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Future Learning: Distance Education in Community Colleges. ERIC Digest.

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Brey's (1991) report of U.S. postsecondary distance learning programs predicted that the decade of the 1990's would see such phenomenal growth in distance education programs that most people in the United States would be served by at least one program. Much of this growth is expected to take place in the community colleges. As of 1994, 80% of community colleges in the United States offered some form of distance education program, and that percentage and the extent of their involvement are expected to increase throughout the decade.

This digest will discuss several aspects of distance education in community colleges including the technologies utilized, characteristics of distance learners, and the issues surrounding the application of technology as a form of instructional delivery.

TECHNOLOGIES INVOLVED IN DISTANCE EDUCATION

There are two primary forms of communication utilized to deliver instruction--synchronous and asynchronous. The main distinction between the two is whether teachers and learners are participating at the same time or not. Distance programs based on asynchronous methods use recorded instructional materials. These types of technologies allow participants to be separated in time and distance from the delivery of instruction. Thus, telecommunications systems, such as broadcast television (including cable), or electronically stored media such as video, audio, and computer software are among the technologies that utilize asynchronous communication. The National Survey on Distance Education Practices (1992) reported that broadcast television was the most widely used technology in postsecondary distance education. Of the community colleges that responded to a 1990 survey of distance education, 63% relied on public television broadcasts and 49% used educational channels, while 4% offered videotape checkout (Brey, 1991). Examples of other distance education technologies that are asynchronous in nature include fax machines, voice mail, computer networks and bulletin boards, and e-mail.

Distance education programs of a synchronous nature use technologies that offer live interactive instruction. Instructional Television Fixed Service (ITFS) and point-to-point microwave are among the most common live interactive systems. These systems provide learning classrooms that are linked within the regional area surrounding an institution. "The system is interactive because the instructor can see and hear the students at all of the sites. The students are also able to see and hear one another, as well as their instructor" (Blakesley & Zahn, 1993). Other examples of synchronous communications include audio conferencing and real-time computer communications.

As the scope of distance education expands, institutions will use a variety and combination of recorded and live technologies. This is already evident in some
community colleges. For example, in 1991, during its second year of operations, the Community College of Maine (CCM) provided 40 courses to 3,655 students in over 75 different locations. According to the Community College of Maine Annual Report (1990-1991), the interactive television system (ITV) was the primary means to broadcast courses, but computer conferencing, videodiscs, fax exchange, audioconferencing, and electronic mail were increasingly being used.

DISTANCE EDUCATION STUDENTS

The Corporation for Public Broadcasting/Annenberg Project (1988) developed the following general profile: over 26 years of age, highly motivated, goal-oriented, and unable to attend the traditional classroom setting. Chattanooga State Technical Community College (CSTCC) reported that the majority of its distance learners are working adults seeking degrees or specialized training, students planning to transfer to four-year institutions, or homebound students or other shut-ins (Hyatt, 1992). CSTCC students take distance courses over other courses because of convenience, personal constraints prohibiting regular classroom attendance, flexibility of time to receive instruction, distance to campus, and cost-savings (Hyatt, 1992). When Howard Community College Spring 1992 telecourse enrollees were asked about their reasons for registering, 82% indicated that a lack of time for in-class attendance was a very important reason. Also, the fact that taking a telecourse could be combined with family responsibilities was very important to 65% of the enrollees (Livieratos and Frank, 1992). These student profiles suggest that distance education serves a population of students whose life circumstances may not allow them to participate in the traditional classroom experience.

COSTS

Some colleges have been able through strict management and good investments to benefit financially from distance education courses, primarily those taught as telecourses (Miller, 1991; Hyatt, 1992). However, not all programs have been equally successful. Start-up and production costs can be expensive. The strapped financial situation of most U.S. community colleges does not lend itself to the major purchases of technology needed to deliver distance education programs and to develop and produce new courses—even if savings can be foreseen in the future. In a summary report of the Symposium on Telecommunications and the Adult Learner, Brock (1991) urges distance educators to plan and act strategically to secure new funding for the maintenance of existing and development of new programs.

Suggestions included:

1. Influence federal and state legislation
2. Secure federal and state financing

3. Form new partnerships

4. Increase revenue from sales

5. Seek grants from foundations and corporations.

IMPACT ON STUDENT LEARNING AND ACCESS

Searcy and Others (1993) and Nixon (1992) conducted studies to determine whether students learn as well via distance education as traditional education. Both Searcy (1993) and Nixon (1992) found no significant difference in average GPAs between telecourse and traditional formats. However, Searcy did find that student completion rates might be higher in the traditional sections than in the telecourse sections. This finding raises other questions concerning the factors that may impede student course completion. For example, will distance education be able to equally serve students who need more guidance or more extensive interaction with faculty?

Another student-related issue is access. Access to education for those who do not attend classes on campus can be a question of their access to technology, i.e., the higher or more exotic the technology, the fewer the students who have means to use it (Lemke and Others, 1992). Low-income, minority, and underrepresented students are likely to be among those who may not have access to the technology or have the technological experience necessary to take advantage of distance education courses. Will these circumstances create a divide between the "technology rich" and the "technology poor?" Clearly, how distance education affects access and student learning needs to be closely monitored.

FACULTY RESISTANCE

Currently, one of the greatest challenges to the implementation of widespread distance education programs on community college campuses has arisen among those faculty who are uncomfortable with distance education and reluctant to embrace its technologies. Understandably, they are concerned about the impact of technology on their roles as faculty members. Faculty unions have been active on behalf of the faculty
in this regard. Current issues being discussed among faculty union members include intellectual property rights, fair compensation (residual earnings every time one's course is televised), decline in quality due to canned courses, and preserving human contact (Monaghan, 1995).

CONCLUSION

Despite the challenges distance education presents to our traditional conceptions of education and instructional delivery, distance education enrollment at community colleges has increased greatly over the last decade, suggesting that distance education offers an alternative to the traditional classroom experience that accommodates many students' individual circumstances and educational needs. Although the goals and outcomes of distance education are still somewhat unclear, it is generally agreed upon, however, that the marriage of technology and higher education will be a lasting one, and by the year 2000 more students will be instructed via more media than was ever thought possible.

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