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Distance Learning and the Low-Income Student

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1. Introduction

In a country where postsecondary education traditionally results in social and economic advancement, 54 million working American adults lack a college degree (Pusser et al., 2007). Statistically, these adults are more likely to be low-wage earners. In 2009, the median earnings for young adults (25-34) with a bachelor's degree was \$45,000, while the median was \$21,000 for those without a high school diploma, \$30,000 for those with a high school diploma, and \$36,000 for those with an associate's degree. This indicates that young adults with a bachelor's degree earned over 100% more than those without a high school diploma, 50% more than those with high school diplomas, and 25% more than young adults with associate's degrees (Aud et al., 2011). In addition, the median earnings of young adults with a master's degree or higher was \$60,000, which was 33% more than the median for young adults with a bachelor's degree (Aud et al., 2011). Given these numbers, it is not surprising low income and working adults explore (or are encouraged to explore) postsecondary education. The route to degree entry and completion is not easy though.

According to Pusser et al. (2007), the challenges faced by adult learners place them at great risk of failing to complete courses and degrees. Adults not only learn differently than the young, they learn for different reasons (Green, 1998), including what they need to know, how they can take control of learning, what their prior learning experiences are, and why they need to learn (Huang, 2002; Knowles, 1984). Traditional undergraduate education is often inflexible and inconvenient for their schedules and lifestyles. Obligations, such as caring for family or work, are among the main barriers for adult/mature students to enroll in courses (Tones, Fraser, Elder, & White, 2009). These financial, family, and work concerns lead adult learners to nontraditional postsecondary programs, including distance learning (Pusser et al., 2007), because they provide a practical, convenient, and economical opportunity for those who are unable to participate in residential options (Yoon, 2003).

The definition of distance education as proposed by Holmberg (1995) situates it as an instructional delivery method that could be beneficial for low income and working learners. Holmberg defined distance education as:

the learning-teaching activities in the cognitive and/or psychomotor and affective domains of an individual learner and a supporting organization. It is characterized by

non-contiguous communication and can be carried out anywhere and at any time, which makes it attractive to adults with professional and social commitments. (p. 181)

This chapter describes an exploratory research project that investigated the experiences of low-income and working students enrolled in postsecondary distance study for the purpose of gaining insight to help in the development of instructional and non-instructional interventions to enhance their persistence to graduation. Because of the growing use of Internet-based technologies to facilitate distance learning, the project focused primarily on students enrolled in online study.

Moore et al. (2011) note the need for clarity in the use of the terms distance learning and online learning and their relationship to each other. For this chapter, we define distance education as “some form of instruction [that] occurs between two parties (a learner and an instructor), [that] is held at different times and/or places, and uses varying forms of instructional materials” (Moore et al., p. 130). Online learning, in this chapter, is defined as distance learning mediated primarily by synchronous and/or asynchronous Internet technologies, such as email, discussion boards, chat rooms, and course management systems. Thus, for purposes of this chapter, online learning is considered a subset of distance learning such that all online learning is distance learning but all distance learning is not online learning. For example, print-based correspondence study is a form of distance learning but it is not a form of online learning.

Hybrid/blended is a term used to describe learning environments that use elements of distance learning along with elements of traditional face-to-face learning. The instructional strategies used in hybrid/blended courses typically combine a face-to-face learning environment with computer-mediated activities such as videoconferencing, chats, discussion boards, and tutorials. In addition, using a hybrid/blended approach may encourage instructors to reduce the number of face-to-face sessions for more instructor-to-student interaction via the Internet.

2. Relevant literature

To identify a framework from which to investigate low-income student experience in online learning environments, the related literature was reviewed. This review identified five areas of concern: the prevalence of distance and online education, factors related to student pursuit of online study, student preparation for online study, student online course experiences, and factors related to student success in online courses.

2.1 Prevalence of distance and online learning

The landscape of postsecondary distance learning has changed in the last ten years with distance courses shifting more to online delivery modes using Internet technologies. This section presents the current status of postsecondary distance course and program offerings and associated student enrollments.

2.1.1 Course and program offerings

In the most recent study of distance education at degree-granting postsecondary institutions in the United States, Prasad and Lewis (2008) found that two-thirds of all institutions offered

online, hybrid/blended, or other distance education courses for the academic year 2006-2007. For the two-year level, the study revealed that 97% of public institutions and 16% of private for-profit institutions offered undergraduate distance courses. At the four-year level, 87% of public institutions, 51% of private not-for-profit institutions and 50% of private for-profit institutions offered undergraduate distance courses.

Sixty-two percent of institutions offered online distance education courses. At the two-year level, 96% of the public institutions and 15% of private for-profit institutions offered online undergraduate distance courses. At the four-year level, 86% of public institutions, 47% of private not-for-profit institutions and 52% of private for-profit institutions offered online undergraduate distance courses.

Prasad and Lewis (2008) found that only one-fourth of the institutions offered fully online undergraduate degree programs. At the two-year level, 39% of public institutions and 7% of private for-profit institutions offered online undergraduate degree programs. At the four-year level, 40% of public institutions, 16% of private not-for-profit institutions and 27% of private for-profit institutions offered online undergraduate degree programs.

Prasad and Lewis’ (2008) findings are summarized in Table 1. The numbers clearly indicate that while institutions are providing online undergraduate courses at a high rate (62%), they are providing fully online programs at a much lower rate (25%).

	Offering Undergraduate Distance Courses	Online Undergraduate Courses	Fully Online Undergraduate Degree Programs
Overall	66	62	25
2-year public	97	96	39
2-year private, for-profit	16	15	7
4-year public	87	86	40
4-year private, not-for-profit	51	47	16
4-year private, for-profit	50	52	27

Table 1. Percentages of institutions involved in undergraduate distance education, Prasad and Lewis (2008).

Prasad and Lewis (2008) also found that nearly all of the institutions rely on online asynchronous delivery (92%) over synchronous delivery (31%). Asynchronous technologies were used to a large extent in 75% of the institutions that offered college-level credit-granting distance education courses and to a moderate extent in 17%. Only 12% of these institutions used synchronous Internet-based technologies to a large extent while 19% used them to a moderate extent.

Ninety-three percent of two-year level public institutions used asynchronous Internet-based for instruction to a moderate or large extent. At the four-year level, 90% of public institutions, 90% of private not-for-profit institutions and 95% of private for-profit institutions used asynchronous Internet-based for instruction to a moderate or large extent. For two-year level public institutions, 28% used synchronous Internet-based activities for instruction to a moderate or large extent. At the four-year level, 42% of public institutions, 32% of private not-for-profit institutions and 13% of private for-profit institutions used synchronous Internet-based for instruction to a moderate or large extent. These figures are summarized in Table 2.

	Asynchronous Internet-based Technologies (Used from a Moderate to Large Extent)	Synchronous Internet-based Technologies (Used from a Moderate to Large Extent)
Overall	92	31
2-year public	93	28
2-year private, for-profit	-	-
4-year public	90	42
4-year private, not-for-profit	90	32
4-year private, for-profit	95	13

Table 2. Percentages of institutions Involved in undergraduate distance education, Prasad and Lewis (2008).

Prasad and Lewis (2008) also found that the most common factors cited as affecting distance education decisions to a major extent were meeting student demand for flexible schedules (68%), providing access to college for students who would otherwise not have access (67%), making more courses available (46%), and seeking to increase student enrollment (45%). This finding agrees with Holmberg (1995) that distance learning is a vehicle to serve adults with professional and social commitments.

2.1.2 Distance and online enrollment

In terms of enrollment, during the 2006-2007 academic year, there were 9.8 million enrollments in distance courses. Of those, 4.8 million were enrolled at public two-year institutions, 2.6 million at public four-year institution, 1.1 million at private not-for-profit four-year institutions and 1.1 million at private for-profit four-year institutions (Aud et al., 2011). In 2007-08, about 4.3 million undergraduate students, or 20% of all undergraduates, took at least one distance education course. Approximately 0.8 million, or 4% of all undergraduates, completed their entire program through distance education.

A higher percentage of students at private for-profit institutions (12%) completed their entire program through distance education than students at either public institutions or private not-for-profit institutions (both 3%). Similarly, a higher percentage of students at private for-profit 4-year institutions took their entire program through distance education (19%) than students at any type of institution, ranging from 2% at public less-than-2-year, public 4-year, and private for-profit less-than-2-year institutions to 8% at private for-profit 2-year institutions (Aud et al., 2011). The numbers are summarized in Table 3.

In the Aud et al (2008) study, distance education courses included live, interactive audio- or videoconferencing; prerecorded instructional videos; webcasts; CD-ROMs or DVDs; or computer-based systems accessed over the Internet. Distance education did not include correspondence courses as in the Prasad and Lewis (2008) study.

	Distance Course Enrollment (millions)	Distance Program Enrollment (percent)
Overall	9.8 million	4%
Two-year, public	4.8 million	2%
Two-year, private, For-profit	-	8%
Four-year, public	2.6 million	2%
Four-year, private, Not-for-profit	1.1 million	2%
Four-year, private, For-profit	1.1 million	19%

Table 3. Distance education course and program enrollment (Aud et al., 2011).

2.2 Pursuit of online study

In order for students to pursue online study, they must know that the option exists. Once they become aware that online study is an option, they must choose to enroll. This section presents an overview of the literature related to student awareness of online study options and factors that influence their decision to enroll.

2.2.1 Program awareness

In a national study of adult learners enrolled in two-year community and technical colleges, four-year public institutions and four-year private institutions, Noel-Levitz (2005) found that general program awareness is gained by adult learners from the following sources (listed in descending order of importance): institution web site; online catalog; printed catalog and brochures; student/graduate contact; family/friend recommendations; employer recommendations; information session; workplace information; national college search web site; recruiting phone calls from college representatives; newspaper; and television. Interestingly, although adult learners value the convenience and flexibility of

distance learning, the availability of online classes is not a strong factor in program selection (Noel-Levitz, 2005). In a national survey of educational support organizations (ESOs) serving low-income students, Benson (2007) found that advisers often do not recommend online classes to clients, citing the lack of support and structure in online environments.

2.2.2 Program decision

Adult learner postsecondary enrollment decisions are influenced by the following factors (listed in descending order of importance): convenient time and place for classes; flexible pacing for completing a program; ability to transfer credits; cost; reputation of institution; requirement for current or future job; ability to design personalized program; credit for learning gained from life and work experience; availability of financial assistance; distance from campus; availability of online courses; tuition reimbursement from employer; program accreditation by professional organization or trade group; encouragement/incentive from supervisor; courses held at employment site; availability of child care; and labor union support (Noel-Levitz, 2005). In a study of engineering students, Dutton et al. (2001) found that when comparing preferred mode of instruction survey results, online learners found school/work timing conflicts, commuting difficulties, and learning pace/time flexibility to be more important than traditional face-to-face learners. However, O'Lawrence (2006, p. 48) reports that students:

see online technologies as providing new opportunities and preventing a drive to attend a class, so that they can remain in their homes or workplaces, and yet participate in learning activities, interact with most of the people in class, exchange information more frequently, and establish friendships with other students.

Other influences on an adult student's decision to pursue online study include a variety of prior learning and work experiences; integration of new concepts with prior knowledge while interacting with students with similar work experiences; practical applications of knowledge; control over their learning environment and the opportunity to showcase their talents to a group; and ability to participate voluntarily in the learning experience (O'Lawrence, 2006).

2.3 Preparation for online study

Student preparation for online study has two components: readiness to participate in the online course and access to funds to pay for online study. This section presents an overview of the literature related to online study training and financial preparation.

2.3.1 Training and orientation

Universities and instructors should not assume that students are computer literate. One reason that directors of ESOs do not recommend online learning for their clients is the students' lack of appropriate computer skills (Benson, 2007). Carriuolo (2002) found that in 2001, 300 to 400 students at the Community College of Rhode Island enrolled in a computer basics course (i.e., how to use a mouse), suggesting a widespread need for computer training among potential online students. Benson (2007) found that Southwestern ESO, an educational support organization for low-income and under-represented students, administers a distance learning readiness assessment to their students and then an

introductory computer course prior to their enrolling in any online course. Southwestern believes that this training contributes significantly to the success of their students in online learning and accounts for the growth in their online distance education program (Benson, 2007). Lynch (2001) recommends an orientation course that simulates Web-based delivery and incorporates adult learning theory, readiness self-assessment, reflection on the online experience, and community building as its basic components. Although Carriuolo (2002) reported daily use of the computer in her workplace, she still struggled with the electronic requirements of her online course. She suggests that online nontraditional students need hands-on hardware and software training (Carriuolo, 2002).

2.3.2 Financial preparation

Most financial aid programs are designed for the traditional undergraduate student who is a recent high school graduate and attends school full time (Ashburn, 2007). Because many adult students took only one or two classes at a time, little financial aid is available to them. Only one third of adult students received student loans, less than one third receive grants or scholarships, and nearly a third revealed that they were unaware that financial aid was available to them (Pusser et al., 2007). Other options available to learners included personal savings or employer support (Ashburn, 2007; Tu, 2004).

2.4 Online course experiences

Online courses can be described by the interaction types. This section presents an overview of the student online course experience by addressing four interactions: teacher, peer students, course content, and institutional.

2.4.1 Teacher interactions

Kleiman (2004) asserts that the process of online teaching is different from the process of traditional teaching. The online teacher essentially empowers learners through what, how, when, and where to learn decisions (Tu, 2004), and options usually not available to traditional students. Richardson and Swan (2003) found that student satisfaction with an instructor is related to the students' perceptions of social presence. Furthermore, Carriuolo (2002) suggests that a learner's relationship with a professor can be a "life-altering" experience, because the mentorship could result in advice based on an individual's strengths and weaknesses. Coombs-Richardson (2007) believes that it takes the instructor, course content, and student working together to ensure learning for online classes. She has developed strategies that ensure her students have a positive and successful online learning experience. These strategies include providing a timely response to students; quick turnaround of assignments; individual attention to needy students; timeline flexibility with personal contact if necessary; warm and friendly online atmosphere; and personal responses to assignments (Coombs-Richardson, 2007). Proactive instructor interactions applied by Lim (2004) include frequent questioning to assess learning level and timely progress reports.

2.4.2 Peer interactions

The learning community of a classroom is based on the student-to-student exchange of information. The need for peer interaction for effective learning is a reason cited by ESO

directors for why online study is not a good option for their students (Benson, 2007). Yet, O'Lawrence (2006) reports that adult learners see online technologies as providing opportunities for student-to-student interaction, frequent exchange of information, and the likelihood of new friendships with other students. Coombs-Richardson (2007) also noted student appreciation of peer discussion board interactions. Brown (2001) found that the necessary elements to create friendship, community, or camaraderie were present but generally required a greater length of time to establish. An initial face-to-face orientation session for the class would provide an opportunity for social interaction that could then be maintained electronically (Carriuolo, 2002).

2.4.3 Course content interactions

The most influential factor affecting study success positively in an online course is clarity of content resulting in instructional effectiveness (Lim, 2004; Lim, Morris & Kupritz, 2007). Instructional effectiveness is defined as "clear and concise learning content," "usefulness of class assignment and projects," and "review and repetition of learning (Lim, 2004, p. 1063)." Sixty percent of students participating in the study defined instructional ineffectiveness as "lack of instructional clarity to explain the learning content" and "difficult learning content" (Lim, 2004, p. 1062). Students determined that the four most significant factors in instructional effectiveness were (1) content level and clarity; (2) usefulness of activities; (3) feedback and interaction; and (4) amount of content workload. Coombs-Richardson (2007), Lim (2004), and O'Lawrence (2006) found that students want useful and practical applications of the theory learned in online study, both in class and in the outside world. In addition, Lim (2004) suggests using reflective activities that will allow learners to apply their learning to personal situations. Additionally, online study depends to some degree on print to convey course content, and nontraditional undergraduates often have low levels of literacy (Carriuolo, 2002). Among the least favorite activities of online students are the required reading assignments (Coombs-Richardson, 2007). Lim (2004) speculates that the instructional effectiveness of online courses is influenced by each individual student's instructional readiness.

2.4.4 Institutional interactions

Pusser et al (2007) stipulate that high-risk adult learners have four primary needs in their postsecondary institutions: (1) guides and mentors; (2) financial aid; (3) a peer community; and (4) a guided and specific academic plan. Varying circumstances of adult learners require institutions to provide convenient and affordable access to postsecondary education (Pusser et al, 2007). LaPadula (2003) concluded that successful online programs offered students the same opportunities and services as found in traditional face-to-face programs and suggested that these services should be offered at a distance and in an asynchronous format. Benson (2007) suggests that public university systems need to be more responsive to flexible learning options or risk losing students to for-profit institutions that are market-driven.

2.5 Success perspectives

Three perspectives must be addressed when considering success in online study: individual student characteristics, online course characteristics and online support organization characteristics. This section presents an overview of the literature related to these three perspectives.

2.5.1 Student success

Dutton et al. (2001) found that undergraduates who completed an online course did significantly better than their counterparts in an equivalent lecture course. Although the online students were less likely to finish a course, they were able to gain knowledge through meaningful activities. O'Lawrence (2006) concluded that the most significant factor hindering adult learner success is the lack of self-discipline and time-management skills of some students. He also cites lack of peer contact and low literacy levels as contributing factors to a lower success rate (O'Lawrence, 2006). Yukselturk & Inan (2006) identified sufficient study time, personal problems and program affordability as the three most important factors affecting student retention in an online course.

2.5.2 Successful online course

In an online course evaluation conducted by Coombs-Richardson (2007), students were asked to rank twelve course components in order of importance. The three most important components of online courses to students were individual observations, discussion board activities, and the instructor's personal contacts through announcements, email, etc (Coombs-Richardson, 2007). Other components, listed in the order of importance, are schedule flexibility, instructor feedback, assignment turnaround, content, technical assistance, course calendar, essays/reports, reading assignments, and online exams (Coombs-Richardson, 2007). O'Lawrence (2006) concludes that extensive preparation is required to create a successful online course and recommends that future research activities include in-depth evaluation and assessment of online courses in the following areas: ease of access, media attentions or exaggerations, the role and interest of the private sector, the increased demand for online courses by education and business, and the effectiveness of online learning activities.

2.5.3 Successful online support organization

Willging and Johnson (2004) found that student rationale for leaving online programs is similar to those given for leaving traditional face-to-face programs. Although there was no evidence that suggested online environment-specific online issues were primarily responsible for dropout, students included technology, lack of human interaction, and communication problems as reasons for leaving online programs (Willging and Johnson, 2004). Yukselturk & Inan (2006) reported that lack of feedback and support for the online learning process and lack of response to student difficulties were negative items reported by students in a study that examined the factors affecting the dropout rate for online learning programs. MacDonald & Thompson (2005) found that high quality support is crucial to successful online learning experiences. Critical support includes introduction of learning technologies and software applications progressively, building technology and learning skills and 24/7 access to online and other university support services i.e. technical assistance. Online learner support services not only connect students to the university and improve the quality of the academic experience, but also scaffold student success through the development of self-directed learning skills (Ludwid-Hardman and Dunlap, 2003).

2.6 Summary

The reviewed literature framed this research project around six components: the prevalence of distance and online education (A), factors related to student pursuit of online study (B),

student preparation for online study (C), student online course experiences (D), factors related to student success in online courses (E), and personal impact of online study (F). Based on this review, project explored the student online course experience in four segments: pre-enrollment experiences (B, C) in-course experiences (D), and personal impact (F).

3. Purpose and research questions

The purpose of this research is to describe the experiences of low income and working adult students who are enrolled in online undergraduate study. The research frames the experience in four segments: environment, pre-enrollment experiences, in-course experiences, and personal impact. The research questions guiding this work are:

1. How do low income and working adult students enrolled in online study describe their pre-enrollment experiences?
 - a. Why do these students decide to pursue online undergraduate study?
 - b. How do these adult students prepare for online study?
 - c. How do these adult students finance their online study?
2. How do low income and working adult students enrolled in online study describe their in-course experiences?
 - a. How do these students describe their teacher interactions?
 - b. How do these students describe their peer interactions?
 - c. How do these students describe their course content interactions?
 - d. How do these students describe their institution interactions?
3. How do low income and working adult students enrolled in online study describe the personal impact of online study?
 - a. How has studying online shaped their perspectives of what it takes to be a successful online learner?
 - b. How has studying online impacted their lives?

4. Research methods

A qualitative case study design was used for this exploratory research. The case and participants were chosen using Patton's (1990) intensive form of purposeful sampling, in which information-rich cases that demonstrate the phenomenon of interest intensively are selected. The case was Southwestern ESO, an educational support organization serving low-income students enrolled in online postsecondary study at a local four-year college and a local two-year college. Four program staff members were interviewed to capture the environmental conditions that characterized their students' online experience. Seven students were interviewed to capture their pre-enrollment experience, in-course experience, and personal impact of online study. Two of the students also served on the staff. Their interviews consisted of questions related to both of their roles. All interviews were of 60-90 minutes in duration. The interviews were recorded and transcribed. Pseudonyms were created for the program name, the staff participants and the student participants. The transcripts were analyzed using Merriam's (1997) process of coding and categorization with the qualitative software analysis program, NVivo. For triangulation, program documents, including program brochures and client/student orientation packets, were also collected and analyzed.

5. Description of program and participants

5.1 Program: Southwestern ESO

The participants in the research study were staff and students of an on-campus educational support organization, Southwestern ESO, specifically dedicated to serving adult low-income students enrolled in postsecondary study. The organization provided computer training, tutoring and online study awareness.

Southwestern ESO is housed at Southwestern Flagship University, a Carnegie-designated Doctoral/Research University-Intensive institution with an enrollment of more than 27,000 students. Southwestern Flagship University is the premier university in a southwestern state with three universities and four community colleges. The vision of Southwestern ESO is to provide “An environment where every adult can successfully pursue a program of postsecondary education.” Its’ services include entry and re-entry counseling, academic advising, tutoring, and career planning. The ESO serves approximately 2000 clients (students and potential students) in a county with 1.7 million residents representing 70% of the state’s population. The county includes a major metropolitan city, where Southwestern Flagship University and Southwestern County Community College are located, and a far-reaching rural community that both schools serve.

Southwestern ESO has a staff of ten: a program director, an assistant director, two counselors, two advisers, an office manager, two student workers and a clerical support person. With the exception of the office manager and clerical support person, all members of the staff are directly involved in new client orientation, or “intake,” as it is referred to by ESO staffers. Some of the intake sessions occur in the Southwestern ESO office on the Southwestern Flagship University campus, but many of them occur off-site at locations more easily accessible by clients. For example, one counselor conducts intake at a reservation about fifty miles from the ESO office while another visits a military installation about twenty miles from the campus. Because of the number of clients that the ESO serves, the intake sessions are typically group sessions with 12-15 clients. During these sessions, clients are provided an intake folder containing information about the program and its services, including a client application for ESO services form, an ESO program flyer, a financial aide booklet, an academic survival handout with tips for being a successful student, enrollment procedures for Southwestern Community College, and a survey assessing client readiness for online study. Because of the large Hispanic population served by the ESO, the ESO provides two versions of its intake folder: a general intake folder and an English-as-a-Second-Language (ESL) intake folder.

ESO clients ready for postsecondary education are typically directed to Southwestern County Community College or Southwestern Flagship University for study. Southwestern County Community College is a good option for most ESO clients because of its open admissions policy, low tuition (\$40/credit-hour) and robust offerings of online programs and courses. Enrollment directly at Southwestern Flagship University (\$96/credit-hour) is typically reserved for students with some postsecondary experience, recent high school graduates, and those without work demands. Of course, the ESO helps to facilitate student transfer from Southwestern County Community College to Southwestern Flagship University.

Program Staff Participants

Program Director. Paula, a white female in her early fifties, is the program director of Southwestern ESO. She is married with a young daughter. Her introduction to online learning began when her daughter was three-years old. At the time, she was an instructor at a college in a town about forty minutes from her home. Her eldest son, who taught online at the time, encouraged her to try the new form of teaching because it would eliminate her commuting time and give her some flexibility in her teaching. Paula holds a doctorate in history.

Program Assistant Director. Nathan, a Native American male in his early thirties, serves as the assistant director of Southwestern ESO. He's working on a graduate degree in higher education administration. He was introduced to online learning through his work at Southwestern ESO.

Program Tutor and Student. Juanita, a 29-year old Hispanic female, is a military spouse with a young daughter. She holds associate degrees in general studies with an emphasis in business administration and in liberal arts. Both degrees were attained at a New Mexico community college while she was working full-time as a bank teller, and both included online courses. She is now a full-time advisor for Southwestern ESO. Her major job functions include performing client intake and providing translation services to program staff and students. She also does all the data processing. Prior to becoming an advisor, she served the organization as a student worker for two years. Before she enrolled in her first online class her computer and Internet experience consisted of playing games on her home computer, which had Internet access. She considered her familiarity with the computer and the Internet as "basic." She is working on her bachelor's degree through an online program at an out-of-state midwestern college.

Program Tutor and Student. Len, a 31-year-old Native American male who resides on a reservation about 50 miles from the Southwestern ESO main office, is a full-time student and part-time student worker for the ESO. His primary work location is an office on the reservation, which works well for him since he is the primary caretaker for his 70-year-old mother with whom he resides. He's spent one year in college in Utah and one year in Nevada before dropping out for 8-9 years. Now he is back to finish his degree. His major is business administration with an emphasis in management information systems because he loves working with computers. After he gets his degree, he wants to work on the reservation as the Management Information Systems (MIS) specialist. Presently, that work is handled by companies 50 miles away whose services are expensive and not very timely. He has had a home computer and Internet access for about three years, but he does most of his schoolwork in his office on the reservation. Len has taken a number of online courses at Southwestern County Community College and is now taking online and on-campus courses at Southwestern Flagship University.

5.2 Student participants

In addition to Len and Juanita, four other students participated in the study.

Sarah is a 44-year old single white female. She attended a California community college to study nursing after high school, but left a semester before graduating because she decided she didn't like it. She continued her full-time job at Montgomery Wards after leaving school

and work there until Wards closed. For the last eleven years, she has worked as a telephone customer service for the same company. She does not like her work so she is going back to school to prepare for a job that will take her into retirement. She wants to study psychology and start a private practice. She has dial-up Internet access at home and her Internet experience consists mostly of conducting transactions on eBay.

Omar is a 38-year old career military (17 years in) Black male. He has an associate degree in personnel administration and munitions systems from the Air Force. He is a non-commissioned officer (NCO) working in personnel systems, where he maintains training records of Air Force personnel. After retiring from the service in three years, he knows he will need a second career and wants to become a teacher and maybe get into radio. While he knows a lot, he feels he needs the credential of a degree to enable him to get a "good paying job" when he gets out. He wants to have that degree in hand when he retires. He has dial-up service at home. His wife is taking online classes through the University of Phoenix.

Martha is a Caucasian female senior citizen, who refused to give her age because people "make assumptions when they learn your age." She retired to her current state 12 years ago with her husband of 40 years after living in California for more than 30 years. Her husband died five years ago leaving her alone and confused. After about two years of grieving, she decided, "He ain't comin' back. And so, I had to get on with my life." She decided to go to school to learn Word and Excel "just to keep myself busy," but taking a class turned into getting a degree when one of her teachers encouraged her to take a Math class. She's almost finished with a database programming degree at the community college and has started a degree in business at the local university. Before she graduates, she would like to get a job at the university so that she can begin working her way through the system to a full-time permanent position in the computer department as a database person. She is concerned about age discrimination. Before she started school she owned a Mac, but purchased a PC recently because "that's what all the school people were using." She has cable Internet service and goes online when she needs information, but she is not "sitting there, clicking all the time."

Paul is a 40-year old Caucasian male. He graduated high school in 1982 and spent about two years in a California community college in 1991-92, where he left before attaining any credential. In Spring 2003, he decided to quit his full-time job, take a part-time job (20 hours/week) and go back to school full-time. He is in a nuclear medicine program and plans to go into radiation therapy. His primary mode of Internet access is cable modem service for \$29/month, including a \$10/month discount offered by the community college.

Wendy is a 28-year-old Caucasian female. She graduated from a Washington college in 1997 with a degree in speech communications with a minor in technology. Life situations brought her to her current state where she "fell into social work" by taking a job as a resource manager and case worker at a non-profit organization that helps the working poor get the basic education they need in order to get those higher paying jobs that have opportunities for advancement. Because she enjoys her work so much, she decided to pursue a master's in social work. After she gets her MSW, she wants to pursue a career in social work administration where she can shape social policy at the national and state level. She is now taking her first online class. She does not have a home computer, nor does she have Internet access, but she has both at her parents' home and at her job.

6. Findings

The study findings are presented as five themes which address the research questions: 1) reasons for enrolling in online study; 2) preparation for online study; 3) financing online study; 4) experience in the online course; 5) success in online courses; and 6) and the personal impact of online study.

6.1 Reasons

Convenience and flexibility were the most frequent reasons cited by participants for pursuing online study. As Juanita explained:

Being a parent, wife, and having to work, online just seemed to be a lot better option for me, because it was something that I was able to do from home. And it was something that I was able to fit into my schedule.

As evidence of the growing presence of online courses on college campuses, Wendy enrolled in her first online course, because the professor she wanted for the course was teaching the content online. She says, "So it was actually more that I wanted to take a class from that particular professor, versus [just taking an] online [course]."

Paul chose online courses to supplement his on-campus course load. "I just show up for my classes during the day. And if I'm at school and I have time, I'm gonna be looking at stuff [for my online courses]. I know if I have deadlines for the online courses, I can go home and try to get those done."

Martha found online courses a good way to get in more courses in a semester. She did not have to worry about time conflicts as she did with on-campus courses.

Some students were reluctant to enroll in online study and only did so because they of the encouragement they receive from staff. Nathan, the program assistant director, recalled:

I had one student who I had pushed to get into an online course because she needed to fulfill some requirements. She was hesitant. She came from a community college and had not taken online courses. . . . But it worked out a lot better for her. She's a single mother and this was just a lot easier for her. And so, she said she's going to look for more [online courses].

Warren was one of the students the ESO motivated to consider online study. He explained his introduction to online study:

I really didn't know that the university offered it, but Nathan here told me about [during intake], you know, just to look into it. So that's when I decided to look into it, and I just researched and went online to see what I needed, the system requirements, everything else, and took a little quiz on there to see if I was okay to take it, you know.

6.2 Preparation

The ESO has a two-pronged approach to making students aware of the online study option. First, during intake clients are made aware of the option and allowed to complete the distance learning readiness assessment. The results are discussed with the intake counselor

and a decision is made about whether to pursue online options. Second, the program provides an introductory computer course to get students comfortable with using a computer prior to enrollment in any online course.

In addition, the participants were provided additional information about online learning after enrolling in an online course. According to Juanita,

The community college where I came from, they actually had [a face-to-face] orientation, and actually when you enroll for an online class, you have to attend a [a 30-minute] orientation class. It was in a classroom setting. And everyone that was enrolled for an online class had to attend. And sit through their orientation on how you get on their blackboard, how you contact the instructor, how the syllabus and everything was located in there. And so, that was a requirement in order to go through with the online class.

The other participants described online sessions completed in their homes. For Paul, it was “a virtual tour thing that you can do on the computer,” while Martha “went into WebCT. . .and just went over a few of the guidelines on how to access your assignments, how to look up different areas.”

6.3 Financing

Four of the participants (Juanita, Wendy, Paul and Len) were financing their study with a combination of grants and loans. Martha, a senior citizen, was exempt from tuition and fees. Omar, an army man, was eligible for tuition assistance and the GI bill. Sarah was using her company's tuition assistance plan for her core courses. However, she will need loans when she starts taking courses in her major area, because the courses she's chosen are not covered by her employer. Interestingly, the grant/loan participants found that grants could fully support their community college coursework, while loans needed to be added to continue study at the four-year school because of the difference in tuition and fees. These loan amounts escalated for participants who were unable to get the online coursework they needed to complete the four-year degree at an in-state school. These students found themselves enrolling in out-of-state schools and paying out-of-state fees or enrolling in expensive, for-profit schools like the University of Phoenix and Education Direct.

Nathan was concerned about the financial burden associated with attendance at out-of-state and for-profit institutions, but he had to balance those concerns with the needs of ESO clients to obtain postsecondary education. He explained:

I personally don't limit our students from considering the University of Phoenix if they're able to pay for it. That's the big, big questions there. I think it's a good alternative if they're able to do that, especially the ones who are working full-time and have a family. And that's exactly who the University of Phoenix caters to. . .So we don't usually track our students in that direction unless they have some type of financial aid, or are able to pay for it, because they're going to be looking at a lot of loan debt. . .We don't like to see that for our low-income students.

Juanita, who wanted to obtain a bachelor's degree, could not find an appropriate online program at Southwestern Flagship University or any other state school. Though concerned about the financial burden she would incur by attending an online program at an out-of-state

or for-profit school, she was forced to consider both options. She explained, “I’ve gone to school for five years and never had to take out any type of loans because I don’t want to go into debt. And being low-income, that’s something that, you know, I wanted to keep far away until it was a necessity. And that’s where I’m at.” If she were attending school in her home state, a Pell Grant would cover the full costs of her tuition and books. For the out-of-state school she has chosen, she does not qualify for financial aid and has to rely on loans.

6.4 Online course experience

The seven student participants shared similarities in their course experience as well as differences. These similarities and differences revolved primarily around course design and student interactions.

6.4.1 Course design

Course design varied across participants’ courses. Juanita reported that “At the community college I attended, all their classes seemed to have the same format,” while at the four-year college course design “depends on maybe how the teacher wants to teach the class and what they want to use. It changes [from instructor to instructor].” Martha described a course that made little use of course management system:

What it was is that he would email us the lesson, we’d have to download it, and then we’d have to go work on it. So it was like we had a book, and he had maybe I’m gonna say 50 questions. And you had to read the book in order to answer the questions.

Sarah’s experience involved television:

Once a week the instructor emails you a question and study guide for the week, what you’re supposed to read, and then, you watch Channel 71 here. And that’s your weekly course... The instructor does your whole course; you take notes from that, and you can rewind it. I loved it.

Paul described a course that made more use of online tools and resources:

So Music Appreciation was really fun for me. They had videos that they would watch, that you would watch 12 sessions or so. My Political Science also had the videos and so did the World Literature class. So you could see the instructor and stuff. I think the ones that were most interactive. . . . And especially the English class. You know, there was a lot of everything. There were online e-books that we could read, along with the videos and stuff like that.

An aspect of online course design that was especially effective for the participants was the archived lectures and instructor presentations. Juanita explained,

I honestly think that the only difference between having the classes online for me, is that everything that the instructor lectures on, it’s recorded right there. And when it’s in the classroom session, if you’re writing down something and he’s already moved on to something else, you’ve already lost maybe a minute or two of something he’s said, that you can’t rewind and look at, as to what he said. And for me, when it’s online, I’m a very black and white—You know, I see it and there it is, and you know, that’s how. I’m

a very visual person when it comes to learning, and I just feel more comfortable in an online setting.

Len thought he learned more online because of the design format:

I think I learned more online. . . . Because there's more material presented. I mean, instead of going to a class Monday, Wednesday, and Friday from 9:00 a.m. to 10:00 a.m., and sitting in there listening to lecture and writing it down, that's all that was given. But online, you read the text, which you read in the class too. You read that text. And then, there was all these little things, you know, that you can go on, and if you needed more help there's always links to other places, to get extra, added—I thought that was more than just reading the book and listening to the professor.

6.4.2 Student interactions

The participants' experiences were similar in that they all expected and experienced a high level of interaction with the instructor in all their courses. Interaction with other students was not a given for their online courses. Juanita explained, "In my community college classes, basically everything was more of student-teacher relations. And here at the university, it's always been students as a whole, students with the instructor."

Paul was encouraged to "come and see" his instructors, a benefit for students like him who take a blended schedule of both online and on-campus courses.

So if I had the opportunity, then I would, you know, definitely go over. The English teacher I saw once a week. The others I at least tried to meet. And sending private e-mails back and forth, I never had a problem with that. I was always comfortable with asking questions, or if I wasn't sure about something. And they were always really nice and responded pretty quickly actually. I never really had to wait for anybody for days.

E-mail was a primary means of communicating with instructors, and prompt responses were the norm.

Because Sarah had easy access to the campus, she was able to schedule study meetings at local eateries with students in her online courses. "There was also a discussion board where you can post. And the instructors would also post." Some of Paul's courses made use of "weekly chats" where students could interact with each other and the instructor.

6.5 Success in online learning

How to succeed online learning is very important for the student with little experience with this delivery mode. The participants identified three characteristics students needed for success in online courses: discipline, initiative, and technology self-efficacy.

6.5.1 Discipline

All the participants considered student discipline important. According to Paul, "I think the biggest thing is discipline. Don't wait until the last minute, you know, 'cause it really is up to you to get the assignments done and on a timely basis." Len added:

If they're a freshman student, I don't think I would encourage online until they actually took a class because it actually—I mean, to me, it's more of a discipline thing for me

because I don't think online classes are for everybody, to be honest with you. Because it took a lot of discipline from me, but I've been through other classes, and so, I want to do this, so that's why I made myself do this...I would like to say it would be for all the students, but like I said before, I think it's for students who are more in control, more disciplined in doing work on their own.

6.5.2 Initiative

Initiative, also referred to as aggressiveness and self-motivation, was also identified as important for success. Martha provided this advice:

You have to have a certain type personality to do online and not be fearful or not be hesitant or, you know, not be afraid that you won't know the answer. So you have to pursue it the best way you can. But you have to know that the internet has a wealth of information on your particular course. . . They have to be almost aggressive, not assertive, but they have to be aggressive, because - and they have to want to accomplish goals. And I'm talking male/female.

Sarah agreed:

I think you need to be kind of on your—How do I put this? An independent learner, and just study. And there's always someone there for you. Phone or email, or you can go to their office. You feel like you still have like classmates, because you go on the message board. So don't let that frighten you, that you won't have a teacher there in front of you to ask questions. It's kinda like you still have a class, but it's just at home.

6.5.3 Technology self-efficacy

The participants stressed the importance of students enrolling in online study having a working knowledge of computers and the Internet along with comfort working online. According to Len, "So I think the first thing, you know, they need to learn about is computers and how to use the internet." Juanita encourages those counseling and supporting low-income students to:

Just to continue to be supportive of someone, especially if they do not know anything about computers, just to help them by referring them to places that offer free computer, limited classes, you know, limited basic computer classes or, you know, where they can improve their skills on them, and just to encourage them to not give up. I know sometimes some people, you know, we live in a world of technology, and a lot of times people assume that you should know something about computers. And if you come from a low income family like I did growing up, we didn't have that option of having a computer in the house. And I actually didn't have my first computer until maybe 6 years ago, and even then I was about 23, and at that time, you know, a person could own a computer and still not know anything about it. So it's just maybe just continuing to offer support for them and encourage them.

6.6 Personal impact of online learning

Participants were asked to assess the impact of online study on their lives. Two students, Juanita and Len, acknowledged that they would not have been able to work on their degrees without the online option. Juanita explained:

with me being a military spouse and having a child and moving, I've been able to move in the middle of the semester and still take my classes and continue my education from one state to another. Whereas if I didn't do that, then I'd have to leave school, classes, and start all over again.

For Len, who has to take care of his home-bound mother, money was a big issue, "I probably would not have been able to afford to drive back and forth and you know, I had a very good, running vehicle to drive back and forth and spend the time in town."

The other participants expressed that while they would have been able to pursue their degree, it would have taken them much longer to do so without the online option. The flexibility of when to interact with the course, instead of a fixed meeting time at a physical location, allows students to modify their schedules for more learning opportunities.

7. Conclusions

Although family or work obligations (Tones et al., 2009) and income are a few of the main barriers for adult students to enroll in courses, the student experiences in this research project serve as an example that low-income and working adults can be successful in a distance education course. From these students' experiences, we gain insight into effective learning environments that support the needs of working adults.

7.1 Lessons learned

7.1.1 About the program

The students in this research project were served by a well-organized and multi-faceted support organization. Southwestern ESO had four defining characteristics:

1. The program administrators had experience teaching and/or taking online courses. Their experience gave them a positive attitude towards online study and how it could be beneficial to the students they served. As a result, they directed students to this option. Further, when students were reluctant to pursue the new avenue, the administrators were able to address their concerns from a personal perspective in addition to directing them to program supports for online study.
2. Even though their students were enrolled online, Southwestern ESO provided face-to-face contact with students as needed. During intake, students either came to the ESO office or ESO staff went to the students. This type of personal contact provided clear evidence to students that Southwestern ESO would be there when needed.
3. Southwestern ESO supported students' transition from the community college to the four-year university. This support throughout the college career was important in helping students to persist in postsecondary education.
4. Southwestern ESO provided face-to-face and online training, along with an orientation session to prepare students to study online. By providing these preparation activities, the program reduced some of the apprehension that students had towards being able to be successful studying online.

7.1.2 About the students

All of the students in this research project were pursuing postsecondary education as a way of advancing themselves financially and professionally. None of them considered themselves anything beyond computer novices before they enrolled in online study; two of them did not have a home computer or Internet access. They chose the online option for a variety of reasons. The military wife and mother chose online study because it suited her life as a mother who needed to be home with her children and a military wife who moved from base to base. The senior citizen chose online courses to supplement her on-campus courses as a way of completing her degree faster.

7.1.3 About financing

Access to flexible learning options and cost of attendance were related for the students in this research project. Although students used grants to cover their cost of attending the community college because it was fairly inexpensive, loans had to be added to their portfolio to cover the cost of attendance once they transitioned to a four-year school. Students and ESO administrators acknowledged that limited online and distance degree program offerings at the local public university forced students to consider out-of-state and for-profit institutions, where the cost of attendance was higher than at the local public university. One student chose an out-of-state institution that cost more because the local university did not offer a distance degree in her area of study.

7.1.4 About the course experience

Students in this research project experienced different flavors of online learning. For one student, online learning was a weekly e-mailed lesson. For another student it was e-mail and televised video lectures. Another student's course used a course management system. One feature of online courses that three of the six participants commented on favorably was the video lectures. Whether these were accessed online through the computer or viewed on television, students appreciated the ability to re-play and stop/rewind the lectures as needed. In addition, the feature really helped with note-taking.

In this project, students had more online interactions with professors than with students. Some students reported being encouraged to visit instructors in their offices, which was only possible because they lived within driving distance of the campus. These same students also scheduled face-to-face study groups with other students.

Two students in this project used online courses to supplement their face-to-face schedule of courses. These students found it easy to obtain extra credits by taking online courses, because they did not have to worry about conflicts with other campus courses on their schedules. Being able to take a blended schedule of campus-based and online courses allowed students to complete degree requirements faster.

Students appreciated the pre-course and in-course training they received. Training/orientation for online courses important to students; some students are reluctant to study online because it is new to them.

7.1.5 About success

Discipline, initiative, and technology self-efficacy emerged as keys to success in online learning. Because of the discipline required to complete and submit work on a timely basis, the students did not think online learning was for all students. One student was particularly concerned about freshmen taking online courses. The students saw initiative as important because the teacher is not physically there to guide you through every step of the work you have to get done. While acknowledging that everything students needed to complete assignments was present in the online course materials and the online tools provided (discussion board, for example), some students would be uneasy about accessing the help they needed. These students also felt that students pursuing online study needed a degree of comfort and knowledge with using a computer and the Internet. They felt these skills could be learned, but that the new student would need support as they went through the learning process.

7.1.6 About personal impact

All the student participants felt that having access to online courses was required for them to meet their goals for a degree. The four students with full-time jobs did not think they would have been able to pursue postsecondary study without the online option. The two nonworking students felt that having access to online learning allowed them to complete their degree requirements faster, thereby entering the job market sooner.

7.2 Implications for practice

The lessons learned from this research have the following implications for practice:

1. There is a need for increased fully online undergraduate degree program options by public institutions. Prasad and Lewis (2008) found that institutions are offering individual online courses at a much higher rate than they are offering fully online degree programs. Public institutions must make this change or continue to force students who can least afford it to find more expensive out-of-state and for-profit options.
2. Institutions must make their local communities aware of their online options, financial aide opportunities and educational support services. In this research project, Southwestern ESO took on this function.
3. Institutions must prepare themselves to have on-campus students and distance students competing for seats in their online courses. As shown in this research, campus students take a blended approach to scheduling by including both campus-based and online courses. In many cases, online courses will be comprised of campus students and distant students, two populations requiring different types of support. In research conducted with of students enrolled in graduate study, Skopek and Schuhmann (2008) found that obstacles related to geographical proximity are concerns for distant students enrolled in courses with on-campus students. Because they are physically further from faculty, they have fewer opportunities to interact with faculty and peers face-to-face than on-campus students.
4. Do not restrict all interactions in an online course to be mediated by Internet technologies. The students participating in this research experienced a variety of online

course offerings that used Internet tools and non-Internet tools. For example, one course had students view televised lectures. Another course may provide DVDs to students.

5. Consider developing an online support organization or division devoted to support online students. While students in this research project lived in close proximity to the institutions offering their online courses, institutions cannot depend on this being the same situation for all online students. Based on the Self-Direct Learning Model (Grow, 1991), learners are within four distinct stages that range from learners needing an authority to direct them (Stage 1) to learners who are motivated and capable of directing their learning process either alone or with an expert's help (Stage 4). Sarah's comments regarding being an "independent learner" illustrates a Stage 4 perspective while still knowing that you can receive assistance and direction from the instructor. For a novice online learner, this may be unfamiliar perspective. However, with structured support from distance education organization, students can be better prepared for their first experience. This support comes in the form of training or orientation courses to introduce students to the activities, management, and self-directed responsibilities necessary for distance learning.
6. The interface design for organizing information can impact student success. As noted in the research of Moore, Downing, and York (2002), online instructors should be mindful that their online course organization of materials might not match the mental model of the students. Juanita's comment regarding how courses at 4-year universities have different organization schemes whereas the online community colleges look the same relates to the multiple course phenomenon (Moore, et al., 2002). When students are accessing more than one online course in the same Content Management System (CMS), such as Blackboard, Angel, Moodle, Sakai, they can easily become disoriented when searching for course content. As a result, this phenomenon illustrates how content organization can impact students' satisfaction level with the course, which can sometimes result in low attrition and negative course evaluations.

7.3 Future research

There are two major limitations of the research presented in this chapter that indicate areas where future research should be directed. The first limitation of the study is that it focuses on seven students associated with a single educational support organization. Future research should broaden the study to include more students, both students enrolled in online study and students choosing not to enroll in online study. Including both groups of students in the study will provide more insight into how students make choices about whether to enroll online. Future studies should also include more educational support organizations. Online student needs can be met in a variety of ways. By including multiple educational support organizations researchers can begin to investigate and evaluate the different support models for effectiveness.

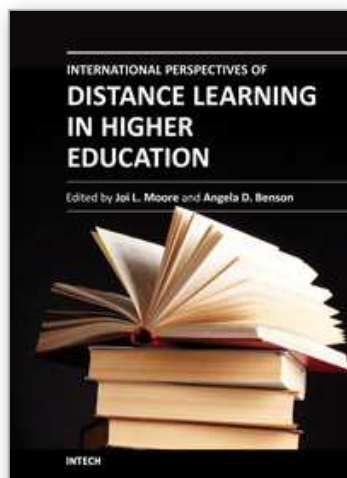
The second limitation of the study is that it takes a snapshot of the student experience at one point in time. Future research should include a longitudinal study that follows students from the beginning of the postsecondary study through its completion. Such a study would provide insight into student persistence and attrition as well as a more developed view of the student experience.

While the study presented in this chapter took a qualitative approach to the student experience, future research that addresses these research questions from a quantitative perspective would be valuable. Such research in conjunction with qualitative experiential data would provide a richer and broader understanding on the online study experience for these students.

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International Perspectives of Distance Learning in Higher Education

Edited by Dr. Joi L. Moore

ISBN 978-953-51-0330-1

Hard cover, 332 pages

Publisher InTech

Published online 16, March, 2012

Published in print edition March, 2012

This book, written by authors representing 12 countries and five continents, is a collection of international perspectives on distance learning and distance learning implementations in higher education. The perspectives are presented in the form of practical case studies of distance learning implementations, research studies on teaching and learning in distance learning environments, and conceptual and theoretical frameworks for designing and developing distance learning tools, courses and programs. The book will appeal to distance learning practitioners, researchers, and higher education administrators. To address the different needs and interests of audience members, the book is organized into five sections: Distance Education Management, Distance Education and Teacher Development, Distance Learning Pedagogy, Distance Learning Students, and Distance Learning Educational Tools.

How to reference

In order to correctly reference this scholarly work, feel free to copy and paste the following:

Angela Benson, Joi L. Moore, Nicole Norfles and Carolyn Starkey (2012). Distance Learning and the Low-Income Student, International Perspectives of Distance Learning in Higher Education, Dr. Joi L. Moore (Ed.), ISBN: 978-953-51-0330-1, InTech, Available from: <http://www.intechopen.com/books/international-perspectives-of-distance-learning-in-higher-education/distance-learning-and-the-low-income-student>

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