

What is Distance Education?

Within a context of rapid technological change and shifting market conditions, the American education system is challenged with providing increased educational opportunities without increased budgets. Many educational institutions are answering this challenge by developing distance education programs. At its most basic level, *distance education takes place when a teacher and student(s) are separated by physical distance, and technology (i.e., voice, video, data, and print), often in concert with face-to-face communication, is used to bridge the instructional gap.* These types of programs can provide adults with a second chance at a college education, reach those disadvantaged by limited time, distance or physical disability, and update the knowledge base of workers at their places of employment.

Is Distance Education Effective?

Many educators ask if distant students learn as much as students receiving traditional face-to-face instruction. Research comparing distance education to traditional face-to-face instruction indicates that teaching and studying at a distance can be as effective as traditional instruction, when the method and technologies used are appropriate to the instructional tasks, there is student-to-student interaction, and when there is timely teacher-to-student feedback (see Moore & Thompson, 1990; Verduin & Clark, 1991).

How is Distance Education Delivered?

A wide range of technological options are available to the distance educator. They fall into four major categories:

- Voice** - Instructional audio tools include the interactive technologies of telephone, audioconferencing, and short-wave radio. Passive (i.e., one-way) audio tools include tapes and radio.
- Video** - Instructional video tools include still images such as slides, pre-produced moving images (e.g., film, videotape), and real-time moving images combined with audioconferencing (one-way or two-way video with two-way audio).
- Data** - Computers send and receive information electronically. For this reason, the term "data" is used to describe this broad category of instructional tools. Computer applications for distance education are varied and include:

Computer-assisted instruction (CAI) - uses the computer as a self-contained teaching machine to present individual lessons.

Computer-managed instruction (CMI) - uses the computer to organize instruction and track student records and progress. The instruction itself need not be delivered via a computer, although CAI is often combined with CMI.

Computer-mediated education (CME) - describes computer applications that facilitate the delivery of instruction. Examples include electronic mail, fax, real-time computer conferencing, and World-Wide Web applications.

- Print** - is a foundational element of distance education programs and the basis from which all other delivery systems have evolved. Various print formats are available including: textbooks, study guides, workbooks, course syllabi, and case studies.

Which Technology is Best?

Although technology plays a key role in the delivery of distance education, educators must remain focused on instructional outcomes, not the technology of delivery. The key to effective distance education is focusing on the needs of the learners, the requirements of the content, and the constraints faced by the teacher, before selecting a delivery system. Typically, this systematic approach will result in a mix of media, each serving a specific purpose. For example:

- A strong print component can provide much of the basic instructional content in the form of a course text, as well as readings, the syllabus, and day-to-day schedule.
- Interactive audio or video conferencing can provide real time face-to-face (or voice-to-voice) interaction. This is also an excellent and cost-effective way to incorporate guest speakers and content experts.
- Computer conferencing or electronic mail can be used to send messages, assignment feedback, and other targeted communication to one or more class members. It can also be used to increase interaction among students.
- Pre-recorded video tapes can be used to present class lectures and visually oriented content.
- Fax can be used to distribute assignments, last minute announcements, to receive student assignments, and to provide timely feedback.

Using this integrated approach, the educator's task is to carefully select among the technological options. The goal is to build a mix of instructional media, meeting the needs of the learner in a manner that is instructionally effective and economically prudent.

Effective Distance Education

Without exception, effective distance education programs begin with careful planning and a focused understanding of course requirements and student needs. Appropriate technology can only be selected once these elements are understood in detail. There is no mystery to the way effective distance education programs develop. They don't happen spontaneously; they evolve through the hard work and dedicated efforts of many individuals and organizations. In fact, successful distance education programs rely on the consistent and integrated efforts of students, faculty, facilitators, support staff, and administrators.

Key Players in Distance Education

The following briefly describes the roles of these key players in the distance education enterprise and the challenges they face.

□ **Students** - Meeting the instructional needs of students is the cornerstone of every effective distance education program, and the test by which all efforts in the field are judged. Regardless of the educational context, the primary role of the student is to learn. This is a daunting task under the best of circumstances, requiring motivation, planning, and an ability to analyze and apply the instructional content being taught. When instruction is delivered at a distance, additional challenges result because students are often separated from others sharing their backgrounds and interests, have few if any opportunities to interact with teachers outside of class, and must rely on technical linkages to bridge the gap separating class participants.

□ **Faculty** - The success of any distance education effort rests squarely on the shoulders of the faculty. In a traditional classroom setting, the instructor's responsibility includes assembling course content and developing an understanding of student needs. Special challenges confront those teaching at a distance. For example, the instructor must:

- Develop an understanding of the characteristics and needs of distant students with little first-hand experience and limited, if any, face-to-face contact.

- Adapt teaching styles taking into consideration the needs and expectations of multiple, often diverse, audiences.

- Develop a working understanding of delivery technology, while remaining focused on their teaching role.

- Function effectively as a skilled facilitator as well as content provider.

□ **Facilitators** - The instructor often finds it beneficial to rely on a site facilitator to act as a bridge between the students and the instructor. To be effective, a facilitator must understand the students being served and the instructor's expectations. Most importantly, the facilitator must be willing to follow the directive established by the teacher. Where budget and logistics permit, the role of on-site facilitators has increased even in classes in

which they have little, if any, content expertise. At a minimum, they set up equipment, collect assignments, proctor tests, and act as the instructor's on-site eyes and ears.

□ **Support Staff** - These individuals are the silent heroes of the distance education enterprise and ensure that the myriad details required for program success are dealt with effectively. Most successful distance education programs consolidate support service functions to include student registration, materials duplication and distribution, textbook ordering, securing of copyright clearances, facilities scheduling, processing grade reports, managing technical resources, etc. Support personnel are truly the glue that keeps the distance education effort together and on track.

□ **Administrators** - Although administrators are typically influential in planning an institution's distance education program, they often lose contact or relinquish control to technical managers once the program is operational. Effective distance education administrators are more than idea people. They are consensus builders, decision makers, and referees. They work closely with technical and support service personnel, ensuring that technological resources are effectively deployed to further the institution's academic mission. Most importantly, they maintain an academic focus, realizing that meeting the instructional needs of distant students is their ultimate responsibility.

References

□ Moore, M.G. & Thompson, M.M., with Quigley, A.B., Clark, G.C., & Goff, G.G. (1990). *The effects of distance learning: A summary of the literature. Research Monograph No. 2.* University Park, PA: The Pennsylvania State University, American Center for the Study of Distance Education. (ED 330 321)

□ Verduin, J.R. & Clark, T.A. (1991). *Distance education: The foundations of effective practice.* San Francisco, CA: Jossey-Bass Publishers.

For Further Information

This guide is the first in a series entitled **Distance Education at a Glance** developed by University of Idaho Engineering Outreach. Other guides in this series include:

#2 Strategies for Teaching at a Distance

#3 Instructional Development for Distance Education

#4 Evaluation for Distance Educators

#5 Instructional Television

#6 Instructional Audio

#7 Computers in Distance Education

#8 Print in Distance Education

#9 Strategies for Learning at a Distance

To obtain copies of these guides or for more information on distance education contact:

Director of Engineering Outreach,
College of Engineering, Moscow, ID 83844-1014
Phone: (208)885-6373 FAX: (208)885-6165
Internet: bwillis@uidaho.edu