

# An Overview of Asynchronous Online Learning

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## INTRODUCTION

Distance education typically refers to a process where students complete their coursework at a location other than a primary campus. Effectively, this method first developed in the mid-19<sup>th</sup> century in the form of correspondence courses in the United Kingdom. The correspondence course design includes the instructor and the student mailing assignments back and forth between the university and the student's location. In many cases, the use of the Internet has replaced the correspondence-by-mail method of instructional delivery.

With the advent of television and the further development of radio, some colleges and universities saw an opportunity to present classes via these media. By these methods, various instructors present lectures during set broadcast times while students continue to conduct assignments via correspondence. Additionally, some primary and secondary schools also began at the same time to provide information via television, mainly to supplement and reinforce standard pedagogical instruction in the classroom. Similar to correspondence courses, television and radio instruction generally decreased after the introduction of the Internet as an educational delivery vehicle. However, a notable exception currently exists in some university programs where instructors broadcast live satellite feeds to and from their classroom with classrooms located in regional community colleges, military installations, and other locations. In Virginia, Old Dominion University's TELETECHNET initiative represents an example of one such effort where students both regionally and around the world sit in local centralized meeting places and access instructors while they teach classes at the home campus in real time through two-way television broadcasts.

Once described as the wave of the future, some educators, researchers, and educational administrators suggest that online Internet instruction represents one educational process that has truly come of age. The use of the Internet as an instructional delivery system is exploding in the new millennium. With that explosion comes recognition of the existence of both opportunities and challenges for its effective use as a conduit for meaningful and structured education. In that regard, several researchers describe distinct time and location advantages in the use of Internet instruction, as well as its usefulness in developing knowledge about knowledge

(Blair, 2002; Hung, Tan, & Chen, 2005). However, upon review of some examples of online coursework, one may witness a broad range of approaches and quality in online educational programs. In fact, experts specifically note that some online courses lack pedagogical emphasis and design and that universal promises of limitless Internet instruction fail the rationality test (Hung et al.; Wojnar, 2002). This suggests the importance of the Internet as a conduit of learning, but it also suggests a significant and, in some cases, unmet responsibility for those who would help mold and shape lives by instructing and helping to educate people through Internet and intranet mediums. In that regard, dialogue or online discussion has proven valuable in enhancing the online educational process (Blair; Dennen, 2005). Although many university programs use several methods of online discussion with varying degrees of success, some benchmarks have emerged and proven their effectiveness.

## BACKGROUND

Different experts consider dialogue differently, but most would describe it in either or all of three primary categories: (a) one-on-one synchronous discussion, (b) group synchronous discussion, and (c) asynchronous discussion. As with most differing methodologies, each of these processes has its own distinct advantages and disadvantages.

One-on-one synchronous discussion refers to what many people call a chat. Popular delivery vehicles for one-on-one chat include programs like Yahoo! Messenger and Microsoft's Instant Messenger, among others. To use this technology, one need only start the application that resides on their local computer, select the name or pseudonym of the targeted individual, and begin typing when the window on the computer's screen opens. Real-time, one-on-one discussions provide some of the same benefits in application that phone or face-to-face conversations allow. Advantages of one-on-one chat include the ability to conduct real-time question-and-answer sessions that provide for a more personal approach than group discussions or those found in typical classroom settings.

Group synchronous discussion refers to what many people call chat rooms. Yahoo!, Microsoft, Google, AOL, and a host

of other service providers offer chat-room delivery platforms for both social and professional purposes. Most chat rooms require users to subscribe to their respective services. Some charge a nominal fee and others charge no fee to use their services. When starting up a particular service, a program downloads to the random-access memory of the user's computer. The user then selects and logs into the room of choice using his or her name or pseudonym. This method allows several people to join a discussion at the same time as information appears in a real time, bulletin-board manner. One of the main advantages of group chat includes the provision for people to brainstorm ideas and receive feedback across vast distances in real time. Additionally, clear documentation exists after the fact, regarding who says what and how much. Depending on hardware, software, bandwidth, and other infrastructure limitations, either form of synchronous discussion might additionally offer two-way voice and streaming video communications directly over the Internet or intranet. Downsides of either form of synchronous discussion include the logistical coordination of events and the need to enter the discussion well prepared.

Asynchronous discussion refers to both e-mail and to the classic bulletin-board approach where members of particular board groups post sequential comments and responses on given topics. Although instructors and students usually use e-mail on ongoing bases, researchers have conducted few studies that identify any relevant theoretical constructs concerning e-mail as it pertains to enhancing online education. However, researchers have conducted a substantial number of investigations on asynchronous bulletin-board discussions as an educational method. Some advantages of this method include allowing members of the group to read and respond to the information on the board at their leisure, lower demand for activity coordination among members, the time allowed for responders to develop deeper and more thoughtful responses to existing posts, and the likelihood that more people will actually participate in the event. Some researchers suggest that it also offers better opportunities for critical thinking and deep learning, resulting in metacognition (Havard, Du, & Olinzock, 2005; Weigel, 2001).

### **THE ASYNCHRONOUS METHOD**

Several of the current leaders in distance education, including Cappella University, The University of Phoenix, and Regent University, along with scores of other colleges and universities, employ the asynchronous method of instruction as their central delivery systems with Blackboard and WebCT providing popular instructional delivery system packages that include bulletin-board conduits. These institutions usually require students to complete some formal training on the methods of delivery and response early in their programs. Then, before each course, instructors and administrators

provide students with course requirements, syllabi, and other pertinent information through e-mail, bulletin boards, or both. Typically, during grading periods, students submit and instructors or other graders provide feedback on both major and minor projects via e-mail. Concurrently, instructors or other designated moderators periodically post topics for discussion. They also solicit participation from and provide feedback for students concerning those given topics. Additionally, through many software products, students have access to communication and course tools that provide for announcements, collaboration with other students on group projects, the development of group and individual Web pages, grade checking, and course materials beyond those initially provided (Johnson & Rupert, 2002; Hutchins, 2001).

The stated purpose of much asynchronous dialogue includes helping students to understand the relevance of concepts. Students demonstrate their mastery by contextualizing these concepts through discussion and application. Moderators can run asynchronous discussion boards using several different styles. Some styles that have demonstrated significant value include (a) point-counterpoint-response, (b) open forum, (c) two-sided debate, and (d) multiple posts of specific word counts. Point-counterpoint-response offers the opportunity for an initiator to post an initial point and justification, a respondent to counter the initial point, and the initial poster to rebut the counter. An open forum provides opportunities for students to develop relevant, theoretical conceptualizations and to post concise, significant contributions to the topic. Two-sided debate requires students to divide into two groups and to debate the strengths and weaknesses of given positions germane to the given topic. Multiple posts of specific word counts challenge students to move more deeply into forum concepts as they seek clarification and challenge other students' positions on the given topic. In each of these processes and in many other asynchronous bulletin-board learning environments, student participants use the process of threaded dialogue or discussion to enhance the information exchange process. In a threaded dialogue, the software package groups contributed messages together to form an easily traced thread of information. When using an asynchronous bulletin board, threading discussion entries allows respondents the opportunity to consider thoughtfully their responses before posting, thus potentially aiding in the quality and depth of the respondent's contribution to the forum. Researchers offer that threading might actually result in improved student contributions to discussions, critical thinking, and ease of communicating (Blair, 2002; Dennen, 2005; Smith, Ferguson, & Caris, 2002).

### **Preparation**

To ensure success, both instructors and students have several items to consider in using a given asynchronous discussion method. Instructors first prepare by mastering the particular

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