



VIRTUAL CLASSROOM- TECHNOLOGY SPECIFIC

Ivy De

Assistant Professor, Gokhale Memorial Girls' College,
Kolkata, West Bengal

ABSTRACT:

Virtual Classroom is a web-based environment that allows individual to participate in life training events without travelling. Virtual classrooms allows students and teachers to communicate with each other using various technologies such as audio, video, internet, email, on-line chatting and other resources. It is an online learning environment which uses both synchronous and asynchronous communication tools such as video conferencing, web conferencing, message boards and charts capabilities. The purpose of the study reported in this paper is to know the nature and characteristics of virtual classrooms, impact of technology on virtual classrooms, how it is helping students in rural areas, the use of other aids and accessories in virtual classrooms and what the actual role of teachers in virtual classroom is.

Keywords: Virtual Classroom, Technology.

INTRODUCTION

There has been a rapid increase in the number of online courses due to high advancement in information technology. Through online communication students are gaining lot of experiences in everyday life. A virtual classroom is an online learning environment using internet, computers where teachers and students are not physically present. Yet they interact with each other through internet. "Virtual" is used here to characterize the fact that the course is not taught in a classroom face- to- face but through some substitute techniques that can be associated with conventional classroom teaching. It is basically designed for students who are unable to attend regular classroom for some specific reasons. It provides students with variety of learning experiences. The students used to get both direct and indirect experiences through such courses.

Today a number of website exists in World Wide Web online database which offers students with variety of study materials in different disciplines. Students are much free to choose their own course of study. Nowadays they don't have to depend on book learning only. While surfing the internet they can get huge information and update their knowledge. They are driven by the goal to use newly found access to global data communication. Without travelling they can learn the course through online, can fill up the form for exam, view previous question paper, examination results and a lot of information on job opportunities, career planning, vocational training which would help them in building their career.

Virtual classrooms allow teacher and students for dynamic interaction through online communication. The soft ware applications of virtual classrooms often use multiple synchronous technologies such as web conferencing, teleconferencing, live streaming and Voice over IP (VoIP) to help remote students with ability to collaborate in real time.

In higher education virtual classrooms maintains the standard of learning by providing students an opportunity to learn in an informal way rather than continuous discussion and lecture method. Recently

Virtual University has been established to offer various courses and programmes ranging from undergraduate to Ph.D., D.Sc. and D.Litt. etc. Virtual classrooms are available 24 hours a day, thus facilitating teachers and students to develop novel ways of teaching and learning.

NEED AND SIGNIFICANCE OF THE STUDY

World is changing rapidly. In today's occupational world there has been increasing demand for specialists, professionals, qualified teachers, students are highly motivated to pursue higher education. Most of the colleges and universities only prefer candidates with outstanding marks. There are some colleges which only admit students who come from high socio-economic background. In that case many students who come from poor family are being deprived from getting higher education. Virtual classrooms have taken a lead role in teaching-learning process. As it facilitates on-line learning students need not have to travel far to take education. They can study while staying at home through on-line communication. This may reduce their cost of travelling and save time. "Earn while learn" can be best served through this Virtual Classroom System. It proves more suitable and economical for running a number of high quality interdisciplinary and innovative courses for the benefit of learners of varied interest.

Virtual Classrooms are also accessible to students with physically challenged as they can access it from home. Learning over the internet offers a wide range of learning flexibility in virtual environments that serve the individual needs of the learner regardless of their age, gender, religion, nationality or disability. This system allows both teachers and learners to utilize their leisure hours more profitably without hampering their daily routine activities.

OBJECTIVES

- To know the nature of characteristics of virtual classrooms
- To know the impact of technology on virtual classrooms
- To know the aids and accessories use for virtual classrooms
- To know the impact of virtual classrooms on educational developments of students in rural areas.
- To know the role of teachers in improving the virtual classroom system.

(1) Nature and Characteristics of Virtual Classrooms-

A Virtual classroom is an online learning environment where teacher and student are separated by time or space or both, and the teacher provides the course content through course management applications, multimedia resources, the internet, video conferencing etc. Such media also aids students to communicate with the teacher. These are in fact cyber classrooms where teacher and students can converse in real time. Just like a real world classroom, a student in a virtual classroom participates in a synchronise instruction, which means that teacher and students are logged into the virtual learning environment at the same time. Virtual courses are the courses delivered on the internet. Here students are free to choose their study materials; there is no burden on them. The students can think independently and act accordingly. They can learn according to their needs and interests.

(2) Impact of Technologies on Virtual Classrooms

The learning materials used in virtual classrooms are text based using HTML, Power Point or PDF documents. Multimedia technologies are used for this purpose.

Hypertext course - Courses in hypertext theory, in writing hypertext, on hypertext literature and design and implementation of hypertext tools are taught in a meaningful way.

Audio-based course - Various audio-based courses e.g. Power Point slides synchronised with an audio track is provided which benefits the learners to understand the matter in a meaningful way.

Video-based course - Video-based courses are like face to face classroom courses where various topics of different disciplines are discussed online and learners watch the video by a way of free ware or plug-ins (e.g. Windows Media Player, Real Player).

Animated Courses - Animation on computers is one of the chief ingredients of multimedia presentations. Animations are created using Macromedia Flash or similar technologies. Through this students make presentations, slide shows, visual explanations of concepts, and visually connecting with their audience, a great skill for the future.

Web-supported text book course - Web-supported text book courses are based on specific textbooks. Students by themselves read the chapters. Review questions, topic for discussion, exercises are given chapter wise on a website and are discussed with the lecturer. Sometimes class meetings may be held to

discuss matters in a chat room.

(3) The aids and Accessories Used in Virtual Classrooms

Other VCR accessories like projector, LCDs, Video conferencing system, server machine, Interactive white board or Touch Panel, Digital Canvas and HD Cameras provide more personalised learning experiences better suited to individuals' learning styles.

In virtual classrooms students submitted their home- work assignments electronically through an attachment to an e-mail. Students download the learning materials from internet prepared by different experts. Also with the use of CD-ROMs, DVDs various materials are provided to students on different subjects thus quenching their thirst of knowledge.

(4) Impact of Virtual Classrooms in Rural Areas

Students in remote communities face many challenges to get an education. This is especially true for indigenous and native people. In many traditional societies people do not know English and speak vernacular languages. For these students learning new content through on line courses may be extremely difficult. Students of these communities are unable to rely on text-based interactions.

Web conferencing allows instructors to use multimedia resources in addition to text. In a virtual class the instructor creates presentations that contain images and text. Along with the presentation auditory supports, visual and textual information on the screen are provided. Sometimes communication between teacher and taught take place through microphone and text comments.

Students in remote areas often face problems with Internet connection. The lack of bandwidth or unreliable internet connection makes it impossible for students to download files and complete their work in time. Web conferencing technology is appropriate in low bandwidth environments. Web conferencing works over any internet connection and functions even on slower, lower bandwidth connection. While some technical barriers may be found in low-bandwidth connections (unclear audio and dropped connections) web-conferencing technology is much effective even in remote areas.

(5) Role of teachers in Virtual Classroom

The traditional course of teaching in a classroom requires a board for the teacher to demonstrate. In virtual classrooms the teacher has the choice of using number of aids to make the lessons more lively. Here the teacher uses various audio-visual aids to gain attention of the learners. This platform allows the teacher to use various graphic tools which helps demonstrate in a manner that speaks more than "just words". In a matter of seconds numbers can be depicted in different kinds of charts and graphs. Colour coding encourages retention by providing a visual stimulation in the form of colour.

Two-way interaction is made possible in real time as most of the virtual classroom sessions are web-based. Debates can be conducted as various other forms of interactive learning tools like role playing. There may be a number of appropriate options available to the students for interacting with their teachers through on-line chatting, e-mail, audio or video conferencing as permitted by the organizational system of a virtual classroom or campus. The teachers may also make use of these interaction opportunities for seeking active participation of students in the instructional process, asking questions for testing their comprehension and evaluating their progress besides giving them freedom for removing their doubts and upgrading their knowledge.

Role playing within the virtual classroom is another way of creating awareness and interests on various issues. The rules of the role play are laid out and a demo is run to show how it works. The audience is then asked to participate in a similar task. The art of negotiation is taught when the classroom is split into the management, the union and workers. Roles are interchanged for different sessions to understand the process of each role, its demands and limitations. Another skill that can be taught through role playing is that of business communication. The class is split into different groups of people who communicate within an organization and a dialogue is run among them. The tone and format of communicate between teachers and taught is thus experienced within the boundaries of organizational hierarchy.

Through Virtual Classroom System teachers can evaluate the progress of the students. After uploading the needed materials from website the students are asked to complete their assignments and send it back for required checking, feedback and evaluation on the part of the teachers.

CONCLUSION

Virtual Classroom with on-line education serves as a resource that has potentials to overcome the difficulties of traditional classroom by meeting the needs of every sections of the community rich, poor, rural, urban, literate and illiterate. Students from lower socio-economic background can satisfy his thirst of

knowledge with click of a mouse. Through virtual learning students, teachers, administrators, businessman, employers came to know the modern use of technologies and their applications in real life. Virtual classroom brings various types of classroom activities at the doorstep of students rather than expecting from them to move and avail these facilities. Students enjoy flexibility of learning new courses through on-line and thus in this way it saves their time and energy. Virtual classrooms offer teachers and students an independent environment, a classroom culture of collaborative learning where they make an effort to know each other and share their VC experiences which could be hardly imagine in a conventional classroom. In fact virtual classroom is class without walls where students and teacher meet with each other at "Cyberspace".

REFERENCES

- 1.Bansal, S.K. (2001). Information Technology and Globalisation. Ashish Publishing Corporation, New Delhi.
- 2.Bates, Tiny. (2001). National Strategy for e- Learning in Post Secondary Education and Training, Paris: UNESCO.
- 3.Hirtz, Sandy (2008). Education for a Digital World. S.L.: BCcampus and Commonwealth of Learning.
- 4.Kem R Tilak, Esirgen Ruhi (1998). Information Technology: Reference of Distance Education, Aravali Book International New Delhi.
- 5.Popov Slobodan, Zarko Braunovic, Stankovic Jovan (2009). Management of institutions and education via e-learning in emergency situations. Novi Sad: S.N.
- 6.Quillen, I. (2010, April 28). E-learning delivery debated. Education Week, 29(30), p. S5. Retrieved from http://www.edweek.org/ew/articles/2010/04/28/30edtech_daily.h29.html.
- 7.Thompson, L. F., & Lynch, B. J. (2003). Web-based instruction: Who is inclined to resist it and why? Journal of Educational Computing Research.