

# A STUDY OF THE ATTITUDE OF THE TEACHERS TOWARDS THE USE OF E-LEARNING IN TEACHING OF THE SECONDARY SCHOOLS OF NORTH 24 PARGANAS.

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**Abstract:** The research examines the attitudes of secondary school teachers in North 24 Parganas, West Bengal, towards the implementation of e-learning which compares teacher perceptions across variables including gender and educational boards (ICSE vs. CBSE) using a descriptive survey method. Using simple random sampling, the researcher selected thirty private school teachers. A 15-item, 5-point Likert-type attitude scale was used to gather the data, and parametric t-tests and descriptive statistics were used for analysis. A normal distribution was confirmed by the results, which revealed that the mean, median, and mode were almost equal. The findings revealed **no significant difference** in attitudes toward e-learning based on gender. Similarly, no significant difference was found between teachers working under the ICSE and CBSE boards. Given the limited sample size and focus on private institutions, the study recommends future research include government schools and a larger participant pool to provide a more definitive regional overview.

## INTRODUCTION:

A learning system based on formalised teaching but with the help of electronic resources is known as E-learning (electronic learning). While teaching can be based in or out of the classrooms, the use of computers and the Internet forms such as tablets and even cellular phones are the major component of E-learning. This makes it easy for users to learn anytime, anywhere. E-learning enhance the quality of learning and teaching, meet the learning style or needs of students, improves the efficiency and effectiveness of teaching-learning process, improves user-accessibility and time flexibility to engage learners in the learning process.

The scope of the e-learning has spread its root in all the educational institutions (from schools to colleges) and even in organisation for training and development for their employees. The COVID-19 pandemic and consecutive lockdowns have affected the schooling system of India. The utility of e-learning has increased since pandemic. In the current scenario and prevailing circumstances, the role of e-learning has been realized across all educational institutes.

## According to a report by KPMG in India and Google in 2017:

- India's online education market employees. The USD 247 million and 1.6 million users in 2016 to USD 1.96 billion and around 9.6 million users in 2021.
- In 2023 it is reported to be USD 4.73 billion and is expected to be USD 7.28 billion by the year 2027.
- For India's online students perceive convenience, flexibility with commencement dates and variety of study material are key motivational factors to adopt online channels.
- Online education has reduced the age constraint for learning. (KPMG in India & Google, 2017).

The Government of India started a National Mission on Education through Information and Communication Technology (NMEICT) to effectively leverage the potential of ICT in the teaching and learning process. The

major goal of the mission is to ensure good quality education for learners anytime, anywhere mode. A large number of students are availing the benefits of e-learning and it is expected to be an effective and efficient mode of the teaching-learning process in days to come.

**1.1 Statement of the problem:** *A study of the attitude of the teachers towards the use of e-learning in teaching of the secondary schools of North 24 Parganas.*

**1.2 Objectives of the study:** The following are the objectives of the present study:

**1.2.1 O<sub>1</sub>:** To compare the attitude of the teachers towards using e-learning in teaching with respect to the gender (male and female).

**1.2.1 O<sub>2</sub>:** To compare the attitude of the teachers towards using e-learning in teaching with respect to the boards (ICSC and CBSC).

**1.2.1 O<sub>3</sub>:** To compare whether there is any significant difference in the use of e-learning by the teachers in teaching with respect to location of their residence (rural and urban) schools of North 24 Parganas.

**1.2.1 O<sub>4</sub>:** To compare the level of using e-learning with respect to their academic discipline (science, social science and language).

**1.3 Hypotheses:**

**1.3.1 H<sub>01</sub>:** There is no significant difference in the attitude of using e-learning while teaching with respect to their gender (male and female).

**1.3.1 H<sub>02</sub>:** There is no significant difference in the attitude of using e-learning while teaching with respect to the boards (ICSC and CBSC).

**1.4 Operational Definition of the terms:** The followings are the operational definitions of the terms used in the statement of the problem in the present study-

**1.4.1 E-learning:** E-learning (sometimes called web-based training) is anywhere, any-time instruction delivered over the internet or a corporate Intranet to browser-equipped learners. Here “e” means “electronic”.

**1.4.2 Internet:** The *large system of connected computers around the world which people use to communicate with each other*: It is an electronic communications network that connects computer networks and organizational computer facilities around the world.

**1.4.3 KPMG:** KPMG stands for "KLYNVELD PEAT MARWICK GOERDELER". It is formed with the merger of Klynveld Main Goerdeler (KMG) and Peat Marwick International (PMI). The name KPMG is derived from the initials of its founding members.

- K represents Piet Klynveld.
- P represents William Barclay Pear.
- M represents Marwick.
- G represents Dr. Reinhard Goerdeler.

KPMG is a well-known global network of professional firms providing Audit, Tax and Advisory services. Its headquarters is in Amsterdam, Netherlands. In India, KPMG is one of the big accounting firms

**1.4.4 North 24 Parganas:** North 24 Parganas is a district in southern West Bengal, of eastern India. It comprises five Sub-divisions viz. Barasat, Barrackpore, Bongaon, Bashirhat and Bidhannagar.

**1.4.5 Intranet:** An intranet is a private network contained within an enterprise that is used to securely share company information and computing resources among employees. An intranet can also be used for conferences. Intranets encourage communication within an organization.

**1.4.6 Urban and rural areas:** Urban areas usually refer to cities, suburbs and towns. Rural areas usually refer to villages.

**1.4.7 CBSC:** The Central Board of Secondary Education (CBSE) is a national level board of education in India for public and private schools, controlled and managed by the Government of India.

**1.4.8 ICSC:** The ICSE full form is the Indian Certificate of Secondary Education. ICSE is the abbreviation used for the Indian Certificate of Secondary Education.

**1.4.9 Tablet:** A tablet is a wireless, portable personal computer with a touchscreen interface.

**1.4.10 NMEICT:** The full-form of NMEICT is National Mission on Education through Information and Communication Technology. It has been envisaged as a Centrally Sponsored Scheme to leverage the potential

of ICT, in teaching and learning process for the benefit of all the learners in Higher Education Institutions in anytime, anywhere.

**1.5 Delimitation:** The delimitations set in are-

**1.5.1:** The present study will include teacher only.

**1.5.2:** The present study will include schools of ICSC and CBSC boards only.

**1.5.3:** The present study will be delimited to the district of North 24 Parganas (West Bengal) only.

**1.5.4:** The present study will include schools located in urban and rural areas of North 24 Parganas only.

**1.5.5:** The present study will include male and female teachers only.

**1.5.6:** The present study will be delimited for t-test only.

**1.6 Significance of the study:** The significances of the present research are-

**1.6.1** To find out an opportunity to compare the views of teachers on using e-learning of different schools (ICSC and CBSC).

**1.6.2** To find out an opportunity to compare the views of teachers on using e-learning on the basis of their location of residence (urban and rural).

**1.6.3** To find out an opportunity to compare the views of teachers on using e-learning based on their gender (male and female).

**1.6.4** To find out the problems and challenges faced by the teachers in teaching while using e-learning.

**1.6.5** To know whether there is any role of e-learning to improve our education system.

## Review of Related Literature

**2.1 Introduction:** A literature review is a comprehensive summary of previous research on a topic. The literature review surveys scholarly articles, books, and other sources relevant to a particular area of research. The review should enumerate, describe, summarize, objectively evaluate and clarify this previous research. The purpose of a literature review is to gain an understanding of the existing research and debates relevant to a particular topic or area of study, and to present that knowledge in the form of a written report. The review of the research literature pertaining to the problem of the study becomes essential for the researcher in order to have complete and thorough information of the work done and abroad.

## 2.2 Reviews:

### Research studied conducted in India:

**2.2.1 Rao, P. (2011). E-learning in India: the role of national culture and strategic implications. *Multicultural Education & Technology Journal*, 5(2), 129-150. Received from:**

**<https://www.emerald.com/insight/content/doi/10.1108/17504971111142664/full/html>**

According to the researcher, the primary purpose of this paper is to understand the role of national cultural dimensions on e-learning practices in India. It proposes that national cultural dimensions of power distance, uncertainty avoidance, in-group collectivism, and future-orientation influence e-learning practices. This study distinguishes between synchronous and asynchronous methods of e-learning and the role of culture on the same. This research also proposes a theoretical e-learning model identifying the impact of national cultural dimensions on e-learning practices. It provides practitioners a strategic implications model that could be implemented for e-learning initiatives in multinationals.

**2.2.2 Chawla, D., & Joshi, H. (2012). Management education through e-learning in India: an empirical study. *Campus-Wide Information Systems*, 29(5), 380-393. Received from:**

**<https://www.emerald.com/insight/content/doi/10.1108/10650741211275134/full/html>**

According to the researcher, the purpose of this paper was to examine the awareness levels, degree of familiarity and readiness to accept e-learning environment. Exploratory study and personal interviews were conducted to design the instrument which was administered to 240 students pursuing management education at the Indian

Institute of Management, Ahmedabad (IIM-A). A total of 154 duly filled questionnaires were used for data analysis. The research holds relevance, as an assessment of prior exposure to technology and comfort level, attitude, behaviour and motivation may determine the e-learners' readiness to adopt or not adopt this medium. The paper brings forth student readiness for e-learning as a medium of education in India which serve as a guide to those business schools which have started delivering management education or plan to deliver online education in future.

**2.2.3 Phutela, N., & Dwivedi, S. (2020). A qualitative study of students' perspective on e-learning adoption in India. *Journal of applied research in higher education*, Vol. 12 No. 4, pp. 545-559. Received from: <https://doi.org/10.1108/JARHE-02-2019-0041>**

According to the researchers, this paper tries to uncover how e-learning is giving a new shape to the education industry. It encompasses the students' perspective and experience of e-learning. The present study employed interpretative phenomenological analysis (IPA) to intensely scrutinize the lived-in experiences of the participants. The respondents were selected from Delhi NCR of India. Semi-structured interviews were conducted to collect the primary data. The findings have been grouped under two sections referred to as "themes," which include "drivers for e-learning adoption" and "inhibitors which restrict the adoption of e-learning." "The present study is helpful for the educational institutions in India and in similar developing countries in understanding the students' perspectives on e-learning adoption. The study is useful to the policymakers in the higher education sector of developing nations like India, in understanding the students' mindsets. This study makes a contribution to the growing literature on e-learning, where the researchers have determined the relative importance of various motivating and inhibiting factors which influence the adoption of e-learning.

**2.2.4 Khan, M. A., Nabi, M. K., Khojah, M., & Tahir, M. (2020). Students' perception towards e-learning during COVID-19 pandemic in India: An empirical study. *Sustainability*, 13(1), 57. Received from: <https://www.mdpi.com/933914>**

According to the researchers, the educational system across the world has immensely been affected due to outbreak of COVID-19; it forced the shutdown of educational institutions, which adversely affected student fraternity across the globe. In the absence of traditional classroom teaching, computer-based learning has emerged as closest substitute for off-line teaching. Thus, it is pertinent to examine the students' perception and readiness about online-learning system adopted at the university level during the ongoing COVID-19 pandemic. For the present study, the quantitative approach has been adopted and responses from 184 university students of National Capital Territory (NCT) of Delhi, India namely Delhi University, Jamia Millia Islamia (Central University) and Guru Gobind Singh Indraprastha University are collected through online questionnaire. This research study was conducted during June–August 2020. The findings of the study reveal students' positive perception towards e-learning and thus acceptance of this new learning system. It has also empirically demonstrated the significance of e-learning in the time of COVID-19 crisis. In fact, e-learning has emerged as a new way of enhancing the learning process where social media may further improve the learning output. The findings of the study facilitate educational institutions and policy makers to take this online-learning process to the next level in a better way.

**2.2.5 Ganie, M. A., Molvi, S. A., Ali, M., & Hussein, A. H. (2020). Impact of E-learning on Child Education and Development in Rural Areas of India. In *International Conference on E-Business, e-Commerce, e-Management, e-Learning and e-Governance* (pp.77-82).**

**Received from: <https://edlib.net/2014/ic5e/ic5e2014012.pdf>**

According to the researcher, the main aim of this paper was to analyse the impact of e-learning on child education and development in rural areas of India. In this study it is found that students that use e-learning paradigms have significant improvements in academic performance as compared to the students that follow traditional teaching methods. Semi-structured interviews have been utilized for collecting the qualitative data. The interviews were conducted with all the teachers of the focus group. In the interview, most of the teachers

indicate that students that use e-learning tools as part of the curriculum showed improvement in cognitive, social, linguistic, mathematical and literacy skill in this study. The main factors that motivate students to use e-learning are the flexibility, User centric, Accessibility, Collaborative, and Adaptability of learning as well as the possibility to make an individual study plan. Although some negative impacts have also been observed. In rural areas, students and teachers are unwilling to use new technologies, have a high illiteracy rate, have insufficient bandwidth and a lack of basic infrastructure which make it difficult to implement e-learning.

### **Research studies conducted in abroad:**

**2.2.6 Swierczek, F. W., &Bechter, C. (2010). Cultural features of e-learning: A Euro-Asian case study. *Learning and instruction in the digital age*, 291-308. Received from: [https://link.springer.com/chapter/10.1007/978-1-4419-1551-1\\_18](https://link.springer.com/chapter/10.1007/978-1-4419-1551-1_18)**

According to the researcher, the qualitative and quantitative findings of this study show two very distinct learning patterns. East Asian participants represent a high-context emphasis. South Asians and Europeans indicate a demonstrably low-context style of learning. The qualitative findings provide evidence that cultural features do have an if impact on e-learning behaviours. European participants tend to be individualistic, achievement oriented, and emphasize learning by induction. South Asians reveal high power distance and an achievement orientation. East Asians also demonstrate high power distance as indicated by a teacher-centric focus. They emphasize affiliation and avoid high uncertainty in learning situations. East Asians tend to prefer theory as the starting point for analysis. The quantitative analysis shows significant differences between the regional groups. East Asians are significantly more involved and active in e-learning than their peers in Europe and South Asia. This suggests that the high-context learning culture has a positive influence on e-learning involvement.

**2.2.7 Al-Shehri, A. M. (2010). E-learning in Saudi Arabia: ‘To E or not to E, that is the question’. *Journal of family and community medicine*, 17(3), 147.**

**Received from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3045104/>**

According to the researcher, The Kingdom of Saudi Arabia (KSA) has witnessed unprecedented growth in higher education and E-learning in recent times. This paper examines the current and future developments and challenges of E-learning in KSA.A qualitative approach was used to explore views of 30 senior academicians involved in E-learning during their attendance at a two-week course. All participants considered themselves as decision makers on E-learning in their units or departments. They felt that E-learning had come to stay, but acknowledged challenges in respect of resources, organization, management, and information technology.

**2.2.8 Adams, D., Sumintono, B., Mohamed, A., & Noor, N. S. M. (2018). E-learning readiness among students of diverse backgrounds in a leading Malaysian higher education institution. *Malaysian Journal of Learning and Instruction*, 15(2), 227-256.Received from: <https://doi.org/10.32890/mjli2018.15.2.9>**

According to the researcher, the purpose of the study was to investigate student’s readiness for a blended learning model of instruction in a leading Malaysian higher education institution. The study employed a non-experimental quantitative research design. Data were gathered from a sample of 235 undergraduate and 131 postgraduate students using the Blended Learning Readiness Engagement Questionnaire (BLREQ). The data was analysed using the WINSTEPS Rasch model measurement software to determine the validity and reliability of the instrument. Findings identified that students were ready for blended learning. Further analysis indicated that there were differences in student’s readiness for blended learning based on gender, age, ethnicity, field of study, and level of education. This study provides insights on students’ readiness towards blended learning, particularly in the Malaysian context, discusses implications for blended learning practices in higher education institutions, and offers recommendations for future research.

**2.2.9 Mutambik, I. (2018). The Role of e-Learning in Studying English as a Foreign Language in Saudi Arabia: Students' and Teachers' Perspectives. *English Language Teaching*, 11(5),74-83.**

**Receive from:** <https://eric.ed.gov/?id=EJ1176493>

According to the researcher, this paper draws on an empirical investigation using group interviews with students and teachers in order to gain insight into their perception about the role of E-learning in studying English as a Foreign Language in Saudi Arabia. The findings are presented and discussed in four thematic areas: promoting key learning skills, independent learning, flexible learning and interactive learning. The paper also highlights the limitations of the research and concludes by making a number of recommendations.

**2.2.10 Fawaz, M., & Samaha, A. (2021). E-learning: Depression, anxiety, and stress symptomatology among Lebanese university students during COVID-19 quarantine. In *Nursing forum* (Vol.56, No.1, pp.52-57).**

**Received from:** <https://onlinelibrary.wiley.com/doi/abs/10.1111/nuf.12521>

According to the researcher, this study aims at evaluating the prevalence of depression, anxiety, and stress symptomatology among Lebanese University Students during the COVID-19 Quarantine. A quantitative cross sectional research design, where 520 undergraduate university students were surveyed regarding their satisfaction with e-learning and the prevalence of depression, anxiety, and stress symptomatology using depression, anxiety, and stress scale-21 elements. Learning through online platforms have given rise to depression and anxiety disorders among undergraduate university students, where there was a significant correlation between student satisfaction and prevalence of depression, anxiety, and stress. The sudden shift to exclusive e-learning methods of instruction has produced anxiety and depression symptoms among a significant portion of the students due to the stressful load of work required.

**2.3 Critical Observation:** After careful review of literature, some critical observations are observed, which are as follows:

**Similarities:**

- Rao, P., Swierczek, F.W., Bechter, C., worked on role of cultural dimension on e-learning. According to Swierczek high context learning culture has positive influence on e-learning.
- Chawla, D., Joshi, H., Khan, M.A., Adams, P., studied on students' readiness to accept e-learning.
- Rao, P., Khan, M.A., Al-Shehri, A.M., worked on future orientation and challenges of e-learning on education.
- Phutela, N., Mutambik,I., worked on student's perception of e-learning in studies.

**Dissimilarities:**

- Ganie, M.A., studied unwillingness of students as well as of teachers to use e-learning due to insufficient bandwidth and lack of basic infrastructure.
- Fawaz, M., Samaha, A., studied that UG student' showed anxiety and depression in COVID-19 quarantine due to sudden shifts to e-learning from traditional learning.

**2.4 Conclusion:** So, after careful reviewing of the above literatures, it has been found that there are a few or almost no studies done on the attitude of teachers on using e-learning in teaching which generates a research gap in the current study. Hence, the present research work is planned and entitled as *A study of the attitude of the teachers towards the use of e-learning in teaching of the secondary schools of North 24 Parganas.*

**Methodology:**

The first and foremost requisite in any research is data without which no study could be conducted. If the scholar cannot clearly describe his/her method of collecting data, the chances are that it is too vague and general

to yield him satisfactory results. So, there is a need to describe the method used in research work; the decision about the method depends upon the nature of the problems selected, the kind of data necessary, and its objectives. He/she also has to describe the variables, the population and the sample with sampling method, the tools used, the design adopted and the procedure employed in the tabulation and organization of the data.

Keeping in view the above rationale, the investigator has planned and implemented Descriptive Survey Method in the present study. It aims at studying *the attitude of the teachers towards the use of e-learning in teaching of the secondary schools of North 24 Parganas*. The term 'Descriptive' implies to describe systematically a situation, problem, phenomenon, service or programme, or provide information using surveys and fact-finding enquiries of different kinds so that a picture of the current situation may be obtained. It is primarily concerned with describing the population under study.

**3.1 Variables:** A variable is an attribute which is regarded as reflecting or expressing some concept or constructs. It is a characteristic that is common to a number of individuals, groups, events. Objects etc. which takes on different values i.e., it is something that varies. In short, variables are the conditions or characteristics that the experimenter manipulates, controls or observes. In the present Study, there are two categories of variables chosen:

**3.1.1 Dependent variable:** The variables that are the consequences of or dependent upon antecedent variables are called dependent variables. The Dependent variable in the present study is the attitude of the teachers of secondary schools of North 24 Parganas.

**3.1.2 Independent variable:** The variables that are antecedent to the dependent variables are called independent variables. The independent variables of the present study are

**3.1.2.1** Gender of the teacher (male and female).

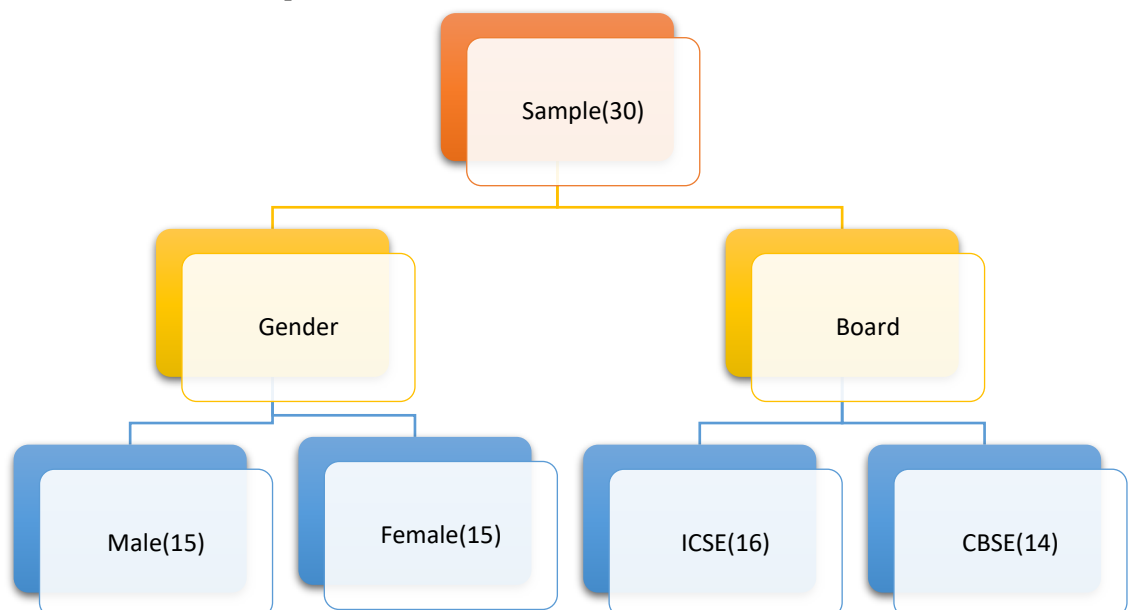
**3.1.2.2** Different Boards of teaching (ICSE and CBSE).

**3.2 Population & Samples:**

A population generally refers to any collection of specified groups of human beings or non-human entities like objects, institutions, units, areas, etc. Measuring the entire population though is not only impossible but also impracticable. So, it is essential to draw a sample from the population. A sample is defined as the subset of the sampling from a defined population. The process of selecting the units of observation is called sampling.

Since the teachers are the basic unit of this present study, the population consisted of private schools of North 24 Parganas District in West Bengal.

In the present study, sample teachers are drawn from the schools of ICSE and CBSE of North 24 Parganas. In the present study, the sample size comprised of 30 respondents. Simple Random sampling is used for the selection of sample teachers.



### 3.3 Tools:

A researcher uses tools to elicit responses in measuring a particular variable from an individual about the extent of acquisition of particular attribute as evident in the objectives of the research. In order to achieve the objectives of the present study, attitude scale is developed by Soumi Roy, M.Ed., student of Surendra Lal Das Teachers' Training College in Howrah and Assistant Professor Mr. Binoy Maji of the Institute of Surendra Lal Das Teachers' Training College. This scale has 15 statements, out of which 7 are favourably worded and the remaining 8 are unfavourably worded. Each statement is also set against a five-point scale (Likert Type) of 'Strongly Disagree', 'Disagree', 'Neutral', 'Agree', 'Strongly Agree' and abbreviated as 'SDA', 'DA', 'N', 'A', and 'SA'. The highest possible score would be  $5 \times 15 = 75$  and lowest score would be  $1 \times 15 = 15$  and the range of the instrument is 60.

**3.4 Design:** Research methodology is the overall plan or blueprint the researcher select to carry out his/her research. Research design is the conceptual structure within which research would be conducted. It is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy.

The present study with the objective of measuring *the attitude of the teachers towards the use of e-learning in teaching of the secondary schools of North 24 Parganas* following Descriptive Survey Method on hypothesis Testing implies quantitative analysis of research design.

**3.5 Procedure:** In the present study the procedure is as follows:

**3.5.1 Data Collection:** Data collection in the present study is done by:

- Questionnaire is prepared using Google Form.
- Questionnaire is provided to the teachers through the use of social media.
- Finally, the questionnaire is evaluated and the scores are calculated.

**3.5.2 Data Analysis:** The calculated scores collected from the questionnaires are arranged, coded, classified, tabulated and analysed to assess the attitude of the teacher towards using e-learning in teaching. For the above purpose, Descriptive Statistical Techniques like Measures of Central Tendency (Mean, Median and Mode) and Measures of Variability (Standard Deviation) are used to determine the normality of the distribution of the derived scores. Parametric test is conducted using t-test to test the significant level of difference between Means to test the hypotheses based on the objectives of the present study.

## 4. RESULTS:

### Description:

A measure of Central Tendency is single value that attempts, to describe a set of data by identifying the central position within that set of data. As such, measure of Central Tendency is sometimes called measure of Central Location. The mean, median, mode is all valid measure of Central Tendency. By using mean, median, mode the normality of the collecting data has been shown, and also descriptive statistics is use to study the Attitude of teachers towards *the use of e-learning in teaching of the secondary schools of North 24 Parganas*.

Here, the attitude of using e-learning is investigated by using 't- test'.

### At [0.05] Level of Significance: -

At the 5% level of significance and degrees of freedom 28. 't' value is 2.05, if calculated value is  $>2.05$  then null hypothesis is rejected.

### At [0.01] Level of Significance: -

At the 1% level of significance and degrees of freedom 28. t value is 2.76, if calculation value is  $>2.76$  then null hypothesis is rejected.

**Interpretation:**

Test of Normality	
Total number of teachers	30
Mean	50.2
Median	48
Mode	48

**Table: 1**

From the above table it is found that the mean, median and mode are nearly equivalent. So Parametric test can be used.

**Calculating table for t test with respect to Gender:**

GENDER	MEAN	N	COMBINED SD	T VALUE
MALE	49.33	15	5.813	0.825
FEMALE	51.06	15		

**Table 2: t-Table of Objective -1**

\*Degrees of Freedom- 28

**At [0.01] Level of Significance:**

Table value of (t) = 2.76

Calculated value of (T) = 0.827

Here (t) > (T) or 2.76 > 0.827

Therefore, the Null Hypothesis is not rejected at [0.01] Level of Significance.

There is no significance difference between the attitude of male and female teachers towards the use of e-learning in teaching of the secondary schools of North 24 Parganas.

**At [0.05] Level of Significance: -**

Table value of (t) = 2.05

Calculated value of (T) = 0.827

Here (t) > (T) or 2.05 > 0.827

Therefore, the Null Hypothesis is not rejected at [0.05] Level of Significance.

There is no significance difference between the attitude of male and female teachers towards the use of e-learning in teaching of the secondary schools of North 24 Parganas.

**Calculating table for t test with respect to Board:**

BOARD	MEAN	N	COMBINED SD	T VALUE
ICSE	49.31	16	5.799	0.893
CBSE	51.21	14		

**Table 2: t-Table of Objective -2**

\*Degrees of Freedom- 28

**At [0.01] Level of Significance:**

Table value of (t) = 2.76

Calculated value of (T) = 0.893

Here (t) > (T) or 2.76 > 0.893

Therefore, the Null Hypothesis is not rejected at [0.01] Level of Significance.

There is no significance difference between the attitude of ICSE and CBSE teachers towards the use of e-learning in teaching of the secondary schools of North 24 Parganas.

**At [0.05] Level of Significance: -**

Table value of (t) = 2.05

Calculated value of (T) = 0.893

Here (t) > (T) or 2.05 > 0.893

Therefore, the Null Hypothesis is not rejected at [0.05] Level of Significance.

There is no significance difference between the attitude of ICSE and CBSE teachers towards the use of e-learning in teaching of the secondary schools of North 24 Parganas.

**5. Discussion:**

**5.1 Summary:**

The purpose of this research work is to compare the attitude of teachers towards the use of e-learning of secondary schools of North 24 Parganas. The Samples of scheduled research work is 30 teachers which is collected through Google Form, keeping in mind the objective of above researched work. It is a descriptive survey study which has been done through probability sampling. Simple random sampling is used for choosing the teachers. The Opinionnaire 5-point scale tools are used for data collection. t-test is used for data analysis.

- **O1** is to compare between the attitude of male and female teachers towards the use of e-learning in teaching of the secondary schools of North 24 Parganas. At 1% and 5% level of significance it is found that there is no significance difference between the attitude of male and female teachers towards the use of e-learning in teaching of the secondary schools of North 24 Parganas.
- **O2** is to compare between the attitude of ICSE and CBSE teachers towards the use of e-learning in teaching of the secondary schools of North 24 Parganas. At 1% and 5% level of significance it is found that there is no significance difference between the attitude of ICSE and CBSE teachers towards the use of e-learning in teaching of the secondary schools of North 24 Parganas.

**5.2. FINDINGS: -**

- There is no significance difference between the attitude of male and female teachers towards the use of e-learning in teaching of the secondary schools of North 24 Parganas.
- There is no significance difference between the attitude of ICSE and CBSE teachers towards the use of e-learning in teaching of the secondary schools of North 24 Parganas.
- The sample follows the normal probability distribution curve.

**5.3. LIMITATION: -**

- The sample of the study is collected only from teachers of North 24 Parganas.
- The study is limited to time and money.
- Only 30 teachers are chosen as sample.
- Only ICSE and CBSE school teachers are chosen for the study.

**5.4 Recommendations & Suggestions:**

The following recommendations are based on the conclusion of the study:

- The sample size should be increased.
- Various district of West Bengal must be included to get an exact scenario of the teacher's attitude towards e-learning
- Z-test can be done for testing hypothesis.
- Government schools should be included for better view.

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