Comparative Analysis of E-learning and Distance Learning Techniques

[1]Siddharth Sehra*, [2]Sunakshi Maghu and [3]Avdesh Bhardawaj

[1, 2]*Department of EECE, ITM University, Sector 23 (A), Gurgaon, Haryana, India*
[3]*Department of Applied Sciences, ITM University,*
Sector 23 (A), Gurgaon, Haryana, India,

ABSTRACT

The use of technology is being imbibed globally in delivering education outside the classroom like radio, television and internet making the learning environment better and flexible. With the lessening usage of textbooks and making the material easily accessible through online courses, the scope of distance & E-learning seems more hopeful and relevant. Distance and E-learning are alternate forms of educating which offer a choice in time and course to learn at the learner's own pace and understanding. It may include video conferencing, web lectures, on line tutorials, LMS, etc. It has gained momentum with the advancements in electronic and IT tools. This form of learning is being adopted by almost all the leading educational institutions to gain an added advantage of providing learning to students who have the urge and courage to learn but are refrained by the constraints of distance barriers, demographic predicaments, economic status, etc. This paper critically reviews the comparison between e-learning and distance learning techniques, discussing the effectiveness, drawbacks and advantages of both. Some case studies have been analysed and recommendations for enhancing the effectiveness of these techniques proposed for better and interactive dissemination of education.

Keywords: e-learning, distance learning, video conferencing, LMS, web lectures.

1. INTRODUCTION

Distance learning has created new learning opportunities for students globally. No longer limited by proximity to traditional classrooms, today's students can find online programs in a host of academic fields. It offers many benefits, such as convenience,

flexibility and sometimes lesser tuition rates. Distance-learning classes can present problems for students in the areas of support, interactivity, commitment and technology.E-learning is broadly inclusive of all the forms of education that makes use of technology and multimedia. [1] This form of learning gives a benefit to those who have a credit crunch and is a very effective way of learning, thereby having no environmental drawback with a fast delivery of content from one place to another. The various challenges being faced by E-learning are awareness amongst people, computer literacy, bandwidth and connectivity, adoption rate and language barrier. A comparative analysis has been made here between the two forms of learning, most commonly known as D-learning and E-learning listing all the benefits, drawbacks and areas of improvement. [3]

2. DISCUSSIONS
2.1) THE LEARNING HISTORY
Distance learning: The earliest distance education courses dates back to the early 18th century in Europe. The first distance education course in the modern sense was provided by Sir Isaac Pitman in the 1840s.

E-learning: The term e-learning came into picture in the year 1999, but sources suggest that it was already present in the early 19th century.

2.2) DIFFERENCE BETWEEN DISTANCE LEARNING AND E-LEARNING
2.2.1) Distance learning: Distance learning is a sequential and step by step delivery system that connects learners, regardless of their location, with educational resources provided to them. The resources and a step by step guide are provided to the learner for keeping in touch with normal regular attending students.

2.2.2) E-learning: E-Learning is a term that refers to a wide range of electronically distributed teaching and training materials. It most commonly refers to anytime, anywhere electronic or computer-supported learning and is often associated with online courses. [2]It also includes the power point presentations, short video films, questionnaire based on them and graphical representations to teach all the stuff.

2.3) COMPARATIVE ADVANTAGES OF DISTANCE LEARNING AND E-LEARNING
2.3.1 Flexibility: It is the biggest advantage of distance learning. It holds true for those who are working professional and want to study side by side. It also has an advantage that you can fund your own studies by working. This advantage is also valid as in case of E-learning. It provides us with the advantage of learning and earning which goes hand in hand making it easier for weaker sections of the society to learn things.

2.3.2 Economical: One of the reasons that encourage the weaker section of the society to start learning is that it is financially feasible for them to take up distance learning,

as they offer reduced fees and a similar scope to learn. The Distance learning thus helps everyone in the society to get education, by taking up the same scheme of course as in university and for the one who are pursuing via distance education. E-learning is more on expensive side, as the access to computers is not always realistic for everyone. Thus making it comparatively costly. However, the tuition fee is less as compare to regular learning programme. [4]

2.3.3 Environmental hitch: The use of trees to make paper is costing our environment. The degradation of forest and thus not planting trees is a matter of concern for the existence of ecosystem. The distance learning, require more amount of sheets as compared to regular courses as the content needs to be explained on the paper only and we don't have the access to the faculty directly, so all the information and the data is performed on the sheets of paper thus using up more of paper and forest. E-learning can also save trees by saving paper. Many e-learning courses are entirely self-contained, presenting all content online or providing alternatives to paper based forms of communication through such tools as email, PDF manual, synchronous classrooms and other web-based tools.

2.3.4 Study at your own pace: Not everyone has the same pace of learning. Some students pick up things fast, others need time to grasp a concept. The set of students may or may not have similar doubts. So, it gets easier for them to study a certain topic or a subject at their own comfortable speed. One of the biggest advantages of distance learning is that you can study at a pace that is comfortable for you. This benefit holds true for the E-learning as well, you can spend as much time as you want to on a certain topic without having a fear of being left out or not understanding. This creates a much more effective learning for student. The same topic can be revised over and over again.

2.3.5 Effectiveness: The traditional way of teaching has both pros and cons. But the traditional method of learning is not that effective as the new forms of learning due to various advancements made and the evolution of this form of learning. [5] Research comparing distance education to traditional face-to-face instruction indicates that teaching and studying at a distance can be as effective as traditional instruction. If the mode of education is well planned and sorted out according to the need of the student, then it can be as effective as any other form of education. A nine-year survey of the research literature in training published by Fletcher and Tobias in 'Training and Retraining', commissioned by the American Psychological Society, and published in 2000, concluded that: 'Learners learn more using computer-based instruction than they do with conventional ways of teaching, as measured by higher post-treatment test scores.'

2.3.6 Faculty contact: Lack of personal interaction with teachers often affects the learning curve for some students. This is one major disadvantage of distance learning. Flipping through voluminous books with no mentor to guide you can be overwhelming for some students. No contact directly with faculty can be a real

disadvantage to the students. As, they don't have anyone to contact to directly for the doubts. Thus they don't have any help of the teacher. [6] However, if there is a LMS with teacher, it makes the teaching interesting, we have a mentor as well and an interactive way of learning things which can make our work easier and quicker.

2.3.7 Discipline: Distance and e-learning requires certain level of discipline and punctuality. One should not get distracted to social networking pleasure net surfing while e-study.

3. RECOMMENDATIONS

The number of students are increasing at an alarming rate, thus to provide quality education to them is a major cause of concern. So there needs to be some amendments that need to be made to impart quality education to almost everyone possible.

3.1) Awareness: there is not much of an awareness regarding the insemination of distance and e-learning modes. There should be more advertising and publicity of these types of courses.

3.2) Accessibility: the Provision of contact centres, web class centres and faculty interaction units should be accessible as far as possible regardless of geographic or demographic barriers.

3.3) Infrastructure: Proper access to internet with requisite bandwidth, configured computers, must be provided.

3.4) Language Barrier: This is also a major issue that needs to be resolved, especially in a diverse country like India where everybody does not share the same mother tongue. Language should not be a criterion to judge the learning process and knowledge. So the courses must be in multiple languages.

3.5) Availability of Resource Person: To clear doubts and queries one needs a teacher or resource person. There needs to be proper timing and accessibility to get the doubts cleared. Online guidance is an alternative solution to this problem.

4. CONCLUSIONS

It can be concluded that both distance learning and e-learning can be effective modes of education, especially in a vastly growing population like India. Both have their pros and cons in dissemination and hence a hybrid of traditional and such innovative forms of educational methodology should be adopted and the usage of technology ion education should be effectively maximized.

5. REFERENCES

[1] Aleksandra et al., (2011) E-Learning personalization based on hybrid recommendation strategy and learning style identification, Computers & Education, Volume 56, Issue 3, April 2011, pp 885–899

[2] Anna Wong et al., (2012) Cognitive load theory, the transient information effect and e-learning Learning and, Instruction, Volume 22, Issue 6, pp 449–457

[3] Bradford S. Bell. and Jessica E. Federman (2013). "E-learning in Postsecondary Education." The Future of Children (2013): 165-185.

[4] Jen-Her et al., (2010) A study of student satisfaction in a blended e-learning system environment, Computers & Education, Volume 55, Issue 1, August 2010, pp 155–164

[5] Joi L. Moore et al., (2011) e-Learning, online learning, and distance learning environments: Are they the same? The Internet and Higher Education, Volume 14, Issue 2, March 2011, pp 129–135

[6] Shu-Sheng Liaw et al., (2013) Perceived satisfaction, perceived usefulness and interactive learning environments as predictors to self-regulation in e-learning environments, Computers & Education, Volume 60, Issue 1, January 2013, pp 14–24