Maximizing learning outcome through Online Collaboration

A Preface to Web 2.0 e-learning solution

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Abstract

What if technology allowed you to teach or learn anytime while sitting at your computer? What if teaching and learning documents became a simple download activity from an online library? What if the student could inquire, without any hesitation from his/her teacher, and then the teacher could conduct the pace of learning live and online? This would make instant collaboration from anyone, live and online, become standardized. Ubiquitous connectivity in today's world brings these benefits to online teachers and students.

Historical Precedence: Transition from classroom teaching to online teaching

From the '*teacher centered*' classroom, the emphasis is transitioning to a '*learner centered*' educational experience. The onset of online learning made education available *anywhere*, *anytime* overcoming the barriers of time and place.

Before the onset of the virtual classroom concept, the paradigm was of a teacher-centered approach. The teachers and students used to meet in a physical classroom at a scheduled time. The role of the teacher was that of an instructor, or aptly, an 'information distributor'. The learners also, did not have much choice to express or access the vast online resources during a physical class with little collaboration. Teacher led education was not accessible to the students living in rural areas or at a distance from their traditional education centers. The scope of education was limited to the course, or the subject was not available. Traditional education institutions like K-12 schools, Universities, and other educational organizations left students little choice and have also been unwilling or unable to relocate to access their resources.
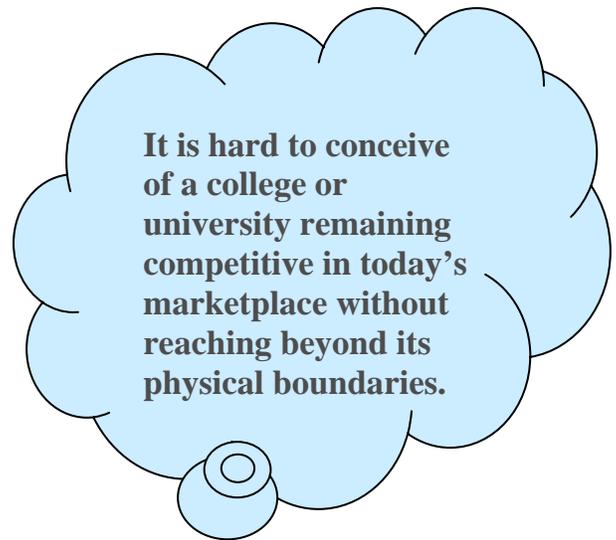
Progressing with technology, education too, witnessed a major restructuring. These transformations involved a change in the values and practices of formal learning. From the 'teacher centered' classroom, the emphasis is transitioning to a learner centered educational experience. The onset of online learning made education available anywhere, anytime overcoming the barriers of time and place. The concept was welcomed because of the student-centered, collaborative approach, access to distance learning courses online, and flexibility to manage the conflicts stemming out of the academic, personal and professional barriers.

Virtual Classroom - a new wave in the world of education

The word 'virtual' in virtual classroom can be understood as "*being actively connected to a network or computer system, usually being able to interactively exchange data, commands and information*" (University of Rhode Island, 2005, p.1). Adding the concept of classroom to this definition would characterize virtual classroom as '*the learning environment where the teacher and learner exchange knowledge live by connecting to an internet platform instead of traveling to a physical classroom*'

An example of such an education is the *University of Kansas Medical Center* that uses a virtual classroom to offer many of its courses and supplemental material for the Schools of Medicine, Nursing, Pharmacy and Continuing Education.

Every year more and more universities and colleges add to the number of web-based classes for their courses and degrees.

It is hard to conceive of a college or university remaining competitive in today's marketplace without reaching beyond its physical boundaries.

What makes a **Virtual Classroom?**

The key characteristics of a virtual classroom are invariably the same as the physical classroom. Primarily, it includes the means to exchange communication and knowledge. Whiteboard in virtual classroom works parallel to blackboard. Drawing and writing tools replace chalk, while audio, video conferencing, and chat replace traditional live interaction. The virtual classroom has an advantage of being technologically advanced with a robust element of content sharing. The content and whiteboard sharing capabilities can be employed for notes exchange, online exams, or grading assignments.

How Virtual Classroom adds to the student's learning?

In an online environment, the learner can pursue learning in an individualized and self-paced way. He or she can instantly query, express doubts and give feedback without any hesitation, which might not be the case in the physical classroom. Elearning allows for more of a self-directed learning process where the knowledge is not just transferred but emerges via web-based technology.

Factors such as geography, disabilities or gender remain less of an impediment in a virtual classroom. With web connected and VC technology, online sessions are far more convenient and effective as the teacher and learner can connect from just about anywhere (based on industry standards of hardware and software and internet connectivity).

In a virtual classroom content is primarily digitally-based and is delivered through chats, whiteboard, and digital presentations (such as the use of Powerpoint). Also, links related to other resources and web-sites can be shared in an online session. Moreover, session recordings are readily available to students to revisit them as required.

One of the main strengths of internet based learning is the enhancement of the geographical sphere for a learner. The learner is no longer bound by place. The learner can also be exposed to multiple cultures and languages in their natural settings.
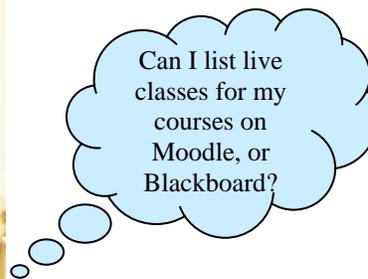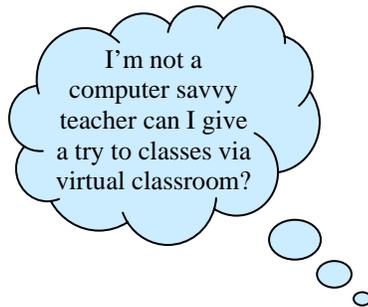
With the different types of interactions like learner-learner, learner-teacher, teacher-teacher, and learner-others, the learner can use a blend of learning styles.

Virtual classroom can be effectively used for individual learning or for group projects like simulations, role playing, case studies, debates, problem solving, and/or brainstorming exercises.

Teachers can easily tailor their teaching style from an instructor to a facilitator, in contrast to being just an instructor in a face-to-face scenario. While teaching a group he or she is can become more of a facilitator, whereas in a one-on-one situation, he or she can simply be an instructor. The flexibility of the virtual classroom surpasses the rigid teaching pattern of a physical classroom. The differentiation of education seekers and providers is also worth mentioning. After gaining a certain level of expertise in a subject, students can find a channel to offer teaching. On the other hand, teachers can learn their subjects more quickly and efficiently with the use of this technology, and share the newly acquired knowledge with their students and colleagues.

Online teaching or learning platform that works best for you?

If the virtual classroom adds vigor to the world of online learning, the challenge lies in adopting a platform that best fits the learning or teaching objectives. Looking at the e-learning market today we come across various live e-learning programs like WiZiQ, Vyew, Interwise, Webex, and many more that offer promising features. But what works best for you? The exercise may involve gaining insight into a few factors:

Key considerations

- **Convenience**
- **Cost**
- **Training**
- **Scalability**
- **Support**
- **Integration with CMS**
- **Satisfaction**

- I use Windows as my operating system and my learners use Mac. Can we still collaborate?

- Is the virtual classroom as effective as teaching in a physical classroom?

- Does the platform adequately support voice over the Internet or do I require a conference call in addition to logging on to the online environment?

- Is the recording and playback of the sessions cumbersome?

What is WiZiQ?

Technology can have a real impact on education if used intelligently with effective teaching practices. WiZiQ, a leader in online Virtual Classroom technology, facilitates such a solution for the learning barriers of reach, distance, time, and cost; while maintaining the value of learning in its true essence. *What WiZiQ achieves is bringing together students and teachers with simple to use technology for a rich online collaboration and effective learning.*

The salient features of WiZiQ include *state-of-the-art virtual classroom*, creation of online educational content, and affordability to connect with persons having similar subject interests.

WiZiQ accelerates both *synchronous* and *asynchronous* modes of learning. The asynchronous online is a self-paced learning mode that allows the exchange of knowledge when the participants can not make themselves available at the same time, while synchronous learning facilitates a personalized interface for teachers and learners for an instantaneous delivery of knowledge in live sessions.

Why WiZiQ?

WiZiQ provides the next best step in face-to-face classroom teaching or learning. The key challenges generally feared in an online environment are the lack of acceptance and interactivity, isolation, training, and loss of objectivity. WiZiQ addresses all these challenges with excellence and helps build a learning environment that strikes a balance among interaction, ease, satisfaction and achievement.

Ease of Use

WiZiQ invariably serves novices and experts. Live learning on WiZiQ is as simple as accessing a website and using a headset and microphone. The virtual classroom set-up has been very carefully designed so that the initial experience of a new user with the virtual classroom is exceptional. The focus of the participants is on delivering or gaining knowledge rather than fumbling with the

Collaborative learning through network

Individual learning needs can be fulfilled through a network of contacts chosen by individuals. This community based network provides the vital scaffolding for building a self-propelled learning environment through discussion forums, groups or question-answer help chains.

On WiZiQ, the individual can share presentations with your friends, colleagues, discussion group members, teachers or students, and exchange knowledge via messages. Real-time collaboration is also available in a virtual classroom.

Live sessions

Making the best use of technology, WiZiQ enables teachers and learners to learn and teach effectively live, online overcoming the barriers of distance, time and cost. This new capability opens up vast opportunities of learning which could not be considered a few years ago. For a live session, you schedule the session for a date and time for your attendees. Any time-zone disparities are automatically accounted for. You can promote your live session through e-mail, in blogs, and on web pages for your courses and also through course management systems such as **Moodle or Web CT/Blackboard.** A session reminder is distributed to attendees a few hours before every session. Availability of archived recordings at the end of each session help learners playback the sessions at their convenience.

Your Content- the lifeline in online learning

WiZiQ's model lets you produce your content online and convert it in a sharable format, with minimal effort. You can make your content semi-permanent, easy to put on blogs, embeddable as objects and links, with the knowledge that your content is living in perpetuity. This open architecture enables learners to use content from a myriad of sources, allows playback by a number of users at no additional effort, and also acts as a substrate of connection among members. Further, a great assortment of materials like MS Word Documents, PDF, PowerPoint, Excel Spreadsheets, Images, and Flash files can be added into sessions as needed.

The major benefit a learner gains is the ability to search and use the vast content resources available on, perhaps, any subject. What is available is free, downloadable, and sharable.

Online Learning for all

Designed with specific evaluation needs in mind for every type of learner, WiZiQ is essentially a platform for all. Learners in the traditional classroom often struggle with challenges such as learning disabilities, socio-economic disparities, and distance barriers. Such learners benefit from the technological support that WiZiQ has to offer. *One might ask the question, "Why is this such an advantage"?* Consider how advantageous the archived, digital recordings of online session are when students and teachers can review sessions at their convenience.

The first and foremost rationale of WiZiQ is to provide a platform that ensures students are able to keep learning. This is made possible by a holistic environment in which knowledge is cultivated and shared with the utmost convenience and relevance to the teacher or learner.

Blend of learning technologies

With WiZiQ, you can use more than one delivery mode, to maximize the learning outcome with minimum effort. Self paced learning (asynchronous) takes place while you share presentations online, fully supported with your recorded voice or audio notes. Learning notes can be rolled out simultaneously to a large group, spread worldwide, in a fraction of the time. In contrast, live learning (synchronous) is ideal where timely verbal interaction is critical for knowledge transfer. Teachers deliver lessons via a virtual classroom platform.

WiZiQ helps to resolve the constraints of geography, time, and learning styles, reinforcing the new paradigm of learning - live e-learning.

State-of-the-art Virtual Classroom

Using WiZiQ's virtual classroom technology, you can learn or teach anyone around the world, regardless of what subjects you learn or teach. Mathematics, Physics, your pastimes, professional development, or mentoring can be delivered with equal ease through the virtual classroom platform. WiZiQ's virtual classroom ensures maximum student participation with real-time tools:

Two-way audio communication and live presenter video

Live Chat, binding the participants through text messages

PowerPoint, PDF, MS Word Documents, Excel Spread Sheets, and Flash file sharing make the sessions content rich through live sharing

Whiteboard space where images or basic Paint style work can be produced with simple drawing tools, mathematical symbols, geometrical shapes, graph, and an ability to load images

Emoticons add engagement and communication in the learning environment

Control Privileges for the teacher to monitor each student in the virtual classroom by locking up features including audio and allowing students to virtually raise their hands to speak

Works on any operating system and browser

Available as a host service, WiZiQ virtual classroom is easy to set up and requires no servers to maintain. It is platform independent and fully compatible with multiple platforms like Windows, Linux, and Mac. You need not worry about compatibility problems. Further, this virtual classroom works well on multiple browsers such as IE, Netscape, Firefox, Opera, and Safari.

No extra hardware or software requirement

The virtual classroom does not require any software installation or hardware pre-requisites except the standards of Adobe Flash and MS applications. The only requirement is a computer with any operating system connected to the Internet with any web browser. There is no need to download or install special client software.

Works with low bandwidth

For this virtual classroom, bandwidth has never been an issue. It works efficiently even with low upload and download bandwidth. Requiring as low as *50Kbps* (Audio), *120 Kbps* (Video) bandwidth for both uploading and downloading, it ensures the good quality of audio and video transmission even if the user is running on low bandwidth. Most of WiZiQ competitors require minimum of *128 kbps* bandwidth which often still results in slower data transfer.

Quality Audio and Video transmission

Virtual Classroom on WiZiQ supports 'Two-way full duplex audio' and full video transmission. This increases the effectiveness as the video sharing feature and ability to talk over internet enhances the interactive communication between the participants. You can use many audio input devices for your microphone, including USB microphone devices and any video input device as a camera including USB and Firewire based cameras.

Maintaining the quality of audio during the event, the virtual classroom settings prevent echo, as long as participants follow protocols, while listening to your own audio, and also automatically adjust the quality of audio on the basis of bandwidth detected on the users' system to have all participants in synch.

WiZiQ virtual classroom thus alleviates the problems associated with physical classroom or asynchronous self-paced learning by facilitating live sessions on scheduled dates and times. Learners can capture the complete course through live sessions and/or viewing archived sessions.

Conclusion

Teaching via physical classrooms has been the dominant form of instructional delivery for a number of millennium. But as the adage goes, "*Necessity is the mother of invention.*" This set forth the new premise that learning should emerge with evolving technologies. And the result is 'Online Learning'. This phenomenal change is reconfiguring learning as we know it. Whether for academics, professional development, pastimes, or personal development individuals and their communities will be engaged more online to learn and teach.

For teachers, live online instruction sounds promising, but also a challenge. The online environment adds to their comfort, flexibility of having multi-flair teaching styles, wider opportunities, and ready access and sharing of courseware. These challenges may include the change in the perception of acquiring new technology skills. For learners, this is optimal. It is a learning environment where better participation, reflection, and collaboration are ensured, and the only requirement is to have an encouraging attitude towards this learning style.