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Synchronous and asynchronous methodology, how Blackboard and Elluminate meet the challenge

Introduction

Synchronous and asynchronous methodology enhances course offerings in university teaching and promotes efficiency and effectiveness in today's business practices. To enhance teaching and learning, computer-based delivery systems simulate face-to-face classroom learning environments. According to Downes (2005), the most prevalent learning technology is the learning management system. The other technology used for online teaching and learning is presentation media. The platforms discussed in this paper, shows how students and teachers communicate through media using digital learning objects (Caplan, 2004), such as audio or videoconferencing, the Internet, telephone or two-way broadcasts. Interaction also occurs independent of human-contact through the same web-based media, albeit, communication between teachers and learners are intermittent occurring in online discussion threads, chat rooms and online tutorials. Blackboard and Elluminate are two web-based learning platforms that integrate synchronous and asynchronous learning.

Blackboard is an interactive learning management system that allows social and independent interaction in a teaching and learning environment using virtual functionality of video and audio conferencing tools.

Elluminate is a synchronous communication media and a true virtual face-to-face learning environment where students created and shared ideas.

The immersion of learning and course management systems into distributed learning opens up new methodology for online teaching; the most important is real-life, interactive

learning at a distance. Through platforms like Elluminate and Blackboard, students are earning

technical and terminal degrees online. In addition, thanks to the Internet and the World Wide

Web, holding meetings are more economical, conducted around the world never leaving the

home-based office. This is all possible, in the words of Pullen and Snow (2007), because of

simul-teaching—a method of teaching and learning that uses both classroom and Internet

technology.

General aspects

Blackboard developed by a group of business men is a learning management system,

designed to stimulate real-time learning hindered somewhat by the virtual digital divide of

distance learning. The technological aspects of Blackboard's six-tiered hierarchical

organizational structure, as displayed below in Figure 1, incorporate several computer applets or

applications to allow virtual communications between the teacher and learners (Coopman 2009).

This system incorporates text with technology making it possible to provide both synchronous

and asynchronous learning. The technology can initiate student responses to online course

materials in chat rooms, and discussion and conference threads since the teacher is not physically

present.

Figure 1: Screen Shot of Blackboard 8.0 course control panel.

SOURCE: Coopman, S. J. 2009. "A critical examination of Blackboard's e-learning environment"

Elluminate is collaborative presentation software giving a virtual appearance of the

traditional classroom environment, using text and graphics displayed on a whiteboard to engage

students in the learning process. In addition, this platform is conducive for businesses to conduct

meetings using video and audio media and the World Wide Web. This presentation software

provides an economical setting for conducting meetings and teaching, because it eliminates the

expense for travel – meetings and learning can take place virtually anywhere, face-to-face

through the computer monitor and the World Wide Web. Although both Blackboard and

Elluminate allow groups to interact at a distance with computer-mediated technology, the

technologies are similar in that they have the capacity to reach mass audiences.

Technological view

General system requirements

Blackboard and Elluminate are both computer-based platforms easily accessed by

computer with an internet and a web browser access that runs on a Windows or Mac desktop,

notebook or computer, and supported by Microsoft and Mac operating systems. Both platforms

use open-source programming languages such as hypertext markup language (HTML) or

extensible markup language XML and need An Ethernet card or high-speed Internet connection

or modem for online connection, although Broadband or high-speed Internet connection is highly

recommended. If using voice, a sound card, speakers or headset is necessary, and a web camera

for video connection is necessary. Java and JavaScript applications may be required for

interactivity. Blackboard and Elluminate need graphics software for drawings and illustrations,

and Blackboard may require server connectivity for retaining and retrieval of course discussion

threads.

<center>The participant options</center>

Blackboard's tiered hierarchal structure uses collaboration tools that make it possible for

students to interact with course content, peers and the instructor. The functionality of the

platform is user friendly. A discussion area provides asynchronous communication where

students share learning or interact in study groups. The instructor also record class sessions on

You-tube or Tegrity using a webcam to allow students who missed "class" or need visual

learning to re-call the lesson, at their leisure.   The students use written communication to

interact in chat rooms and to participate in class activities and discussions, and to assist students

in keeping up with assignments, the instructor post calendars with assignment due dates.

Interactive tools such as videos provide visual help for navigating the platform. Through

asynchronous learning, instructors monitor student assignments using the task tool. Students

also participate in reflective learning activities using a wiki or blog and face book

In comparison to Blackboard, Elluminate also has a platform with a content area or

frame, called a whiteboard (shown in Figure 2). The whiteboard provides real-time interactive

learning for students and is an excellent face-to-face learning simulation. The students actively

participated in interactive assignments with the instructor as the moderator.

Figure 2, below is a screen shot of the Elluminate interface and the interactive tools
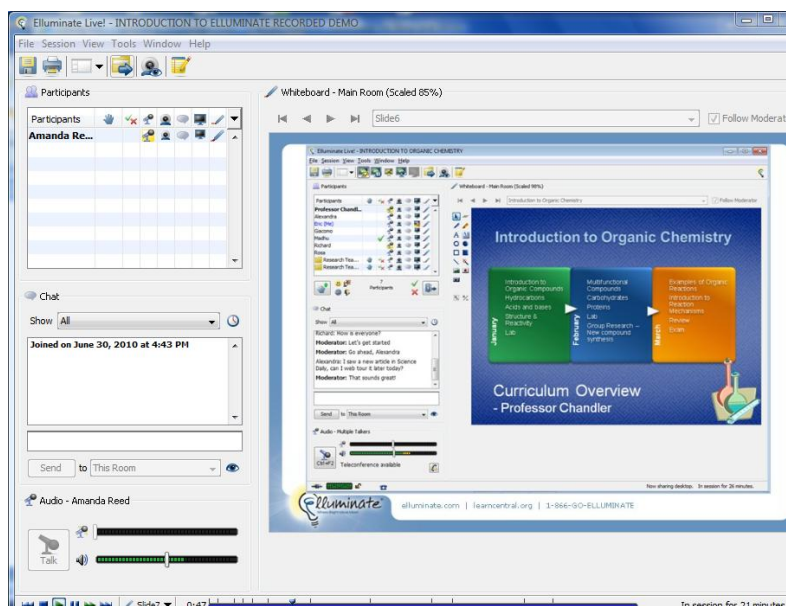
Source: https://sas.elluminate.com/site/external/myelluminate

A text box allows students to enter comments or answer questions. The student can click on the green check mark to answer 'yes' or a red 'x' to answer 'no', or to let the instructor know an assignment was clear. There are several clearly designed icons such as a raised hand to ask or answer a question. The simulated interactive icons allow the student to imitate the face-to-face learning environment. Students who had audio capabilities were also able to participate in the class activity using voice media. The help menu was very helpful for getting instructions on how to type within the main classroom area and using the collaboration tools.

In Blackboard, the instructor uses the control panel to set preferences for students, directing them on how to use the system and share documents and to follow online etiquette to ensure learning takes place. The main content area follows a sequential flow for class organization to ensure participation – class announcements, assignments, tasks, and calendar.

Instructors appear to have control over the Blackboard platform and content areas, for example, the user management area includes assessment and grading tools to provide immediate feedback to the student on their progress. The instructor also has the capability to conduct real-time group or individual evaluation sessions with the student.

Blackboard not only provides mechanisms for student—instructor interaction relating to the course materials, the platform provides more functionality to the instructor to initiate real-time course activities—although I did not experience this in my review. Instructors can also track student participation in the course, when and if an assignment is completed, and monitor how many times a student access the course materials, or read his/her email. The instructor can solicit and generate immediate feedback when the student is not meeting class expectations.

Elluminate's presentation features allowed the instructor to conduct real-time interactive classroom sessions in a synchronous, real-life learning environment. The interactive tools included application sharing of files from other applications, interactive polling sessions and small break out rooms for small group activities. The moderator also lead students in a group activity where students were able to show technical competency and develop a sense of comfort using the technology. Students were also able to discuss class materials and interact in a large group to complete an online assignment. The teacher was able to engage students in virtual dialog using the interface and in the presentation of course materials. The functionality of the technology is user friendly and the interface was easy to access after signing up with a password and downloading the trail version of the software.

Pedagogical view

Pedagogical concepts

The important pedagogic methods used in both learning systems displays the instructor as an enabler, who is knowledgeable about the media and able to integrate teaching methods for adult learners, not assuming familiarity, but teaching by integrating hands-on activities to encourage participation to measure if the student is grasping content. The instructor also encouraged questions. Coopman (2005) says learning management systems challenge instructors to design their courses in ways that interrogate standard forms of learning, inviting diverse voices into the classroom and emphasizing non-dominate academic practices. This was clearly evident in the Elluminate seminar and is evident in the Blackboard six-tiered learning structure where students provide feedback from their learning through discussion and reflection.

Possibilities for interaction

The Blackboard interface has several key communication features displayed in the six hierarchical organizational structures. These include class announcements, messages from or to the instructor, a chat room, email, and a conference area to post comments about prescribed course content or participation in a wiki or blog to reflect on learning or to interact with peers.

In Elluminate, students' demonstrated synchronous learning through practice navigating in the interactive sessions. Students showed an understanding of the technology and developed skills by completing virtual assignments, taking turns, writing on the whiteboard and participating in an instructor-lead class activity. Tools used included the text chat area, the content frame or whiteboard, voice over internet protocol, microphones, and audio connections. Elluminate's large participation area and interactive tools allowed students to raise their hand to answer questions or give comments, as if they were in a traditional learning environment.

Students were also able to interact with peers once the instructor activated the participation tool;

this reinforced learning skills, sharing knowledge, and integrating skills into real-life situations.

Role of instructor

The instructor is the enabler and moderator, as observed in the Elluminate seminar.

Students were able to show technical competency using the technology with the moderator's

prodding and expertise. This activity not only initiated interaction, it portrayed the moderator as

a leader capable of imparting knowledge using web-based technologies, engaging the class in

synchronous dialog. In Blackboard, the instructor is an enabler and navigator who bring

concepts together by summarizing key points from the discussion thread to clarify course

objectives.   The strategically designed course content and interactive tools allowed the students

to follow the course lessons and be active participants.

Key strengths and the key limitations of the systems

The key strengths, found in these learning and course management systems is they both

reinforced learning by integrating group activities and engaging the learner. Students

experienced one-on-one interaction in the Elluminate Live demonstration.   The method of

instruction using technology was conducive for online learning. Blackboard was a reflective

learning environment because of its asynchronous learning process and the lack of immediacy.

The limitations of the systems are the possibility of technical problems. In Elluminate, the audio

system did not work for every participant because some lacked minimum system requirements.

Elluminate experienced technical problems with the audio transmission, and is not able to

transmit large volumes of video content. Blackboard as well as other virtual learning

management systems still lacks the immediacy of face-to-face synchronous learning, all the time.

Conclusion

Both learning systems have the capability of face-to-face teaching and learning using the Internet and digital media such as text, discussion boards, audio or videoconferencing, telephone or two-way broadcasts—allowing students to participate actively in their learning with the instructor as the navigator.   Elluminate is a more interactive learning tool allowing the moderator to conduct real-time group sessions. Blackboard is asynchronous learning because very seldom did the class interact at the same time. Learning and course management systems reinforce learning by integrating group activities and engaging learners using web-based learning platforms easily accessed with internet and web browser access.

<div align="center">R**eferences**</div>

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