ACCESS BARRIERS EXPERIENCED BY ADULTS IN DISTANCE EDUCATION COURSES AND PROGRAMS: A REVIEW OF THE RESEARCH LITERATURE

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Abstract

Distance education in the American education system continues to expand. However, despite technological improvements and nearly universal accessibility to the Internet, adult learners continue to experience barriers to accessing distance education courses and programs. Building on prior work by Cross (1981) and Darkenwald and Merriam (1982), this literature review focuses on the institutional and student barriers experienced by adult learners. Institutional barriers consist of program costs, resource availability, lack of equipment and infrastructure, scheduling, instructional concerns and technical assistance. Student barriers include costs and motivators, feedback and teacher contact, alienation and isolation, student support and services, and a lack of experience and/or training. Recommendations for addressing institutional barriers include continual evaluation of non-instructional areas, faculty training, and adoption of new technologies. Recommendations for alleviating student barriers include providing opportunities for distance students to interact with faculty, other students, and other parts of the campus, providing toll-free phone support to all areas of the campus, requiring faculty to have online office hours, and developing electronic tutorials for new distance students.

The use of distance education in the United States continues to grow. A recent study by the National Center for Education Statistics (Waits & Lewis, 2003) documented the increased use of distance education in a multitude of academic and technical disciplines in postsecondary institutions. Private industry and business, along with governmental agencies, have also recognized the attraction of learning "any time and any place" in providing education and training opportunities for their employees.

Relieving adult learners of the time and place constraints of a traditional classroom, distance education can present a new set of constraints, or barriers, to accessing educational opportunities. These barriers can be significant for adult learners, many of whom are "non-traditional" students, i.e., older, employed, needing job skill updates, seeking career change, or returning to college after a long absence. These students may also be single parents or transfer students, who, because of family responsibilities, work commitments or geographic limitations, are seeking to access educational opportunities at their convenience. Distance education offers the promise of unfettered access for these individuals; however, at present, the promise remains unfulfilled.

Barriers to Adult Participation in Learning Activities

In the United States, research on adult participation in learning activities dates back to the 1920's (Courtney, 1992). Much of this research was, and still is, focused on why adults participate in learning activities instead of examining why they do not. Perhaps this is because it is "usually even harder to find out why people do not do something than why they do" (Cross, 1981, p.97). Indeed it is Cross' (1981) work which stressed the importance of understanding why adults do not participate in learning activities. Cross adapted prior research from Carp, Peterson and Roelfs (1974) and described three distinct types of obstacles, or barriers to learning activities: situational, institutional and

dispositional. Situational barriers can be derived from personal factors, such as job and home responsibilities that inhibit participation. Institutional barriers are constructed, perhaps unknowingly, by the educational institution. Examples include difficulty in registering and paying for classes or a lack of appropriate advising. Dispositional barriers are related to adults' own attitudes and feelings. Many adult learners may be apprehensive or fearful of new educational opportunities, especially if their earlier educational experiences were not positive ones. Darkenwald and Merriam (1982) added an informational barrier to the model proposed by Cross (1981) that focused on the difficulties adults experience with obtaining information regarding educational opportunities.

Research on Access Barriers to Distance Education

Despite its long history, distance education has not been the subject of extensive educational research (Zirkle, 2003). However, barriers to access are one area that has been examined through a number of studies. Stammen (1995) categorized barriers to distance learning as technical, relating to access to technology; structural, involving budgeting, training, and technical support; and attitudinal, including reluctance to use technological tools. Berge, Muilenburg and Haneghan (2002) listed barriers to distance education as situational, epistemological, philosophical, psychological, pedagogical, technical, social, and/or cultural. It appears much of the recent research on barriers to distance education opportunities appears to have condensed Cross' (1981) earlier discussion on three categories of barriers for adult participation into two for the purposes of distance education: institutional barriers and student barriers (Zirkle, 2001). This emerging category of student barriers includes aspects of both the dispositional and situational barriers identified by Cross (1981). For the purposes of this review, the barriers to distance education for adults will be examined within this framework.

Institutional Barriers

Educational institutions have developed distance education programs of various types, many times without considering all the factors involved in implementation. As a result, several institutional barriers have been identified, including:

- program costs
- resource availability
- lack of equipment & infrastructure
- scheduling
- instructional concerns
- technical assistance

Distance education is a cost-intensive business (Galusha, 1998). Start-up costs can be prohibitive, as computers, servers and networks must be established. Ongoing support for technical assistance services, and continual software upgrades must be budgeted as well (Yap, 1996). These costs can be passed on to adult learners in the form of additional fees that can prohibit participation.

Another institutional barrier can be the tendency for library services and scheduling/registration assistance to be only available to on-campus students. Distance education students cannot be physically present to access these resources, so alternatives must be in place (Cho & Berge, 2002; Galusha, 1998). Marketing courses to

students at a distance can also be a challenge. Flowers (2001) described the need for institutions to better advertise distance courses to facilitate awareness.

Related to program costs, the availability of proper equipment for offering courses at a distance can present barriers (Galusha, 1998). Instead of reducing the costs of education, the equipment involved with information technology and distance education actually increases it (Gladieux & Swail, 1999). The lack of equipment and infrastructure for distance education is especially pronounced in poorer, rural areas (Kerka, 1996; Yap, 1996).

Simply offering courses can be a significant barrier (Zirkle, 2003), as educational institutions must have "buy-in" across the campus to offer degree programs at a distance. Degree requirements cannot necessarily be met if only some academic units participate in distance delivery efforts. Scheduling courses at specific times for satellite or videoconferencing can be a difficulty as well, as adults work a variety of schedules. Finding faculty to teach at "off" times can also be a challenge (Zirkle, 2001).

There are numerous instructional barriers that can affect adults in distance classes. Many faculty may only have experience in a presentation style of teaching, which is inappropriate for an online course. Additionally, some faculty are unable to appropriately pace and respond to student questions in a non-continuous communication environment (Wagner, 1993). Some course content such as specific psychomotor skills or interpersonal "soft skills" may not be easily taught through distance education. Coursework must be continually assessed and revised to meet the needs of diverse adult learners at a distance. Distance education also entails a host of teaching and learning practices, such as course creation for distance delivery, responding to emails, updating course sites, and holding chat sessions, all of which are more labor and time intensive than on-campus classes (Levine & Sun, 2002).

Distance education programming relies heavily on technical assistance. The lack of an effective institutional network of technical assistance is a significant barrier (Berge, 2002). Adult learners who have difficulties logging into videoconferences or Internet course sites and are unable to obtain assistance will not remain tolerant for long. Having technical assistance resources in place and maintained is a key to any successful distance education program (Cho & Berge, 2002; Galusha, 1998; Levy, 2003; Zirkle, 2003)

Student Barriers

Faculty involved in distance education environments must be aware of student characteristics and situations that can present barriers to the students' effective learning and success (Hillesheim, 1998). Student barriers to accessing distance education have been examined in great detail in a number of studies and can be defined as follows (Galusha, 1998):

- Costs and motivators
- Feedback and teacher contact
- Alienation and isolation
- Student support and services
- Lack of experience/training

Adults engaged in distance education appear to be equally affected by job conflict, family time constraints, and financial issues (Grace, 2001; Hillesheim, 1998; Sherritt, 1996; Zirkle, 2003). Adults are likely to weigh the personal and monetary costs of additional education against the potential pay-off, be it a raise in pay, a promotion or some other tangible goal. These students do not consider school to be central to their lives (Levine & Sun, 2002).

A lack of feedback and teacher contact has been identified frequently in distance education studies, (Dooley, Patil, & Lineberger, 2000; Flowers, 2001; Grace, 2001; Zirkle, 2003) and has been perceived as positively related to student learning (Miller & Webster, 1997). Unfortunately Galusha (1998) found faculty do not always provide feedback on student work in a timely fashion. The quality and integrity of the educational process depends on sustained, two-way communication between students and faculty, a process that may be lacking in distance courses (Hillesheim, 1998).

This lack of feedback can lead to perceptions of alienation and isolation in adults taking courses at a distance As much as possible, students want to be a part of the larger school community (Galusha, 1998). However, this isolation can actually be exacerbated by technological limitations of distance courses that may only require a superficial level of participation by students (Klemm & Snell, 1996). As the sense of isolation persists, distance education students may perceive themselves as unimportant when compared with their on-campus counterparts (Zirkle, 2002).

Student support and services are key to the success of any distance education program (Birnbaum, 2001). Adult students who desire assistance, especially those with special learning needs, may find it difficult to access those services traditionally available to on-campus students.

Many adults are attracted by the expectation of "anytime, anyplace" learning obtained through the use of distance education technology. However, a significant barrier to access is a lack of experience and/or training with instructional technology in order to achieve success. Older adults may lack the training needed to navigate course sites or download course materials. Adult students are offered course information in an electronic-based format. So, they must know how to acquire and manage this data, in addition to managing their study time (Zirkle, 2001). Coupled with work and family responsibilities, these time constraints can be significant.

Conclusions and Recommendations

Distance education has the potential for reaching many adults who otherwise would not be able to access courses and programs due to barriers of time and location. However, as this review has shown, other barriers, both institutional and student-related, can be a hindrance to individuals wishing to pursue these educational opportunities. Some recommendations for minimizing these barriers can be made.

With respect to institutional barriers, educational institutions should continually evaluate non-instructional areas such as registration, advising, library and media resources, and technical support to determine if barriers exist that may keep students from accessing courses and programs. From an instructional standpoint, faculty training to develop and implement quality distance education courses must be provided. Continual

experimentation and implementation of new audiovisual technologies should also be considered as a way to reduce access barriers.

Student barriers are perhaps more pervasive than institutional barriers, and are more dependent on individual student needs. Providing opportunities for distance students to interact with faculty, other students, and other parts of the "home" campus are essential. Providing toll-free phone support to all areas of the campus, requiring faculty to have online office hours, and developing electronic tutorials for new distance students are recommended as strategies for minimizing student barriers. Other strategies include removing out-of-state tuition costs for distance students from other states and developing effective marketing and informational materials for students.

The future will likely bring continual technological changes. As this change occurs, more research will need to be conducted to determine the most effective ways to minimize and eliminate the potential barriers to distance education experienced by adult learners.

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