used earlier in Tanzanian Higher Learning Institutions. The purpose of this study was to develop and validate a Test of e-Learning Related Attitudes (TeLRA) scale in measuring the attitudinal difference of different teachers in the West Bengal scenario.[5]

TeLRA scale had four stages.The first theme was intended to measure teachers' general belief about e-learning. The second theme aimed to measure teachers' cognitive evaluation towards e-learning. The third construct aimed to measure teachers' cognitive information about e-learning. That is the knowledge they have about value of e-learning to education. The last threeconstructs were intended to examine teachers' affective evaluation about e-learning culminating in the fourth which measures their overall engagement with computers, interest in e-learning innovations as well as their future

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[5]Kisanga D. H. and Ireson G. (2016) "*Test of e-Learning Related Attitudes (TeLRA) scale: Development, reliability and validity study*" International Journal of Education and Development using Information and Communication Technology (IJEDICT), Vol. 12, Issue 1, pp. 20-36.

participation in e-learning. TeLRA scale consisted of four-point Likert's response format with degrees of agreement ranging from 1- strongly disagree, 2- disagree, 3- agree to 4- strongly agree.To study the attitudinal difference among school teachers the following; Gender, Locale, Stream ofTeaching, Qualification, Training inComputers were taken into considerationby the process of Stratified Random Sampling.[6]

TEST ANALYSIS:

ATTITUDE TOWARDS E-LEARNING IN PERCENTAGE IS CALCULATED OVER THE RESPONSES OF TEACHERS' OVER 36 QUESTIONS IN THE TELRA TEST.

OVERALL MEAN CALCULATION IN PERCENTAGE:

$\{(57\% * 25) + (68*10) + (24\%*40) +(50\%*25) /100\} = 43.15\%$

Testing of Hypothesis 1: There is no significant difference between male and female educators' attitude towards use the of e-education in teaching.

TABLE:1Mean, S.D. t, z, p value of teachers' attitude with respect to GENDER:

Variables	Category	N	Mean	SD	t-value	z value	P value	Significance at 0.05 level
GENDER	MALE	50	25	14.53	1.81	1.73	0.04	INSIGNIFICANT
	FEMALE	50	23	12.98		1.69		

degree of freedom: 10

From the table-1, it is found that the calculated 'p' value ('p'= 0.006 and .045) is less than the table value of 0.05 level of significance. Therefore, the result is non-significant. Hence, the H1 is not accepted, that is to say there is a significant difference between Male and Female teachers' attitude towards E-Learning.

Testing of Hypothesis 2: There is no significant difference between rural and urban educators' attitude towards the use of e- education in teaching.

[6]Murthy T. Linga, Srishylam P. (2016) "*Attitude Towards E-Education Amongthe Teacher Educators*".International Journal of Innovative Research in Advanced Engineering (IJIRAE), vol 3, issue 12.

Variables	Category	N	Mean	SD	t-value	z-value	p-value	Significance at 0.05 level
LOCALE	RURAL	67	34	19.3	1.75	1.70	0.04	INSIGNIFICANT
	URBAN	33	17	9.5		1.68		

TABLE 2 Mean, S.D., t, z, p value of teachers' attitude with respect to LOCALE:

degree of freedom: 15

From the table-2, it is found that the calculated 'p' value ('p'= 0.04) is less than the table value of 0.05 level of significance. Therefore, the result is insignificant. Hence, H2 is not accepted, which results in a difference between urban and rural teachers towards E-learning.

Testing of Hypothesis 3: There is no significant difference between arts and science teachers' attitude towards the use of e- education in teaching.

Variables	Category	N	Mean	SD	t-value	z-value	p-value	Significance at 0.05 level
STREAM	ARTS	75	38	21.6	1.72	1.71	0.04	INSIGNIFICANT
	SCIENCE	25	17	9.5		3.27		

TABLE 3: Mean, S.D. and t, z, p value of teachers' attitude with respect to STREAM:

degree of freedom: 20

From the table-3, it is found that the calculated 'p' value ('p'= 0.04) is less than the table value of 0.05 level of significance. Therefore, the result is insignificant. Hence, H3 is not accepted, which results in a significant difference between arts and science teachers towards E-learning.

Testing of Hypothesis 4:There is no significant difference between PGT and TGT teachers' attitude towards the use of e- education in teaching.

TABLE 4: Mean, S.D., t, z, p value of teachers' attitude with respect to QUALIFICATION:

Variables	Category	N	Mean	SD	t-value	z-value	p-value	Significance at 0.05 level
QUALIFICATION	TGT	56	28.5	16.16	1.72 1.72	1.70	0.04	INSIGNIFICANT
	PGT	23	12	6.63		1.65		

degree of freedom: 20

From the table-4, it is found that the calculated 'p' value ('p'= 0.04) is less than the table value of 0.05 level of significance. Therefore, the result is not significant. Hence, H4 is not accepted, which results in a significant difference between TGT and PGT teachers towards E-learning.

Testing of Hypothesis 5:There is no significant difference between computer trained and untrained teachers' attitude towards the use of e- education in teaching.

TABLE 5:Mean, S.D. and t value of teachers' attitude with respect to TRAINING IN COMPUTERS.

Variables	Category	N	Mean	SD	t-value	z value	P value	Significance at 0.05 level
TRAINING IN COMPUTERS	TRAINED	33	17	9.5	1.81	1.78	0.04	INSIGNIFICANT
	UNTRAINED	67	34	19.3		1.70		

degree of freedom: 20

From the table-5, it is found that the calculated 'p' value ('p'= 0.04) is less than the table value of 0.05 level of significance. Therefore, the result is insignificant. Hence, H5 is not accepted, which results in a significant difference between trained and untrained teachers towards E-learning.

Testing of Hypothesis 6:There is no significant difference between unaided and aided Government schools' teachers' attitude towards the use of e- education in teaching.

Variables	Category	N	Mean	SD	t-value	z-value	p-value	Significance at 0.05 level
AID	GOVT. AIDED	25	17	9.5	1.72 1.72	3.27	0.005	INSIGNIFICANT
	UNAIDED	23	12	6.63		1.65		

degree of freedom: 20

From the table-6, it is found that the calculated 'p' value ('p'= 0.005) is less than the table value of 0.05 level of significance. Therefore, the result is insignificant. Hence, H6 is not accepted which results in a significant difference between aided and unaided schools' teachers towards E-learning.

FEW INFERENCES:

The following findings are as follows:

- In a developing state like West Bengal this method has had varied responses from the teachers. The test has shown that the teachers are more likely trying to adapt to this new system of imparting education. On an average only 43.5% teachers have a positive attitude towards E-learning.

- Most of the teachers have very less computer literacy and there has been gross lack of infrastructural facilities. Overall analysis of attitude towards e-learning of teachers revealed that there exists significant difference in locale of school, type of school, gender, teaching experience, subject of teaching, qualification and training in computers.

- It is also found that most of the schools do not have proper facilities to carry out e-learning effectively. Almost 68% teachers have attended training programs and were of the opinion that training programs was adequate to only some extent to implement e-learning in schools. So, majority of teachers stressed a need for further training programs in the areas of e- learning, internet etc.

- Lack of time and lack of facilities to provide various opportunities were the main reasons why the teachers knowingly or unknowingly ignore the 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]

CONCLUSION

In West Bengal majority of teachers stressed a need for further training programs in the areas of e- learning, internet. Lack of time and facilities to on the unavailability of technology, computers in several villages of West Bengal, computer illiteracy, poverty provide e-learning were the main reasons why the teachers knowingly or unknowingly ignore the 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. With time and proper infrastructure and technical guidance West Bengal would soon be in paving its way in making Indiamove towards a digital revolution of 500 million new users as confirmed by a report named "Online Education in India: 2021.[8]

[7]Sridevi Dr. K.V. (2010)"*Attitude of Secondary School Teachers Towards e-learning*"International Conference on e-resources in higher education: Issues, Developments, Opportunities and Challenges., Bharathidasan University, Tiruchirappalli.

[8]K Aksyay. How The Entire eLearning Landscape Is Evolving With The Growth Of Web-Based Learning.https://elearningindustry.com/how-elearning-landscape-evolving-with-growth-web-based-learning retrieved May27th,2020

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