Designing Asynchronous Distance Learning Networks:  
Removing Barriers to Learning

Introduction

Ten years ago very few of us could have predicted how the Internet would change our lives. With continued changes in technology, we have seen a profound impact on society and particularly on education (Meyer, 2002). Fortunately, with many of these advancements come new opportunities for both learners and instructors. One of the most recent opportunities receiving a great deal of attention is distance learning (Watkins and Corry, 2002). In general, there are two types of distance learning, synchronous and asynchronous. The difference between the two is the timing of the delivery of the instruction. Synchronous delivery involves both the instructor and learning engaging in the learning process at the same time. For purposes of this presentation, this type of distance learning will be referred to as an “Asynchronous Distance Learning Network” (ADLN).

Designing the ADLN Network to Remove Barriers

In order to remove barriers to learning and take full advantage of an ADLN, several key areas should be considered when designing courses and programs. They will each be discussed in detail during this presentation. They include:

- The design and presentation of course materials
- The type of media used in a Web-based environment
- Student Access
- Student assessment
- Administrative support
- Technological support for both students and teachers

The Design and Presentation of Course Materials

A teacher in a Web-based ADLN will need to have special skills in order to prepare the course materials for presentation. Some of these skills include the creation of Web pages, video editing, and the use of asynchronous conferencing software.

The Type of Media Used in a Web-based Environment

Traditional course materials can consist of many different types of media and can be presented on many different communications channels (i.e., voice, computer, video, etc.). This is also true with Web-based ADLNs. However, due to constraints associated with current technologies certain types of media and channels work better than others.

Student Access

The ability of students to easily and effectively access Web-based instructional materials is becoming increasingly important. If students have difficulty accessing the
instructional materials the overall effectiveness of the learning experience will be diminished. Issues associated with this topic include hardware requirements, software requirements, internet service provider requirements, and technology support personnel.

**Student Assessment**

Many people perceive one flaw in ADLNs. That is student assessment. The question is often asked, “How can you test a student who you never see?” This is a legitimate concern for newcomers to ADLNs; however, there are options available that meet most requirements. These options include using an electronic portfolio of assignments for assessment purposes. These assignments can be attached to e-mail messages using software like Adobe Acrobat and sent to the teacher. Assignments can also be posted on the Web. The assignments can be graded and sent back to the student along with comments. If this type of assessment does not meet the needs of the situation there are other options including Web-based online testing and the use of an off-site proctor.

**Administrative Support**

In an ADLN environment, administrative support is crucial to the success of a Web-based academic program. This includes support for both students and teachers. Because students (and sometimes teachers) are located throughout the world, the traditional face-to-face administrative support is not available. Administrative support at a distance takes on new meaning and importance. The use of “Frequently Asked Questions” Web pages and continual monitoring of e-mail accounts becomes significant and time consuming.

**Technological Support for both Students and Teachers**

The quality and timeliness of technological support for both students and teachers cannot be understated. It will make or break a Web-based ADLN. A poorly designed or implemented technological support plan will directly affect the learning environment. This not only includes the understanding of various technologies, but how they can be effectively used in an ADLN.

**Bibliography**

