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Knowledge and Attitude of the Undergraduate Students towards E–Learning

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Abstract
In the current age of technology, technology is the most importance in the entire world of mordant education system. E-learning has an important role to play in the development of the education system in the technological world. Students learn their learning skills from anywhere with the help of e-learning system. The study was conducted to examine attitudes and knowledge of UG students in West Bengal towards e-learning by taking (200) students from ten general degree colleges. We used the convenient sampling techniques for choosing the study sample. For the purpose of the study, the researcher prepared a self- made questionnaire to measure the knowledge and attitude of the undergraduate students towards e-learning. The findings indicated that UG students in West Bengal have a positive attitude and knowledge towards e-learning because they understand that it is easy to use and it is effective for their course.

Keywords: *E-learning, attitude, knowledge, locality, gender, Undergraduate Students (UG students)*

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I. INTRODUCTION

E-learning has an important role to play in the development of the education system in the technological world. The traditional theoretical method of teaching with Chalk and talk has been used for many years, but with the advancement of information and communication technology, the learning strategies is also changing. The chalk and talk method is now being replaced with online learning platforms around the world. E-learning, learning online or acquiring the knowledge of electronic learning that occurs through electronic technology and media is referred to in simple terms, e-learning is defined as "teaching that enables electronically" (Pathak, 2019).

The traditional way of teaching with chalk and talk has been used for many years, but with the advances in information and communication technology, the teaching pedagogy is also changing. The chalk and talk method is now being replaced with online learning platform all over the world. E-learning, also referred online learning or electronic learning the acquisition of knowledge which takes place through electronic technologies and media. In simple language, e-learning is defined as "learning that is enabling electronically" (Pathak, 2019). Typically, e-learning is connected on the internet, where students can access their learning materials online at any place and time. E-learning most often takes place in the form of online courses, online degree or online programs. The future of online learning will continue to see exponential growth. As more educational institutions, corporations, and online learners worldwide start to recognize the importance of online learning, its role in education will only continue to rise. Online learning already has numerous uses in education, and its future roles in education are going to be immense. The agendas of the most successful educational institutions in the world have already recognized that online learning can transform people knowledge, skills and performance, and other educational institutions will likely follow suit sooner rather than later. However, we must not get ahead of ourselves. While the world of online education is undoubtedly an exciting world to be in, many students who are uncomfortable with online learning still prefer the traditional live, in-person teaching methods which they are used to. All students have unique learning styles and online learning will likely never be a one-size-fits-all type of solution to education. With that being said, there's no doubt in the fact that we are in the beginning phase of a new era in education (Pathak, 2019).

In the present age of technological world many changes have taken place in the education system since the advent of technology in educational system. Educational technology refers to when technological knowledge is used in education to make the learning and teaching process useful to the students. At present times, hardware and software technology play an important role in - performing student-centered education system. These two

types of technology have made the present education system useful for students more psychologically (Bloggers, 2020).

E-learning is a useful tool for performing student-centered education system in present time. Individuality predominates in the e-learning process. Through e-learning, students can manage their own learning according to their abilities and interests.

1.1 What is e-learning

A learning system based on formalized teaching but with the help of electronic resources is known as E-learning. While teaching can be based in or out of the classrooms, the use of computers and the Internet forms the major component of E-learning. E-learning can also be termed as a network enabled transfer of skills and knowledge, and the delivery of education is made to a large number of recipients at the same or different times. Earlier, it was not accepted wholeheartedly as it was assumed that this system lacked the human element required in learning(Anonymous,2021).

E-learning has proved to be the best means in the corporate sector, especially when training programs are conducted by MNCs for professionals across the globe and employees are able to acquire important skills while sitting in a board room, or by having seminars, which are conducted for employees of the same or the different organizations under one roof. The schools which use E-learning technologies are a step ahead of those which still have the traditional approach towards learning (https://economictimes.com/definition/e-learing, 2021).

1.2 Types of e-learning

Fundamentally, there are two categories of e-Learning. a) Synchronous and b) Asynchronous. Let we analyze them in detail -

1.2.1 Synchronous e-learning

Synchronous eLearning (Set time - phone/Internet classroom sessions) is real-time learning. In synchronous learning, the learners and the teacher are online and interact at the same time from different locations (Bloggers, 2020). Learning from the sources of*:* Virtual Classroom, Audio and Video Conferencing, Chat, Webinars, Application Sharing, Messaging instantly. To leverage effective instructional methods, tips to drive motivation and learner engagement in the virtual classroom, and other tips check this eLearning course on maximizing impact in the virtual classroom (Bloggers, 2020).

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1.2.2 Asynchronous e-learning

Asynchronous e-Learning (Learner directed, self-paced learning) is pause-and-resume kind of learning. In this type of eLearning the learner and the teacher cannot be online at same time. Learning from the sources of*:* Self-paced online courses, Discussion forums & groups, Message boards. This is all about Asynchronous and Synchronous types of eLearning. Which type of learning do you prefer, please do share! (Bloggers, 2020).

1.3 Operational Definition

Operational definition of important terms used by the researcher to carry out his research work are stated below -

e-learning: A learning system based on formalized teaching but with the help of electronic resources is known as e-learning. While teaching can be based in or out of the classrooms, the use of computers and the internet forms the major component of e-learning. In this study the researcher wanted to know if the undergraduate students of West Bengal have any idea about different aspect of e-learning like zoom app, Google meet, YouTube, Google classroom etc.

Knowledge: Knowledge is an acquaintance, awareness or understanding of someone or something, such as information (descriptive knowledge), skills (methodological knowledge), or objects (familiar knowledge). The world "knowledge" refers to the theoretical or practical understanding of a subject. In this study researcher intend to measures the knowledge of undergraduate students towards e-learning.

Attitude: Allport (1935) defined an attitude as "a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon an individual's response to all objects and situations with which it is related". The researcher in his research wanted to know the attitude of undergraduate students towards e-learning.

Undergraduate student: According to the structure of Indian education system, students who studying in +3 stages on the basis of a particular discipline are called undergraduate students. In this study researcher selected the students of general degree college of West Bengal as sample.

II. OBJECTIVE OF THE STUDY

The following are the objectives of the study -

1. To find out students' knowledge of e-learning with respect to their gender and locality.
2. To find out students' attitudes towards e-learning with respect to their gender and locality.

III. RESEARCH HYPOTHESIS

On the basis of the review of literature, experts' opinion, and researches in the field of e-learning the following null hypotheses were framed -

H_{01}: There is no significant difference between male UG students and female UG students regarding knowledge about e-learning.

H_{02}: There is no significant difference between urban UG students and rural UG students regarding knowledge about e-learning.

H_{03}: There is no significant difference between male UG students and female UG students regarding attitude towards e-learning.

H_{04}: There is no significant difference between urban UG students and rural UG students regarding attitude towards e-learning.

IV. METHODOLOGY

The descriptive survey method has been used in the present study for conducted the research. The present study is quantitative in nature because data analysis and interpretation is fully depending on quantitative data.

4.1 Population and sample

The population of the present study is undergraduate students of different colleges in West Bengal. In this study, 200 undergraduate students from 10 general degree colleges from Nadia, Murshidabad, Hooghly, Paschim Burdwan, and North 24 Parganas of West Bengal was taken as a sample. Among 200 undergraduate students 91 male students and 109 female students and 100 urban students and 100 rural students were included.

4.2 Tool used

To measure knowledge about e-learning of undergraduate students of West Bengal a scale was prepared with10 (ten) items using Yes/No responses. But, in case of attitude a self-constructed and standardized "5-Point Likert Scale" was used. This attitude scale consists of 31 items under 4 (four) dimensions. Both the scales have good content validity. Reliability of knowledge and attitude scale were found 0.86 and 0.84 respectively.

V. RESULTS AND DISCUSSION

In this study researcher used Google form questionnaire to collect his data. MS Excel 2007 programme was used for statistical analysis of the data. The researcher conducted his study in the month of June – July, 2020.The researcher sent the questionnaire to the undergraduate students of Nadia, Murshidabad, Hooghly, Paschim Burdwan, and North 24 Parganas District of West Bengal and collected all the data with the help of Google Forms and was analyzed.

Table 1 shows that there the mean value of knowledge scores for male and female undergraduate students are found to be 15.53 and 16.32 respectively and calculated t- is 2.20 which is higher than the table value at 5% level of significance. So, Null Hypothesis H_{01} is rejected. Therefore, it can be concluded that there is a significant difference between undergraduate male students and undergraduate female students regarding knowledge about e-learning.

Table 1: Comparison between male and female UG students regarding knowledge about e-learning

Gender	N	Mean	SD	df	t-value
Male UG students	91	15.53	2.68	198	2.20
Female UG students	109	16.32	2.50		

Significant at 0.5% level.

Similarly, it is evident from Table-2 that mean value of knowledge scores for rural and urban undergraduate students are found to be 15.98 and 16.04 respectively and calculated t- is 0.16 is lower than the table value at 5% level of significance. Therefore, it can be concluded that there is no significant difference between undergraduate rural students and undergraduate urban students regarding knowledge about e-learning and Null Hypothesis H_{02} is accepted.

Table 2: Comparison between urban and rural UG students regarding knowledge about e-learning

Measures	N	Mean	SD	df	t-value
Rural UG students	100	15.98	2.80	198	0.16
Urban UG students	100	16.04	2.74		

It is clear from Table 3 that attitude mean scores towards e-learning of male and female undergraduate students are found to be 101.16 and 103.22 respectively. Theoretically, the scores may vary from 31 to155. So, the cutting point of favorableness or unfavorableness is 31 X 3 = 93. As, mean value of both the categories of sample were above the neutral point, therefore, it can be concluded that attitude of both male and female undergraduate

Table 3: Comparison between male and female UG students regarding attitude towards e-learning

Measures	N	Mean	SD	df	t-value
Male UG students	91	101.16	10.97	198	1.51
Female UG students	109	103.22	8.31		

students regarding attitude towards e-learning was found positive. This finding corroborates the work of Mehra and Omnidan (2011) and Adewole-Odeshi (2014) who found that Indian postgraduate students have high positive attitude towards e-learning. Here, calculated t-value is 1.51 which is lower than the table value at 5% level of significance. Therefore, Null Hypothesis H_{03} is accepted and it can be interpreted that there is no such significant difference between male and female undergraduate students of West Bengal regarding attitude towards e-learning. Paris (2004), Colley (2003), Fan and Li (2005) and Liaw (2002) doesn't found any significant difference between male and female undergraduate students regarding attitude towards e-learning.

It is evident from Table 4 that both the mean scores obtained by rural and urban undergraduate students were above the neutral point. Therefore, attitude towards e-learning of undergraduate students of West Bengal were found positive i.e., favorable among both the groups. The computed t-value of comparison was 1.88 which is lower than the table value at 5% level of significance. Therefore, it is evident from Table 4 that there is no significant difference between rural and urban undergraduate students of West Bengal regarding attitude towards e-learning. So, Null Hypothesis H_{04} was retained. In a study Kar (2014) found that there was no statistically significant differences in attitude towards e-learning of university students irrespective of places they were born and brought up either rural or urban area.

Table 4: Comparison between urban and rural UG students regarding attitude towards e-learning

Measures	N	Mean	SD	df	t-value
Rural UG students	100	103.52	9.68	198	1.88
Urban UG students	100	100.97	9.49		

VI. CONCLUSION

It can be concluded that undergraduate students of West Bengal have a positive attitude towards e-learning because they understand that it is easy to use and also effective for their study. It can also be concluded that if e-learning is readily/easily available, then students' attitude will be favourable towards its use. Attitudes towards e-learning do not differ irrespective of gender and locality. However, there is a difference in knowledge about e-learning in respect of gender, where female undergraduate students are slightly better than male undergraduate students in respect of knowledge about e-learning but, there is no difference between rural and urban students about knowledge of e-learning. The reason is that, in the current pandemic situation most of the educational institutions are conducting their courses through online platforms and they are bound to accustomed with e-learning system i.e., on online platforms. This study will help our educationist, curriculum framer, government officials for plaining our educational system appropriately.

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