

Collaborative Tools for Enhancing Learning in the Online Environment

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Abstract

The proposed presentation will explore the effective use of Web-based communication tools to foster collaboration in online learning environments. Online students benefit from interaction with other learners just as students do in traditional classrooms. Therefore, it is imperative for online instructors to construct activities that support collaboration in the online classroom. Crafting activities and assignments using those tools is less difficult and more fun than either instructor or student may realize. Outcomes of this paper include a discussion of the need for a variety of communication tools in the online learning environment, the selection of Web-based communication tools for collaborative learning, and specific successful examples of appropriate use of these tools.

The Need for Communication Tools in the Online Environment

As we look at how the educational structure of our society has evolved over the last twenty-five years, we see that technology has made an enormous impact. The way students learn and interact has radically changed. The schools of the 1980s, and earlier, were formed from the neighborhoods so students felt a sense of community within the classroom as they learned. Today, Web-based communication tools help us foster a sense of community and collaboration within our online learning environment.

Students in online learning environments come from diverse backgrounds and may be located on opposite sides of the Earth. Yet they interact with each other and learn from each other in many of the same ways as students do in the more traditional environment of neighborhood schools. Students exchange ideas and build upon each other's knowledge with students they have never seen. But a sense of obligation is there because the students learn together. In the online learning environment, the world becomes smaller and the learning becomes greater through the use of synchronous and asynchronous communication tools.

Why We Should Build Community

Distance education is becoming a more prevalent option for the students of today. There are several important benefits for the online learning environment. Still challenges exist. It is easy for individual learners to slip into isolation in an online environment or to become distracted from their studies. Instructors must present an open active learning environment and develop learning activities that draw out the individual student and bring them into the community of learning.

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Admittedly, participation and collaboration can be a bit more difficult to elicit in the online learning environment. But we can not leave each student to survey the course materials and to form their own conclusions. Students need the fresh perspectives introduced by other learners. The collaborative learning process greatly enhances the depth of learning and the retention of knowledge for many learners. Relationships formed among students helps to engage the students. Online learning environments offer great opportunity to build relationships.

The online learning environment can be difficult to navigate for both faculty and students under the best of circumstances. Balancing personality traits, differing work ethics, and time management skills becomes an exercise in patience and fortitude as we try to find the balance between space and time that separates learners from each other and learners from their instructors. Forming relationships with the students and engaging the students can be accomplished by modifying techniques that are employed in traditional classroom settings.

Characteristics and Challenge of Today's Students

Today's students come to our online classroom with a real level of comfort using all kinds of technology. Consider that the average college student has always had a computer and a digital alarm clock. The average college student has always been able to make copies of their favorite TV shows with a VCR.

It is likely that the average student has used his cell phone and his MP3 player on his way to class. It is likely that he has checked his e-mail, instant messaged one or more of his friends, and read or written in a blog. It is little wonder that students consider technology as a logical part of the learning environment. The use of Web-based communication tools has become expected.

Today's online students face many challenges. Often students enroll in online classes for questionable reasons. Many students have a busy life with too many commitments and not enough time to meet all of their obligations. Some students view online classes as a short-cut to learning and remedy for their shortage of time.

Other challenges include a mismatch between the required reading and comprehension skills of the course materials and the skills processed by the student. In addition, some students lack the ability to problem-solve or manage their time.

Selecting Web-based Communication Tools

We can help students overcome some of the challenges of the online learning environment by including the appropriate use of communication tools as part of the course design. The communication tools that we use to build community, develop collaboration, and enhance learning can be put into two basic categories: asynchronous and synchronous.

Asynchronous communication is electronic communication in which the participants do not need to be online at the same time. Asynchronous tools include course management software (CMS), e-mail, and discussion boards. For many curriculums, blogs are becoming an important and commonly used tool. Because all of these tools are asynchronous, they help to bridge some of the time-related challenges of the online learning environments.

Synchronous communication is electronic communication in which the participants are online at the same time. Users log on and chat but only if it is convenient for both parties. Examples include chat, instant messaging (IM), and Web conferencing. Synchronous tools transcend space and geography but not time. These tools must be used by two or more people online at the same time. In many ways, synchronous tools can provide a greater potential for learning because student's questions receive an immediate response.

Using Asynchronous Tools

Course Management Software (CMS) generally functions as an online classroom by providing a container for our lectures and assessments. CMS provides a set of tools allowing us to track who is accessing the course, the areas they are accessing, when they access them, and for how long. This type of data is helpful when diagnosing learning difficulties or resolving miscommunications.

Another asynchronous communication tool is e-mail. E-mail remains the most popular form of online communication since the development of the Internet. It provides a stable backbone for communications in an online learning environment.

When e-mail is sent to an individual, it can become a personal contact point between faculty and the student. At the same time, this personalization can become a tremendous time-eater for the faculty unless well-managed. Very few of us are able to provide a unique, customized educational experience for each of our students. However, if used judiciously, personalized e-mail can help to promote student success. It is especially helpful for those students who need a bit of extra clarification.

E-mail can be used more efficiently as a listserv or mailing list that reaches every student enrolled in the course. Mailing lists can be used to provide additional online instruction or clarifications to the materials found in the course management software. Every student becomes privy to discourse of question and response due to the very nature of a mailing list.

E-mail does have some drawbacks. Sometimes e-mail responses from readers are very slow to arrive. Students when and if, they open read or respond to course e-mail. E-mail can be lost and has the potential for the spreading viruses.

Discussion boards provide an opportunity to develop writing skills and build knowledge by providing a constructivist environment. They can be used to draw out deep thinking about complex ideas. For example, you can structure collaborative activities so that new roles and tasks are assigned to students with each lesson. One student will give introductory information about a given topic. Then two other students will add to the discussion thread with each student taking a different perspective on the topic. Then another student will complete the thread by summarizing and assimilating all points expressed. It is important to have the students switch roles over the semester to make sure all students have equal opportunities to participate and learn communication skills in addition to the topic content.

Other ways discussion boards can be used is as a FAQ platform providing answers to commonly asked questions. They can also serve as informal student lounges where students interact with others in peer tutoring sessions.

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Discussion board drawbacks include the learning curve associated with the development of well-ordered threads and quality responses among threads. Instruction should be given about how we want students to write their responses so that what we receive from them is readable, make sense, and is appropriate for the lesson. Rubrics are a great way to help students understand the level of quality expectations for their posts.

You may want to provide to one discussion thread already developed as a sample to model for students what is expected. This thread could be available from the beginning of the semester. It could provide important facts on student support services such as where to find financial aid, registration, advising, or the library. Make a thread for each service and state where the office is located, hours of operation, summary of services provided, or other information students should know. This helps students to see where they can find these valuable services and models how a discussion board can be organized.

Blogs are a newer use of technology that allows students to develop their own personal “voice” and sense of ownership of their writing. Similar to a discussion board, a blog allows student to publish their thoughts and ideas in the form of journal that is visible on the World Wide Web.

Because a blog can be created in a way that makes it available for anyone to see, not just the instructor, students tend to focus more carefully not only on their own thoughts as they write. In addition, they begin to focus more on what others write in response as comments. This helps student construct knowledge from statements and ideas.

There are several ways to ensure the successful use of blogs in your course. It is important that students see blogging assignments as serious assignments that align closely with course content. Provide guidelines and suggestions for students to help them organize their blogs into a logical structure and to use dates, lesson numbers, or teams as tags.

Emphasize the difference between formal and informal writing styles so that students create blogs of the appropriate quality. Assign quality points as part of the total assignment score.

Model how to provide feedback to others and insist that all comments add value to the original blog post. Make students aware of the audience; insist on civility and cultural sensitivity. Make students aware of long-term visibility and caution them against sharing personal information.

Using Synchronous Tools

Our students come to our classrooms with lots of experience and a highly developed level of comfort with instant messaging or IM. Educators need to capitalize on this skill and use it to enhance learning opportunities for online students. Instant messaging is a technology that allows for instant communications. Because of the ease of use, IM may surpass e-mail as the primary online communication tool.

IM can be used in several educational settings. You can hold virtual office hours, deliver mini-lectures, and provide library consultations. IM is also very handy for groups as they work on team projects. This can help relieve the stress of trying to get all group members in the same location at in the same time.

There are so many IM clients that are available. Some clients are proprietary and only allow communication with other people using the same client. For that reason, it may be helpful to have a unifying utility installed on your computer. These types of utility program work with all of the clients so that you don't have to log into each IM client separately. However, IM clients are improving all the time and now many IM clients permit you to send and receive messages with other IM clients.

Another synchronous tool, chat, helps to dispel that feeling of isolation because it is likely that the students already know how to use this tool. Most Course Management Software packages include a chat client. It is primarily text-based but most chat clients incorporate several other features such as file sharing, integration of Web links, images, sound and video.

Chat can be used for lectures, virtual tours, make-up lectures, review sessions, guest speakers, advising, or library consultations. Typically, chat clients have an archive feature. The archive feature is extremely valuable in the online learning environment because it provides the ability to review the transcripts as often as the student would like. In addition, students who could not participate in the chat can review the archives.

Typically, archives are printable. This feature can be used for on an online review session. Key questions can be posed by the professor and the students provide answers. The professor makes any corrections needed. Then once the review session is completed, it is archived. The archive can be printed out and used as a portable study guide.

Although it is not used as frequently, Web conferencing adds a fresh dimension to the online learning environment. Once a Web conference is scheduled, you can either have students navigate to a specific URL for the conference site or invite people to join your Web conference by sending an e-mail that contains a link to the conference site. It combines audio and video elements closely simulating a face-to-face classroom experience. Most Web conferencing clients integrate other synchronous tools such as text-based chat area and a whiteboard as part of the package. Web conferences can be recorded and archived for later use.

Web conferencing can be used for workshops, guest lecturers, remote experts, and remote demonstrations. One of the most engaging ways to use Web conferencing is by conducting a workshop within your course. Start by assigning a group of students to become a panel of "experts" on a given topic. Next, create a Web conference where the audience (actually the rest of the class) can ask the panel questions about that topic. Record this session and make it available via a Web site or your CMS for replay at a later time. This technique can be used project presentations in online courses as well.

Web conferencing drawbacks include the need for equipment such as conferencing software, a Web cam, a microphone, and speakers. Some Web conferencing software permits the use of the telephone in place of speakers and a microphone. However, one of the most important criteria for successful Web conferencing is the need to adequate bandwidth. Coordinating voice and data takes large amounts of bandwidth. You must be sure all of your students have access to high-speed connections before using Web conferencing as part of the online learning environment.

Summary

Web-based communication tools can be used to enhance learning in online environments. Through the appropriate use of these tools, you can foster collaboration, promote the retention of knowledge, and diminish attrition in the online learning environment.

Today's students have broad experience with Web-based communication tools. Students appreciate and have some level of expectation that the use of tools such as these will be part of the class communication process. Adding one or more Web-based communication tools to your course will help to engage students and diminish the sense of isolation experienced by some on-line students.