Virtual Learning Technology: An Overview

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Abstract

This article traces some of the ways that IT has changed and continues to change our lives, and how information and communication technologies or ICT's are changing learning in schools. In these recent days schools are updating their teaching methodology with the help of technologies. The major focus of the paper is on virtual learning, a term that combines pedagogy and technology. Virtual learning includes synchronous and asynchronous ways of learning. Some world/international schools are using these technologies for better learning. This article concluded that virtual learning technology is emerging widely in the schools.

Introduction

Information technology that enhanced the importance of computer technology has made it possible to work fast. Whatever one wants more effectively and more quickly. It is because of computer and information technology, it has been made possible to have internet, TV's, wireless communication, tele-medicine and many more.

In an age of computers, the traditional ways of teaching and learning have decreased their significance. The innovative teaching-learning methods are expected to execute the teaching more effectively and efficiently. It has become the need of a time to avail the facility/device with the help of which a learner may learn anytime and anywhere. The concept of virtual learning, described by various terms such as e-learning, computer assisted learning, technology enhanced learning or online learning is a flexible mode of learning with learners. This new technology enables the interaction between students and instructors/teachers almost free of time and location constraints.

A Virtual Classroom

A Virtual Classroom is a learning environment created in the virtual space. It is a computer-generated space (computer-mediated communication system), specially designed to host and deliver e-education. Teachers and students interact via the Internet. It allows online interactive collaboration between students and teachers. Activities in the virtual classroom focus on the learner. It is an alternative approach to the traditional instructor based teaching-learning process. Students enroll in courses do homework and interact with students and teachers. Teachers manage the learning process through a learning management system, address questions, give feedback, evaluate homework, confer with parents etc.

Virtual classroom is an environment unlike the traditional classroom. In actual fact, the virtual classroom is wherever we and our computer happen to be. It could be in our room, in one of the University microcomputer labs, or at an isolated site far removed from the school or college campus. Our virtual class schedule is whatever time we want it to be. Virtual classroom provides a perfect environment for online training and gives a feel of being in the classroom itself. Virtual classroom integrates the best learning practices with the power of internet to provide a dynamic learning platform to the learner. The virtual classroom/e-learning has innumerable advantages and the most vital of which are the saving of time and cost, no interaction between teachers and students and no sense of peer pressure.

The objectives of Virtual Classroom are to improve access to advanced educational experiences by allowing students and instructors to participate in remote learning communities using personal computers and to improve the quality and effectiveness of education by using the computer to support a collaborative learning process. Some of the advantages of virtual classes are as follows:

1) Independence and time Management: Students who take courses online often sharpen their ability to work on their own, and they also expand experience in managing their time efficiently. With nobody to stand over them and make them work, virtual learners tend to develop these skills more rapidly than if they were to learn strictly in a traditional classroom.

2) Advanced and Specialized Classes: In many cases, small schools and rural schools simply cannot offer advanced or specialized classes. Virtual education gives students the opportunity to gain experience in areas that would otherwise remain out of reach.

3) Emphasis on the written work: Strong writing skills are essential to success in secondary and higher education as well as in the workplace. Virtual learning/distance education teaches students to communicate more effectively through writing, because the questions they ask and the work they complete is based almost solely on the written words. Virtual learning clearly gives students the chance to widen writing skills.

Modes of Virtual Classroom

A) Synchronous or Real Time Communication: Synchronous communication is a direct communication, where all parties involved in the communication are present at the same time. Examples include a telephone conversation, a company board meeting, a chat room event, instant messaging etc.

The synchronous mode of communication in a virtual classroom allows immediate feedback on queries, motivational encouragement, which provides the learners with a sense

of belonging to a community. Thus, an instructor can be personally involved with learners during the course of an online chat.

Web conferencing is used to conduct live meetings, training, or presentations via the Internet. In a web conference, each participant sits at his or her own computer and is connected to other participants via the internet. This can be either a downloaded application on each of the attendees' computers or a web-based application where the attendees access the meeting by clicking on a link distributed by e-mail (meeting invitation) to enter the conference.

B) Asynchronous: Asynchronous communication does not require that all parties involved in the communication need to be present and available at the same time. Examples of this include e-mail [the receiver does not have to be logged on when the sender sends the email message], discussion boards, which allow conversations to evolve and community to develop over a period of time, and text messaging over cell phones.

Asynchronous teaching/learning is anytime anywhere education. This instruction modality is structured to give learners control on their own development by using a clear statement of topics, activities, abilities and competencies for every unit contain in it. There are no classes sessions instead Internet virtual classes are implemented whereby students visit specific sites. Students do not attend classroom for lectures instead they do: (a) reading from the text book, and (b) programmed activities through the Internet for each session of the course. Both activities ensure the development of required competencies.

C) Self-Paced Instruction: Self-Paced is a flexible online format for programmed self-instruction with frequent tests to monitor student progress. In the self-paced format the rate of progress in the course is controlled by student's effort. However, there should be pre-determined dates to take a number of exams and complete assignments. Students can start the course any time and work at their own pace.

Method of Virtual Learning

Many schools are using virtual technology for the better teaching-learning. It requires computers with internet facility. Teacher and students should have their email ID's and Google+/Skype (or any equivalent functions) Id's for communications. Teachers should prepare and deliver his or her lecture through *video conferencing* and students can attend this lecture real time/synchronous or asynchronous way. Teacher can explain them through slide show presentations also. Students can ask questions relating to topic and discuss many ways [e-mails, chat etc.]. Teacher can evaluate students by giving *test* online or offline. By this way, students can take benefit of eminent speakers/ experts in different fields. In the school level, many subjects are required to be explained by experts. This is the vision offered by three dimensional virtual classrooms and it is one quickly increasing in popularity. Online virtual reality has opened up whole new world for teachers. They can use it for educational purposes. Teachers should operate virtual learning technology for enhancing knowledge.

The Benefits

The convenience of the "anyplace & anytime class" is the primary reason to sign-up for these classes. This perspective does not build a substantive online culture or a community

of scholars. Convenience should not be the main factor for those electing online learning as a primary delivery medium. Flexible engagement affords students and teachers to share a continuum of instructional productivity on demand.

Asynchronous conversations allows students to participate in class discussions without being forced to an immediate response, without being interrupted by another student (or the instructor) or being cut off by the sound of the school bell. Flexible engagement is essential to quality asynchronous learning. All students have to understand their roles and responsibilities and be given access to the appropriate technology resources to carry them out.

Conclusion

The virtual classroom is a functional reality in the present, not a distant dream of the future. It complements face-to-face classroom discussion and activity. The virtual classroom also extends learning beyond the conventional classroom limitations of time and space—faculty and students can meaningfully communicate about scholarly endeavors without being in the same place at the same time. Some of the schools are applying this technology and require adopting this technology by many schools. This is the real challenge to apply this technology in every school. We must include virtual learning technology's theory and practical part in teacher training programs also.

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