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VIRTUAL LEARNING ENVIRONMENT

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ABSTRACT

Virtual learning uses computer software, the Internet or both to deliver instruction to students. This minimizes or eliminates the need for teachers and students to share a classroom. Virtual learning does not include the increasing use of e-mail or online forums to help teachers better communicate with students and parents about coursework and student progress; as helpful as these learning management systems are, they do not change how students are taught.

Keywords : Computer Based, Internet Based, Remote Teacher Online, Blended Learning

INTRODUCTION

Virtual education refers to instruction in a learning environment where teacher and student are separated by time or space, or both, and the teacher provides course content through course management applications, multimedia resources, the Internet, videoconferencing, etc. Personal computers and the Internet have revolutionized entire sectors of American society. Facebook, Twitter, YouTube, Skype and other online communications media have allowed billions of people around the world to share ideas in a matter of seconds, mostly at a very low cost. These advances in computer technology are as remarkable as they are familiar. But most people are not aware of how computers and Internet technology are transforming the way students learn. This emerging education paradigm is often called “virtual learning,” and it has the potential to improve student achievement, educational access and schools’ cost-effectiveness. Specifically, virtual learning uses computer software, the Internet or both to deliver instruction to students. This minimizes or eliminates the need for teachers and students to share a classroom. Virtual learning does not include the increasing use of e-mail or online forums to help teachers better communicate with students and parents about coursework and student progress; as helpful as these learning management systems are, they do not change how students are taught.

Virtual learning comes in several forms:

- **Computer-Based:** Instruction is not provided by a teacher; instead, instruction is provided by software installed on a local computer or server. This software can frequently customize the material to suit the specific needs of each student.
- **Internet-Based:** This is similar to *computer-based* instruction, but in this case, the software that provides the instruction is delivered through the Web and stored on a remote server.
- **Remote Teacher Online:** Instruction is provided by a teacher, but that teacher is not physically present with the student. Instead, the teacher interacts with the student via the Internet, through such media as online video, online forums, e-mail and instant messaging.
- **Blended Learning:** This combines traditional face-to-face instruction, directed by a teacher, with *computer-based*, *Internet-based* or *remote teacher online* instruction. In effect, instruction comes from two sources: a traditional classroom teacher, and at least one of the forms of virtual learning described above.
- **Facilitated Virtual Learning:** This is *computer-based*, *Internet-based* or *remote teacher online* instruction that is supplemented by a human “facilitator.” This facilitator does not direct the student’s instruction, but rather assists the student’s learning process by providing tutoring or additional supervision. The facilitator may be present with the learner or communicating remotely via the Web or other forms of electronic communication.
- **Online Learning:** This is any form of instruction that takes place over the Internet. It includes *Internet-based* instruction; *remote teacher online* instruction; and *blended learning* and *facilitated virtual learning* that involves these two virtual learning methods. It excludes *computer-based* learning.
- **Full-Time Online:** This is online learning with no regular face-to-face instruction or facilitation. It is *Internet-based* and *remote teacher online* learning only, though it may include some occasional interaction with human teachers and facilitators.

Virtual Learning Environment



PURPOSE Of VLE:



- Our society is changing. A new paradigm of education is developing, one that integrates the technology of computers and the Internet in education. We do not only learn from books. We have many technological tools available to us. The use of computers, and especially the Internet, opens a new world of potential. With the use of technology, education can surpass the physical boundaries of the classroom and provide students the opportunity to experience more. Since Gutenberg, the Internet represents the largest transfer of information to occur in history. According to Robert B. Cummings, Director Learning Resources Center, SHRP-SON at University of Alabama at Birmingham market research indicates that we can make the following assumptions:
- 50% of learning will continue to be "in person", involving things only available in person, although most of this activity will be facilitation • 50% of learning will take place on the Internet, which is a better vehicle for cognitive learning due to the extent of information, low cost, and convenience.
- Employers will expect to hire people who know how to learn on-line .
- Education will become more student oriented (convenient), rather than faculty oriented
- Internet will dominate teleconferencing, because it's cheaper (lower technological investment) than video codecs, offers universal access, and has a high level of interactivity.
- Personal computers will be ubiquitous. Following the emergence of the Internet in the early 1990s, many new tools and products have been developed to exploit its benefits fully. Since the mid-1990s the Virtual Learning Environments (VLEs) have appeared with the aim of supporting learning and teaching activities across the Internet. Traditionally the school has been the place where teachers and pupils meet each other. It has been the setting where the institutional teaching/learning process takes place. However, various forms of computer-mediated communication are adding interesting new dimensions to regular school learning. The Internet offers such advantages as flexible access and new ways of communicating and assessing for students and teachers. The Internet also has some disadvantages such as reliance of information service providers, viruses and low speed of connections. However, for the teacher, creating Internet resources that are stimulating, appealing, easy to use and educationally sound is time consuming. The VLEs allow teachers to create resources quickly and without the need to develop technical skills. VLEs provide an integrated set of Internet tools, allow easy upload of materials and offer a consistent look and feel that can be customized by the user.

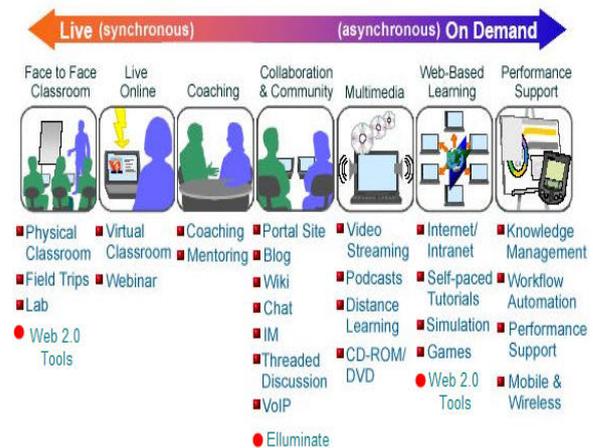
REASONS FOR VLE

Communication – opens up an infinite number of channels in the format of forums, discussion threads, polls, surveys – instant feedback either as a group or individually

- **Producing work** – students do not physically have to find their teacher to hand in work due to secure virtual 'hand-in' folders that have time windows
- **Resource hub** – teachers have infinite online storage space for ppts, docs, worksheets etc. that can either be secure or shared with students
- **Dynamic home pages** – teachers have the opportunity to create an exciting virtual space to represent their room/subject
- **Links to outside sources** – pathways to all other online learning spaces are linked via the VLE
- **Embedded content** – YouTube, BBC, newspapers can all be embedded as the dynamic feed of the homepage
- **Podcasts & videos** – both teacher- and student-produced podcasts and videos have a shared platform; again, either secure or shared.

VLE TOOLS

Most virtual-learning technologies fall into three broad categories. These are not precise divisions — technologies and functionalities overlap as each category evolves.



Lecture capture:

These technologies have come a long way from their roots in rough audio and videotape recordings of class sessions. Lecture capture system (LCS) use involving hardware and software tools to record fully integrated presentation began at colleges and universities, but K–12 districts are catching up. Lecture capture can stretch teaching resources and enrich the curriculum by building a growing store of reusable digital resources. The Cornwall–Lebanon School District in Lebanon County, Pa., adopted an LCS two years ago as a way for its more than 4,700 students to both receive information and create presentations.

An LCS records every aspect of the speaker's presentation, including all the additional materials, such as Microsoft PowerPoint slides, interactive whiteboard annotations or output from a document camera. The recordings are then edited and annotated to create rich, complex presentations for asynchronous viewing by students. Many lecture capture systems also stream live audio and video, providing remote real-time access to the presentation.

Lecture capture lets students catch up on or review class content whenever it's convenient for them. The edited recording can be integrated into a virtual-learning environment and thus becomes a component of a fully online or blended course.

In a software-based LCS, an agent is downloaded on the presenter's computer, which is networked with the other hardware (microphone, video camera and interactive whiteboard) used for the session. The software agent integrates the output from the various tools, including keystrokes on the speaker's computer.

When the edited recording is complete, the LCS automatically distributes a link to students registered in the course and others on a predetermined distribution list. Teachers can also release the lectures on a set schedule. Many systems include tools that promote student interaction, such as polls or requests for responses to the captured content. Results of the polling and student commentary are then integrated into the presentation. Current LCS systems offer high-definition recording and playback at a pixel resolution of 1920x1200 or better.

Webinars:

These interactive online presentations are usually delivered first in real time and then recorded and made available for review or first-time viewing by a new audience. In K-12 districts, webinars are most often used as training vehicles for instructors, though creating a webinar is a common assignment for students in virtual courses in the higher grades. With their highly structured format, webinars offer an excellent platform to focus or expand on important topics.

Most webinars consist of PowerPoint slides that are accompanied by audio explanation by the teacher. Audio is delivered over a standard phone line or streamed via Voice over Internet Protocol (VoIP). Using remote desktop sharing, teachers can talk students through complex topics while using a variety of tools and applications to display information on their computer screens.

The technology needed to support a webinar varies with the technical complexity of the presentation. Webinars work best if everyone in the audience has a high-speed Internet connection. There are many stand-alone software offerings that let schools or instructors create and deliver webinars; that functionality is also available in many course or learning management systems. Hosted webinar applications are also available as cloud services.

Interactive web conferencing: This technology takes many forms, but the main focus is on two-way communication over a distance, with the Internet providing the link between locations. Interactive web conferences can range anywhere from an online chat about homework to a lecture delivered via telepresence. But even in its most basic forms, these technologies deliver real-time interactivity over distance. School districts often use interactive web conferencing to extend the geographic reach of classes. Web conferencing

can let a teacher or expert speaker deliver a lecture simultaneously to multiple classrooms anywhere in the world and respond in real time to questions from students at all locations. The North Slope Borough School District, which is administered from Barrow, Alaska, but includes seven villages spread over 88 square miles, uses video conferencing to deliver courses from Barrow to the secondary schools in each small community.

The requirements for the most basic forms of interactive web conferencing are pretty simple — a software application and an Internet connection. Some districts use web conferencing for virtual-learning courses, virtual review sessions for traditional or blended classes, or collaboration among teachers or students at separate sites.

Positive aspects of virtual classroom/e-learning:

“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.

“Advanced and specialized classes”

In many cases, small school 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.

“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 word. Virtual learning clearly gives students the chance to widen writing skills.

“Knotty aspects of virtual/distance education”

“Lack of face-to face interaction”

Some educators dispute that both teacher-student and student-student contact are essential to the learning process, and online classes eradicate these elements of education altogether. Also, students who excel at class participation need to deem that this piece of the learning puzzle will be missing as well.

“The need to self-start”

Virtual education actually lets students make their own schedules. Those who have a hard time with self-motivation will undoubtedly have problem in this type of educational setting”

CONCLUSION

Virtual learning environments can provide relevant and rewarding experiences. Although currently underused in some curriculum areas, particularly the arts, new technologies will provide more effective means of delivery. Many emerging technologies and networks can be used to enrich and provide greater interactivity within the virtual learning environment. Advances in technology ensure that almost all traditional classroom equipment can be emulated in the virtual learning environment.

The future of virtual learning environments has many innovative and exciting possibilities. New networks can allow students more opportunities way beyond those offered by the Web in its current state but careful planning and innovation will be required to ensure

that the potential for the scope of delivery is reached. The importance of mobility should also be considered so that learning can take place in the most appropriate context. If issues of cost and programming were resolved students would be given access to the range of additional hardware and software required.

One of the main disadvantages of the virtual learning environment is the lack of face-to-face personal interaction and the student social contact, which traditional educational contexts provide. It is because of these factors, and the lack of evidence of how they will impact on student personal and social development, that virtual learning environments may not entirely replace traditional classrooms and teacher pupil contact.

REFERENCES

- [1] Britain, Sandy; Liber, Oleg (1999). "A Framework for Pedagogical Evaluation of Virtual Learning Environments" (PDF). JISC Technology Applications Programme (Report 41). Archived from the original (PDF) on 2014-06-14. Retrieved 1 February 2015.
- [2] Davis, C. (April 2014). Virtual Learning Rubric. Retrieved from <http://www.doe.mass.edu/odl/standards/VLPrubric.pdf>
- [3] Holyoke, M (2011), "What is virtual learning environment (VLE) or managed learning environment (MLE)", WhatIs.com
- [4] Posey, Burgess, Eason, & Jones. "Advantages and Disadvantages of the Virtual Classroom and the Role of the Teacher" (PDF).
- [5] <https://www.researchgate.net/>
- [6] First Virtual Communications, Inc (2001) [WWW document] URL <http://www.cuseeme.com/> (visited 2 January, 2002)
- [7] Flickerman, R (2001) NoCatAuth:Authentication for Wireless Networks [WWWdocument] URL <http://oreilynet.com/pub/a/wireless/2001/11/09/nocatauth.html> (visited 7 December, 2001)
- [8] Knowledge Media Institute, The Open University (2000), Open University of the UK's Knowledge Media Institute's Stadium. [WWW document]URL <http://kmi.open.ac.uk/stadium/welcome.html> (visited 20 December, 2001)
- [9] Microsoft Corporation (2001) NetMeeting Home [WWW document] URL <http://www.microsoft.com/windows/netmeeting/> (visited 2 January 2002)
- [10] NCSA (1994) NCSA Collage [WWW document] URL <http://archive.ncsa.uiuc.edu/SDG/Software/Brochure/UNIXSoftDesc.html> (visited 20 December, 2001)
- [11] PlaceWare Web Conferencing Provides Live (2002), Interactive Business Meetings and Presentations Over the Internet [WWW document] URL <http://www.placeware.com/>