



Educational Benefits of Online Learning

A Blackboard Tip Sheet

According to CCA consulting, nearly 50% of higher education institutions currently engage in some type of online learning. Academic and professional organizations agree that using web-based learning environments can offer sound pedagogical benefits. According to researchers from Cornell University, "the web provides significant new functionality in transmitting information to the student and providing forums for exchange. The web is revolutionizing some areas of study through increased opportunities for learning and alternative formats for information." (Dwyer, Barbieri, and Doerr, 1995).

The goal of this white paper is to explain the educational advantages that arise when supplementing a course with web-based tools. These include:

- Enhancing student-to-student and faculty-to-student communication.
- Enabling student-centered teaching approaches.
- Providing 24/7 accessibility to course materials.
- Providing just-in-time methods to assess and evaluate student progress.
- Reducing "administrivia" around course management.

Online education can be defined as an approach to teaching and learning that utilizes Internet technologies to communicate and collaborate in an educational context. This includes technology that supplements traditional classroom training with web-based components and learning environments where the educational process is experienced online.

This paper explores each of these benefits using the web-based tool Blackboard CourseInfo to illustrate typical web-based learning environment functionality.

Enhancing student-to-student and faculty-to-student communication.

Web-based education tools provide many ways to increase communication between class members and faculty, including discussion boards, chats, and e-mails. Researchers have found that adding these elements to a course increases student motivation and participation in class discussions and projects. Students are "more willing to participate [and] a measure of anonymity, which serves as a motivator... people feel more empowered. They are daring and confrontational regarding the expression of ideas," (Kubala, 1998).

Students share perspectives

Online forums, like CourseInfo's Discussion board and Chat, provide public areas to post information. Each student can view another student's answers and learn through

the exposure to different perspectives. This benefits students because they can combine new opinions with their own, and develop a solid foundation for learning. Research supports that "as learners become aware of the variations in interpretation and construction of meaning among a range of people [they] construct an individual meaning, " (Alexander, 1997).

Students experience a sense of equality

Another benefit to using web-based communication tools is to give all students a reinforced sense of equality. Each individual has the same opportunity to "speak up" by posting messages without typical distractions such as seating arrangements, volume of student voices, and gender biases. Shy and anxious students feel more comfortable expressing ideas and backing up facts when posting online instead of speaking in a lecture room. Studies prove that online discussions provoke more confrontational and direct communication between students.

Instructors are more accessible

Online communication also benefits students by providing additional layer of instructor accessibility. Students in courses that are supplemented by products like CourseInfo no longer have to worry if they cannot make an instructor's regular office hours, as they still have the ability to submit inquiries via e-mail at any time. This is good for the instructor too, as they can respond at his/her convenience instead of being tied to a desk or office. This is particularly helpful when a student's schedule conflicts with office hours or if a question arises at the spur of the moment.

For example: Consider this scenario for a course supplementing a math course with Blackboard CourseInfo. On a Sunday night, a student is reviewing an assignment, thinks of a question, and e-mails it to the instructor. The instructor reads the e-mail Monday morning, looks up the answer, brings up the relevant information to the class during the Monday lecture, and the entire class benefits. If the student waited until office hours on Tuesday, perhaps the integration into the lecture would not have occurred, or maybe if the student asked the question during class on Monday, the instructor would not have had the time to frame the question correctly.

Enabling student-centered teaching approaches.

Every student has a unique learning style. Some students are visual learners, some learn better when they "learn by doing." Web-based learning environments permit the instructor to build one course, yet implement a variety of resources, so students can utilize materials in whichever way works best for them.

For example: Instructors can use CourseInfo's Course Documents and Course Information areas to post all sorts of support documents for students, including handouts, audio clips, java applets, reserved readings, and lecture notes. If this information is available to the students, they can access content and review it at a self-determined pace. This provides increased opportunities for students to view and review course elements without creating an additional drain on TAs or instructors.

Accommodate different learning styles

An instructor can also present these materials in many formats to accommodate different types of learning styles. For example, if an instructor puts both lecture notes and slides online, both visual and auditory learners benefit. Students who prefer to focus on "listening" and "watching" during lecture do not have to worry that they are missing important concepts while scrambling to take copious notes. They can focus on understanding the material and concepts as they are presented. Students with attention difficulties or those who get overwhelmed by organizational tasks also benefit, because materials provided show how the instructor has grouped and prepared materials in the handouts, and indicate what items are most important.

Provide opportunities for exploration

Instructors can also provide increased opportunity for student exploration and activity learning by putting related web sites into CourseInfo's External Links feature. When instructors reference these types of web sites content reinforcement is provided as students can see how course material is utilized in "real world" situations.

Encourage additional rehearsal time

Additional benefits for those who "learn by doing" occur when students participate in online discussions, as students are exposed to an extra period of information rehearsal. Typically, students rehearse information when they study for exams or complete assignments. However, they also rehearse information when formulating thoughts into sentences and typing those thoughts into the computer. When instructors post discussion questions or short essay assignments in the online portion of a course, students must attend to and reflect on the subject matter before responding. This results in reflection and articulation of content, as the very process of reporting and writing about what they have learned engages students in an activity learning experience.

Providing 24/7 accessibility to course materials.

Some students work best in the morning, some in the evening. Some students commute to campus and others take night classes. Scheduling time for homework and group projects can be difficult depending on each student's course, job, and personal responsibilities.

Continual access to materials

When course content and activities are provided online, students no longer need to worry about accessing course materials. Students can complete assignments during their most productive times. Busy students can choose to download readings or take practice exams whenever it is most convenient, in the evening after kids are put to bed, or at 4am during a bout of insomnia. Continual access to course documents also insures students can obtain materials at any time, removing the opportunity for frustrations such as "The library was closed," "All the copies of reserve readings were checked out," or "I missed that handout during your lecture."

For Example: Anna is a commuting student who takes courses along with her work and family responsibilities. A guest speaker for her 10am astronomy section is scheduled to speak, but after class time, at 8pm. Because the course is supplemented with an online component, the professor coordinates a live chat session with the guest speaker. Anna attends the lecture by logging in and even asking questions from home.

Remove reliance on physical attendance

In traditional education, students working on group projects must coordinate schedules. In distance learning environments, this may not even be possible, forcing participants to work independently. When web-based collaborative tools are available, coordination is no longer an issue. Providing a project team with asynchronous discussions and file uploads, students can work in groups without the constraints of meeting together at a certain date, time, and location.

For example: One student group has a member named George who works nights. Unfortunately George can't make the scheduled group meetings. When using the group communication tools in CourseInfo, the George can complete his part of the assignment and post it in the group File Transfer Area. This way, even if he is not physically present at the meeting, group members can access and edit his work.

Providing just-in-time methods to assess and evaluate student progress.

Learner assessments are essential in education. Tests and surveys inform the instructor whether teaching methods and course structures are successful. These assessments also determine if student progress is satisfactory. Online assessment tools provide instructors with many ways to build, distribute, and compile information quickly and easily.

For example: An instructor assigns students to watch a political debate on television at 8pm on Sunday night. He wants to assess students' opinion of the issue to discuss during Monday's lecture. The instructor creates a short poll using CourseInfo's Quiz/Survey engine. After the show, students log in and complete the survey. The results are tallied automatically and available for the instructor in plenty of time for lecture.

Adds pedagogical benefits

Web-based testing features also have pedagogical benefits. From the student viewpoint, frequent assessment provides concept reinforcement and increases motivation. Instructors can post practice exams and end-of-chapter reviews without worrying about finding the time and resources to analyze results. Students can access these assessments at any time, privately and in the comfort of their home. Since grading is computerized, students receive immediate feedback. This may also help students who suffer from test anxiety relax and minimize embarrassment for those that do poorly.

Reducing amount of faculty time spent on "administrivia."

In addition to the pedagogical benefits of online learning, there are also several time and money saving advantages. Students can save and print items as needed when provided handouts and readings online. The direct result is a reduced institutional expense for both the cost and time associated with copying, collating, and distributing these materials. Instructors can also use E-mail to send messages directly to students or the Announcements feature to communicate with the entire class. Not only does this insure that students receive the materials, but it is also environmentally appealing, as it drastically reduces paper waste.

Utilize time efficiently

The time saving elements introduced by web-based education tools like CourseInfo apply to both the instructor and the student. Students benefit because they have immediate access to course materials at any location. They do not have to spend time walking across campus to the instructors office or searching for a reading in the library. Instructors can minimize time spent in office hours, and address student concerns online instead.

Maximize the classroom experience.

Instructors working with tools like CourseInfo no longer have to spend valuable classroom time dealing with "administrivia." The 15 minutes at the start of each class typically spent distributing handouts, collecting assignments, and making announcements can be utilized for teaching when administrative tasks are managed through online tools.

Reduce faculty workload

Instructors and TAs can also save time using products like CourseInfo. When the Quiz/Survey generator is used to deliver tests, all the grading and analysis is automated. Time previously spent correcting, formulating statistical deviations, and analyzing specific questions can be used for other things. Even student records can be exported directly into spreadsheets for turnover to the registrar.

Summary

The integration of web-based learning components with software like CourseInfo bring added value to traditional education. Students and faculty benefit from using the communication and assessment tools. Students have a customized approach to knowledge acquisition that suits learning styles and busy schedules. Continual access to resources through online delivery and automated management tools minimizes the faculty's cost and time associated with the experience. The advantages of online education make a significant impact in higher education today and, as technology evolves, promise to deliver even greater benefits in the future.

Bibliography

Alexander, Shirley. *Teaching and Learning on the World Wide Web*. AusWeb 97 Conference. 1997. <http://ausweb.scu.edu.au/>.

Dwyer, Dan, Barbieri, Kathy, Doerr, Helen. *Creating a Virtual Classroom for Interactive Education on the Web*. The Third International World Wide Web Conference. 1995. <http://www.igd.fhg.de/www/www95/>.

Kubala, Tom. *Addressing Student Needs: Teaching and Learning on the Internet*. THE Online Journal. March 1998. <http://www.thejournal.com>.

For more educational materials about Blackboard products visit the Instructor Center at <http://www.blackboard.com/>

