Technological advancement has both facilitated and necessitated the development of distance education programming. In developing nations, distance education is often used to provide traditional education like that usually available in conventional institutions in the Western world. Whereas distance education in the Soviet Union focuses on improving productivity in the workplace, it is used in the United States to provide extension courses, adult basic education, regular postsecondary education programming, and professional continuing education. Since its beginnings at the University of Wisconsin in 1919, distance education has encountered many obstacles. Included among the media used to provide distance education are teletext, videodiscs, sideband FM transmission, cable television, and instructional television fixed service (ITFS). Of increasing popularity in the United States is the telecourse—an instructional program usually produced by a community college that involves video and printed materials and that generally relies on an array of support services, including computer-assisted counseling and testing, teleconferencing, and appointments with tutors. Although distance education has been slow to find widespread acceptance in the United States, research does document its effectiveness as an instructional form. (MN)
DISTANCE EDUCATION

What is Distance Education?

Recent advances in communications and information technology have created both the opportunity and the need for increasing numbers of adults to seek further education and training. Learners, because of progress in the field of telecommunications, can pursue a program of study without having to be in the same place as their instructors. Many programs may also be pursued at a time convenient to the learner. Technological advancement has both facilitated and necessitated the development of distance education programming.

Zigerell (1984) defines distance education as a form of instruction characterized by the "physical separation of teacher from student, except for the occasional face-to-face meeting allowed for by some projects" (p. 10). He stresses that distance education is more than traditional correspondence study in that it "presupposes opportunities for student interaction, whether live or mediated, as well as for student independence" (ibid p. 14).

Who Participates in Distance Education?

Zigerell (1984) states that in developing nations, distance education is generally used to provide traditional education like that available in conventional institutions in the Western world. In the Soviet Union, distance education is centered in the workplace and is focused on increasing productivity. In the United States, the typical distance learner is an individual between the ages of 20 and 40 with a work or personal schedule that precludes attending classes on normal school schedules (Keegan 1983). Both women and ethnic minorities tend to be underrepresented in distance education programs. Also underrepresented, according to a 1978 British Open University survey, are workers in blue-collar occupations (McIntosh, Woodley, and Morrison 1983).

Evidence suggests that to become successful in distance education programs, students must have specific occupational or credentialing goals. Although most learners are presently between the ages of 20 and 40, it appears that increasing numbers of persons over the age of 40 who have an interest in attaining certification are being attracted to distance education programming. Included among the types of existing programs using the distance education format are extension courses, adult basic education, regular postsecondary programming, and professional continuing education.

When and How Did Distance Education Develop?

The establishment in 1919 of WHA, the radio station of the University of Wisconsin, marked the beginning of distance education in the United States. Until fairly recently, however, commercial interests have dominated the mass media in this country.

The two major network experiments in educational television, NBC's "Continental Classroom" and CBS's "Sunrise Semester," survived for 5 and 17 years respectively. One of the few TV-based postsecondary programs to survive (Chicago's TV College) has been functional since 1965 as an extension of the City College of Chicago.

Like educational TV, educational radio has not had unqualified success or popularity as an instructional medium. The establishment of National Public Radio (NPR) in 1970 seemed, until its recent financial problems, to mark a regeneration of interest in educational radio in the United States. A potential boon for special needs and professional occupations is a Federal Communications Commission (FCC) ruling that allowed FM radio stations to employ subchannels to broadcast to specially equipped radios.

The largest U.S. experiment in distance education—the University of Mid-America (UMA), with its proposed offshoot the American Open University—has been the only U.S. project even to suggest providing distance instruction on a level approaching that of the British Open University (BOU). Plans for the American Open University ended with the closing of UMA in 1980. Although there has been no attempt since then to establish a large regional, distance education program, interest in and collaborative planning for distance educational programming is increasing (Zigerell 1984).

What Are the Major Features of Distance Education Programs in the United States?

Unlike the British Open University, which is the national provider of distance education in Great Britain, U.S. distance education programs tend to be more localized, sometimes involving collaborative efforts between and among educational institutions and the private sector. Only two projects, the International University Consortium (IUC) and the To Educate the People (TEP) Consortium, are organized in such a way as to allow national-level programming.

 Those courses that have been most successful in the United States have employed a multimedia approach. Using printed materials as the basis for distance instruction, planners of multimedia programs typically incorporate other media such as television, videocassettes, computers, telephone, newspapers, and radio.

A leader in the use of electronic media in distance educational programming, the United States boasts programs utilizing such innovative instructional approaches as the following:

- Teletext—a medium that permits TV viewers to call up on their screens printed information from a store of such data
- Videodisks—a medium that allows users to freeze, play back, and perform self-testing
- Sideband FM transmission—a medium that enables receipt of specialized educational broadcasting

ERIC is sponsored by the National Institute of Education.
Instructional Television Fixed Service or ITFS—a medium that uses ultrahigh frequencies to broadcast to sites with inexpensive receiving equipment.

Cable television—a medium that allows receipt of specialized programming and that may also be interactive.

In addition to introducing several major innovations into the technology for delivering distance programming, U.S. distance education practitioners are responsible for a major innovation in instructional design—the telecourse. Produced for the most part by community colleges, telecourses may be characterized by the following statements:

- Telecourses usually involve video programs.
- The majority of video courses have an instructor for a host and most have a high degree of visual activity or interest.
- Printed materials, especially study guides, play an important role in the telecourse.
- One or more textbooks are frequently assigned to supplement the video portion of a telecourse. In “wraparound” courses (i.e., courses designed around a previously created video production) trade books may be selected to serve as a course text.
- Telecourses generally rely upon an array of support services, including computer-assisted counseling and testing, teleconferencing, and appointments with tutors.

How Should Telecourses or Education Programs Be Designed?

The following procedures and standards should be considered when designing distance education courses or programs (Zigerell 1984):

- Before beginning any actual production work, instructional designers should conduct a needs assessment that surveys audience needs and demographics.
- Actual course design should then be undertaken by a planning team consisting of the following individuals: an administrator with knowledge of the mass media, an instructional specialist, a TV producer or producer-director, a cinematographer, a video editor, script writers, content experts, graphic artists, and specialists in technical production.
- Proposed courses or programs should be judged against the following standards:
  - The project must rest on an articulated philosophy and organizational framework.
  - Specialized instructional techniques must be used to meet the special needs of distance learners.
  - The specially required resources and trained personnel needed to produce quality instructional materials must be used.
  - Distance education programs must be implemented in conjunction with adequate student support services in areas such as tutoring, counseling, and supplementary instruction.
  - Staff development programs must be conducted.
  - Ongoing program or course evaluation efforts must be conducted.

What Is the Outlook for Distance Education?

One note relating to attitudes toward distance education is the as-yet unimplemented recommendation by the Coordinating Board of the Texas College and University System that courses completed by television be identified as such on student records. Zigerell (1984) points to this recommendation as evidence of the fact that because much distance education planning is “conducted on the fringes of the regular academic division,” some academics feel that “distance education projects do not reflect the best thinking or efforts of institutions” (p. 53).

Despite this view and despite the fact that distance education can suffer, as can any type of education, from what Zigerell (1984) terms “lapses of quality” (p. 51), research does document the effectiveness of distance education as an instructional form.

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This ERIC Digest is based on the following publication:

Zigerell, J. Distance Education: An Information Age Approach to Adult Education. Information Series no. 283, $7.25. Columbus: ERIC Clearinghouse on Adult, Career, and Vocational Education, The Ohio State University, 1984. (ERIC Document Reproduction Service No. ED 248 311).

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