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Distance Education and E-Learning: New Options for Adult Basic and English Language Education

Electronic learning, also known as e-learning, is characterized by the use of electronic technology to support learning and deliver instruction. E-learning can take place in conventional classrooms where learners and teachers are present physically, but it is commonly thought of as a model in which teachers and students are separated by time and/or space. This brief reviews ways that e-learning is used in distance education and provides recommendations for programs interested in this approach.

Traditionally, education in which teachers and learners are separated by time and distance has been referred to as distance education or distance learning. It is "planned learning that normally occurs in a different place from teaching and, as a result, requires special techniques of course design, special instructional techniques, special methods of communication by electronic and other technology, as well as special organizational and administrative arrangements" (Moore & Kearsley, 1996, p. 2). Distance education is not a new phenomenon; it has a long history in the United States (Moore, 2003). In the past decade, the growth of e-learning has made distance education a more popular and feasible option for programs and learners. E-learning can be understood as a term covering a wide set of applications and processes, such as Web-based learning, computer-based learning, virtual classrooms, and digital collaboration (American Society for Training and Development, n.d.). As of early 2003, at least 19 states expressed interest in providing learning opportunities via the Web for adults eligible for Adult Basic Education (ABE) and English as a Second Language (ESL), and a number were already engaged in Web-based instruction (Askov, Johnston, Petty, & Young, 2003). States are also taking advantage of other electronic technologies. For example, among all of the modes of distance education available in California, videos are the most commonly used (Porter, 2005).

The combination of distance education and e-learning can take different forms. Project IDEAL (Improving Distance Education for Adult Learners) has described a continuum of distance learning, making a distinction between pure distance (learners working alone either online or with print and video materials), partial distance (learners working independently but also regularly meeting with others who are studying the same curriculum), and classroom supplement (using online learning to supplement regular classroom work) (Petty, Johnston, & Shafer, 2004). Another model, blended learning, combines face-to-face instruction with distance learning (Wonacott, 2002). In each of these models, electronic technologies provide additional resources and expanded opportunities for two-way communication between the learner and the instructor or educational agency. Indeed, rather than seeing distance learning as an isolating experience, the California Department of Education (CDE) and the California Distance Learning Project (CDLP) both stress the importance of two-way communication and emphasize the role of teachers in these non-traditional models of learning (Porter, 2005).

The Need for E-Learning in Distance Education

As a result of the growing demand for ABE and ESL instruction, many states are introducing e-learning as part of distance education. In addition to freeing current students to study at times and in places convenient for them, e-learning as part of distance education also offers the potential of serving additional students who, for a variety of reasons, cannot or do not want to enroll in face-to-face classes or tutorials.

In a pilot study in Pennsylvania of a distance education program that included e-learning (Petty & Johnston, 2003), more than two-thirds of administrators reported that "only a few" or "none" of their distance learning students would have enrolled in traditional classroom-based instruction. Currently, less than 10 percent of adults who do not have a high school diploma are enrolled in programs (National Institute for Literacy, 2000), and many individuals who are eligible for ABE and ESL are not able to be accommodated in existing programs. In Chicago, for example, only about 25 percent of those students who could benefit from ESL classes are able to be served. ESL providers in Chicago report that they are unable to schedule enough classes on weekends when demand is highest because of the scarcity of teachers willing to work on Saturday and Sunday (Ford, McKean, & Raphael, 2001). Distance education, particularly via e-learning, can adapt to the scheduling needs of students and teachers. It can also address the particular learning needs of students. For example, in California, ESL students make up 92 percent of people enrolled in distance learning courses, compared with 41 percent of traditional classroom courses. One reason for the popularity of e-learning for ESL is the ability of students to repeat and review instruction in order to approach language mastery (Porter, 2005). Because e-learning is meeting the needs of ESL learners, it is not surprising that in California the number of students engaged in distance learning has risen from fewer than 20,000 (in 1999-2000) to more than 50,000 (in 2003-2004).

Characteristics of Successful Distance Education

Distance education, regardless of the technology used, places unexpected demands on students and teachers. For example, Johnston, Petty, & Young (n.d.) examined the use of TV411, a video series and companion workbooks that teach everyday literacy survival skills. TV411 is frequently used in a facilitated group setting, but this pilot study used TV411 as a home study program combining study alone and study with a tutor. The researchers found this type of distance education "best suited for mature students who have been employed and have some regular structure in their daily lives" (Findings, para. 3). Because not all ABE students have that background, distance education programs need to help develop the skills students need to work successfully on their own.

One of the most popular forms of e-learning is online learning via the Web. Research suggests that to succeed in online learning, learners must be able to motivate themselves, manage their time wisely, take responsibility for their own learning, and participate in the give-and-take of electronic discussions (Collett, 2000, cited in Porter & O'Connor, 2001; Rovai, 2003; Smith, Murphy, & Mahoney, 2003). Furthermore, they must take initiative, be resourceful, demonstrate persistence, and believe in their ability to organize and carry out the actions needed to engage in learning (Derrick, 2003). Online learners need to be able to solve problems and to evaluate and monitor their own learning.

The nature of instruction also plays a big role in successful online learning, and online instructors vary in their ability to help students succeed. Johnson and Aragon (2003) identify the following seven general pedagogical principles as critical for success in online learning environments:

(1) Address individual differences.
(2) Motivate the students.
(3) Avoid information overload.
(4) Create a real-life context.
(5) Encourage social interaction.
(6) Provide hands-on activities.
(7) Encourage student reflection.

Although these qualities are also essential for students to succeed in a traditional classroom, the online environment provides new types of challenges. For example, the need to foster social interaction in online courses requires teachers to find ways to draw non-participating students into the conversation. Approaches that work in traditional classrooms (e.g., making eye contact with students) might not be possible in virtual classrooms, but strategies such as communicating individually with students (in person or online) are still viable. Other strategies take advantage of the online structure itself. For example, online instructors often require participants to post a given number of substantive comments to a discussion thread. Many software programs for online courses have inventory systems that allow instructors to track the number of comments made by each student. However, programs that offer individualized distance learning may not be able to take advantage of the peer-to-peer communication fostered by some online learning management systems.

As with traditional classrooms, an important characteristic of quality online learning is good communication between students and instructors. Studies of distance learning (Choy, McNickle, & Clayton, 2002; Misko, 2000) reveal that learners want accessible instructors with whom they can interact frequently using a variety of methods (e.g., e-mail, telephone, and face-to-face meetings). As in traditional forms of education, online learners want quick responses from instructors and opportunities to discuss problems or issues with instructors and other learners.

In the Pennsylvania pilot study mentioned previously, PBS's Workplace Essential Skills (WES) provided for interaction between students and instructors by combining distance learning with face-to-face contact and support (Petty & Johnston, 2003). In summarizing the results of initial assessments of the WES, Johnston (2001) suggested that "for many adult students, the full potential of WES will not be realized without careful guidance and support from a teacher who can analyze a student's specific needs and provide training in areas where they are most deficient" (p. 3). One reason for this is the specific workplace-focused nature of the WES course content. For example, "Skills such as communicating effectively with customers require more extensive practice and corrective feedback than is possible simply viewing videos, reading text, and completing written assignments, whether they are in a workbook or on the Web" (ibid). Learning that takes place in an online environment still benefits from connections that are made between classroom work and a real-life context.

Factors Affecting the Success of E-learning in Distance Education

The quality of a distance education program that uses e-learning tools is determined in part by the functioning of the tools themselves. For example, the need for frequent interaction and participation in online environments means that even minor problems with e-mail or program software can interfere with the online learning process (Porter & O'Connor, 2001; citing Collett, 2000). A study of distance education programs in Massachusetts identified other technology-related problems, such as insufficient resources for technology start-up costs, inadequate technological support, and hidden costs for the learner (e.g., home telephone service, costs of Internet service and equipment repairs) (Porter & O'Connor, 2001). Johnston (2001) found limitations in the technology infrastructure at both the national and local levels.

Studies have found that certain characteristics of learners, such as age and gender, are relevant in assessments of distance education. For example, younger adults are more likely to drop out than older classmates (Rovai, 2003). Research also indicates that women may be more successful in online environments than men because they frequently create a sense of community by connecting with other learners (ibid). Not surprisingly, low levels of literacy and lack of access to computer technology can be deterrents for some students (Hawkins, 2001). In contrast, students with a history of higher academic performance appear to have study habits and research skills that support success in online learning environments (Rovai, 2003).

As distance education delivered via e-learning becomes more popular, an emerging concern is the effect of the delivery system on achievement in learning. Comings, Sum, & Uvin (2000) found that between 100 and 150 hours of study are needed to achieve a gain of one educational level. Data from Pennsylvania's pilot study of distance education reveal that distance learners are likely to study only about 50 hours in a year (Johnston, 2001). Although it is possible that online learners may require less time to make

level gains than traditional students, there currently are no studies demonstrating that online education can produce level gains in shorter periods of time than that of traditional classroom instruction. Several studies have compared traditional classroom instruction with distance education and found no significant differences in student outcomes or satisfaction (Askov, Johnston, Petty, & Young, 2003; Johnson & Aragon, 2003). However, the California Distance Learning Project (Porter, 2005) found that a higher percentage of ESL distance learners completed courses than students studying ESL in traditional classroom settings. Similar studies need to be conducted to establish guidelines for distance education program policy.

One program that has shown strong level gains is the Massachusetts ABE Anywhere Anytime Distance Learning Project (http://anywhereanytimeabe.org). During 2002-2004, 43 percent of learners in this program studied more than 50 hours, with a mean number of 126 hours. At that time, the ABE Anywhere Anytime project used a blended learning model, with students engaged in one hour of interactive study, often with a tutor or teacher, for every two hours of independent study. Policy changes in 2004 shifted the ratio to one hour of teacher support for each 15 hours of independent study by the student. It remains to be seen if this reduction in the amount of teacher support will have an impact on student level gains.

Assessment of Distance Learning

The increasing use of distance education and e-learning to provide ABE and English language education comes at the same time that programs must provide new levels of accountability via the National Reporting System (NRS). Given the nature and structure of distance education programs, Young, Johnston, and Hapgood (2002) enumerate three NRS-related issues:

1. Measuring seat time: The NRS requires that programs monitor the amount of time each student spends participating in instructional activities. Because the bulk of distance education is conducted in isolation, measuring seat time presents a dilemma. Intake and orientation activities typically take place at an educational center, but, for students working on their own, there is no easy way to capture the time spent studying. One method is to have students complete a time log, and another is to give credit for a fixed amount of seat time, based on completion of an assignment. Neither approach is perfect because of variations in time spent by individual students on an assignment.

2. Measuring Educational Gain: Although NRS guidelines allow states to select from a variety of standardized educational assessments to measure learners' progress, currently there are no standardized tests that specifically measure student progress in distance education courses.

3. Certifying educational level gain: According to NRS guidelines, testing to assess educational progress needs to be conducted under secure conditions with learners properly identified. Moving assessment to a Web-based environment entails a host of security issues. Learners typically must take pre- and post-tests. However, getting students to return to a center for a post-test may be difficult. One suggestion to address this problem is for programs to enlist partners such as public libraries or kindergarten through twelfth grade schools to administer tests for ABE and ESL learners engaged in distance education.

Clearly, measuring the outcomes of distance education programs is challenging. In California, schools must maintain Tracking of Programs and Students (TOPSpro) records for students engaged in distance learning. Students must also take the appropriate CASAS pre- and post-tests. In most cases, students must pass a unit test before they move onto the next lesson. Although this approach to assessment requires an investment of resources, the variety of data that is collected helps programs understand if e-learning has been effective for each student. Other states have been addressing accountability for distance education, as well. Ohio has developed a performance-based portfolio system; Kansas and Pennsylvania are creating standardized assessments to support distance education; and Massachusetts is creating standardized computer-based assessments for regular education classes that may also support distance education learners.

Recommendations for Distance Education and E-learning

ABE and ESL students can be successful in distance education and e-learning if given the proper support. Some suggestions for programs include the following:

1. Screen students to assess the likelihood of success in distance education and e-learning. Screening should include assessments of the student's familiarity with technology, ability to problem solve, and level of self-directedness.

2. Hold orientation sessions to acquaint learners with the requirements of the curriculum and the technology. Orientation sessions can also provide learners the opportunity to meet others who will be engaged in the distance education program. Petty and Johnston (2003) found the orientation process a critical factor in the success of programs in the Pennsylvania pilot study.

3. When possible, begin the course by providing traditional face-to-face instruction and then blend it with distance education. Face-to-face instruction can provide lower-level learners with support and help them develop confidence in their ability to succeed using e-learning tools.

4. Help students develop their ability to engage in self-directed learning. For example, if the program includes traditional instruction, instructors can spend time in class working with students on time management strategies. D'Amico and Capehart (2001) used TV411 in a facilitated group setting and found that, for most learners, working with TV411 changed their perceptions of themselves as learners and allowed them to take ownership of their learning.

5. Provide support for learners through frequent contact with instructors via multiple modalities (e.g., face-to-face meetings, e-mail, telephone, and regular mail).

6. Provide access to technical support through help lines or other means. Help learners troubleshoot technical problems that they may encounter in distance learning.

7. Encourage the development of learner cohort groups. Members of cohort groups can encourage and support each other in their learning endeavors.

8. Provide professional development to ensure that instructors can effectively use e-learning tools in distance education. Instructors should be comfortable with the features of any curriculum or product they use, and they need to be able to adapt their teaching strategies to take full advantage of the technology.

Conclusion

The use of e-learning in distance education for ABE and ESL is a relatively new endeavor. More research is needed to understand which learners will benefit from the use of e-learning tools and under what conditions. Although little is known about the effectiveness of e-learning tools in ABE and ESL distance education, the promise of expanded services and resources requires the field to examine how best to take advantage of recent advances in educational technology.

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