

A STUDY OF GROWING POPULARITY AND HINDRANCES IN THE IMPLEMENTATION OF E-LEARNING IN HIGHER EDUCATION

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ABSTRACT

Technology has played a significant role in the education sector; it facilitates equal access of education to all stakeholders. E-learning is an expanding concept of training and development which has enhanced the scope, reachability and accessibility of learning opportunities for all. E-learning means a form of learning which use electronic media or internet to deliver valuable learning experience. E-learning in higher education provides students extra knowledge and enables them to do research which helps to broaden their horizons. Thus, it has become an indispensable tool for accessing unlimited knowledge available from around the world. On the contrary, a number of barriers are also present which cause hindrance in its proper utilization. The researcher has termed these variables as enablers and barriers. Through, this study the researcher has focused on identification of these enablers that encourage e-learning and barriers that create difficulty in the successful implementation of e-learning. The researcher has studied data available on secondary sources and conducted focus group to understand these variables. The study will be useful to policy makers, academicians in understanding the requirements for successful implementation of E-learning in higher education.

Keywords: E-learning, higher education, enablers, barriers.

Introduction

E-learning

The swift advancement in information technology has steered the way for its adoption in education and has become e-learning. Various digital courses have been incorporated in the curriculum and books in the digital form have been made available to the students thus increasing the availability of resources. (Kuo, Chen, Hwang, & Chen, 2015). The landscape of e-learning is constantly evolving. Many educational institutions and universities are redefining the way the education is being imparted and this has led to an overwhelming response towards adoption of electronic learning or e-learning in the curriculum of various institutions, thus opening exciting and new opportunities for learning. Thus, e-learning can be defined as “instructional content or learning experience delivered or enabled by electronic technologies” (Wagner, Hassanein, & Head, 2008).

Thus it can contain the use of internet, computers, mobile devices, videos and various new upcoming innovations for better delivery of useful content to students. The recent developments in the education system also pose as a challenge for the institutions who are trying to implement it (Barajas & Owen, 2000). The growth of e-learning is not curtailed just to the online courses but also extends to any other material which is provided with the help of technology (Bell, & Federman, 2013). To make learning more enjoyable, new concepts such as edutainment are coming up to give “real-world” experience (Mesfin, Ghinea, Gronli, & Hwang, 2018).

Higher education& developments in e-learning

Higher education is generally the undergraduate and post-graduate courses after schools and provides a degree to the student on completion of it. It provides the students adequate skills on which their career depends. Thus it becomes an important part of shaping the personality of the students and has the most applicability of e-learning as at that stage a student has to be prepared for the life and thus gaining knowledge from sources other than the books is necessary.

Various developments have taken place in the e-learning scenario in higher education. At this age mobile phones and e-readers become a part of life for the students and their use and ability to gain access to study material is commendable. These devices also provide access to various smart tools such as dictionary, text-to-speech, and research activities supported by Google, makes an overall atmosphere conducive for extra learning (Hwang, Liu, Chen, Huang, & Li, 2015). In today's world, new applications and software's are also available which can be downloaded for providing extra classes on various subjects and the concept of personal learning environment where a learner can learn according to his/her abilities is growing at a rapid pace. Personal learning environments are tailored according to the need of the learner and provides content delivery based on the pace of the learner (Harmelen, 2006).

Literature Review

Enablers of e-learning in higher education

Enablers are the factors which help in the implementation of e-learning and provide opportunities for the students to learn more and improve their knowledge which is not just restricted to the syllabus taught in classrooms.

Artificial intelligence and internet

Artificial intelligence is the invention of computer software which possess human intelligence and is able to perform simple tasks such as visual perception, speech recognition, translation between languages (Cheka, 2017). With the advent of internet the availability of information has become simple and effortless, thus it is the backbone of e-learning system as without it the accessibility of knowledge to masses would have been a herculean task and also knowledge sharing among students would not have facilitated to such an extent. The artificial intelligence has led to production of systems which help in the easy access of required information on the internet such as electronic books and research material through mobile devices where one can assess it at their convenience (Spector 2013).

Policies and Culture

The strictness or leniency in a policy is a major barrier or an enabler and the way the policies are designed, culture plays an important role in the perceived utility and the formation of policies which further directs the behavior of the students. So if a university decides to be more liberal and encourage their students to pursue MOOC courses from foreign universities to gain extra certification will automatically lead to a mindset towards achieving more and indulging in research work (Cheka, 2017). But these policies are made by the management of the university and they also have to take into account the culture of their university. If the culture is more liberal, the proliferation of e-learning will take place (Ardichvili, 2008).

Supporting tools

The online learning systems and learning communities have been conceptualized as an interaction among humans and technological software's which is dynamic in nature (Ardichvili, 2008). Such systems which help in this interaction in higher education are known as learning management systems and is used by various universities to facilitate content management and attendance records as it can be accessed anywhere over the cloud. This system has seen rapid advancement and adoption while improving the compatibility and making teaching management a simpler task with its storage capacity (Black, Beck, Dawson, Jinks, DiPietro, 2007). The availability of proper infrastructure such as computers provides a plethora of learning opportunities through distant learning and online courses. Virtual learning environment (VLE's) genuinely facilitates e-learning experience of the students as they provides complete infrastructure for not only the students but also for the teachers as they also grow their knowledge by using VLE's for teaching purposes (Barajas, & Owen, 2000).

Barriers to e-learning in higher education

The factors which make the adoption of e-learning difficult are the barriers. These factors curtail the uses of e-learning in one's academic life.

Assessment of the learning of the students

Evaluation is an important part of learning process which indicates about how much the student has been able to grasp the learnings. E-learning platforms uses various different methods for evaluation of students such as MCQ tests, intellectual reasoning, etc. and students can attend these tests at any point of time and they mostly do in the absence of teacher, as it can lead to malpractices such as cheating, that is searching for the answers from the internet. Thus it of utmost urgency that the accountability of the students is raised but the focus should be on improved learning (Spector, 2013).

Culture of the institution

Sometimes the culture is so strict that people don't want to adapt to change. Hofstede's uncertainty avoidance model explains this practice that in countries with high uncertainty avoidance index, people don't appreciate change and like to follow the same old traditions. Similarly while adjusting to technology both students and teachers are non-adaptive and this leads to lack of flexibility towards accepting e-learning as a mode of teaching as well as learning. People also don't want to change because they see it as negative and as extra work without thinking much about the usefulness (Kumar, & Artemi, 2010). The institutes sometimes don't want to change because of additional costs which they will have to incur for the training and the infrastructure.

Communication and outcomes

In most of the e-learning materials, except virtual classrooms and webinars, there is lack of interaction between teacher and students which is a key hindrance to its effectiveness as students tend to lose their focus while just listening to the study material instead of an active communication. Such concerns are raised when students are unable to find answers to their questions which is not the case with the traditional classroom learning as teachers can resolve the doubts of the students. Thus when students are unable to clarify their doubts, they lose their focus and the basis of e-learning fails, which is to enhance the knowledge (Cole, & Timmerman, 2015).

Research Methodology

Objectives of the Study

- 1) To study the role of e-learning in providing additional knowledge to higher education students.
- 2) To study the hindrances in the effective implementation of e-learning in higher education.

The researcher has gathered his research material from secondary sources such as Jstor, Google Scholar, Scopus, Emerald and Ebsco. Descriptive type of research design is used in the research designing of the research and non-probability sampling method is used as a research methodology. The researcher has used non-probability sampling because it is fast, easy and inexpensive way of obtaining data. It is a method of selecting units from population using a subjective method. The researcher has also conducted a focus group interview to understand the enablers and barriers. The questions were answered by the students based on their own experiences with e-learning methodologies. The responses were recorded and carefully monitored.

Findings and Discussion

The findings under objective of the study are presented here.

S. No	Questionnaires	SD	D	U	A	SA
1	Would you prefer to do online course seven if your university/college is in different thinking towards you doing it?	2.0%	2.5 %	3.9%	76.2%	15.4%
2	How should the assessment of online courses be designed to prevent malpractices?	3.6%	7.8%	4.8%	66.8%	15.8%
3	Have you ever faced difficulty in resolving your doubts in online courses?	7.8%	15.7%	4.8%	53.9%	17.8%
4	Have e-Learning helped to remove such a communication barrier?	4.9%	8.6%	5.9%	68.9%	11.7%
5	What blend of e-learning and traditional classroom learning would you prefer.	4.9%	9.6%	5.9%	65.9%	13.7%
	Overall	4.38%	9.84%	25.3%	60.06%	14.88 %

Note SD=Strongly Disagree; D=Disagree; U=Uncertain; A=Agree; SA=Strongly agree.

Table 1 Responses of higher education students on e-learning in providing knowledge.

The researcher has focused on both secondary and primary sources of data in this paper. The overall findings of the collected data revealed that the majority of higher education students agree for e-learning as it is platform available 24*7 to keep on continuous studying and invest time in learning new things through simple mode of practice. Students reacted positively that sometime or the other they have been indulged in malpractices such as cheating in the online courses as the college forces it upon them as the certification is required by the professor's for grading and when they lack time they switch to searching for answers from Google (Spector, 2013). Students told that if they are not graded by the faculty and when they do it themselves for additional learning, they would not indulge in malpractices as they will be cheating themselves at that point. Students suggested that it can be

prevented by adding trackers to the website, so that they cannot change their tab while giving the assessments to make it more reliable.

Students were of the opinion that to remove such a barrier, the website can create a forum for the people taking that course can resolve each other's doubts and live sessions with the tutor of the course and if the mail id or the phone number of the tutor be provided, it can aid them in their doubt clarification process. Very few websites provide these forums and one such website is Coursera, edx, Great Learning, Smart Learning etc which helps you to learn with other people taking that course. Thus, it should be incorporated in other websites as well.

Conclusion

This study concluded that majority of higher education students need e-learning implementation should be based upon the requirement of students to have the assurance of efficient utilization of the resources provided to them, as the liberty to choose on their own the type of courses or virtual classroom lectures, would help them to be motivated, and focused in their pursuits of knowledge. The data collected can be used to implement the e-learning solutions more efficiently so that students are able to learn more instead of being deceptive. E-learning has become a popular concept in many universities and with the advancement of technology; the software development should be such that it provides memorable learning experience and also should result in fairness in assessments. Thus, e-learning has opened new horizons to explore but can be improved by removing the barriers for a more productive learning.

Limitations and Scope for further research

The study has various limitations and scope for further research as the participants in focus group study were limited and all belonged to first year. It can also be different for students pursuing different degrees and graduates might have a different experience than undergraduates. The questions were based on online MOOC courses but didn't venture into other categories of e-learning because of the limited experience. The secondary sources include journal, articles and other web-based resources but books were not used for reference.

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