

Attitude towards E-learning of Higher Secondary school students of Birbhum District in West Bengal

¹Dr. Nandini Banerjee, ²Dr. Amarnath Das, ³Chiranjit Nayak

Abstract: *The study has highlighted the attitude towards e-learning of higher secondary school students of Birbhum District in West Bengal. At the backdrop of present ICT-based learning in Education, like E-Learning, as effective alternative tools of education have been given vent and an effort has been made to relate student's Attitude towards it. In this regard, it may be considered a little footstep. From this angle of vision, the objectives of this study have been stated and the gravity of this problem has been unfolded. Based on different researches made on Attitude Towards E-Learning a review has been made. The descriptive survey method was used for the present study. A random sampling technique was chosen to collect the sample. The sample consisted of 120 students of ten Higher Secondary Schools of Birbhum district in West Bengal. Here Standardized questionnaire (ATES-RD) is used to collect data from the sample and to interpret the collected data with the statistically 'T'-test is used. The collected data is analyzed through Mean, Standard Deviation, Z-score, and 'T'-test (large independent sample). In course of the comparison, it was revealed that most students have the average attitude towards E-Learning and there is no significant difference among the Male & Female, Rural & Urban, and Arts & Science Students in their level of Attitude Towards e-learning at higher secondary level school.*

Keywords: Attitude, E-Learning, Higher Secondary Students.

Introduction: Education is the way of learning and knowing, which is not confined to our school textbooks only. Thus learning is a universal process and continues throughout our life, in one or the other way. Besides the traditional way, technology is also playing an important role in education. Hence, technological amalgamation is today's reality in education around the world. Technology makes the people enable to take the education out of the premises of schools to their homes and computer shops or internet cafés etc. These unconventional methods of learning are definitely challenging to our traditional model of classroom learning in education. We can use these emerging technologies to leverage the additional benefits of reaching larger masses and support our education system with a new approach (Chopra, N. 2013).

⁽¹⁾ Some of the most highly significant innovations of learning are several tools of ICT, such as e-learning and virtual education, the best alternatives to the traditional educational module. But long before the internet was launched, the developmental phase of ICT passed through some stages. The invention of the first testing machine in 1924 was such a kind of example. The students were enabled to test themselves by this device. Then, in 1954, the renowned professor of Harvard University, BF Skinner invented his famous "teaching machine" that enabled the educational institutions to administer programmed instruction to their students. However, the first computer-based educational training program was begun to introduce to the world in the year of 1960. The first MAC (Media Access Control) in the 1980s enabled individuals to have personal computers in their homes for making it easier for students to learn about particular subjects and to develop certain kinds of skill sets. At that time distance courses were being offered to provide students with education on particular subjects or skills. The virtual learning mode of education started to thrive truly and after that people easily can access the vast wealth of online information available and the e-learning opportunities. E-learning can be considered in general as the process of learning occurred by communication with a wide range of contents delivered digitally to learners with the support of electronic services. This learning process includes extensive use of the information and communication-related technologies to assist and enable learners to restructure their knowledge. E-learning can thus incorporate theoretically with all the other types of the learning process (Thakkar, S. and Joshi, H. 2017).⁽²⁾ Just as e-learning is deliberated as a powerful tool of ICT for educational changes and reforms. People become known for computers and the Internet in the 20th century. Then the people get access to world-class learning experiences, wide information, and skills. The business sectors also began to use the e-learning method to train their employees after the year 2000.

E-Learning systems are properly established on the need of 21st-century people. Computer enhanced learning is named E-learning. Computers play a big role in

learning and also in education. The role of computers in supporting the cause of education is in different ways. Presently information technology is used as the medium and learning tool in education. Currently, teachers are well equipped with the enhanced skills and abilities of modern classroom-based computer technology by proper use of the various type of web 2.0 tools to enhance their institutional effectiveness. E-learning systems provide more flexible means of communicating which enables students to interact easily with others. E-learning system has three main areas, a) improving access to education and training, b) enhancing the quality of teaching and learning and c) the need for higher education institutions to maintain a competitive advantage in changing market places for students.

Beginning of the Study: Now the present system of education has become a lot dependent on E-learning. In this study, the researcher eager to see, the attitude towards E-Learning of the students of higher secondary schools. So, first of all, one has to know the meaning of attitude. It is nothing but a dispositional readiness on the part of a person to respond to certain situations, persons, or objects. In educational research attitude testing is becoming essential gradually to achieve some purposes such as, 'to what extent the desired attitudes have been developed in the learners', 'to enable the learners in developing the necessary attitudes', 'to help the teachers to realize learners' attitudes predispose the person to take action, 'to help the teacher in good teaching and instruction' and 'to help the learners in their future career plans'. In measuring the attitudes of learners, a teacher should know the appropriate scales which include various dimension, viz. degree, direction, and intensity (Bhuvaneswari, A. S and Padmanaban. T. 2012).⁽³⁾ Further, in this study the researcher keen to know, if the students can use successfully the E-learning tools, i.e. computer, mobile, internet, educational app, etc. to solve their present educational problem. Are they can use all e-learning items properly? Do the teachers who are well trained and educated, can able to teach e-learning in the educational institution? Are the students use to take it positively this innovation in modern society. Why does the attitude need to be developed? What is the attitude of present learners toward e-learning? On this basis, some queries raised in the researcher's mind, those are –Who are better, either male or female students, to use e-learning in the higher secondary level? Which streams are doing the better performance, either science or arts stream students, to proper use of e-learning in the higher secondary level? Which area is doing well, either urban or rural students, to use the e-learning material properly at the higher secondary level? And in this course of study, the researcher tries to find out the answer to these queries.

Justification of the Study: The study has the potential to reveal the following aspects-

- Male or Female – which one provides a better power of concentration and better use of e-learning.
- Urban or Rural – which environment helps the students achieving a topmost position.
- Better scope of grooming to use of e-learning.

Statement of the Problem: Attitude towards E-Learning of Higher Secondary School Students of Birbhum District in West Bengal.

Objectives: 1. To compare the attitude towards e-learning among the higher secondary level male and female students of Birbhum District in West Bengal.

2. To compare the attitude towards e-learning among rural and urban students of higher secondary level of Birbhum District in West Bengal.

3. To compare the attitude towards e-learning among arts and science students of higher secondary level of Birbhum District in West Bengal.

Delimitations: 1. The study has been delimited to only higher secondary school students.

2. The study has been delimited to only Birbhum District.

3. The study has been delimited to only arts and science students.

4. The study has been delimited to only 10 higher secondary level schools.

5. The study has been delimited to only 120 samples.

Significance of the study: E-learning (Electronic Learning) emerged as a new tool that has the potential to enhance and support the traditional learning system. It is the outcome of the internet which has gifted education with flexibility in time, place, and need-oriented learning. It has become an integral part of the learning used by every educational organization. It is a useful tool of the education system that enables to students achieved more too various authentic sources. This learning enables to students better performance of his study and upcoming situation of life. This learning system is sustainable for time, effort, and cost. Thus, it provides accessibility for individuals who wish to learn at their own pace, place, and time. It provides a platform for virtual learning and uninterrupted learning through distance mode but reduces the distance between the teacher and the taught. These learning tools help to solve the situational problem very first and it helps to gather knowledge very quickly. In this modern

situation, this tool is an innovative thing, it attracts all learner for learning. Different researchers have different views on the use and effects of e-learning. The usage of technology is a replacement rather than a supplement to traditional textbooks. It is found that the technology is more useful than traditional media. So the process of e-learning and its applications are unlimited in the field of education.

Review of Related Literature: Alshaiekh, L. H. and Singh, S. (2018) conducted a study on Female Students' Attitude Towards E-Learning in Saudi Higher Education. The study aimed to discuss the factors that influence e-learning in Saudi higher education, especially for female learning. The present study adopted the survey method and used random sampling to identify the sample of 381 female students in Al-Baha University. The questionnaire was taken for collecting data and for analyzing the data the researcher used SPSS software. The findings of the study established that the attitude of the female University students was positively related to e-learning and demonstrated that Usefulness, Flexibility, Interactivity, and University Support were critical determination of female student's attitudes towards E-learning.⁽⁴⁾

Khirade, S. K. (2017) conducts a study entitled, A Study of an Attitude Towards E-Learning among the Graduate Students. The objectives of the study were to find out the attitude towards e-learning among the students of graduate-level, compare the attitude of the male and female students towards e-learning at the graduate level, to find out the correlation between the attitude towards e-learning of male and female students at the graduate level. The present study used a survey method and employed a standardized test (Attitude Towards E-Learning) for collecting and measuring the data. The present studies were used statistical measures 'T' test. The present study sample sizes of 128 students were randomly selected. The finding of the study as it is found that 1.5 % of students have an Extremely High-Level attitude towards e-learning. The study has found that 44.53 % of students have the average attitude towards e-learning at graduate level. In addition to that 45.45 % of male students and also 43.54 % of female students have an average attitude towards e-learning. The study also has found that only 7 % of students have an extremely low-level of attitude towards e-learning at graduate level. It is revealed from the study that there is no significant difference in the attitude towards e-learning among the male and female students at the graduate level. The correlation of the attitudes towards e-learning between male and female students was found 0.194 only.⁽⁵⁾

Konwar, I. H. (2011) conducted a study on Attitude of College Students Towards E-Learning with Special Reference to North Lakhimpur of Lakhimpur District, Assam. The objectives of the study were to ascertain the attitude of college students towards

e-learning concerning gender and locality. This study was based on the survey method and collected data using a quantitative research technique. The study was conducted on 200 college students who were selected randomly. The total sample was selected from the Lakhimpur district. The scale to measure attitude towards e-learning was developed by Dimpal Rani and was used in the study as a tool to collect the data. Descriptive statistics were used to interpret the data and it used five-point Likert techniques. The major finding(s) of the present study showed that college students have positive attitudes towards e-learning. There exists no significant difference in attitude towards e-learning between male and female college students and there was no significant difference in attitude towards e-learning between urban and rural college students.⁽⁶⁾

Knowledge Gap: For many years several researchers have investigated and several studies have been done on the use of e-learning in secondary school students, use of e-learning in female student, use of e-learning in university librarian, lab administrators as well as communication with other institutions, etc. and their relationship with other variables such as awareness, attitudes, impact, importance, academic achievement, etc. In the above section, the review and findings related to those that have been mentioned. Here little work has been done on attitudes towards the use of e-learning in higher secondary school students. So there is a gap of knowledge existing in this area in the use of e-learning in higher secondary school students. Keeping in this view, 'Attitude towards E-Learning of Higher Secondary School Students of Birbhum District in West Bengal' was chosen as the problem of the study.

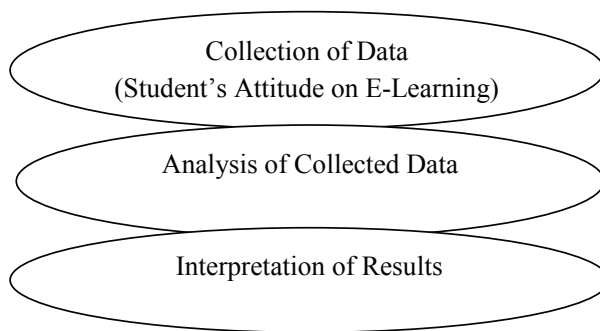
Hypothesis: I. H₀₁- There is no significant difference between higher secondary level male and female students on attitudes towards e-learning.

II. H₀₂ - There is no significant difference between rural and urban students of higher secondary level on attitude towards e-learning.

III. H₀₃ - There is no significant difference between arts and science students of higher secondary level on attitude towards e-learning.

Methodology

Research Design: In the present study, the descriptive survey method is used for collecting data and here the researcher has used a standardized questionnaire to collect data from students and Mean, SD, Z-score, and 'T'-test (large independence sample) have been used for analyzing these data.

Figure-1 showing the design of the study –**Fig. – 1: Research Design**

Population: 12th standard students of Higher Secondary School of Birbhum District in West Bengal.

Sample and Sampling Techniques: 120 students of Ten Higher Secondary School Students of Birbhum district in West Bengal and random sampling technique is chosen to collect the sample.

Tools: Here Standardized questionnaire (ATES-RD) is used to collect data from the sample and to interpret the collection of data with a statistically 'T'-test (large independence sample) is used.

Statistical Techniques:

The collected data is analyzed through Mean, Standard Deviation, Z-score, and 'T'-test (large independence sample).

Data Collection Procedure:

After the preparation for collecting data, the researcher used a standardized questionnaire of E-Learning. After that, the researcher randomly selected 10 H.S. school on Dubrajpur block of Birbhum district in West Bengal and personally visited the 12th classes of those H.S. school on Dubrajpur block. Then 12th class students of those schools were selected randomly and the questionnaire was distributed among them. The researcher told them to fill in their entries instruction and then carefully read the general instruction given on the front page. Then go through each statement carefully and decide their answer on five points alternatives answer, viz., and put a tick-mark (✓) in the cell of the alternative which is nearest to their answer.

Results

Data Analysis and Interpretation: The next step is, the process of research after the collection of data; organize it, analysis and interpretation of the data, formulation of conclusion and to get a meaningful picture out of the collected raw information. The use of Z-Score norms for standardizing the collected Manual data regarding Attitude Towards E-Learning Scale (ATETS-RD) is the following. Data analysis and interpretation are given below:

Table 1: Profile showing level of Attitude Towards E-Learning

S.N	Range of Z-Score	Grade	Level of E-Learning	Number of students	Percentage
1	+2.01 and above	A	Extremely High	2	1.67%
2	+1.26 to +2.00	B	High	16	13.33%
3	+0.51 to +1.25	C	Above Average	19	15.83%
4	-0.50 to +0.50	D	Average	44	36.67%
5	-1.25 to -0.51	E	Below Average	30	25%
6	-2.00 to -1.26	F	Low	6	5%
7	-2.01 and below	G	Extremely Low	3	2.50%
			Total	120	100%

Graph 1: Presenting Percentage level of Attitude towards E-learning with Pie-Graph

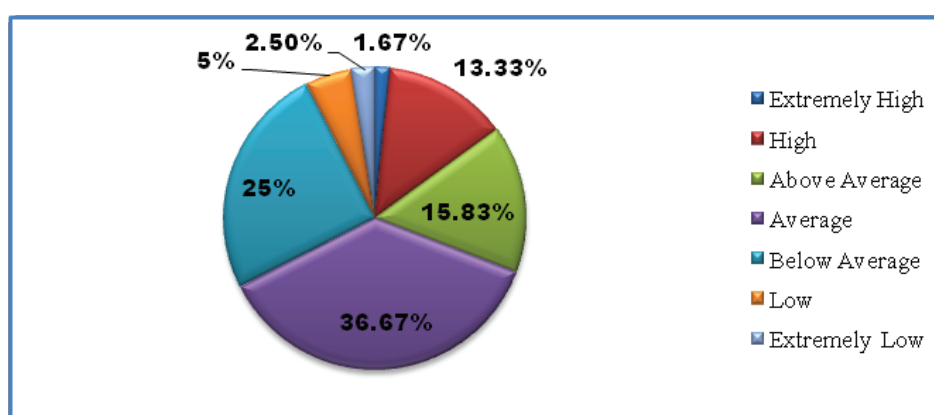


Fig-2: Presenting Percentage level of Attitude towards E-learning with Pie-Graph

Based on the manual, the Z-score is used here to classify the student on attitude towards e-learning. According to the above table and pie chart, we can ensure that 1.67% of students belong to Extremely High Level of E-Learning, 13.33% students belong to High Level of E-Learning, 15.83% students belong to Above Average Level of E-Learning, 36.67% students belong to Average level of E-Learning, 25% students belong to Below Average Level of E-Learning, 5% students belong to Low Level of E-Learning, 2.50% students belong to Extremely Low Level of E-Learning.

Hypothesis - 1

Table 2: Table of Male and Female students

Sl. No	Gender	N	Mean	SD	SEd	T- ratio	Critical Value		Significance
1	Male	76	238.54	22.69	4.14	0.79	0.01	0.05	Accepted
2	Female	44	235.25	21.38			2.58	1.96	

The above table shows, the hypothesis is accepted at 0.05 & 0.01 levels of significance. There is no significant difference between male and female students of higher secondary level on attitude towards e-learning of Birbhum district in West Bengal.

Graph 2: Male and Female significant figure

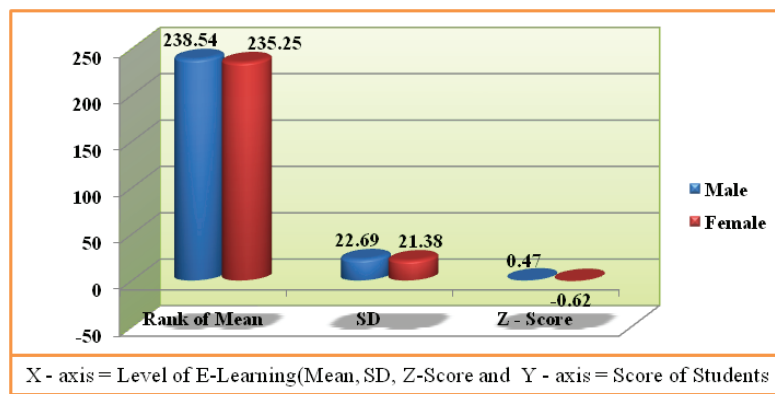
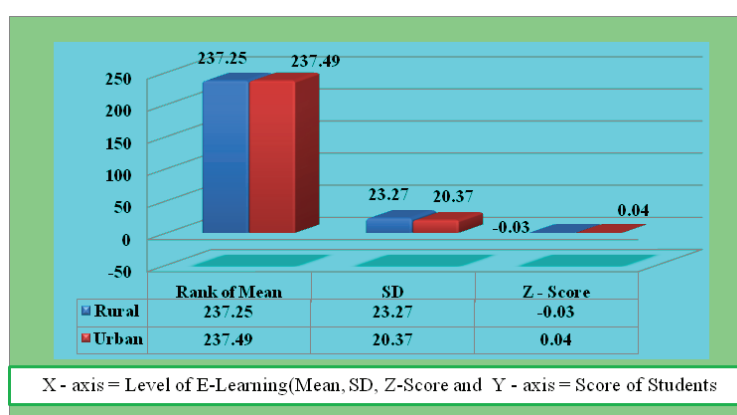


Fig-3: Presenting Male and Female Significant Figure

Hypothesis - 2**Table 3: Table of rural and urban students**

Sl. No	Gender	N	Mean	SD	SEd	T-ratio	Critical Value		Significance
1	Rural	77	237.25	23.27	4.08	0.059	0.01	0.05	Accepted
2	Urban	43	237.49	20.37			2.58	1.96	

The above table shows, the hypothesis is accepted at 0.05 & 0.01 levels of significance. There is no significant difference between rural and urban students of higher secondary level on attitude towards e-learning of Birbhum district in West Bengal.

Graph 3: Rural and Urban Comparison figure**Fig 4: Presenting Rural and Urban Comparison Figure****Hypothesis - 3****Table 4: Table of arts and science students**

Sl. No	Gender	N	Mean	SD	SEd	T-ratio	Critical Value		Significance
1	Arts	85	236.26	22.44	4.37	0.85	0.01	0.05	Accepted
2	Science	35	239.97	21.34			2.58	1.96	

The above table shows, the hypothesis is accepted at 0.05 & 0.01 levels of significance. There is no significant difference between arts and science students of higher secondary level on attitude towards e-learning of Birbhum district in West Bengal.

Graph 4: Arts and Science Comparison figure

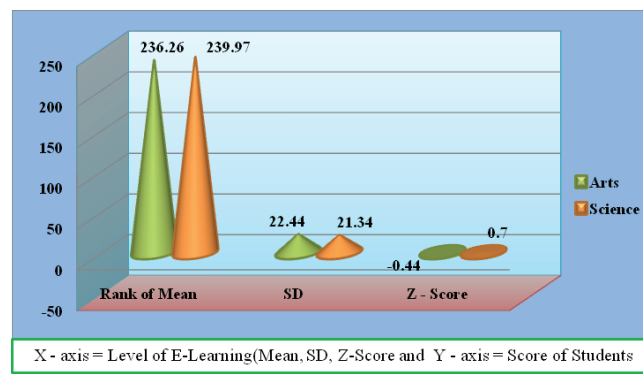


Fig 5: Presenting Arts and Science Comparison Figure

Research Findings: The major findings of the study revealed that 1.62% of students have extremely high and 2.50% of students have an extremely low-Level attitude towards e-learning. In this study it has been found that 30.83% of students have a positive attitude towards e-learning, 32.50% of students have negative attitudes towards e-learning and 36.67% of students have average attitudes towards e-learning. It is also found that all hypotheses are accepted at 0.05 & 0.01 levels of confidence. There are no significant differences between male & female students, rural& urban students, and arts & science students of higher secondary level on attitude towards e-learning.

Conclusion & Interpretation: In developing countries like India, it is quite challenging to maintain the quantity and quality ratio with the present vast young population. That's why India as like all developing economics around the world started to adopt ICT tools like e-learning, virtual learning in education to meet the growing demand and aspiration. So, the implementation of the e-learning strategy is very much significant in this direction to control the quality of a large quantity of mass. The emergence of this unconventional approach in education helps the students in developing motivation and confidence to reach the global standard; as well it helps to accelerate the level of education.

From the present study, it can be revealed that the attitude of the higher secondary school students towards e-learning is independent with regard to gender, locality, and stream. It is conducted to compare attitudes towards e-learning among the male & female, rural & urban, and arts & science students at the higher secondary level. The result of the present study revealed that most students found the average attitude towards e-learning and there are no significant differences among the male & female, rural & urban, and arts & science students in their level of attitude towards e-learning at higher secondary level school. It may be the fact that the students started to develop a positive attitude towards e-learning due to various initiatives taken by the education sector for its advancement in this modern digital era. Therefore, the present study suggests a greater probability of e-learning that they will accept it, as the attitudes towards e-learning have been found to be moderate among higher secondary school students and it is expected that they will use the e-learning strategy for their learning. From this study, it may be concluded that higher secondary school students are ready to take the opportunity of e-learning mode. However, the above assertions require more systematic analysis and verification.

Suggestion for the Further Study: The following study may be undertaken by the researcher to further strengthen the research area of Attitude towards E-Learning at higher secondary level school students. This research was conducted considering a particular block as a sample. Similar researches could be conducted to focus on every block of this District or could be conducted to focus on every District of this State and streamline the most preferred courses. The research findings could also be compared with other blocks and districts to determine the value and attitude of the e-learning of students or teachers or parents. This would help in obtaining the emphasis on various factors such as technology, the course structures, and availabilities, etc.

The present study is limited to higher secondary level students of the Dubrajpur block. A similar study can be extended to different educational levels and different sampling areas such as Schools Teachers, College Teachers, University Teachers, Parents, Administrative Person, and other Service Man.

Similar studies can be conducted for a large sample for a longer duration representing different districts to ensure the validity of the study.

- It will be a better study if more variations are created in the target group.
- For collecting information other techniques such as interview, observation may be used to create varieties in the method.
- Multiple techniques for data collection could be employed in the future. If possible some qualitative research methods like phenomenology, technography, case-studies, etc. may be used.

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Bio Profile of the Authors:

¹Assistant Professor, Department of Education
 Kazi Nazrul University, Asansol, West Bengal
 Email: nandinibanerjee11@gmail.com

²Assistant Professor, Department of Education
 Arsha College, Purulia, West Bengal
 Email: amarnathdas2011@gmail.com

³M.A. Scholar, Department of Education,
 Kazi Nazrul University, Asansol, West Bengal
 Email: chiranjitn280@gmail.com