

Elements of a Successful Distance Education Program: One Example

Author Information will go here.

Defining Distance Education

Distance education (DE) occurs for the education process when the teacher and student are separated by distance and/or time (Barkhi & Brozovsky, 2000; DeBourgh, 2003).

Types of Distance Education

- Asynchronous and Synchronous delivery are two main types of DE.
- Asynchronous delivery occurs when there is a delay between the teacher and student interaction. Correspondence coursework, recorded lectures, and a website where content information can be posted for the student to read are examples of asynchronous delivery.
 - Synchronous is when there is live interaction between the student and teacher or classmates in real time. Examples of synchronous delivery include conference calls and live video conferencing at home or at a distance education center

Purpose of Poster

The purpose of this poster presentation is to share the technology requirements for our DE program. This includes live video conferencing equipment, course management system, and internet requirements. We have found this set up in equipment works very well for our purposes.

SIUC's Synchronous DE Technology

Live video conferencing makes up the synchronous portion of the DE program at SIUC. The following equipment is used for DE infrastructure.

- Zoom Video Communications, Inc. © is the company that provides the software for video conference capabilities.
 - Up to 100 students may participate in the same conference at the same time.
 - Private conference URLs are easily shared with students and they have the ability to perform live video conferencing through their personal computer.
 - The software allows for the entire conference/ class session to be recorded in HD video. This allows students the ability to revisit lectures to gain a better understanding of a topic by simply clicking a URL.
 - The software allows PowerPoint presentations to be viewed with the instructor in Picture in Picture (PIP) or grid view.
 - Expense is ~\$60/year for an educational license.
- Each instructor also has a SMART™ Sympodium which allows handwriting/ drawings to be added to any slide for the students to view. This works very well for doing mathematical calculations. The SMART™ Sympodium requires a higher end computer.
- Instructors need to have upload/download bandwidth speeds of ~5Mb/s and 2Mb/s.

SIUC's Asynchronous DE Technology

SIUC uses the Desire2Learn® (D2L) course management system for the asynchronous portion of the program. Students are given access to this system upon enrollment in specific courses and login information is user specific.

The D2L system allows students to:

- Review course requirements
- Send/receive emails
- Conduct a live chat
- Print class handouts
- Check homework assignments
- Post completed homework assignments
- Take quizzes and tests
- Create an area to store files and notes
- Review grades

SIUC's Testing Process

When students take quizzes/tests from a distance, exam integrity is always a consideration. SIUC has integrated the Respondus LockDown Browser™ as well as Respondus Monitor™ to address this concern. This program disables all computer functions while a student is taking a test. Once the test is completed the computer function returns to normal but while in the test, this is the only item they can work on. Monitor allows the student to be recorded in their testing environment the entire testing period. This software also creates a report detailing what the student was doing during the examination period.

Student Technology Requirements

Historically, students who had technology at these levels or higher have the best conference connections.

- Computer Processor should be greater than 2 GHz (prefer 4 GHz) and be Duo core or higher (dual processors).
- Computer RAM should be 4 GB or greater.
- Computer Hard Drive Memory should 160 GB or higher.
- Computer Operating System can be 32 or 64 bit Windows 7 or higher.
- Internet connection Upload speed- greater than 1.5 Mb/s.
- Internet connection Download speed- greater than 3 Mb/s.
- Must have a Web Cam and speaker headset with microphone.

Benefits of Offering a Distance Education Program

- Increased student access to education- Many students cannot relocate for their education due to other commitments and DL allows students to obtain higher education from their current location.
- Decreased commuting time.
- Increased flexibility in the schedule required for education.
- Opportunities to review course material more frequently than a traditional course.
- Increased student enrollment- The program discussed has dramatically increased its enrollment.

Sources

- Barkhi, R., & Brozovsky, J. (2000). An analysis of the dynamics of a distance course. *Journal of Educational Technology Systems*, 28(4), 311-325.
- Hwang, K. M., & Collins, K. S. (2005). Acceptance of distance learning by radiologic technologists. *Radiologic Technology*, 76(4), 277-285.
- DeBourgh, G. (2003). Predictors of student satisfaction in distance-delivered graduate nursing courses: What matters most? *Journal of Professional Nursing*, 19(3), 149-163.