

E-LEARNING AND ITS EFFECTS ON TEACHING AND LEARNING

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Abstract

E-learning programs are expected to influence a broad array of skills, and due to their potential to affect the educational system from pedagogy to curriculum their integration needs to be done at multiple levels of the educational system. Today the approach is no longer simply putting computers in the classroom and connecting to the Internet. Indeed, a critical area at the system level to highlight is the pedagogical aspects of technology as a tool for learning, integrated into all aspects teaching and learning. Technology should become a student's intellectual partner, and the focus should be on how students learn with technology. It is expected that the most direct impact of e-learning would be on the learning achievement of students.

Keywords: E-Learning, Computer, ICT

Introduction

India has taken a very long leap in last few years to improve its educational system and structure, number of colleges and number of students has increased dramatically which helps educate a large no of student in different ways. Government set up lots of bodies, centers and started different project to educate its large no of population, government have started lots of distance and online learning programs.

E-learning has already influenced the field of teaching and learning. A growing number of college courses are delivered over the web and are increasing student numbers. Many directors of management colleges believe that web-based learning is the future method for their training programmes. However, the field lacks enough documentation to show that e-learning is an effective delivery mechanism in relation to the individuals being taught

Several experts have found evidence that presenting information through different approaches leads to more effective teaching. However, when it comes to adapting traditional training materials to the different learning styles of students, educators may find certain difficulties. This could imply a serious threat to the quality of teaching.

Flexibility and adaptability

The key to success in learning is adaptability and e-learning guarantees effectiveness in training. Students can access study materials online anytime and from anywhere. This flexibility allows learning to be adapted to individual needs, creating an optimal environment for academic performance. E-learning allows the personalisation of learning in an unprecedented way. With the help of algorithms and data analysis, educational platforms can design a study plan adapted to the skills and needs of each student. This encourages more effective learning and ultimately improves academic performance.

E-Learning Technologies and Configurations in Colleges

There are many e-learning settings and technologies available to use in Colleges, each with their own advantages and applications. Often the best solution is a combination of technologies depending on the particular need and learning environment.

Multimedia Classroom

In a multi-media classroom, educational content is delivered to students in a one-to-many approach. This is cost efficient per pupil, and can provide a large amount of educational resources to students.

Classrooms would be equipped with a projector, screen (or large LCD), speakers and a classroom computer. The teacher could display various types of content that is housed either on the classroom computer or on the teacher's laptop or other device. The teacher would be able to adapt and project various content (e.g., videos, PowerPoint slides, augmented reality, multimedia presentations, the teacher drawing a graph, etc.). A connected classroom would have wireless or wired communications to a "cloud" of resources. The teacher would thus have access to a wide range of content from the library on the cloud. The computer housing the content could be locally based at the College (which would obviate the need for inter-College communications, and be reliable), at a district or national educational headquarters, or elsewhere.

Connected multi-media classrooms would permit distant classroom teaching, in which a teacher in one College or from a studio could deliver live, interactive lectures to classrooms in other Colleges. The distant classrooms would need to be outfitted with video cameras and microphones, as well as projectors and speakers, to communicate with the distant teacher.

Computer Lab

A computer lab is among the most recognizable form of e-learning technologies. A computer lab usually consists of many single personal computer stations. This is a common arrangement found in Colleges throughout the world. There are many educational software packages available that could be installed for student use. Separate stations permit individual students to move at their own pace through material. Teachers can also lead students or student teams through guided exercises, with each following on their own station. Free computer time itself is a valuable educational resource.

Installing separate computers is an easy to set up, since it is simply single stations behaving independently. Computer labs can be, however, more expensive per student due to the individual computers and software licenses. They may also have higher power consumption demands, depending on the computer or device, necessitating low-cost power solutions.

Multi-seat computing consists of using one powerful personal computer with extra video cards to support up to eight independent "seats" (each with its own monitor, keyboard and mouse running separately). They can be put in a computer lab for students or teachers to use, or in classrooms. There are several commercially available multi-seat operating system software options including by Microsoft and Linux. This system has the advantage of using much less power than other options. It is usually the least expensive per user as well.

Physical Factors Affecting e-Learning Technologies in Colleges

In addition to educational system challenges, difficult physical environments and electrical power conditions in developing countries can exacerbate the implementation of successful e-learning programs and reduce the lifespan of technological devices. These conditions may include:

- Extreme heat, humidity, and dust. Materials corrode and equipment ages rapidly. Fine dust enters the inner workings of machines, and covers solar panels.
- College buildings: roof leaks, no ceilings, no glass in windows, lack of student desks, insecure.

- Pest problems rodents chewing through Ethernet wires, insects entering computer housing, bees taking residence in the classroom, to cattle scratching themselves on communications towers
- Theft of and non-malicious (curious) tampering with equipment
- Relative isolation of many rural Colleges due to long distances and poor roads
- Electrical power: the electrical grid may be over-extended, and have frequent black outs. The power itself is fluctuating with frequent spikes and dips that can destroy computer and other equipment. Solar systems may be expensive to initially purchase, so low power draw by the system is critical.
- Broadband connectivity may be increasing in the near future to major towns and cities. In the meantime and outside urban centers, Internet can be accessed only through expensive satellite systems or cellular networks
- Computer viruses are often rampant, software is often pirated
- Shortage of trained ICT professionals particularly in rural areas to conduct the required, continual maintenance
- High cost of imported equipment and tools; repair and replacement costs can be high.

Educational Impacts of e-Learning

From an analysis of several international ICT integration plans, the long run adoption of ICT into education systems has been successful when done as an integral and holistic component of education. Technology plans, whether they are at a national level or local level, need to address policy, curriculum integration, professional development, community engagement, infrastructure, and access. Today the approach is no longer simply putting computers in the classroom and connecting to the Internet. Indeed, a critical area at the system level to highlight is the pedagogical aspects of technology as a tool for learning, integrated into all aspects teaching and learning. Technology should become a student's intellectual partner, and the focus should be on how students learn with technology. Understanding how students learn with technology emphasizes the process of how teachers teach with technology.

These goals include using e-learning for more traditional efforts to improve student academic performance as well as newer objectives related to the development of technical and social skills important in the marketplace. Thus e-learning are expected to influence a broad array of skills, and due to their potential to affect the educational system from pedagogy to curriculum their integration needs to be done at multiple levels of the educational system.

Impact of e-Learning on Students

It is expected that the most direct impact of e-learning would be on the learning achievement of students. The results of large, cross-national studies show that the effects on learning are complex and closely related to how the technology is used as an educational tool, and other factors. Putting technology into a College is not the simple solution to improving learning. Kozma (2005) notes "the most pronounced finding of empirical studies on ICT impact is that there is no consistent relationship between the mere availability of ICT and student learning".

E-Learning and Its Effects on Teaching and Learning

E-learning according to Markus(2008) can be defined as a learning process created by interaction with digitally delivered content, network-based services and tutoring support E-learning is any technologically mediated learning using computers whether from a distance or in face to face classroom setting (computer assisted learning), it is a shift from traditional education or training to ICT-based personalized, flexible, individual, self-organized, collaborative learning based on a community of learners, teachers, facilitators, experts. E-learning is the use of Internet technologies to enhance knowledge and performance. E-learning technologies offer learners control over content, learning sequence, pace of learning, time, and often media, allowing them to tailor their experiences to meet their personal learning objectives. To manage access to e-learning materials, consensus on technical standardization and methods for peer review of these resources. E-learning presents numerous research opportunities for faculty, along with continuing challenges for documenting scholarship. Innovations in e-learning technologies point toward a revolution in education, allowing learning to be individualized (adaptive learning), enhancing learners' interactions with others (collaborative learning), and transforming the role of the teacher.

Conclusion

E-Learning can cover a spectrum of activities from supporting learning, to blended learning (the combination of traditional and e-learning practices), to learning that is delivered entirely online. Whatever the technology, however, learning is the vital element. E-Learning is no longer simply associated with distance or remote learning, but forms part of a conscious choice of the best and most appropriate ways of promoting effective learning.

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