

EXAMINATION OF FACTORS LEADING TO
STUDENT RETENTION IN ONLINE GRADUATE EDUCATION

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Abstract

Successful program completion is a combination of learner attributes, the university's focus on meeting the needs of the students, and providing a quality educational product. This paper focuses on the needs of the online graduate student and how a program can provide the educational services that promote student retention. By recognizing DE student needs and putting strategies into place to best meet those needs, programs can have a high course and program completion rate to meet accreditation standards and provide financial stability for the institution.

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Introduction

The primary role of a graduate student is to learn. This requires attention to planning, the ability to analyze and solve problems, and the inner drive to persist with the learning. These tasks can easily be challenged when barriers to successful learning are presented. Add the element of online education, and the process of student learning can become even more complex sometimes leading to unsuccessful course and program completion. With efforts to offer quality, learner centered education, institutions need to have certain strategies in place to promote student success via learning and degree completion. This paper will examine literature to determine the demographics and attributes of successful distance education students in the online environment and the barriers that may prevent success. A variety of strategies that are suggested by researchers will be discussed. Several gaps in the current literature discovered in studying student retention issues will be summarized and the need for a strategic plan to address student attrition will be presented.

This paper will discuss student retention as it relates to graduate education programs that offer the curriculum content completely by computer mediated delivery mechanisms. Online education utilizes the internet to transmit course material and communication between the teacher and students. Augmented by textbooks and study guides, online students frequently participate in synchronous and asynchronous communication to build concepts, share ideas, and analyze problems. With online programs, all learning activities are completed at a distance, meaning that little or no face-to-face contact is utilized during the delivery of the program curriculum.

Background

Online education is an avenue for earning a degree and additional knowledge for a majority of adults returning to academic programs with the expectation of attaining tangible career related results (Kerka, 1995). This delivery of course material is an attractive way to gain knowledge for adult learners who need flexibility of time and place to avoid disruption of family and work life (Salih, 2003). Online learning can provide adult students with individualized education that can be self-paced, present multiple opportunities for review, and give instant feedback. It can offer interaction in many ways with peer learners in a collaborative learning environment (Palloff & Pratt, 2003). All of these advantages can assist students with a wide variety of personal backgrounds and educational experiences that are seeking a way to meet their learning needs.

Retention can be defined in a variety of ways. Martinez (2003) describes it as “the number of learners or students who progress from one part of an educational program to the next” (p. 3). It can be defined by some academic institutions to be relevant to program completion (Kerka, 1988). For others, retention is successful when students are able to retain information learned in a course. Kerka (1995) reports that retention is, “to keep learners in programs until they achieve their goals” (¶1).

Attrition is the opposite of retention. Student attrition is the falling off or stoppage of coursework and degree progression that results in a decrease in the number of learners or students engaged in some course of study. This is the student that, for some reason, decides to drop-out of a degree program, does not persist in a course, or withdraws from a university.

Persistence relates to the act of continuing toward an educational goal. In a graduate degree program, this is a student that completes a degree or course. Many institutions track this

information to determine who completes their degree or certificate “on time” or within a stated period of time. Accreditors are particularly interested in this completion rate as a measure of educational quality (Council for Higher Education Accreditation, 2000).

Retention of adult students in online programs is a persistent and perplexing problem for providers of adult education. With online learning, there is a greater likelihood that a student will not complete courses and stay enrolled in an online program than in an on-campus course (Palloff & Pratt, 2001). Student drop-out rates in online courses are as high as 35 to 50% as compared to traditional classes (Lynch, 2001). With poor retention rates, there are financial implications, accreditation concerns, and the negative impact on reputation. Institutions spend significant resources in attracting and admitting students. When these students leave the institution without completing a degree, this could be considered a loss in an investment by a college or university. Successfully reducing the dropout rate and stabilizing enrollments allows for better allocation of delivery resources as well as providing improved return on investment (Martinez, 2003). There is a financial loss also to the student who does not complete a degree program but at the same time incurs tuition costs for courses but minimum long term financial gain in the way of a higher salary usually seen with degree completion.

Accreditation bodies place considerable emphasis on accountability regarding the quality of education (Council for Higher Education Accreditation, 2000). One standard that accrediting bodies frequently track is the rate of course and program completion. A low rate of student retention can be a red flag signaling poor quality education that is not meeting the needs of the student. With poor completion rates, institutions are at risk of losing accreditation or being placed on probation. This act would again have financial implications considering that many federal student loan programs are tied to maintaining a good accreditation rating.

Low student retention rates can reflect poorly on a program or university (Long, Tricker, Rangecroft & Gilroy, 1999). With decreased student satisfaction, these disgruntled customers can offer poor “word-of-mouth” advertising. Over time, this can lead to a decrease in a university’s reputation. A questionable reputation can negatively impact promotion and recruitment efforts for new students. In addition, faculty, student, and administration frustrations mount leading to dissatisfaction and difficulty managing change and improvement efforts.

More and more colleges and universities are entering the race to provide course delivery via distance education methods. According to the National Education Association (NEA, 2000), at least 58 percent of higher educational institutions offer distant education courses via the Internet. Furthermore, the number of course offerings and enrollments in those programs approximately doubled in 3 years. From the 1994-95 to 1997-98 academic years, the number of distance education degree and certificate programs rose from 860 to 1,520 (Lewis, Snow, Farris & Levin, 1999). More than one-half of the students in these programs are adult learners over the age of 24 (NEA, 2000).

Efforts to provide courses to a broader number of students are seen as a way to be more competitive in the market for new students, and offers increased financial security for universities losing governmental appropriations (Scott, 1999). In this drive for increased use of technology to delivery course materials, efforts to recognize the needs of the student have not always been in the forefront of planning. With limited research in the elements of quality online education, there were initial concerns with the low retention rates in distance education courses. Administrator and faculty were left wondering, 1) Who are the distance education students and what problems do they face? 2) What do they need in order to be successful? 3) How can institutions offer an educational produce that is satisfying and lead to student success? Over the

last 15 years, research results have started to answer these questions. With a focus on online course delivery, more attention is being placed on learner centered approaches that can help to retain students (Palloff & Pratt, 2003). One way to be more focused on the learner is to first examine their attributes and the challenges they face as students

Distance Education Learners

Who Are Distance Education Learners and What Barriers Do They Face?

Many distance education (DE) learners are older, have jobs, and families (Simonson, Smaldino, Albright & Zvacek, 2003). They must be able to coordinate the various aspects of their lives in order to have dedicated time for studying (Moore & Kearsley, 1996). Role conflict, time management, family problems, and economic concerns can all present as barriers to online learning. A student could easily feel overwhelmed when trying to juggle job demands, caring for children or elderly parents, and completing coursework. An adult learner may underestimate the commitment required to completing a degree or not properly anticipate the level of student responsibilities needed to be successful.

The accelerated pace of online learning can present with assignments due every week and burnout could become a problem. It would be easy for a student to stop out of coursework for a break and then never return. A student that procrastinates is particularly vulnerable and quickly overwhelmed as assignment dates come and go with little progress toward completion.

Many learners returning to school are doing so for career related reasons (Fjortoft, 1995). Their goal is to increase their earning potential, gain more career satisfaction, or to seek a promotion. Some take courses to broaden their education but are not really interested in completing a degree. They may be interested in a particular topic and see the need to increase

the knowledge in a limited area. This voluntary participation can influence the effort one puts toward course or degree completion (Salih, 2003). A student that is not able to maintain motivation and strong attention to the goals being sought is going to have a difficult time focusing on school work, especially in light of the competing responsibilities of work and family. Without clear goals, a student could easily lose sight of why this learning is of benefit and no longer be willing to make the sacrifices needed to be successful.

Many have been away from formal education and studying for a length of time. They may be unsure of themselves and the ability to perform academically (Moore & Kearsley, 1996). This lack of confidence may be from bad previous experiences or a significant number of years away from academic course work (Salih, 2003). They can also be unsure of how to learn via online education, for in most cases, this is a new type of a learning method (Simonson, et al, 2003). The more inexperience that is present with previous learning, the higher the anxiety a student may feel about meeting the expectations of the faculty (Palloff & Pratt, 2001).

Adult learners may also bring a communication style that may or may not be well suited for online learning. Communication apprehension is a problem that has been found in completion of telecourses (Pugliese, 1994). This apprehension is associated with real or anticipated communication with others. Traditional students with high communication apprehension tend to quietly sit in a large lecture room, having minimal interpersonal contact with the instructor or other students. In most online courses, all students are expected to participate in the discussions. There is no sitting in the back of the room. A student that is not willing to interact with a high level of interpersonal communication that includes sharing life, work, and educational experience may not feel comfortable in the online environment and chose to drop-out of the program.

Many adult learners consider themselves to have limited technical abilities and knowing how to use the technology to their educational advantage (Willis, 2003). Being unsure of the level of technology needed to complete online courses, many adult learners not accustomed to using the computer will consider themselves incapable of handling the computer requirements (Lynch, 2001). Anything that prevents a student's ability to log-on to a course such as an inadequate internet service provider, faculty equipment, or poor knowledge of using the software can lead to frustration and discouragement and be a barrier to learning.

The online learner is isolated from much of the social activities of learning (White & Weight, 2000). The online student lacks immediate support of peers and instructors, an important element of student success as described in Tinto's model of attrition (Tinto, 1993). In this model, several factors that impact attrition are explained with emphasis placed on the need for social integration as part of the learning process. Lonely people tend to be less involved in the learning process (Pugliese, 1994). With this lack of physical proximity, there is a decrease in the motivation to succeed in the online courses. Where many of the students seek out online learning because of its flexibility, this flexibility puts a student in the position of having to depend only on oneself to maintain the desire to complete a course. Without an adequate support system, a student could easily lose sight of the reasons for completing the program and decide to drop out.

There are two barriers that can prevent student success that are not related to student characteristics. These barriers are more related to institutional and epistemological issues. A university or program that is not focused on meeting the needs of the student will have difficulty maintaining a high retention rate (Garland, 1993). This author discusses institutional impediments to student success such as admission requirements that are not correlated with the

level of academic difficulty, problems with institutional procedures, course pacing, and limited support services.

Epistemological issues are those that reflect a disconnect between a student's personality, learning style, and cognitive abilities to the online program curriculum. The structure of a course, a content that lacks personal relevance, the level of competence needed to be successful, and a lack of congruence between learner's cognitive abilities and the level of subject matter are just a few of the concerns that could lead to poor retention rates (Garland, 1993).

What Are the Attributes of the Successful Online Learner?

Web-based learning requires new skills for the student that is not always required in traditional classroom learning (Buchanan, 1999). Online students must be able to seek out information and reconstruct it independently. They must be able to present their ideas, argue perspectives and incorporate experiences in a medium where all visual cues are eliminated and communication occurs over a week instead of a 50 minute lecture. Successful online learners have many important attributes that will lead to learning success and persistence.

There are several personality factors that have been investigated in the literature with mixed results concerning their influence on the success of distance education students. Dille and Mezack (1991) examined predictors of academic difficulty and attrition in relation to locus of control and learning style. A strong locus of control is characterized by the belief that personal achievement is due to ability and effort as opposed to luck, fate, or situational factors. In this study, telecourse students (n=188) at a community college completed three instruments: 1) demographic survey, 2) Julian B Rotter's Internal-External Locus of Control Scale, and 3) David A. Kolb's Learning Style Inventory. The researchers compared course grade to the results of the

survey tools. They found that older, married students with more internal locus of control, and high grade point averages were the most likely to be unsuccessful. Correlating success with learning style and number of college credit hours taken at one time were not significant variables.

Biner, Bink, Huffman, and Dean (1995) conducted a large scale study comparing the personality characteristics of televised course students and traditional course students with use of a personality assessment instrument. They found that telecourse students who achieved higher scores were more self-sufficient, trusting, and less compulsive than the traditional students. They were also more introverted, expedient, and had lower anxiety levels. It was an interesting note to see that that the expedient students, rather than the conscientious ones, were able to perform better in DE courses. These authors proposed that the adult learner needed to juggle multiple responsibilities. With less time to devote to studies, these students learn to efficiently complete assignments as a way to adapt to their short time that can be devoted to coursework. It appears from this research that the most successful telecourse students are those who are resourceful and prefer to make their own decisions.

Intrinsic motivation is another important characteristic of a successful online student. Fjortoft (1995) examined currently enrolled (n= 179) and drop-out (n= 216) adult students in a graduate DE program. A survey instrument was designed to examine the important parameters in adult student persistence in DE programs. She found that students with high levels of perceived intrinsic benefits were more likely to persist in the program. Her study showed that, “motivation stems from an internal desire for more satisfaction and challenge in one’s career, rather than desires for enhanced salary and career mobility” (p. 6).

In the online environment, students no longer have to depend on the faculty member to direct the learning. The student is empowered to speak out and proceed with new learning as discussions and new information is presented. In a case study by Yang, Huang, and Hu (2001), they describe field independence to be a strong indicator for students in a distance learning teacher program. It is this trait that will help student to apply learning to a variety of situations. There is apparently a connection in one's personality between independence and self-directedness. They believe this independence is necessary in order to allocate appropriate time management to make progress in web-based DE courses. To Milton (1998), a strong sense of independence will assist DE students to shape and manage change. Considering that online education is a new form of learning, the most successful students are ones that can independently adapt to this new environment, relying on "an appreciation of owning the direction of their inquiry" (¶1). Bernt & Bugbee (1993), also consider that strong independence and good time management is necessary for successful completion of courses and this depends largely upon how well a student is able to control outside matters which compete for study time.

With the delivery of course content dependent on technology, it is important that students have access to a computer and are comfortable with the technology (Milton, 1998). A successful student should have the basic skills needed to effectively manage the course content and this level could vary depending on the course and program requirements. These skills could include: logging-on and access of the course materials, being able to interact with the online course platform, accessing information through search engines, typing in a word processing program, and sending or retrieving emails.

A successful student needs to have a readiness to learn. As discussed by Knowles (1990), adult learners become ready to learn when they recognize areas of deficiency in their

ability to cope effectively with real-life situations. In addition, this can be further explained by the learning orientation theory as discussed by Martinez (2003). This theory believes there is a close relationship between beliefs, values, emotions, and intentions to learn to the actual cognitive process. The better a student is ready to learn, the more information he/she will be able to efficiently process and utilize for future assignments and apply the new learning to real life situations. A student that recognizes areas of weaknesses, is able to address learning goals to meet those learning needs and is willing to participate in the learning process will be more likely to succeed as an online learner than one that is resistant to learning.

A final profile to consider for the successful student is the level of formal education achievement. Research by Coggin (1988) examine factors that account for a student's success or failure in DE programs. Distance education students from the University of Wisconsin (n=164) completed surveys and the Canfield Learning Style Inventory. No difference was found with gender, occupation, or marital status. Differences were found with educational level prior to enrollment, intention to earn a degree, and length of time since last college credit course. There appears to be more success for students that have achieved a previous degree. It is possible that these students have developed learning strategies over time that provide for academic success.

Strategies to Improve Retention

How does one develop and maintain an online program that supports successful online students? Given the research results of who is successful and the barriers commonly present for

online students, proposals for strategies can be made that will overcome these barriers and lead even the “at-risk” student to success.

One area that is commonly discussed in literature is instructional design strategies that will improve retention. Instructors and course designers that are well attuned to the needs of the adult student should provide a well-constructed, interesting learning environment.. Some of these ideas include:

1. A flexible learning environment that offers the student an element of control over their learning experience and is learner-centered (Milton. 1992).
2. Students should be required to take an active role in their learning (Yang et al, 2001.).
3. They need the ability to interact with peers as a way to build community (Palloff & Pratt, 1999).
4. Students should receive immediate feedback (Salih, 2003) and practice tests or study tips (Bernt and Bugbee, 1995) as a way to eliminate anxiety and promote learning.
5. Learning aptitude can improve by adapting the instructional activities to meet the learning demands of the student (Martinez, 2003). There should be a variety of teaching activities utilized in order to maintain the interest of the student and to best provide for a wide variety of learning styles (White & Weight, 2000).
6. Focus learning on employability skills and content directly related to daily work situations (Cookson, 1990). This speaks directly to why students are seeking advanced training. If there is no connection between what is being taught and how it applies to a student’s learning needs, the perceived benefits of the learning and motivation to persist could be reduced (Garland, 1992).

The instructor is a key factor in retention. They are the ones that are going to organize and bring life to the content material. Active, problem-solving, goal oriented and cooperative learning is the most successful teaching strategy. (Conrad, 1993). Teachers need to tailor instruction to student needs, set the climate for learning, listen, and allow open discussion (Kerka, 1988). Instructors that facilitate the building of community will be the most successful in bringing sociability into an environment known to be void of human emotion (Palloff & Pratt, 1999). By positively sharing information and promoting critical thinking, instructors will engage and satisfy students with a variety of learning styles.

It is the instructor that can teach a student how to be more selective and focused in their approach to online learning. A graduate student should be guided to learn how to get away from a “surface approach” to a “deep approach. Morgan (1991) suggests teaching the student how to:

1. Concentrate learning on the main intent of the instructor
2. Compare and contrast new ideas with previous knowledge
3. Focus on how new learning applies to everyday experiences
4. Develop a method of organizing and retrieving new information

Another way to assist students to be successful is to offer student Training/Orientation to better prepare the learner (Salih, 2003). Student orientation should include assessment of ability, self-esteem, learning style, motivations, and values (Kerka, 1988). She believes that adult learners may get frustrated early by lack of progress or by not getting enough information before starting courses to know what to expect and what they must do to achieve it.

A case study by Lynch (2001) showed that a small university with primarily adult students and a 35 to 50% drop-out rate could institute the used of a student orientation course. Following implementation of this course, the attrition rate fell 50% and course re-enrollment

increased to 90%. Another study by Murtaugh, Burns, and Schuster (1999) showed that 8,867 undergraduate students at Oregon State University had better retention through development of an orientation program. As suggested by Barker and Edgar (2000), students undertaking online learning need to have the following skills:

1. technical skills that allow for the use of multiple windows and scroll bars
2. being able to critique and evaluate other student discussions
3. understanding the course lingo such as “lessons”, “bulletin boards”, and “assessments”.

Bernt and Bugbee (1995) offered several educational training strategies as a result of their study. They propose that adult learners need workshops where they are taught how to utilize primary and secondary study strategies. Primary strategies would include: test taking skills, how to study, and improvement of processing behaviors. Secondary strategies would be: 1) determining attitudes toward academic self-concept, 2) commitment or motivation to learn, 3) time management, 4) developing positive expectations for success, and 5) anxiety reduction.

Offering good technical support is one way to overcome the frustration of inadequate technical competence. An institution should offer a stable course platform and good connectivity that demands minimal competence and hardware (Yang, et. al, 2001). There should be telephone and email contact with a human voice or online tutorials for quick response to questions in real time. The longer a student is unable to connect to an internet course, the more frustrations and anxiety will mount.

Mentorship and advisement should be available. Cookson (1990) suggests that “skilled diagnostic counseling” (¶14) should be used to assist students to discover their level of commitment and relating this to academic goals and career achievement. One goal of advisement should be to help students to make attainable goals (Kerka, 1988). Advising students

in how to overcome the barrier of multiple role responsibilities will help them to integrate pursuit of education into their overall life. (Kerka,1995).

Part of a good advisement program is an early detection for those at risk. This could include those that had a previous bad experience with school, lack self-confidence, employment and child care conflicts, opposition to their continuing education from significant others, and financial difficulties. Institutions need a program in place that will find out who are the at risk students. One way to do this is to develop a research study that determines a profile of at risk behaviors for use by faculty (Mark Parker, 2003). Cookson (1990) suggests remedial programs, conditional registration, assisting student to learn time management, and providing options for longer course times as ways to assist the at risk student. Utilizing personal attention by faculty and staff that are willing to listen and assist with personal and financial problems puts the focus on the student. These individuals can help the students to understand what traits and skills are needed for success in an online program.

A program that demonstrates congruency between the students' skills and the academic rigor of the program will lead to high program completion (Coggin, 1988). An institution may consider using some type of pre-admission screening tool for students to determine if they have the necessary skills needed for good academic performance and persistence. A pre-assessment screen, such as one proposed by Buchanan (1999) could ask the student to respond to a series of questions that relate to the criteria needed for program success (See Table 1). Students are scored to determine their ability to complete an online program. The University of Illinois offers an excellent list of student profiles that could be used to demonstrate the skills needed to be an online learner (See Appendix)

Are you able to work independently?
 Will you sacrifice personal time to complete assignments and readings?
 Can you write clearly and articulate your thoughts coherently?
 Are you a self-starter?
 Are you able to manage time?
 Do you have strong study skills?
 Do you need direct lecture to understand materials?
 Are you comfortable asserting yourself in a group?
 Are you computer literate?

Table 1: Pre-assessment screen (Adapted from Buchanan, (1999, Winter). Assessment measures: Pre-tests for successful distance teaching and learning? *Online Journal of Distance Learning Administration*, 2. Retrieved February 17, 2002 from <http://www.westga.edu/~distance/buchanan24.html>

If organizations want to improve the timely completion of coursework by online students, then a means to stimulate or motivate students to complete their work should be found. In a study by Stone (1992), 34 employees in an industry taking telecourses found that regular tutor contact significantly increased timely completion of distance education assignments.

Students need some form of socialization in order to feel like they are part of the institution. Even though they do not live on campus, they need strong ties to the academic culture and peer learners. Ashar and Skenes (1993) found that social integration had a positive effect on retention. They determined that small groups of peers at the same level of maturity created a social environment that motivated adult learners to persist. Being listened to through personal contact and a peer telephone network were found to be successful in two studies (Cullen, 1994; Vanderpool & Brown, 1994). A supportive staff that is friendly, helpful, knowledgeable, and respectful of adult students will offer the psychological support so many distance education students need in order to feel “connected” to the university and overcome the barrier of isolation.

Overall, the ingredients for good student retention can be divided into three broad categories: 1) the personal attributes relating to cognitive, affective and psychological behaviors that internally offers a student better chance for success, 2) the teachers' role in developing an interactive course that promotes organized learning, and 3) an institution that offers a curriculum, student services, academic policies and procedures, and technological access that are learner focused.

Summary

Given the diversity of adult DE students, there are many reasons why students become non-completers. They may present with one or two predisposing factors that make it difficult but are able to persist and then one final challenge presents itself and the student can no longer continue in the course or program. Because of the myriad of issues related to student retention, an institution should consider a wide variety of approaches to address this problem.

It should be the prime responsibility of an institution to determine what creates barriers to students. According to Kirk and Bartelstein (1999), less than one-third of higher education institutions have a plan for distance learning on the internet despite offering such courses to students. These institutions lack the development of firm plans for successful distance learning programs. This meager attempt at planning could lead to student dissatisfaction, high attrition rates, and restrict program development.

Martinez makes an excellent argument for developing an attrition management plan (2003). In this plan, retention issues are addressed by carefully measuring student progress. She believes applying this data to a framework of elements such as analyzing and differentiating

audiences, identifying key success attributes and predictors and evaluating strategy effectiveness are important tools for minimizing attrition. If an online program is willing to take a holistic approach to retention targeting efforts toward at-risk students, attrition rates and improve, learning can be more supported, and students more satisfied.

Seamless institutional support and services can determine the success or failure of an online learning program (Buchanan, 2000). While departments and instructors may be the frontline troops interacting with the student, there are other institutional mechanisms in place that may present more barriers than a student can comfortably maneuver. Poor course registration processes, difficulty accessing library materials, or poor communication between admissions and financial aid are just a few of the possible areas that students may get caught in a quagmire of bureaucratic policies and procedures that can lead to student frustration and eventual drop-out. Coordination of efforts between all institutional departments needs to be highly organized and strategically planned so that services are readily available and support the educational effort of the students.

When examining the literature available regarding student retention, there seems to be a few problems. With the measurement of retention rates, it seems unfair to mix all non-completers in the same category. There are those that step away from studies for a short time due to personal situations. There are others that gained the knowledge needed to meet their goals and no longer needed to complete the degree. And then there are those that withdrew permanently because of dissatisfaction. There needs to be a way to keep track of the individuals in the various categories.(Kerka, 1995) Students are not alike, therefore academic administrators should not measure them together when considering completion rates. Kaplan School (McKenna, 2003) recommends looking at retention rates in a variety of ways such as, 1) by

program, 2) by advisors, 3) by faculty, and 4) by first term grade point average. It is through this tracking process that barriers to student retention can be determined and interventions evaluated that positively impact on student success. Parker from University of Maryland (2003) also supports periodically examining barriers to student success and developing appropriate interventions that fit the needs of various student groups. In other words, administrators need to be careful not to apply a “one size fits all” approach to retention.

As a general observation, there are many unanswered questions that remain regarding retention of online students. Much of the research found for this paper related to a variety of distance education delivery mechanisms and not just web-based education. It seems that at the present time, online program administrators are forced to apply previous research to a new method of course delivery. This may not be giving administrator the information they need to positively impact online student retention. Further research is needed to fully understand how best to utilizes strategies to promote student success.

It appears that the research is adequate at examining the characteristics of the successful or unsuccessful student and in recognizing the barriers, but here is a paucity of research demonstrating effectiveness of online strategies that may impact the retention problem. Advice is offered, but very few of the ideas are supported by empirical evidence. Without subjecting these strategies to scientific critique, the use of these strategies merely becomes a trial and error approach to what works best and under what situations – not a very efficient method to promoting student retention.

There is also a lack of agreement on the definition of retention, attrition, withdrawal, and persistence, seems to vary from study to study and are sometimes used interchangeable. For example, the time-to-degree completion or average time to graduation is less accurate than 20

years ago due to an increasing number of non-traditional students and the stop-out phenomenon (Shaik, Naj, 2003 from ALN Conference). This factor changes how an administrator should accurately measure program completion. And finally, there are multiple methods and instruments used to assess academic persistence. There appears to be an absence of a psychometric-based standardized instrument for data collection. Without consistent measurement tools it is difficult to validate results.

Conclusion

The use of online education has offered new opportunities for administrators, teachers, and students, but has required adjustments in how education is provided and the responsibilities of students. Despite multiple advantages of online education, there are many considerations educational institutions need to address in order to meet the needs of a diverse, adult learner population. Adult students have known attributes that will guide them to successful course and program completion. For students that enter online programs lacking one or more of these attributes, they need to be identified and remedial programs developed so they can overcome these difficulties. Combining positive student attributes with a program that administers quality educational products, a curriculum that is designed with specific outcomes, well-trained faculty, and support services that are easily accessible provides the optimum environment for student and institutional success. Learning needs may be enough to attract a student to a program but it is not enough to retain them. Taking the time to accurately measure retention data and establishing a plan to address deficiencies in student retention is one way to promote student retention and better use of resources.

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Appendix/Appendices

What Makes a Successful Online Student?

Available online at: <http://www.ion.illinois.edu/IONresources/onlinelearning/StudentProfile.asp>

In general, the online student should possess the following qualities:

1. **Be open minded about sharing life, work, and educational experiences as part of the learning process.**

Introverts as well as extroverts find that the online process requires them to **utilize their experiences**. This forum for communication **eliminates the visual barriers** that hinder some individuals in expressing themselves. In addition, the student is given time to reflect on the information before responding. The online environment should be open and friendly.

2. **Be able to communicate through writing.**

In the Virtual Classroom, nearly all communication is written, so it is critical that students feel comfortable in expressing themselves in writing. Many students have limited writing abilities, which should be addressed before or as part of the online experience. This may require remedial efforts on the part of the student.

3. **Be Self-motivated and self-disciplined.**

With the freedom and flexibility of the online environment comes responsibility. The online process takes a real commitment and discipline to keep up with the flow of the process.

4. **Be willing to "speak up" if problems arise.**

Many of the non-verbal communication mechanisms that instructors use in determining whether students are having problems (confusion, frustration, boredom, absence, etc.) are not possible in the online paradigm. If a student is experiencing difficulty on any level (either with the technology or with the course content), he or she must communicate this immediately. Otherwise the instructor will never know what is wrong.

5. **Be willing and able to commit to 4 to 15 hours per week per course.**

Online is not easier than the traditional educational process. In fact, many students will say it requires much more time and commitment.

6. **Be able to meet the minimum requirements for the program**

The requirements for online are no less than that of any other quality educational program. The successful student will view online as a convenient way to receive their education – not an easier way.

7. Accept critical thinking and decision making as part of the learning process.

The learning process requires the student to make decisions based on facts as well as experience. Assimilating information and executing the right decisions requires critical thought; case analysis does this very effectively.

8. Have access to a computer and a modem.

The communication medium is a computer, phone line, and modem; the student must have access to the necessary equipment.

9. Be able to think ideas through before responding.

Meaningful and quality input into the virtual classroom is an essential part of the learning process. Time is given in the process to allow for the careful consideration of responses. The testing and challenging of ideas is encouraged; you will not always be right, just be prepared to accept a challenge.

10. Feel that high quality learning can take place without going to a traditional classroom.

If the student feels that a traditional classroom is a prerequisite to learning, they may be more comfortable in the traditional classroom. Online is not for everybody. A student that wants to be on a traditional campus attending a traditional classroom is probably not going to be happy online. While the level of social interaction can be very high in the virtual classroom given that many barriers come down in the online format, it is not the same as living in a dorm on a campus. This should be made known. An online student is expected to:

- Participate in the virtual classroom 5-7 days a week
- Be able to work with others in completing projects
- Be able to use the technology properly
- Be able to meet the minimum standards as set forth by the institution
- Be able to complete assignments on time
- Enjoy communicating in writing.