An Analysis of the Attitude of Engineering students towards E- learning in Bijnor

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ABSTRACT

E-learning plays a significant role in the present educational world today. It has potential to change the whole education system and due to this very reason e-learning's usefulness and application increased day by day among learners. E-learning attracts systematic methods through inter-related theories in technology, psychology and education to develop its bases, principles, and applications for higher education. The objective of incorporating e-learning in learning in higher education is to increase access and to improve academic achievement. This study evaluates the attitude of engineering students towards e-learning in Bijnor. 200 Engineering students studying at different engineering colleges of Bijnor city were formed the representative sample group for the study. Attitude Towards e-learning Scale by Dimpal Rani was used for data collection. The analysis of the data revealed that most of the engineering students studying in different engineering colleges of Bijnor City had average attitude towards e-learning. The study also revealed that Male and Female, Rural and Urban, engineering students did not differ significantly in their attitudes towards e-learning.

Keywords: Engineering Student, Attitude and E-learning.

INTRODUCTION

Learning is an interaction between a learner and an environment which is the outcome of planned activity. Thus learning is a purposeful activity that achieved through planning. Learning is also defined as a change in behavior through some experience. It can be recognized or seen. Learning is measureable and relatively permanent change in behavior through experience, instruction or study. Learning is a product of interaction. Many educators expend enormous amounts of effort in their learning to maximize their result of learning outcome. In spite of all these efforts, a number of questions emerge in our mind that requires answers for example- How effective is the course that we are teaching to our students? , Is this course satisfied the demands of the students? How these demands of learners are resolved? , How better results should be achieved in terms of effectiveness? And how overall refinement can be done?

In Indian scenario we have seen a classroom with few teachers and students that meet physically as a common practice to achieve their objectives. But by the emergence of computer technology and the use of Internet the whole set up of learning is changed. That new set up brings e-learning. E-learning is the learning set up in which the students and the teacher do not meet physically and separated in terms of time and distance. But with the help of communication technology and the use of Internet this separation is linked. E-learning is not necessarily achieved in real time. Thus e-learning is the learning and training of any education course or material by electronic means. E-learning entails the use of a computer, internet and different electronic device that helps in imparting or providing training and learning of several materials.

E-learning is the new technological shift in the modern India and also in the world. E-learning furnishes ample opportunity to teachers and students in terms of teaching and learning. E-learning is a new paradigm shift that uses Internet technology, the digital content and a learner centered environment for the enhancement of teachers and students achievement. E-learning enable us a life-long learner with several options. Thus, it develops learning society. E-learning also plays a prominent role in the growth of educational sector of nation by providing several opportunities of educational development. Through the use of e-learning, new generations of teachers are prepared. These teachers are of 21st century having upgraded skills of teaching and pedagogies for learning.

With the use of e- learning, education is no longer confined to the four walls of the class room. E-learning actually is the electronically assisted learning and teaching. E-learning implies the use of electronic media and information and communication technologies in teaching learning process to achieve the goal of education. The new paradigm of education that is E-learning includes different types of electronic media, that text in electronic form, audio, video, animation, images, audio and video tape, satellite television, pen drive and computer as a purposeful means.

REVIEW OF RELATED LITERATURE

D.W. Sanders & A.I. Morrison-Shelter evaluated the attitude of undergraduate students towards the web-enabled learning in reference to the course of biology. The interpretations of the representative data revealed that there is a positive influence of web based learning on critical thinking skills and problem-solving skills. The result also shows that web based learning also enhanced student learning.

Naila et al. done analysis on nursing students in order to find out their attitude towards E-learning. 120 nursing students were selected for data collection. The data was analyzed quantitatively. On the basis of questionnaire that was distributed to all students to measure their attitudes towards E-learning, students are ready to adopt E-learning in education. Technical support and stress were the few factors due to which students discouraging to adopt E-learning.

Neelam Dhamija examined undergraduate students' attitude towards the utilization of E-learning in their academics. Self made attitude scale was developed by the investigator for the study. 300 students from arts, commerce and science streams were taken as representative sample. The findings of the study revealed differences in attitude among different stream students. The analysis of the data also shows that students posses affirmative approach towards E-learning. The result found that there were no differences in attitude among arts and commerce students as well as arts and science students. Also there is no differences in attitudes were observed between commerce and science students. Lastly the significant difference was observed in attitudes among students with reference to gender and locality where they reside.

In opposition to above results, Anant did study on undergraduate students of Aligarh Muslim University and found that there are no differences among rural and urban students as well as among male and female students. A computer attitude scale was used as tool to measure attitude of students towards computer. The findings of the study revealed that all students have favorable attitude. Rural girls showed less favorable attitude in comparison to urban girl students.

Rhema et al. analyzed perception and experiences of students studying in two different Lybian universities about technology enabled learning. The findings revealed that demographic features, technology access, technology utilization in learning, technological skills and technology satisfaction on student's attitude were having more impact. The analysis of the study revealed that demographic features such as gender differences, locality of student, current enrollment year and age have no effect on students' attitude towards E-learning. Those students who have access to technology were more favorable in attitude towards E-learning.

Krishna Kumar and Rajesh evaluates higher education teachers' attitude towards E-learning. The findings show that higher education teacher possess favorable attitude towards e- learning as study outcome. They also report that there were some differences in approach towards using E-learning.

The teacher's familiar with computers and technology shows favorable attitude as comparison to technologically novice teachers.

The review of the related studies enumerated above exhibits that a very few studies were undertaken on the attitude of engineering students towards E-learning in India.

NEED OF THE STUDY

Technology enables the opportunities of education in the context of future need. Students, faculty, staff and administrators are now techno savvy. They use technology in their daily activities. E-learning shows ample opportunities for engineering students with respect to their practical and other activities. Now a day's everything is based on technology. All things are available online. Those who are not technologically literate fail to meet the wonder of life. Thus e-learning is an important asset for all students in this new era of technology. The paradigm shift in learning that is the use of e-learning in learning and teaching with learner centered environment is popular. There are very small numbers of research on students' attitude in graduation level towards e-learning. Therefore, the researchers feel that particularly the engineering students' attitudes as would be technology graduate students can never be ignored. Thus keeping this thought in mind, the investigator wants to study particular students of engineering background. It is also expected that this small study which is planned to be conducted on Bijnor City will make some significant contributions in the field of engineering.

From the aforesaid discussion, it is clear that proper understanding of the e-learning among engineering student is pre requisite. As they are the future of the nation, thus needs to be developed technologically advance to compete in the challenging scenario. Thus engineering students are essentially to be well acquainted with E-learning. Also there is need of developing suitable strategies that can improve their knowledge and skills regarding e-learning. Thus investigator wants to know the attitude of engineering students towards e-learning. The investigator also restricts her research work to Bijnor District of Uttar Pradesh due to the limitation of time and cost.

STATEMENT OF THE PROBLEM

The statement of the problem of above study is:-

"An Analysis of the Attitude of Engineering Students towards E-Learning in Bijnor City"

OBJECTIVES OF THE STUDY

The objectives of the study are as follows:

1. To study the attitude of engineering students towards e – learning in Bijnor City.

2. To study the difference in attitude of engineering students towards e- learning with reference to gender.

3. To study the difference in attitude of engineering students towards e- learning with reference to locality.

HYPOTHESES OF THE STUDY

The hypotheses formulated for the present study were:-

1. The Level of Attitude towards e- learning among the engineering students is very high in Bijnor City.

2. There is no significant difference in attitude towards e- learning between male and female engineering students.

3. There is no significant difference in attitude towards e- learning between urban and rural engineering students.

METHOD

To achieve above objectives, the survey method was used to collect the reliable data.

POPULATION

All the engineering students of Bijnor City of Bijnor district are the population of the present study.

SAMPLE

Sample of 200 college engineering students were randomly selected from 4 purposively selected engineering colleges of Bijnor City.

TOOL

Attitude Towards e-learning Scale developed by Dimpal Rani was used to collect the data. It is a standardized tool used to measure the Attitude Towards e-learning. The mentioned scale is categorized in four major areas: e- Learning interest, usefulness, ease of e-learning and e-learning confidence. The positive and negative type total 65 items have been distributed in these aforesaid four areas. The scale is a five point scale. Strongly Agree, Agree, Undecided, Disagree and Strongly Disagree are five point of scaling where there is separate scoring for the positive and negative items.

STATISTICAL TECHNIQUE USED

Collected Data was analyzed with the help of following statistical techniques namely: Mean, S.D. and t-value.

DELIMITATIONS

The study was delimited to the following aspects:-

*Region*: The investigation was delimited to Bijnor City of Bijnor district of Uttar Pradesh.

Educational Level: The study was delimited to the engineering students of the Bijnor district.

FINDINGS OF THE STUDY

The whole sample of engineering students was grouped into different level of e-learning as suggested by scale of Dimple Rani. According on the percentile norms given in the manual of Attitude of e-learning Scale, the students were categorized into seven groups. Extremely High, High, Above Average, Average, Below Average, Low and Extremely Low are the categories of level of attitude of e learning. The distribution of engineering students on the basis of analysis of data is shown in Table 1. The findings of the study revealed that most of engineering students have average attitude towards e-learning

S.No	Z –Scores	Frequency	Percentage	Level of E-learning
1	+2.01 and above	3	1.5	Extremely High
2	+1.26 to +2.00	24	12.0	High
3	+0.51 to +1.25	43	21.5	Above Average
4	-0.50 to +0.50	89	44.5	Average
5	-1.25 to -0.51	27	13.5	Below Average
6	-2.00 to -1.26	9	4.5	Low
7	-2.01 and below	5	2.5	Extremely Low
	Total	200	100%	

Table1: Engineering Students Level of Attitude towards E-Learning
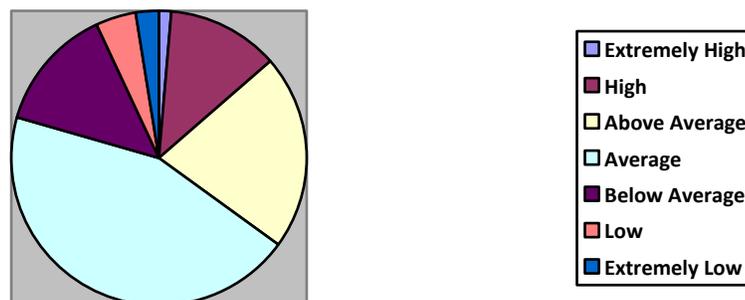
Graph 1: Attitude towards e-learning among the Engineering Students

Group		N	Mean	S. D	df	t- value	Remark
Gender	**Male**	107	229.73	29.17	198	0.61	Not Significant
	Female	93	227.25	28.05			
Location	**Urban**	113	230.13	30.01	198	0.79	Not Significant
	Rural	87	226.84	27.75			

Table-2: Significant differences between Groups

Analysis of the data shows that the obtained t-value that is 0.61 is not significant at 0.05 and at 0.01 levels of significance. Thus hypothesis -2 is accepted and this concluded that there exists no significant difference in attitude of male and female engineering students towards e- learning. The calculated t-value 0.79 for the urban and rural group is also not significant at 0.05 and 0.01 levels of significance. Therefore, hypothesis-3 is also accepted. Thus, there exists no significant difference in attitude of urban and rural engineering students towards e- learning.

CONCLUSION

E-learning brings a substantial change in evolving knowledge and quality in engineering education. E-learning provides ample opportunities to all the learners especially engineering students. E-learning is very useful to engineering students in terms of knowledge dissemination and in terms of approach. The learner centered approach brings confidence among students to deal effectively with the upcoming technological world. E-learning becomes an effective process that involves more senses for better understanding. But due to some existing challenges like lack of awareness and poor internet services the students are not able to avail all opportunities significantly and efficiently.

The study also revealed that the attitude of engineering students towards e- learning is independent with regard to gender and locality. Therefore, the present scenario all students take e-learning as an advanced and effective approach to be learning with. The attitudes towards e-learning have been found to be average among engineering students so it is expected that engineering students should be more involved in the use e-learning strategy so as to enhance their learning. Thus it is concluded that engineering students are opportunist and enjoyed e-learning.

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