Distance Learning and Adult Basic Education

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The existing approaches to ABE distance learning are as numerous as the number of agencies providing the services. Unfortunately, very little is known about what works and what doesn’t when using distance education with ABE learners. This chapter offers a brief insight into this emerging form of learning, how it is used now, and some information on notable examples and models for distance learning.

At its most fundamental level, distance learning is an instructional delivery system which connects learners with educational resources. Distance learning provides access to learners not enrolled in educational institutions and it can augment the learning opportunities of current students. According to the United States Distance Learning Association, distance education refers to teaching and learning situations in which the instructor and the learner or learners are geographically separated and therefore rely on electronic devices and print materials for instructional delivery. Distance education includes distance teaching—the instructor’s role in the process and distance learning—the learner’s role in the process.

What Do We Know about Distance Education?

The body of research about distance learning and adult basic education is very limited. In fact, what we know don’t know about distance learning in general exceeds what we do know about it. Understanding of the potential of distance learning and ABE must be extrapolated from other efforts at researching the numerous variables.

Moore and Thompson (1990) reviewed a variety of research findings and examined many of the variables of distance learning.

Many other studies have been conducted to explore the comparative effectiveness of distance and traditionally delivered instruction.
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(Eiserman and Williams 1987). The majority of studies concluded that distance-delivered instruction could be as effective as traditional learning if the delivery methods selected were based on appropriateness of the content being delivered, cognitive style of the learner, and background and experience level of the student. Most of the studies concluded that the degree of teacher-learner interaction and the selection of appropriate content were far more critical than the delivery system itself.

Technologies Appropriate for ABE Distance Learning

Adult education programs have been searching for the most effective means of delivering distance education. This goal continues to be elusive and no one technology or methodology has been identified as the most effective delivery system. As noted in Power On! New Tools for Teaching and Learning: “There is no single best model of distance learning. The quality and effectiveness of distance learning are determined by instructional design and technique, the selection of appropriate technologies, and the quality of interaction afforded to learners” (U.S. Congress 1988, p. 17).

The earliest form of adult distance learning took place through correspondence courses. This was the accepted norm until the middle of the 20th century, when instructional radio and television became popular. In the 1970s, professionally designed and produced television series introduced adult learners to videotape programs focused on basic skills improvement, English as a second language, and GED preparation. The major drawback, however, was the lack of a two-way communications channel between teacher and learner.

As cable television and video teleconferencing became more widely available in the 1980s, the possibility of interactive communications became feasible and some two-way distance learning programs evolved. During the 1990s, a broad array of two-way distance learning programs emerged. Current systems now offer an assortment of hardware and communication tools including the following: local area networks, Internet and intranets, telephone-based audioconferencing, facsimile transmission, cable television, videoconferencing with one- or two-way video, fiber optics, satellite, microwave, closed-circuit or low power television.
Today, interest in distance learning for adult education is at an all-time high. Many institutions at the state and local level are exploring new ways of reaching adult learners through independent study programs. In recent years, a variety of programs have been established and new programs are being created at an increasing rate.

Approaches to distance learning and adult basic education are as varied as the institutions providing the programs. In some agencies, students use print-based media coupled with postal communication and infrequent meetings. Other efforts focus on learner use of some type of nonprint media that’s distributed from a central location. These media could be audio cassettes, videotapes, computer software via laptop computers, or World Wide Web pages delivered via the Internet.

**Instructional Television and Video**

Early distance learning research done by Chu and Schramm (1975) concluded that instructional television can produce results very similar to more traditional methods of instructional delivery. Other studies (Verduin and Clark 1991) showed that instructional television is just as effective, in terms of learner performance, as face-to-face delivery and is more cost-effective, especially when compared to the expense of rural instructional delivery. The Office of Technology Assessment finds that “the virtual explosion of easily accessible and relatively inexpensive video technologies, in particular VCRs and videotapes, offers exciting new possibilities for using video as a learning and teaching tool” (U.S. Congress 1993, p. 208).

One of the most notable examples of instructional television for adult learners is **GED on TV**, a production of Kentucky Educational Television. The program has been distributed nationally since 1982 and is still used today in many state ABE programs. Schwarz (1992) discovered that learner participation with **GED on TV** was a direct correlation to the degree of promotion. State ABE directors also felt that support services can make a difference, but are less crucial than advertising or accessibility.

On a broad scale, the state of Mississippi implemented **LEAP** (Learn, Earn, and Prosper), a satellite-based education and training program offered at 50 sites across the state. Instruction is provided by tele-teachers and is coupled with instructional support at each of the 50 downlink sites. Courses offered include basic reading, GED preparation, workplace readiness, and life coping skills. One of the greatest challenges of LEAP has been the use of multiple funding sources to provide services.
Many smaller, more localized efforts have been conducted in dozens of states and local communities. Some of these instructional television efforts are operated via cable TV public access or local origination channels. For example, in Sacramento, California, the San Juan Adult School offers programming in a variety of basic education areas. San Juan’s Studio E3, in conjunction with the Sacramento Educational Cable Consortium, uses adult vocational students to produce basic skills programming delivered via the public access channel.

A distinct advantage of video for adult learning instruction is the widespread availability of televisions and videocassette recorders. But a significant limitation of videocassettes is the necessity for supplementing the tapes with some type of interactive media. In contrast, video delivered via two-way satellite or desktop videoconference closely approximates the appearance of face-to-face instruction. Based on the popularity and longevity of the various KET video series, television has great potential as a distance education medium.

Computers

Computers can be used to present educational material and perform many other functions in the process of instruction. As a teaching machine and a tool for distance learning, the computer is unparalleled in its ability to provide highly personalized and interactive learning. Although expensive, many efforts at using the computer for ABE distance learning have met with positive response.

The first instructional use of computers with adult learners occurred at the University of Illinois in 1960, the birthplace of PLATO (Programmed Logic for Automatic Teaching Operations). The original PLATO was a versatile computer-assisted instruction (CAI) system in which student terminals were connected by telephone lines to a large mainframe computer. The speed and power of the mainframe computer allowed many users to access the computer at the same time. Rachal (1984) reviewed studies in which PLATO was used in correctional settings or basic skills centers to provide ABE/GED instruction. Many of the studies showed students using PLATO outperformed students using conventional learning methods.

As CAI matured during the 1980s, dozens of different approaches evolved in using computers for distance learning. One common approach has been the mobile lab, most often a converted van or
recreational vehicle that is equipped with desktop microcomputers. The lab is typically driven to a locale in the community where residents can board the van and participate in basic skills CAI. Often, the computers are configured in a local area network and software usually consists of one of several major integrated learning systems designed for adult learners.

Through a special California Department of Education effort known as the 5% Performance and Innovation Fund, several adult schools are using laptop computers to serve those who cannot come to the campus (Babayco 1997). Learners use the computers that are loaded with software containing thousands of lessons in reading, writing, math, typing, employability, and life skills. Teachers can monitor progress, review test scores and even take attendance via a modem connection. The learners function independently but meetings with teachers are conducted if the learner is having problems with the program or computer.

In Bloomington, Minnesota, the Mindquest program uses the Internet to offer courses to adult learners. Mindquest permits learners to join online discussions. Lessons are teacher directed and delivered via a proprietary bulletin board system (BBS) and use of Internet-based resources. Participants can earn credit for past experiences. Adults with jobs, family responsibilities, transportation problems, and child care obligations are offered a more flexible program through the use of computers and effective collaborative environment software.

In Santa Ana, California, the California E-mail Project offers adult ESL students a distance learning collaborative environment delivered via the World Wide Web (Gaer 1997). Learners can select from dozens of projects that direct them to contribute their ideas, share information with other learners, and use the Web to gather information for making decisions about their family, community, and work environments.

Computers facilitate self-paced individualized learning. In the CAI mode, they can give students immediate positive reinforcement and feedback. Computers are also a bridge to the future, a future in which e-mail, conferencing, and other means of electronic communication will become commonplace. The greatest potential for effective distance education with adult learners is with the use of microcomputers coupled to high-speed telephone or cable transmission lines. This combination of technologies will allow students to access individualized learning materials and will permit real-time two-way interaction.
Mixed Media

A variety of materials and delivery modes can be used to further the education of adults through distance education. Audio, including radio and audiocassettes, is in wide use in distance education. Audiocassettes provide convenient packages of information that can be used practically anytime and anywhere by busy adults. Radio can be used to reach mass audiences of learners, and the telephone promotes real-time interaction between teachers and students. Print has always been the dominant medium in distance education and will continue to be the most-used form of delivery for many years. Worldwide surveys of distance education show that print is by far the most used medium in the presentation of learning materials (Holmberg 1989).

Examples and Models for Distance Learning

Crossroads Cafe

Crossroads Cafe is a video and print series designed for ESL learners, but is also appropriate for use in school-to-work, workplace literacy, family literacy, and citizenship programs. The series combines drama and comedy in 26 episodes centered around 6 characters and a neighborhood cafe. Crossroads Cafe offers a complete program for teaching English to speakers of other languages, as well as English-speaking persons with low literacy skills. The Crossroads Cafe series depicts adults from diverse cultural backgrounds who face real-life challenges. In addition, each episode is supplemented with documentary-style segments that focuses on cultural and animation that demonstrates the appropriate language used to communicate different types of information.

CNN Interactive Learning Resources

The California Department of Education’s Adult Education Unit and Cable News Network (CNN) San Francisco have collaborated to develop a World Wide Web site that offers a resource tool for supporting classroom and distance learning instruction (Fleischman 1997). A major purpose of this website is to make available current news stories to adult learners whose reading levels are not high enough to read and understand standard newspaper articles. A variety of interactive learning activities help reinforce and provide greater understanding of what is presented on the screen.
Each week, a featured story is selected from the CNN San Francisco Bureau and presented in three ways—full text, edited text, and outline format. Using content taken from the featured story, five different interactive educational activities are presented. Learners can respond to vocabulary, multiple choice, sequencing, and comprehension questions. After selecting possible answers, users click on a button, have their responses scored, then view the correct answers before moving on to the next activity.

An Internet-based technology known as “streaming” audio allows all text on the screen to be spoken. In this way, even users who have very limited reading skills can understand what is being presented. Learners also have an opportunity to practice their writing by responding to a question about the featured story. Using the keyboard, a student can respond to a statement made or a question asked about the impact of the story. The comments are then sent electronically over the Internet and posted online for all students to read and respond back.

**LiteracyLink**

LiteracyLink is a significant national initiative that will use the latest in video, online, and computer technology to help adults receive adult basic education and earn high school diplomas or GED certificates. LiteracyLink efforts will produce both video and Web-based materials that will help students prepare for the GED exam. In addition to the creation of two new video series, LiteracyLink will make available extensive online resources for ABE learners and teachers.

Through a diagnostic program known as LitHelper, LiteracyLink will adapt successful adult literacy materials for use in Internet-based GED modules that can be tailored for specific students or local literacy programs. A nother component, LitLearner, will offer ABE content in easy-to-use electronic formats, with icon-driven menus and audio instructions. For the literacy and adult education provider, LitTeacher will offer a comprehensive “virtual resource” that will include training in technology issues, technology assistance, a menu of materials on literacy education, and professional development videoconferences.
Barriers to Access

It is important to recognize that many barriers to ABE distance learning still exist. These barriers include lack of financial resources, limited availability of programming that matches the needs of adult learners, inadequate telecommunications infrastructures, and staff inexperience in the use of distance learning technologies.

Distance learning can be costly. In fact, in many situations, distance learning is more expensive to provide than more traditional instruction. Planning and start-up costs can include costly curriculum development, expensive production of learning materials, and extensive staff time for planning delivery. Student instructional tools such as laptop computers and multimedia systems can be very expensive. In addition, ongoing costs can be prohibitive if expensive two-way interactive telecommunications systems are used to connect learners and deliver content.

Although notable examples of new programming are now emerging, a real lack of appropriate curriculum still persists. Effective use of technologies requires high-quality software and programming tailored to the needs of adult learners. Available computer software is inadequate for the demands of literacy programs, and programming for video and other technologies is even more limited (U.S. Congress 1993).

Finally, many adult educators are very uncomfortable in trying new approaches to learning. They believe their traditional methods have worked so why should they try new strategies that aren’t proven. Until teachers are comfortable with their redefined role as facilitators over time and space, distance learning will never evolve and be broadly adopted by traditional adult literacy and ABE providers.

The Future

Even if funding were not a constraint, the current infrastructure of adult education classrooms and traditional instruction would not provide the solution to the crisis of adult functional illiteracy. Many ABE learners cannot or will not participate in the more “traditional” programs now in place. Ways must be found to extend the range and increase the impact of new modalities for the adult education delivery system.
In the near future, it will be possible to deliver, process, or display video, text, graphics, and audio from a single electronic box. Improvements in digital transmission technologies for both telephones and televisions will increase bandwidth and channel capacity. New hardware technologies will make televisions more like telephones and computers, making vast amounts of video, text, and data available instantly to homes and businesses. All of these trends could promote greater opportunities for adult learning.

These new computer devices coupled with advances in telecommunications networks will allow curriculum to be at times and locations more convenient for adult learners. The promise is clear: new technologies coupled with distance education and a strong degree of teacher-student interaction may evolve into one of most effective methods of meeting the needs of adult learners. However, as our understanding of how to use new tools increases, it must be coupled with an understanding of learner characteristics, needs, and life-role responsibilities.