Virtual Classroom System

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Abstract

Online learning environments can offer learners opportunities for flexibility, interaction and collaboration distinctly different from face-to-face learning environments. However, the integration of educational technologies also presents challenges and concerns in relation to students’ learning. This article attempts to develop a better understanding of students’ experiences of learning with the specific online learning technology of Adobe Connect virtual classroom. This paper will explore how Institutes/Organizations and their students/employees can benefit from appropriate use of technology in ways that help them learn in an environment which is more conducive as compared to the traditional methods of Face to Face Learning. The paper highlights the potential pitfalls of using VLE. Further, it is explored as to whether the element of Collaboration is supported in VLE or not. The ultimate goal of VLE is to transfer knowledge gained in a virtual environment to an actual real-world setting. The paper discusses the need for assessment of VLE. On the basis of studies done in the past, there is a general and longstanding consensus that skills acquired in a virtual environment can be transferred to real situations and improve real-life task performance.

Introduction

Virtual classroom can be defined as the use of educational technologies to design, deliver, and manage both formal and informal learning and knowledge sharing at any time, any pace and any place. In educational contexts, some e-learning courses are offered fully online without any face-to-face interactions while in some contexts, courses are offered with a blended mode that is the use of both face-to-face and online interactions that are facilitated by educational technologies room.

In relation to challenges and uncertainties about technology, the e-learning Advisory Group (2004) accentuate that technology does not offer a complete solution for a transformative education; rather the practitioners should concentrate on the potentials and uses educational technologies offer individuals to enhance their performance and also the limitations of these technologies that hinder their performance. These potentials and limitations are known as affordances and constraints of technologies in education and they should be thoroughly considered for a 94 IJEDICT successful implementation of e-learning. Focusing on affordances and constraints, this article attempts to develop a better understanding of students’ experiences of learning with the specific online learning technology.
Benefits of Virtual Class Room

1. Improved Contact between Learner and Instructor

The allows personal contact with the instructor through the use of specific software (e.g. Moodle, Blackboard, WebCT, CaMILE etc.). Group members can reflect on previous arguments and reply with a thought-out response. It also allows sufficient time for deliberation. McKeough (2009) suggested that online tutorials give learners more time to read the necessary texts in a flexible way. The frequency and quality of feedback between instructors and learners is also increased.

2. Improve Flexibility

The issues owing to distance gap are ruled out as VLE permits learners to listen to the lectures, thereby removing the need to attend classes completely (Sawaan, 2006; Chattopadhyay and Sumrall, 2007). VLE improves the flexibility of working hours for both students and teachers, and help them manage their time more effectively. They can decide how and when to carry out their activities and take greater control of their own learning outside class time (Potter and Johnston, 2006). Students get an option to combine study and pursue a part-time employment and thus obtain the job experience necessary to enhance their Resume and develop their career.

3. Active Learning

The students become more actively involved as learners. Students are not only getting information but they also take an active part in the learning process. So, although a “virtual experience” does not replace the efficacy of live learning experiences, the combination of media, including video, interactive content, constructed in a carefully considered environment, offers opportunities to improve the learning experiences for students in large cohorts (Stanley and Edwards, 2005). A student is able to look at information from multiple perspectives and various stakeholders’ point of view. A VLE provides engages the student through different activities like observation, thinking, listening, reading, acting, doing and it therefore caters to wide range of student learning styles as compared to traditional learning methods. The students in VLE settings are usually self-directed which leads to development of goal-setting skills, persistence and self-growth.

4. Participation Equalization Effect

In virtual class room system, learners are empowered to post opinions simultaneously. In face-to-face communication, student may want to make a contribution but may not participate due to power distance or any other implicit norm which regulate the conversation flow. Research suggests that groups interacting via computers have more equal participation among members than groups interacting face-to-face. Bonito J.A. & Hollingshead A.B. (1997) had shown that low-status members in face-to-face groups participated less and exerted less influence on group decisions than high-status members. The research reported that they tended to concede more to high-status individuals in discussions; care more about being accepted by high-status individuals and conformed more to high-status views. A large number of Researchers (Clapper D.L., McLean E.R, & Watson, R.T. (1991), Daly B. (1993), Dubrovsky, V.J., Kiesler S., & Sethna, B.N. (1991), George, J., Easton, G., Nunamaker, J., et al. (1990), Hiltz, S.R., Johnson, K., & Turoff, M. (1986), McLeod, P. L. (1992), Rice, R.E. (1984), Siegel, J., Dubrovsky, V., Kiesler, S., et al. (1986), Straus, S. (1996), Straus, S., & McGrath, J. E. (1994) reported that members of groups interacting using VLE participated more equally than groups interacting face-to-face. This finding has been called the participation equalization effect. The reduction of social cues in VLE settings that provide vital information regarding one’s status in a group help students participate without any inhibition or fear.
PROPOSED SYSTEM

Education through the internet, network and a computer is virtual classroom system. This helps in network enabled transfer of skills and knowledge. Virtual classroom refers to use of electronic applications and processes to learn. This is a web based application which can be hosted in the website of any training institute. The students will be able to register online, read the course material and write online exam.

The objectives of this project are
- To provide distance learning
- To make it convenient for people who have other commitments
- Cost reduction
- Reduced paperwork
- Computer evaluated tests

After careful analysis of all the system we found that existing system can provide learning Material on one platform and exam module on another. So, if any people want to do both Like after getting the knowledge on a particular field if they want to evaluate themselves Then they have to take the help of the another platform.

We recognize this problem and in our work given both. At this time we have provided the material in PDF format, but in future we will be adding The features on online classes.

AS A THEORETICAL ACTIVITY THEORY FRAMEWORK FOR ANALYSIS

Activity Theory is derived from socio-cultural and socio-historical theories and draws heavily on Vygotsky's concept of mediation. Vygotsky’s (1978) triangular model includes tool, subject and object and shows the relationships between these elements. However, this model tended to focus more on individuals. Therefore, sociocultural theorists used Vygotsky’s basic mediated triangle as a framework to develop Activity Theory which is accountable for both individual aspects as well as the social nature of activity. Engeström considered activity systems as object-oriented, mediated and collective in nature. Through activity systems analysis researchers are able to observe the interactions that take place among individuals and the environment and how each affects the other (Yamagata-Lynch 2010). An activity is comprised of elements which together form activity systems, and these systems are meaningful units through which to understand human activity (Kuutti, 1996, p. 25). An activity comprises a variety of mediators such as tools, rules and community and division of labour. These elements in an activity system act as mediators and the relationships between these elements are constantly mediated. For
instance, a tool (computer) mediates between the subject (participant) and object (writing an essay), and rules (communication etiquette) mediate between subject (participant) and community (peers). This article attempts to develop an understanding of students’ experiences of learning with synchronous educational technology in a fully online university course. In capturing participants’ experiences and views on how the use of this educational technology affected their learning, the tool mediation principle (shown in top triangle) of Activity Theory will be used in the analysis of this article. The following figure is the basic structure of Activity Theory framework that shows the interrelated elements of an activity system.

RESEARCH METHODS AND DATA ANALYSIS

This study used a qualitative case study approach and data were gathered over a period of one semester mainly through interviews, observation of online activities (Adobe virtual classroom) and analysis of other documents (course outline, marking criteria and activity descriptions). The online learning activity was the focus of data gathering in this research. The interviews took place at the beginning and at the end of the semester when the participants were asked semi-structured questions that were related to their experiences of learning with the virtual classroom.

In this activity system, the subject represents the student(s) who are the focus of the study. The object is the purpose of an activity. In this case, the students’ purpose was to present their research to the other members of the class. The tools that were used in this activity in order to achieve students’ object include physical tools (computers), mental tools (learning strategies), models and virtual tools (functions that were available in Adobe virtual Classroom). The rules for this activity were the duration of the presentation (10 minutes), relevant literature and references (following APA format) and a written script or notes (1500 words). The community of this activity includes the lecturer of this course and the members of the class. Division of labour defined the students’ responsibilities. As part of their responsibilities, one peer had to review the allocated student’s presentation and the notes before the actual activity and also the peer was to propose three questions to be discussed after the presentation.

CONCLUSION

In this paper, a virtual learning system has been developed. The new system is expected to serve as a remedy to the problems and weakness observed in the old system. It will combine open learning techniques based on new technologies (in this case, the world wide web) with conventional classroom teaching. The main intention is to make the learning experience more flexible, stimulating and available around the clock and at any place with Internet facilities (in a pdf form). The students will be able to navigate freely within the virtual classroom environment and enhance information resources used by the students.

REFERENCES


[6] Dr N. K. Jain (VCR Coordinator), Virtual Classroom (VCR), IIT Indore. Project implementation for The use of Virtual Classroom technology alongside the college’s Virtual Learning Environment (VLE).


. [13] Birgit Rognebakke KROGSTIE Introducing a Virtual Classroom in a Master Course: Lessons Learned. The work was conducted as part of the Socrates Minerva project "Virtual Classrooms in European Provision" (http://learning.ericsson.net/virtual/products.shtml) which aims to develop best practice-founded guidelines for the use of virtual classrooms in European organisations, public and corporate.


