

Rethinking Retention: Using Engagement to Increase
Adult Distance Learner Persistence

A Dissertation
SUBMITTED TO THE FACULTY OF THE GRADUATE SCHOOL
OF THE UNIVERSITY OF MINNESOTA
BY

Amy C. Gullixson

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF DOCTOR OF PHILOSOPHY
In Human Resource Development

Dr. Rosemarie Park, Dr. Catherine Twohig

August 2015

Copyright 2015 by
Gullixson, Amy C.

Acknowledgements

This feels a bit like Déjà vu. I guess it's true what they say: "the third time's the charm." Or, maybe it's, "what doesn't kill you makes you stronger." Or perhaps, "student loans are not dischargeable in bankruptcy." I'm not sure; they all sound true right about now....

Regardless, I would like to take this opportunity to extend my sincere thanks and appreciation to those who have supported me through this experience. Thank you, Dr. Rosemarie Park and Dr. Catherine Twohig; you have allowed me both independence and guidance in this process, as well as unwavering support. Additionally, the rest of my wonderful research committee, Dr. Lou Quast, Dr. Jim Brown, and Dr. Carol Mooney; I am grateful for the time and effort you have given to help me through this process successfully. Also, Susan Greene, the most patient person I think I've ever met – you have been irreplaceable, and finally, Jeremy Hernandez, you have been an integral part of my successful navigation in this program.

Of course, my family, who has endured my ups, downs, and crankiness the past several years (or, rather, for as long as they've known me). I know...it's not always easy living with a doctoral student – we think we know everything, we drink too much coffee, and we seem to be all work and no play - but [they] tell me it's all worth it in the end.

Last, but not least, I must once again thank the baristas at Starbucks along I-94 in Wisconsin and Minnesota, who have supplied me with all of the coffee I could handle (or afford), helping me stay awake much longer, and allowing for me to survive on much less sleep, than what is normally considered sensible.

As they say, “it takes a village...” and even if they weren’t referring to the dissertation process, I still think they are right. Again, thank you, thank you, and thank you. I am forever appreciative of the support; I could not have done this without you.

Dedication

I would like to take the opportunity dedicate this dissertation to a few people who have [willingly, if not unwittingly] joined me on this journey. My husband, who has been the force (ambition) behind the pursuit of my education; without him, I would still be contentedly plugging along with much needed sleep and a considerably lower debt ratio. My three mini-humans, without whom, I would have way too much free time...and probably a few hobbies. And of course, my parents, who raised me with an unrelenting work ethic and a guilty conscience, and who have provided additional love, support, and way too much sugar to their grandchildren during my mental and physical absence(s).

Thank you.

Abstract

As a result of the growth in distance education, and subsequently, the growth of distance learners, it is exceedingly important, and necessary, to find ways for the institution to retain these students by identifying their needs and implementing practices that facilitate persistence (Tinto, 2012). Research shows that engagement from the institution through student services advisement (Nichols, 2010) and orientations (Braxton, et al., 2014; Nash, 2005; Radwan & Leeds, 2009; Wojciechowski & Palmer, 2005) is some of the most effective ways in which to engage, and thereby retain, students and help them persist.

The retention of adult distance learners is vital to any university that depends on this population for revenue; therefore, determining the ways in which engagement assists with distance learner persistence is important for perpetuation of the institution. This study aimed to identify which engagement initiatives and practices are expected, effective, and predictive for retaining nontraditional distance learners. Identifying effective practices can help practitioners determine the ways to translate current research into effective practice for that of adult distance learners.

Failure to retain any student – traditional or nontraditional – has obvious consequences, many of which are detrimental to the institution, such as reputation, loss of revenue, and cost to continuously recruit new (or more) learners. Institutional, individual, and societal benefits confirm the importance of this topic. However, it is also important to note that a higher education likely improves lives in many ways that cannot be easily quantified. Knowing this, it is necessary to identify ways to promote learner persistence and increase retention and completion.

Table of Contents

Acknowledgements.....	i
Dedication	iii
Abstract	iv
Table of Contents	v
List of Tables	viii
Chapter I: Introduction to the Study	1
Problem	2
Background of the Study Institution	5
Overview of the Problem	6
Statement of the Problem	7
Research Questions	7
Purpose of the Study	8
Definition of Terms.....	8
Importance of Topic	9
Chapter II: Literature Review	12
The Complexities of Distance Learner Persistence	12
Theories and Models for Nontraditional Learners	15
Strategies for Encouraging Persistence through Engagement	23
Institutional Engagement Initiatives	28
Chapter III: Research Method.....	34

Research Questions.....	37
Study Design and Analysis Methods	38
Research Design.....	38
Sample Selection.....	39
Analysis Methods	39
Population and Sample	41
Data Collection and Instrumentation	44
Confidentiality	49
Data Analysis	49
Chapter IV: Results.....	52
Chapter V: Discussion	62
Discussion Overview	63
Research Question 1	63
Research Question 2	64
Research Question 3	67
Research Question 4	67
Research Question 5	69
Conclusions.....	70
Chapter VI: Implications.....	73
Implications and Recommendations for Practice	73
Implications and Recommendations for Future Research	78
Limitations	80

Final Reflections	82
References.....	83
Appendix A: Pre-Survey Questions.....	90
Appendix B: Post-Survey Questions	92

List of Tables

Table 1 Distance Learner Population Demographics	42
Table 2. Expectation and Satisfaction Survey Questions	46
Table 3. Self-Reported Commitment Survey Questions.....	47
Table 4. Engagement Practices	49
Table 5. Engagement Expectation Descriptive Statistics	53
Table 6. Self-Reported Commitment Descriptive Statistics	54
Table 7. Self-Reported Commitment Independent Samples Test.....	55
Table 8. Type of Engagement Practice and Retention.....	56
Table 9. Frequency of Participation in Engagement and Retention	57
Table 10. Omnibus Test Results	59
Table 11. Variables in the Equation.....	60

Chapter I: Introduction to the Study

As one of the most extensively studied areas in higher education, student retention has been the subject of journal articles, research literature, books, conferences, and more, spanning beyond four decades (Tinto, 2006-2007). Although much of the literature has focused on traditional undergraduate college students, more recently, it has also included populations such as commuter students, community college students, and transfer students, as well as online or distance students, military, and graduate students – or a combination thereof.

There are many aspects within the broad area of student retention and persistence; for example, some of which pertain to the student characteristics more likely to complement persistence and others pertaining to the institutional actions that can help facilitate persistence and increase retention. Each of those aspects is further divided into sub-topics such as engagement through orientations or advisement (institutional initiatives), or learner characteristics, such as self-direction and self-efficacy and their relationship to persistence. The result is a profusion of literature that practitioners at varying institutions are attempting to translate into effective practice. However, the message seems to have become lost in translation.

Despite this, many distance education practitioners are dedicated to facilitating student persistence and completion. However, serving learners at a distance adds a level of complexity. Although this population is nontraditional, and much of the literature surrounding nontraditional learners is relevant, the aspect of distance should be considered. These students spend very little time on site, even less so than commuter

students; they may never be required to step foot on campus, as is with the case of students in many online programs.

Due to their distance, adult distance learners may be even more difficult to engage, and institutions will need to develop specific initiatives that strategize ways to best engage those learners who are at a distance. Commonly utilized practices include the use of online student orientations and dedicated student services advisers, but to be effective, they must be relevant to the learner. Additionally, with this population, personal characteristics such as self-efficacy and self-directedness become even more significant, as university staff are not as readily or as easily available to those students who are studying at a physical distance.

Problem

According to a recent report from the Online Learning Consortium, more than 7.1 million students took at least one online course during fall 2012, which represents 33.5% of total enrollment across degree-granting postsecondary institutions in the United States (Allen & Seaman, 2014). Although the growth rate of online enrollment has slowed from past years, it is still three to four times that of traditional enrollment, which has begun to decline (Aslanian & Clinefelter, 2013).

In the past, students had limited access to higher education because of physical distance (Banas & Emory, 1998); however, as distance education has grown, learners are now able to pursue education without relocation or employment disruption (Zirkle, 2003). With that, the use of distance education, in the form of degree programs and the integration of online teaching and learning, has become increasingly prominent. Case in point: in 2002, 71.7% of higher education institutions in the United States were reported

to offer either online courses or fully online programs; however, in a single decade, that percentage jumped to 86.6% of these institutions, with over 62.4% of institutions offering both online courses and fully online programs (Allen & Seaman, 2013).

Persistence of adult distance learners has become increasingly more relevant in higher education, as the growth rate of online enrollment has surpassed that of traditional enrollment (Aslanian & Clinefelter, 2013), and nontraditional adult learners have become an increasingly emergent population within higher education (Fain, 2012a; Wyatt, 2011). In fact, Tinto (2012) noted that traditional students make up only 25% of all college students. A majority of other students work while in college and attend part time; college is only one of numerous demands facing the students (Tinto, 2012). These nontraditional learners are here to stay and should be recognized as a legitimate population with unique needs that differ from that of traditional students.

As such, the adult higher education community must be dedicated to producing normalized measures of success for nontraditional students (UPCEA, 2012) in order to better determine student success and increase persistence and retention of these students. Learner retention and persistence is important. Research shows that degree completion has a profound effect on the economy, the individual, and society (Baum, Ma, & Payea, 2013; Eduventures, 2012; UPCEA, 2012).

For example, Lumina Foundation's "Big Goal 2025" necessitates that, for the benefit of this nation, 60% of Americans should attain high quality degrees by 2025, which is an increase of about 40% from current degree-holders (2012). Considering the state of the economy, increased adult degree attainment is viewed as essential to this goal, and therefore, it is suggested that institutions should be targeting this "some college, no

degree” population (approximately 20% or more of adults) (Eduventures, 2012; UPCEA, 2012).

Moreover, history has proved that persons with higher education degrees have an economic advantage: on average, those who complete a bachelor’s degree earn about 65% more in a lifetime than those who do not (Baum, Ma, & Payea, 2013). In addition to the benefits to individuals, the benefits to society are also considerable. Higher levels of education have shown to correspond with lower unemployment rates, lower poverty rates, lower smoking rates and healthier lifestyles, and higher levels of community contribution, such as volunteerism and voting (Baum, Ma, & Payea, 2013).

Although literature surrounding theory, research, and practice are seemingly abundant, concrete student success (as measured through retention and graduation rates) has not shown great improvement (Tinto, 2012). According to Tinto (2006-2007, 2010, 2012), although access to higher education has increased, degree completion has not. However, to be clear, the lack of student success is not as a result of a lack of effort (Tinto, 2012). Although it has been noted that theory has not aided practitioners with finding practical ways to increase student persistence (Tinto, 2012), it has also been said that retention and persistence are confusing and context dependent (Hagedorn, 2005). A one-size-fits-all solution to the problem of student retention does not exist (Hagedorn, 2005).

A review of the literature proves there is still much to be learned about how to effectively retain nontraditional adult learners. Colleges “generally do a lousy job of keeping tabs on the graduation rates of their adult students” (Fain, 2012a, p.1).

According to a recent UPCEA study (2012), 43% of the responding universities did not

know the current retention rate of their nontraditional students, and only 16% had a good understanding of why their students dropped out (UPCEA, 2012).

To increase the success of adult distance students, institutions should first invest in understanding the needs of this population. This is a challenge, as this population is very diverse (Wyatt, 2011). However, to best serve them, institutions will need to consider rethinking their retention practices to best fit their adult learner's needs. One such way is to use engagement practices to consistently impact and increase student persistence and retention levels (Wyatt, 2011) by encouraging commitment and interaction of the learner with the institution.

Background of the Study Institution

The study institution is a four-year comprehensive university in the Midwest, part of a system comprised of comprehensive universities in one of the largest systems of public higher education in the country. This mid-sized institution serves approximately 8,254 undergraduate and 1,117 graduate students. There are currently 45 undergraduate majors and 24 graduate majors; of which, 28 are offered online or via distance education (12 undergraduate majors and 16 graduate majors,). In addition, the university offers 24 online or distance delivered certificates and certifications, as well as individual coursework in general education areas and online professional development for educators.

Due to the university's growing online and distance education population, research specific to the needs of the online and distance students at this university was performed in fall semester, 2014, and spring semester, 2015. The department responsible for service to all students in online and distance education programs developed surveys,

in an attempt to increase retention of these students by identifying their needs and implementing practices and providing services that facilitate persistence through their programs.

Additionally, anecdotal evidence from many populations: instructors who teach online and distance learner courses, program directors who manage students in these programs, staff who assist these students, and these students themselves, has indicated a need for relevant and timely information, as well as services, provided to online and distance learners in order to help increase student persistence and university retention.

Overview of the Problem

As stated earlier, a problem exists in that there are models of learner retention and persistence for many populations of nontraditional students (older adult and returning students, commuter students, transfer students, 2-year college students). For the population of nontraditional (adult), distance learners, not all theories, frameworks, and methods can be translated effectively, as this population has proven to be unique. As a result of the growth in distance education programs, and subsequently, the growth of distance learners, it is exceedingly important, and necessary, to find ways for the institution to retain these students by identifying their needs and implementing practices that facilitate persistence through their programs.

Research shows that engagement from the institution through student services advisement and orientations are some of the most effective ways in which to engage, and thereby retain, students and help them persist. However, the engagement must also be relevant to the learner. Although models exist for both traditional and nontraditional learners, these practices must also be translated for engagement of distance learners to

determine what practices are effective, and what types of engagement through advisement and services distance learners seek, as many are not required to step foot on campus throughout the duration of their programs.

Statement of the Problem

The university uses resources to provide services to its nontraditional adult distance learners throughout their lifecycle at the institution; however, the relationship of these services to the subsequent retention must be analyzed to determine whether the services provided are both expected and effective for that of this population.

Research Questions

The research questions (RQ) are as follows:

- (1) Which commonly used engagement practices do the University's distance learners expect?
- (2) What is the relationship between a student's initial self-reported commitment and actual persistence into the subsequent term?
- (3) What is the relationship between the type of engagement practices and retention of the University's adult distance learners?
- (4) What is the relationship between the frequency of engagement participation and subsequent retention of the University's adult distance learners?
- (5) What is the relationship between the degree of satisfaction and subsequent retention of the University's adult distance learners?

Having these research questions addressed can help institutions identify the unique needs and expectations of its distance learner student population. In regard to institutional commitment, knowing these needs can subsequently inform institutional

practice by providing learners the services expected and meeting the needs of its learners. This, then, may help increase the persistence and completion of adult distance learners, which has been previously established as a benefit to the economy, individual, and society as a whole.

Purpose of the Study

The retention of adult distance learners is vital to any university that depends on this population for revenue; therefore, determining the ways in which engagement assists with distance learner persistence is important for perpetuation of the institution. The impetus behind the review of literature is to identify the complexities and attributes of current distance learners from the literature, review relevant theories pertaining to persistence and retention through effective engagement practices, and identify common initiatives implemented by institutions. Identifying these aspects can inform practice through translation of theory, can help distinguish further literature review and future research by identifying current or effective practices, and can help determine how to translate current and effective practice for that of adult distance learners.

The purpose of this study is to identify the services expected by the university's distance learners and to determine ways in which student services engagement efforts assist with distance learner persistence, as retention of adult distance learners is vital to any University that depends on this population for revenue and is therefore important for perpetuation of the institution.

Definition of Terms

The following terms will be used throughout this paper. The definitions listed are for the purpose of clarity of the terms, as well as to ensure a more complete

understanding of the intent of this paper. Literature has shown multiple perspectives of these terms, and so clarity is practical.

Taking from the literature on, and practice of, college student persistence, the following terms and definitions are used in this study:

Persistence. From a student perspective: the ability or behavior [of the student] to complete [...] despite obstacles or adverse circumstances (Hart, 2012; Rovai, 2003).

Retention. From an institutional perspective: pertains to when an institution retains students who enter the institution (Tinto, 2010, 2012).

Attrition. From an institutional perspective: describes students who leave college without completing a degree (Tinto, 2010, 2012).

Distance learners. Those who are enrolled in contemporary, technology-based distance learning, whether entirely online or blended (online and face-to-face) instruction.

Adult learners. Used interchangeably with nontraditional learners. Those who are over 25 years of age or who attend college *in addition* to something (e.g. work, family responsibilities) versus *instead* of something (e.g. a full time student) (Brewer-Yucedaz-Ozcan, 2013; Rovai, 2003, Wyatt, 2011).

Importance of Topic

In order for theory and research to effectively contribute to institutional practice, and subsequently provide organizational direction, support of current organizational practice, or the groundwork for making data-informed decisions for change, it is critical to address the importance of the topic to the academic community. Retention and persistence of adult distance learners should be important to all institutions that serve them.

Failure to retain any student – traditional or nontraditional – has obvious consequences, many of which are detrimental to the institution, such as reputation, loss of revenue, and cost to continuously recruit new (or more) learners. However, consequences extend far beyond the institution itself.

According to Pusser, et al, (2007) 54 million adults lack a college degree; and while a college education does not promise a better living or financial reassurance, there is considerable evidence that shows that those with higher levels of education are more likely to be employed, are more active citizens, have healthier lifestyles, and are more likely to move up the socioeconomic ladder (Baum, Ma, & Payea, 2013). Conversely, Tinto (as cited in Flegle, 2009) emphasized that low retention rates have an array of additional negative effects on the learner, such as: lost tuition (financial), emotional impact of non-completion (psychological), and delay in graduation (if applicable).

Last, there is also evidence of economic and societal benefits. The unemployment rate of those who hold at least a bachelor's degree (or higher) has consistently been about half that of high school graduates (Baum, Ma, & Payea, 2013). The percentage of four-year college graduates who use public assistance programs (Medicaid, school lunch programs, food stamps) is about 9%, compared to 25% for those with a high school diploma (Baum, Ma, & Payea, 2013).

Institutional, individual, and societal benefits confirm the importance of this topic. However, it is also important to note that a higher education likely improves lives in many ways that cannot be easily quantified. Knowing this, it is necessary to identify ways in which to promote learner persistence and increase retention and completion.

The following chapter includes a review of the literature discussing the complexities of persistence of adult distance learners, including why classifying them is complicated and context dependent. Three foundational frameworks for increasing persistence and engagement will then be examined, informing the groundwork for institutional practices that are beneficial to this population. Finally, the initiatives for which to facilitate and increase persistence and engagement are examined: through understanding the learners, identifying and encouraging the learner characteristics that are conducive to persistence, and employing institutional initiatives that engage learners, to produce a holistic system for fostering learner persistence. A summary will conclude the literature review.

Chapter II: Literature Review

The following review of literature will begin by discussing the complexities of persistence of adult distance learners, including why classifying them is complicated and context dependent. Three foundational frameworks for increasing persistence and engagement will then be examined, informing the groundwork for institutional practices that are beneficial to this population. Finally, the initiatives for which to facilitate and increase persistence and engagement are examined: through understanding the learners, identifying and encouraging the learner characteristics that are conducive to persistence, and employing institutional initiatives that engage learners, to produce a holistic system for fostering learner persistence. A summary will conclude this literature review.

The Complexities of Distance Learner Persistence

Although it is true that learner persistence is an issue of both traditional and nontraditional students, it has been said that current university policies could have a “paradoxical effect” on the nontraditional learner (Gilardi & Guglielmetti, 2011). For example, initially, these students are recruited and encouraged to enroll [by the University]; however, conversely, the university is not always concerned about understanding this population of learners’ needs and circumstances, thereby preserving an institutional system designed for a very different type of student (i.e. traditional students)(Gilardi & Guglielmetti, 2011). In other words, the learner is recruited under one premise; however, the institution continues to use persistence and engagement practices designed for traditional student populations.

According to Tinto (2006-2007), too few institutions are willing to commit the resources necessary to undertake the deep-seated issues that affect retention and, in the end, truly influence persistence. For example, 2011 UPCEA (2012) report stated that relationships between adult-serving programs offered via distance education units and their respective central administrations essentially fall into two groups. Of those who responded to the UPCEA (2012) survey, although 41% of distance education units reported that they receive strong support, 43% reported that, although the central administration values the financial contributions these programs afford, it did not advocate much other support, such as additional staff to support the growth in distance learner enrollment.

Furthermore, defining student persistence and retention status is also complex, as these learners may have multiple dropout/stop-out patterns, making it difficult to discern whether the student has permanently ceased their educational pursuits (dropout) or has only stopped out for a semester or more (stop-out)(Tinto, 2010). While institutions may attempt to use simple definitions for their learners, such as persister (one who remains enrolled and completes) and non-persister (one who leaves and does not return), student patterns of enrollment are rarely that clear-cut (Hagedorn, 2005). That is to say, student persistence can be intermittent and sporadic: students may stop out for a short period of time or a more considerable one; they may return to the same institution or a different one (Tinto, 2012), and the data reported by institutions tends not to differentiate between these forms of persistence (Barefoot, 2004). In her research, Hagedorn (2005) gave multiple examples of student enrollment patterns that defy simple definition; a few examples of such (with some modifications) are listed below.

Student 1: Begins in a 2-year college and successfully transfers to a university. However, the student is not successful at the university and leaves prior to earning any credits. The next semester the student returns to the community college taking the few remaining courses necessary to earn an associate degree. Did this student ultimately meet his or her educational goals, despite leaving the four-year institution?

Student 2: Enrolls in a graduate degree program, but due to low GPA and lack of progress, is academically suspended. Is this student a stop-out or a dropout? Will the student be permitted to return to finish said degree program? And, will the student return to the same institution?

Student 3: Enrolls in a university, remains enrolled for two years in an undergraduate degree program, and stops out, only to return six years later. At what point would an institution consider this student a dropout versus a stop-out?

Student 4: Completes at a 2-year college and successfully transfers into a degree completion program at a university. However, the student completes only a professional certificate, but not the degree, and thereafter, leaves the university. Would this student be considered a persister, as a *certificate* was completed? Or would the student be a dropout, because the *degree* was not?

Given these examples, based from Hagedorn's (2005) research, it is clear that there is not one correct way to define student persistence, particularly when based on simple definitions. Furthermore, the rate at which students complete varies widely (Tinto, 2012), as life events may cause students to periodically stop out (Education Advisory Board (EAB), 2011).

At present, there is a paucity of scholarly research specific to well-defined, *consistently* effective practices of facilitating nontraditional adult distance learner persistence. Specifically speaking, while there is an abundance of literature addressing a wide array of aspects of student retention and persistence, the result does not always translate into a *consistently* effective practice (Tinto, 2010). As a result of the unpredictable nature of these students, it is not difficult to understand why this is the case.

Theories and Models for Nontraditional Learners

Though there may be similar components, learner engagement for nontraditional learners, such as adult distance learners, is different than that of traditional learners. Theories, frameworks, and models have been developed and revised to better translate to a more nontraditional learner, three of which are discussed in the following paragraphs: the andragogical model as part of the overarching adult learning theory, Tinto's framework for institutional action, and the theory of student persistence in commuter colleges and universities. These seminal works have helped set the foundation to inform institutional practices for increasing persistence and engagement that are beneficial to this population.

The andragogical model

The foundation of how adults learn is central to developing practices that facilitate their success. Adult learning theory, in general, has a history that dates back to the 1920's (Merriam, 2001). Despite this span of over 90 years, there is still no one theory that encompasses all parts of adult learning, the contexts, and the process itself; however, there has been a vast contribution to the research and literature, which has created a

collection of works that contribute to the knowledge basis of adult learning (Merriam, 2001) that we know today. The andragogical model is one such piece.

Knowles first identified four, then revised to six, principles that distinguish adult learners as a population. These six assumptions are the foundation of the andragogical model (Knowles, Swanson, & Holton, 2011, p. 63-67):

1. They need to know. Adults need to know why they need to learn something before beginning the process of learning it. Those who work with adult learners can do this by informing learners of the benefits of *the need to know*. Diagnostic assessments or performance evaluations, for example, can inform the learner of the gap between where they are now and where they want (need) to be (Knowles, et al., 2011).

2. The learners' self-concept. According to Knowles, et al. (2011), adults have a self-concept of being accountable for their own decisions and expect to be treated as being capable of self-direction. However, in educational settings, adult learners tend to revert to being dependent learners, resulting in a psychological conflict - feeling as if they are being imposed upon, which creates resentment and resistance to learning (Knowles, et al., 2011). Those who work with adult learners can help lessen these feelings by helping them transition from being a dependent learner into a more self-directed learner.

3. The role of the learners' experiences. Adults come in to learning having accumulated a diverse (quality and quantity of experiences) background, which cannot, nor should not, be disregarded (Knowles, et al., 2011). Given this diversity, there is a much broader range of learner differences within adult learners. As such, activities for this population should include experiential practices, including practical discussions, active learning activities, and collaborative work where the learners' experiences can play

a role in the learning. It is important to acknowledge the adults' experiences, as these experiences are who they are as a person (Knowles, et al., 2011).

4. Readiness to learn. Adults become ready to learn when what they need to know and be able to do is associated to their real-life situations (Knowles, et al., 2011). In other words, timing is key, and those who work with adult learners need to time learning experiences to coincide with developmental tasks. For example, those learners who are getting ready to learn in an online environment need learning experiences that coincide with this developmental task, such as an orientation to online learning that occurs before the online course begins.

5. Orientation to learning. According to Knowles, et al., 2011, "adults are life-centered (also called task-centered or problem-centered) in their orientation to learning" (p. 66). That is to say, they are most driven to learn if they perceive that the learning will help them solve a task or problem they are facing. Furthermore, they learn most effectively when they are able to apply the learning to everyday context (Knowles, et al., 2011).

6. Motivation. Adults, though receptive to external incentives (e.g. promotions, raises, etc.), are more highly driven by internal motivators, such as quality of life, job satisfaction, and the like (Knowles, et al., 2011). Therefore, those who are designing initiatives for adults should encourage this population by understanding and respecting their motivations, as many adults will become unmotivated as a result of barriers (Knowles, et al., 2011), such as inaccessibility of necessary resources.

The number of assumptions in Knowles' andragogical model has grown from the initial model (Knowles, et al., 2011). Assumptions two through five were part of

Knowles' original model; the first and sixth were added in 1989/1990 and 1984, respectively (Knowles, et al., 2011). These six assumptions should inform the design of any institutional initiatives for adult learners, as adults many times need assistance integrating into (or back into) an academic environment (Kenner & Weinerman, 2011).

Tinto's framework for institutional action

Tinto's framework for institutional action is grounded on the responsibility of the institution to help the student persist and graduate. The institution has an obligation to establish conditions that promote student success. This framework consists of four conditions: expectations, support, assessment and feedback, and involvement. According to Tinto (2012), when all four of these conditions exist, the student is more likely to succeed, and thereby persist.

Expectations. Retention and graduation of students is dependent upon the clear communication to students about what is necessary, and expected, for college success (Tinto, 2010, 2012). These expectations consist of the student knowing what to do to succeed. Institutions can facilitate this success through orientations, which help shape student expectations, advisement, which helps students understand the path (requirements) to successful, and timely, degree completion, and other interactions between the student and the institution (student services, mentoring, setting clear – and high - course expectations)(Tinto, 2012).

Support. In order to set and hold high expectations of the student, the institution also has to provide support - not just make it available, but also embed it in the student experience (Tinto, 2010, 2012). For example, academic support in the first year is critical; it is the time when students are most responsive to intervention (Tinto, 2010,

2012). Providing academic support, such as access to tutoring and reading, math, or writing labs is helpful, but even more pertinent when aligned with key first-semester course instruction.

According to Tinto (2012), “early success [...] increases the likelihood of future success. Conversely, early failure can substantially undermine success” (p. 26). This is particularly relevant as it pertains to a student’s interpretation of his or her own academic performance. Institutions need to provide interventions that enhance a student’s sense of academic capability and competence.

Assessment and feedback. Both assessment and feedback are integral components of student success. If a student is aware of his or her opportunities for improvement, adjustments can be made to strengthen these areas of opportunity, and such assessments should happen at various times throughout a student’s lifecycle (Tinto, 2010, 2012). For example, assessment at entry, in the form of placement tests and learner readiness analyses; assessment in classes, via assignments and feedback or early warning systems; and assessments at the end of a semester or year, through engagement or satisfaction surveys. These instruments can be used to provide students with timely and relevant feedback to increase the likelihood that students will succeed (Tinto, 2010, 2012).

Involvement. Involvement, or now commonly referred to as engagement, is considered the most important (Tinto, 2010, 2012). According to Tinto, (2010, 2012), engagement occurs when the student has a sense of belonging, in and out of the classroom, with faculty, staff, and other students. However, finding ways in which to engage learners, especially those who are not traditional or residential students, is a challenge for institutions, as these students spend limited time on campus and have a

variety of other personal and professional obligations outside of college (Tinto, 2006-2007, 2012).

Despite all four conditions, student retention and completion is sometimes dependent upon decisions that are outside of the institution's purview (Tinto, 2010, 2012). Students may choose to stay, leave, or transfer because of a multitude of reasons that are external to the institution. Tinto (2012) further iterates that, specifically in the case of those who serve a large number of nontraditional students, college is only one of many obligations that compete for a student's time and energy. It is also more likely the case with this population that degree completion is not the goal. Given these factors, it is important to note the effectiveness of the institution's retention practices may appear to be more limited (Tinto, 2012).

Theory of student persistence in commuter colleges and universities

This theory, as first constructed by Braxton, Hirschy, and McClendon in 2004, was revised in a 2014 publication, by Braxton, Doyle, Hartley III, Hirschy, Jones, and McClendon. It addresses persistence as it relates specifically to students who attend commuter colleges and universities, which generally have a higher number of nontraditional students. This updated theory consists of the following elements: student entry characteristics and their role in the external and campus environments, including student academic and intellectual development within the organization, and initial and subsequent institutional commitment. The theory suggests that these components are interrelated and directly influence a student's decision to persist in, or depart from, an institution.

For the purposes of this theory, student entry characteristics consist of the motivation to attend college, the need for control, sense of self-efficacy, empathy, need for social affiliation, parents' educational level, and engagement in anticipatory socialization prior to college entrance (Braxton, et al., 2014). In the external environment, this consists of obligations and responsibilities of the student outside of the campus environment and how a student's characteristics are affected by these external obligations. Braxton, et al. (2014) suggest that support and encouragement to attend college is crucial, as those who have more support, both financial and social, are less likely to depart.

Student characteristics in the campus environment pertain to how a student perceives his or her experience with the institution, including psychological and sociological influences. According to this theory (Braxton, et al. 2014), students must be motivated to attend college and make progress toward graduation; they must have high self-efficacy and believe that their desired outcome can be obtained through their own efforts. Those students with motivation to graduate and a high level of self-efficacy are more likely to persist. Conversely, those students with the characteristic need for a high level of order or control may have difficulty or find challenge in the requirement to balance work, family, college, and other responsibilities. Therefore, the greater the need for control, the lower the likelihood of persistence.

Additionally, students whose parents attended college can influence the expectations as to what the college experience should be. These expectations may not be consistent with what the commuter campus environment provides, increasing the incidence of departure. Preemptive socialization behaviors – such as setting more

appropriate expectations – can be formed through orientations and advisement. Despite this, those who expect a high level of socialization (e.g. that of a traditional college) may not have expectations met, resulting in a higher likelihood of leaving (Braxton, et al. 2014).

Within the organization, student academic and intellectual development is also an important component. The theory postulates that the more a student perceives that their institution has high integrity, the greater the probability of initial institutional commitment. Furthermore, the higher the level of academic and intellectual development perceived by the student, the greater the student's degree of subsequent commitment (Braxton, et al., 2014).

The organizational characteristics of institutional integrity and commitment to student welfare affect the both a student's initial and subsequent commitment to the institution. For example, if the student perceives the institution as being committed to the welfare of its students (such as caring, respecting, and treating students fairly) or as having high institutional integrity (actions consistent with institutional mission and values), the greater the probability of both initial subsequent commitment to the institution (Braxton, et al. 2014); the greater the student's subsequent commitment to the institution, the greater the incidence of student persistence.

Although this framework, model, and theory have been revised to better translate to nontraditional students, there is still little available that is specific to adult *distance* learners. There is a scarcity of empirical evidence specific to this population, and as such, comparable or related theories are utilized in an attempt to translate one idea to a different, yet somewhat similar, population. Distance education practitioners do just that

to work toward bridging the theory-practice gap. However, those who work with adult distance learners must still translate these practices to a distance-learning context.

Strategies for Encouraging Persistence through Engagement

Although it is important to understand why students leave, it is also essential to identify what can be done [by the institution] to help students persist (Tinto, 2006-2007). Institutions must realize that residential students are different than nontraditional students, and although theory proves that engagement (i.e. involvement) matters (Braxton, et al., 2014; Tinto, 2006-2007, 2012), what is less clear is how to make engagement happen –and matter – in different settings for different students (e.g. an online setting for adult nontraditional students)(Barefoot, 2004; Tinto, 2006-2007). Review of the literature indicates a number of different ways in which institutions offering distance education opportunities to nontraditional learners have attempted to increase student persistence by translating engagement theory into practice.

According to Brewer and Yucedag-Ozcan (2013), adult learners face four primary types of barriers when transitioning into higher education: institutional (policies, advisement), situational (time management, balancing outside responsibilities), educational (past GPA, time out of school), and psychological (self-esteem and self-efficacy). Some institutional approaches can affect these barriers, and initiatives have addressed ways in which to enhance learner engagement through institutional practices, such as the provision of student support advisers, self-assessments, and orientations, while simultaneously helping to increase the learner's self-efficacy through preparedness and practice. However, in order to develop effective initiatives, institutions must first understand its learners.

Identifying and Understanding the Learner

To better serve the needs of adult distance learners, institutions must first understand the population and their needs (Brewer & Yucedag-Ozcan, 2013). For example, distance education programs appeal to a higher percentage of nontraditional, adult learners (Rovai, 2002; Rovai & Downey, 2010). Nontraditional learners are often defined by having external responsibilities (e.g., family and work), being employed full time, and attending school part time; these attributes are generally considered to be that of nontraditional learners (Brewer & Yucedag-Ozcan, 2013; Rovai, 2002). However, while these descriptors are generally still the case, more recently, researchers have also suggested that a single definition of the “typical” adult learner no longer exists; rather, institutions should perceive these learners as “a diverse set of individuals with distinctive demographics, social locations, aspirations, and levels of preparation” (Pusser, et al., 2007, p. 4).

Additionally, institutions should be aware data have shown that comparatively, nontraditional learners have a much lower completion rate than traditional-aged students (Rovai, 2002; Rovai & Downey, 2010). In other words, although distance education is probably the fastest area of growth in education, it has not escaped the problems of attrition (Boyle, Kwon, Ross, & Simpson, 2010; Park & Choi, 2009). Case in point: three million students (U.S.) begin degree programs each year; however, over half of them (53%) never graduate (UPCEA, 2012).

It is clear that adult distance learners do differ from the traditional student and may be affected by a variety of factors that may influence persistence (Brewer & Yucedag-Ozcan, 2013; Kemp, 2002; Rovai & Downey, 2010). In one study (Ashby,

2004), common reasons given for withdrawing included falling behind in course work, personal/family or employment responsibilities, and an increase in said responsibilities. Another study (Rovai & Downey, 2010) cited family and peer influences, inability to adapt to the online learning environment, lack of self-directedness, poor student support services, and time management, to name a few.

It was also suggested that a number of reasons for withdrawing are usually given, meaning that multiple factors are evident, rather than a single aspect or isolated event. Nichols (2010) further suggested that student reasons for dropout are “as complex as they are numerous” (p. 105). Furthermore, these reasons are oftentimes not related to knowledge, per se, (e.g., the coursework being too challenging) but rather, to other, unrelated factors, such as balancing work and family demands or ineffective communication with [institutional] staff or student support services (Hart, 2012; Nichols, 2010).

With that said, in order to improve retention, institutions must work toward identifying what facilitates learner persistence, as well as possible causes for attrition (or, in other terms, barriers to learner persistence). Adding to the complexity of the issue, factors for why distance education students persist (or, conversely, quit) are numerous, and not always fully understood (UPCEA 2012). In short, there is no concise resolution to the problem of adult distance learner retention and persistence.

Many studies have attempted to identify the learner characteristics that are predictive of persistence (Dynan, Cate, & Rhee, 2008; Harrell & Bower, 2011; Hsu & Shiue, 2005), while others have attempted to identify institutional initiatives that increase learner persistence (Boyle, et al., 2010; Brown, 2004; Nash, 2005; Nichols, 2010;

Radwan & Leeds, 2009; Stanford-Bowers, 2008). Although contradictions have been found in past studies, all research has focused on the search for an effective way to increase learner persistence, as it is a critical measure of higher education program effectiveness (Rovai, 2002). Some of the most commonly identified characteristics and institutional initiatives used to facilitate persistence will be discussed.

Learner Characteristics

Self-direction. Distance education and self-direction appear mutually dependent for learner success. Success in an online environment requires a high level of discipline and self-direction (Rovai, 2003), as these learners must be motivated to take control of their learning process because the instructor and students are physically separated (Hsu & Shiue, 2005). Thus, while distance education has the capacity to help nontraditional adults overcome barriers to participation in education by providing a self-paced, self-directed learning environment (Chu & Tsai, 2009), learners who possess self-directed learning skills will have more success in an alternative delivery format (such as online delivery) than those who do not, according to Dynan, et al. (2008), increasing their chance of completion.

Locus of control. Students with a higher locus of control have a higher degree of internal motivation. These students believe that events occur as a result of their own behaviors; in other words, that they have control over their outcomes (Harrell & Bower, 2011; Morris, Wu, & Finnegan, 2005). These students are more likely to persist, as they place the responsibility of the learning on themselves (as opposed to others), and distance education students must be able to succeed, despite the increased responsibility for learning that is placed upon them (Harrell & Bower, 2011).

Self-efficacy. Self-efficacy directly relates to student success in that those who see themselves as capable and prepared are more willing to put forth greater effort, and by doing so, increase their perseverance when confronted with obstacles (Tinto, 2012). Institutions can increase learner self-efficacy by providing support to students that will help them succeed by feeling more academically prepared, such as an orientation (Brewer & Yucedag-Ozcan, 2013), tutoring or other supplemental instruction, or embedded academic assistance (Tinto, 2012). Doing so can enhance self-efficacy, which consequently promotes behaviors that further increase the likelihood of success (Tinto, 2012) by increasing learner confidence and developing abilities needed to succeed in college (Brewer & Yucedag-Ozcan, 2013).

Learners may need assistance in determining whether they are self-directed, have a high locus of control, or to increase self-efficacy; or, they may seek confirmation of what they already believe to be true about them. There are several assessment tools used by higher education institutions for nontraditional learners. One such tool is the SmarterMeasure Assessment, which is a web-based tool that assesses a learner's probability for succeeding in online or technology-enhanced education. The tool is said to measure individual student attributes, skills and knowledge that contribute to success in the online environment, such as self-motivation, time-management skills, persistence, and the like, and it is currently used by over 300 organizations nationwide (SmarterMeasure website, 2013). Using a resource similar to this can help learners confirm or identify strengths and opportunities for improvement in the online environment.

Institutional Engagement Initiatives

Although not all student persistence is as a result of institutional initiatives, facilitating engagement through effective practices can help. As Tinto (2012) suggests, the institution has a responsibility to serve their learners and increase their success. To do this, according to Wyatt (2011), institutions should work to immerse nontraditional students in the campus culture, including participation in orientation programs and providing ongoing academic assistance, both of which are discussed below.

Student support advisers

In accordance with the National Academic Advising Association's (NACADA) Core Values (2005), "advisers are responsible to the individuals they advise" (p. 2). As such, support and engagement of adult distance learners can be accomplished through the provision of student support advisers or other staff dedicated solely to these learner populations (Nichols, 2010). O'Keeffe (2013) stated that a sense of engagement occurs when the student has a relationship with just one key person at the institution. An adviser can help students develop effective study habits, act a source of support and encouragement, and increase engagement between the learner and the institution as needed (NACADA, 2005).

Furthermore, according to Brown (2004), adult students recognize the importance of support services, as they have different service needs from that of traditional students. In fact, Park and Choi (2009) found that adult learners are more likely to drop out if they do not receive support from the organization. As such, the provision of academic advising to guide students within their program (e.g., admissions, career goals, university policies), throughout the duration of their program, has been encouraged (Brown, 2004;

Wyatt, 2011) so that these learners are better able to make informed decisions (Aragon & Johnson, 2008). The presence of advisers is also viewed as a strong component of the academic environment, signifying to students that the institution places a high value on the growth and development of, and commitment to, its students (Braxton, et al., 2014).

Advising supports not only the academic, but also, the intellectual development of students (Braxton, et al., 2014). Adult distance learners may be more likely to experience isolation because of their physical separation from the institution, instructors, and other students (Bunn, 2004; Rovai & Downey, 2010). The online environment presents a level of isolation and separation with which some are not comfortable, which can have a negative influence on the persistence of those who do not learn well without traditional interactions (Harrell & Bower, 2011). Personal advisement can bridge that gap.

Furthermore, despite the integration of technology to aid in retention, it has been suggested that older forms of student support, such as advisers, may still be one of the more effective ways to increase retention by increasing engagement (Boyle, et al., 2010). In a study from Nichols (2010), providing dedicated, proactive, and targeted support for students studying at a distance was reported to have made a quantifiable contribution to positive (increased) student persistence. Further, UPCEA (2012) reported that 68% of institutions participating in their study utilized specialized advising for specific populations (such as nontraditional and distance education learners). In short, by providing support services to students at a distance, advisers contribute to student persistence and improve student success (Nichols, 2010).

Online student orientations

Online orientations are one way to increase learner persistence by clearly communicating holistic expectations as to what is required of the distance learner for success. According to Stanford-Bowers (2008), distance education programs experience a high-level of attrition when students register in online programs or courses, but do not have a true concept of what the online experience consists. Offering an orientation provides an opportunity to engage students in the campus culture (Wyatt, 2011), convey a multitude of learner expectations (Braxton, et al., 2014; Hoy, 2004; Stanford-Bowers, 2008; Wojciechowski & Palmer, 2005), and may allow for the learner to explore the online classroom in advance (Hoy, 2004), as well as identify important points of contact and services available [to students] (Braxton, et al., 2014; Stanford-Bowers, 2008). The realities of online learning may confound many online students with a misunderstanding of what online learning entails; therefore, presenting expectations and clearing up any misconceptions before the course begins is critical to student success (Stanford-Bowers, 2008).

Online orientations can also help students identify with the campus culture by providing some fundamental and important institution-specific information. For example, information about university practices and policies or expected communication methods (Wyatt, 2011), as well as student services available to the learner (Braxton, et al., 2014).

In short, current literature supports the use of orientations in order to improve the rate of success, and therefore completion, by distance learners (Braxton, et al., 2014; Nash, 2005; Radwan & Leeds, 2009; Wojciechowski & Palmer, 2005). Online orientations can deter many potential student problems by proactively addressing them

before they arise, and offering an orientation can help manage student expectations and prepare the student for learning online (Nash, 2005; Radwan & Leeds, 2009; Wojciechowski & Palmer, 2005). Stanford-Bowers (2008) and Yukselturk and Bulut (2007) further reiterated that considerations that address the students' ability to access the course and fulfill the requirements necessary are important; the absence of these factors can create further barriers to the student, thereby decreasing persistence. Last, a study by Wojciechowski and Palmer (2005) showed that attending an orientation session before starting an online course resulted in a greater frequency of success.

Communication

Communication with adult distance learners is important, as it helps the institution maintain an ongoing relationship with the student who may never step foot on campus. Additionally, communication must be done in a way that is both timely and relevant to the population (Monroe, 2006). In a study from Wyatt (2011), findings indicated that one component required for success of nontraditional students was communication that was geared specifically toward the population, thereby increasing relevance and engagement. A study from Huett, Kalinowski, Moller, and Huett (2008) employed an ARCS-based email campaign to attempt to motivate and retain students. The ARCS model, which is an abbreviation for (A)ttention, (R)elevance, (C)onfidence, and (S)atisfaction, appeared to be a simple, but effective way to address retention concerns by providing relevant, timely communications with online students throughout the duration of their course (Huett, et al., 2008).

Communicating relevant and timely information to students at a distance can help increase student success by giving them the information they need, at the time when they

need it, without having to sift through less relevant information. For example, a study by Clay, Rowland, & Packard (2008-2009) reported that online students were more effectively assisted and less overwhelmed when they received relevant information and reminders in smaller, chunked formats over the period of the semester, rather than through a single, longer communication.

Summary

The purpose of this literature review was multifaceted: first, to identify the complexities of persistence of adult distance learners as shown in the literature, including why classifying them is complicated and context dependent. Second, it sought to examine foundational frameworks for increasing persistence and engagement, which inform the groundwork for institutional practices that are beneficial to this population. Finally, to distinguish initiatives for which to increase persistence and engagement were examined: through understanding the learners, identifying and encouraging the learner characteristics that are conducive to persistence, and employing institutional initiatives that engage learners, to produce a holistic system for fostering learner persistence. The retention of these students is vital to the institution; therefore, determining the ways in which engagement promotes distance learner persistence is important.

What is clear that there is not a simple blueprint that guarantees learner persistence; adult persistence in the online environment is problematic because of multiple issues, rather than a single event, course, or characteristic (Rovai, 2002). Further complicating the issue is that institutions do not always have a thorough understanding of why their students fail to persist. For example, in the report released by UPCEA (2012), 77 institutions were asked whether they had a detailed understanding of the causes of

attrition among their nontraditional students. Of these, most (77%) responded they had some idea or were beginning to explore the issue; however, only 16% had a truly comprehensive understanding. Nonetheless, despite this lack of concrete (i.e., data-driven) knowledge, most of the responding institutions had new or ongoing initiatives in place with the underlying purpose of strengthening institutional retention.

Although many attrition factors may be affected by university initiatives, other factors are clearly beyond its purview (Simpson, 2004; Tinto, 2012), such as illness or the student's learning goals (e.g., degree attainment versus attainment of specific skills), computer accessibility, or unplanned events, all which may result in leaving before earning a full degree. Consequently, some of these initiatives may seem to be less than effective. Despite this, it is imperative that institutions that serve this adult, distance population and provide the initiatives they can to help increase persistence and decrease the incidence of avoidable dropout.

The following chapter will describe the research methodology used in this study. Chapter three will include the background, research questions, researcher qualifications, study design and analysis methods, population and sample, data collection and instrumentation, confidentiality, and data analysis.

Chapter III: Research Method

The purpose of this study was to identify ways in which student services engagement efforts assist with distance learner persistence, as retention of adult distance learners is vital to any university that depends on this population for revenue and is therefore important for perpetuation of the institution. This study examined evidence of statistical significance as to whether currently used engagement practices performed by the university have been effective, and/or how effective these practices have been for engaging distance learners as they pertain to learner retention. The results of the study could help the university determine how to translate current and effective practices for that of adult distance learners.

This chapter will include the following: background, research questions, researcher qualifications, study design and analysis methods, population and sample, data collection and instrumentation, confidentiality, and data analysis.

Background

A problem exists in that there are models of learner retention and persistence for many populations of nontraditional students (older adult and returning students, commuter students, transfer students, 2-year college students), but for the population of nontraditional (adult), distance learners, not all theories, frameworks, and methods can be translated effectively, as this population has proven to be unique. As a result of the growth in distance education programs, and subsequently, the growth of distance learners, it is exceedingly important and necessary to find ways for the institution to retain these students by identifying their needs and implementing practices that facilitate

persistence through their programs.

Research shows that engagement from the institution through communication, student services advisement, and orientations as some of the most effective ways in which to engage, and thereby retain, students and help them persist. However, the engagement must also be relevant to the learner. Although models exist for both traditional and nontraditional learners, these practices must also be translated for engagement of distance learners to identify what practices are effective, and what types of engagement through advisement and services distance learners seek, as many are not required to step foot on campus throughout the duration of their programs.

Student perception matters as it relates to expectation of services provided by the institution. If a student perceives services (advisement, orientation, and the like) to be lacking, student satisfaction may decrease, which decreases the likelihood that the learner will persist. Institutions must be aware of what is perceived as expected by their learners, rather than forging ahead with retention and persistence initiatives, despite not fully understanding why students persist (or fail to persist).

Learner commitment is perceived as an important factor in the theory of student persistence model posited by Braxton, Doyle, Hartley III, Hirschy, Jones, and McClendon (2014). If this is truly a predictor, then, again, it is significant to consider whether to collect such information upon student admittance. This data can also help the institution create initiatives that address learner commitment early and often, in order to encourage the learner appropriately, and keep the learner motivated toward his or her end goal.

Additionally, in order to identify what works effectively and consistently, data must be captured over the course of multiple semesters, specifically analyzing whether a relationship exists between those who participate in engagement initiatives and whether they also persist into the subsequent term.

This study took place at a four-year comprehensive university in the Midwest. This mid-sized institution serves approximately 8,254 undergraduate and 1,117 graduate students, with online and distance learner enrollment continuing to grow. This university currently offers 45 undergraduate majors and 24 graduate majors; of which, 28 are offered online or via distance education (12 undergraduate majors and 16 graduate majors). In addition, the university offers 24 online or distance delivered certificates and certifications, as well as individual coursework in general education areas and online professional development for educators. Additional programs (degree and certificate) are being offered annually to meet the needs of nontraditional learners.

The online and distance learner population at this university makes up about 11% of the undergraduate and about 70% of the graduate student populations. In fall 2014, these learners were between 20 and 70 years old (average age of 36); they generally take courses part-time versus full-time. In fall 2014, enrolled students were from 47 different states and 19 different countries. Of the students enrolled, 55% were female; 45% were male. For additional demographic information, see Table 1.

Due to the university's growing online and distance education population, research specific to the needs of the online and distance students at this university was performed in fall semester, 2014, and spring semester, 2015. The department responsible for service to all students in online and distance education programs developed these

surveys, in an attempt to increase retention of these students by identifying their needs and implementing practices and providing services that facilitate persistence through their programs.

Research Questions

The research questions (RQ) are as follows:

- (1) Which commonly used engagement practices do the University's distance learners expect?
- (2) What is the relationship between a student's initial self-reported commitment and actual persistence into the subsequent term?
- (3) What is the relationship between the type of engagement practices and retention of the University's adult distance learners?
- (4) What is the relationship between the frequency of engagement participation and subsequent retention of the University's adult distance learners?
- (5) What is the relationship between the degree of satisfaction and subsequent retention of the University's adult distance learners?

Having these research questions addressed can help institutions identify the unique needs and expectations of its distance learner student population. In regard to institutional commitment, knowing these needs can subsequently inform institutional practice by providing learners the services expected and meeting the needs of its learners. This, then, may help increase the persistence and completion of adult distance learners, which has been previously established as a benefit to the economy, individual, and society as a whole.

Study Design and Analysis Methods

The objective of this study was to determine ways in which the university's student services engagement efforts assist with distance learner persistence. The study was designed to examine evidence of statistical significance as to whether currently used engagement practices performed by the university were effective, how effective these practices were for engaging distance learners, and whether there is a predictive relationship between the presence of identified variables and learner retention. To best answer the research questions, the following research design and sample was used.

Research Design

The design of this study was quantitative in nature and utilized existing data from student survey responses, engagement analytics, and the institution's data warehouse that would serve as independent variables in the study. A quantitative approach was taken, as the researcher sought to analyze data from existing initiatives of the institution.

Additionally, the study used descriptive methodology, as the researcher was attempting to describe conditions and characteristics, as they currently exist at the institution, to identify a baseline of expectations, satisfaction, and retention in this university's population. This statistical research has not been performed in the past, and while using a qualitative approach may help the university understand the "why," the university initially sought to understand the "what."

In lieu of building an additional instrument, data from the responses of a currently utilized instrument were appropriate to address the research questions posed. Responses from this instrument were extracted for analysis to assist with determining whether a relationship existed between current engagement initiatives and subsequent retention.

The rationale for using an existing instrument was to avoid survey fatigue; there is frequent discussion within the study institution regarding overuse of surveys.

Further existing data was also identified to identify engagement of the learner; this included engagement email analytics from each engagement email previously sent (four to five engagement emails and an orientation email in fall and spring), participation data analytics from the online orientation, and analytics from an online readiness self-assessment (SmarterMeasure). Existing enrollment data was mined to determine actual retention or attrition of each participant into the subsequent term.

The dependent variable in this study was *retention into the subsequent term*. Independent variables included: self-reported commitment (Table 3), type of engagement practice (Table 4), frequency of participation in engagement initiatives, and degree of satisfaction (Table 2).

Sample Selection

This study included the identification and analysis of the population and sample from which to extract data. The rationale behind the population and sample chosen is that it was relevant to the researcher's work environment. The identification of this population is not only convenient and attainable, but also important, relative to the work of the researcher. The selection of the identified sample and data points assisted in the discovery of the effectiveness of delivering engagement initiatives to distance learners in order to enhance learner retention. These data samples were also selected to analyze participation and the learner's self-reported commitment to his or her education.

Analysis Methods

Descriptive statistics were used to illustrate the population for this study. Additionally, to address the five research questions posed, three primary data analyses were used: descriptive statistics, logistic regression, and a t-test for means. More about each method is discussed below.

Descriptive Statistics. Descriptive statistics are helpful in that they assist with describing a population with just a few indicators (Fraenkel, Wallen, & Hyun, 2015). In educational research such as this, descriptive statistics summarize a large amount of data into discrete content – essential to the management and interpretation of data collected about the intended population or sample (Fraenkel, et. al., 2015). In the case of this research, descriptive statistics assisted with identifying, describing, and quantifying the population of distance learners, which commonly used engagement practices the University’s distance learners expect (research question 1), and self-reported commitment (research question 2).

Logistic Regression. According to Cabrera (1994), the use of logistic regression in higher education is not a new phenomenon; and in fact, its use dates back to the late 1960s. It has been used in a wide array of educational research topics, including enrollment, persistence, transfer decisions, and degree attainment (Cabrera, 1994) to help researchers understand relationships or make predictions based on data.

This study used logistic regression to examine three relationships.

First, logistic regression was used to explore the extent to which the type of engagement practice affects retention (research question 3);

Second, to study whether the frequency of engagement participation affects retention (research question 4); and

Thirdly, to investigate whether a predictive relationship existed between the degree of learner satisfaction and subsequent retention with the addition of each independent variable (research question 5).

T-Test for Means. t-Tests for independent means are used to help researchers whether a difference between the means of two different (independent) groups is significant (Fraenkel, et. al., 2015). In the case of this research, the means of each self-reported commitment variable between the retained and non-retained groups were examined for significant differences (research question 2).

Population and Sample

The population of distance learners is dynamic in nature. As distance education opportunities increase, the type of learner who takes advantage of said opportunities may change. The distance learner population of one institution may vary with the population of another, and as literature proves, in order to best serve the learner, institutions must first identify the learner. As such, it is imperative to understand exactly who is enrolling in distance education opportunities at the institution in question, as well as their expectations of the institution. Offering initiatives that do not engage or help the learner persist results in a waste of already scarce institutional resources.

The population for this study included students who were enrolled in an online or distance education course or program in the fall of 2014 (n = 1663) and spring of 2015 (n = 1617) at a four-year comprehensive university in the Midwest. The demographic composition of this population is shown in Table 1.

Table 1

Distance Learner Population Demographics

Variable	Fall 2014		Spring 2015	
	<i>n</i>	%	<i>n</i>	%
n =	1,663	100	1617	100
Gender				
Male	739	44.4	720	44.5
Female	924	55.6	897	54.5
Level				
Graduate	795	47.8	772	47.7
Undergraduate	868	52.2	845	52.3
Age (years)				
Mean	36		37	
Range	19-72		20-71	
Mean Credit Load (# of credits)				
UG	7		7	
GR	5		5	
States Represented	47		47	
Countries Represented	19		19	

Due to the university's growing online and distance education population, research specific to the needs of the online and distance students at this university was performed in fall semester, 2014, and spring semester, 2015, in an attempt to increase retention of these students by identifying their needs and implementing practices that facilitate persistence through their programs. As noted above, the fall 2014 and spring 2015 semesters were selected due to the implementation of this new survey process in fall

2014. Although new students are admitted to the University every semester, the primary admitting semesters are Fall and Spring of any given academic year.

This population represents a majority of online and distance education learners enrolled in a degree-seeking program at the institution. It includes both undergraduate and graduate program students, including those in bachelor's degree (BS) programs, master's degree (MS) programs, and education specialist (EdS), Masters of Fine Arts (MFA), education doctorate (EdD) programs. These students have been admitted into the university through the Admissions Office (undergraduates) or Graduate School (graduates) and as such, have made the intent to pursue a degree.

The sample from the above population included all students who completed the voluntary pre-engagement survey and post-satisfaction survey in the fall 2014 semester or spring 2015 semester. The pre-engagement survey was sent out (online) to all degree-program students enrolled in fall 2014, and to all newly admitted degree-program students in spring 2015. This survey was sent out approximately two weeks after the start of each semester, in order to give students the opportunity to first acclimate to a new semester. A post-satisfaction survey was sent out approximately two weeks before the end of each semester to all those who completed the pre-engagement survey earlier in the semester.

The results of the pre- and post-surveys were matched, and the survey results were reviewed for completeness. Survey responses that did not include any response to the specific questions utilized for this study were extracted. This left 100 matched survey responses.

Data Collection and Instrumentation

The research performed was taken from previously collected institutional data from multiple sources and data collection instruments. Permission to use the collected data was applied for, and approved, via the Institutional Review Board at the study institution as well as the research institution. The collection of this data is described in more detail in the following paragraphs.

Actual student retention from fall to spring semester and spring to summer/fall semester for each individual respondent was determined from static student data collected from the data warehouse to identify whether the student enrolled in a subsequent term (RQ 2, 3, 4, 5). This enrollment data was collected at the 10th day in each subsequent semester (e.g., fall to spring retention data was collected on the 10th day of spring).

The data warehouse is the university's official database used to capture data from students enrolled at the university. Student data from the university's student information system is transferred each night to the data warehouse and is available for use by those employees with the required security access. Although the data warehouse is utilized for many queries, for the purpose of this study, it was utilized only to measure whether the student was enrolled in [the] subsequent term.

Data used to measure distance learner perceptions of expectations was collected from two surveys: a pre-engagement survey (also referred to as pre-survey), which consists of perceptions statements gauging learner expectations and commitment (RQ 1, 2), and a post-satisfaction survey (also referred to as post-survey), which consists of perceptions statements used to measure satisfaction (RQ 5), both of which are institution-developed. The department that facilitates various services for the university's online

and distance education student population designed these surveys in an attempt to identify its learners, as well as to identify what services were expected and how satisfied learners are with services provided.

The department collected the pre-survey data (i.e., responses) after the survey response timeframe was over (approximately three weeks after the survey was initiated). The department then followed up with only those individuals who completed the pre-survey and sent the post-survey approximately two weeks before the semester ended. The department collected all post-survey data after the semester ended. The pre- and post-survey responses were then matched in order to track and determine expectation, satisfaction, and self-reported commitment (RQ 1, 2, 5).

The pre- and post- instruments included scores for expectation on a four-point Likert-type (ordered) scale, ranging from (1) strongly agree, (2) agree, (3) disagree, and (4) strongly disagree (expectation) and (1) very satisfied, (2) satisfied, (3) dissatisfied, and (4) very dissatisfied (satisfaction). Perceptions measured in this survey included: expectation (pre), and satisfaction (post) of services provided by Program Directors, Student Services Advisers, and the University. Questions identified and utilized specific to this study are outlined in Table 2 and Appendices A and B.

Table 2

Expectation and Satisfaction Survey Questions

Research Question	
<i>(1) Which commonly used engagement practices do the University's distance learners expect?</i>	
Survey Question	Scale*
Clearly communicate policies and procedures relevant to distance learners (drop, refunds, complaint process, etc.)	1, 2, 3, 4
Provide timely and relevant communications to me as an online student	1, 2, 3, 4
Respond quickly when I request information	1, 2, 3, 4
Provide an online orientation to online students	1, 2, 3, 4
Provide dedicated student services for distance learners	1, 2, 3, 4
* (1) strongly agree, (2) agree, (3) disagree, and (4) strongly disagree	
<i>(5) What is the relationship between the degree of satisfaction and subsequent retention of the University's adult distance learners?</i>	
Survey Question	Scale**
Provided an online orientation to online students	1, 2, 3, 4
Provided dedicated student services for distance learners	1, 2, 3, 4
Clear communication of policies and procedures relevant to distance learners provided (drop, refunds, complaint process, etc.)	1, 2, 3, 4
Timely and relevant communications provided to me as an online student	1, 2, 3, 4
Quick response when I requested information	1, 2, 3, 4
**(1) very satisfied, (2) satisfied, (3) dissatisfied, and (4) very dissatisfied	

Data to determine the relationship between a learner’s self-reported commitment and actual persistence was collected from two sources: the pre-survey and actual registration (or non-registration) into the subsequent term and static data from the data warehouse (RQ 2). Self-reported commitment was rated on a Likert-type (ordered) four-point scale, ranging from (1) strongly agree, (2) agree, (3) disagree, and (4) strongly disagree over a series of four questions regarding determination, importance, confidence, and plans to enroll in the subsequent term.

Three of the four self-reported commitment questions were positively worded; however, one question, *It is not important for me to graduate from this university* was negatively worded and used the same scale. Questions specific to this study are outlined in Table 3.

Table 3

Self-Reported Commitment Survey Questions

Research Question	
<i>(2) What is the relationship between a student’s initial self-reported commitment and actual persistence into the subsequent term?</i>	
Survey Question	Scale*
I am determined to finish my program, regardless of obstacles (RQ 2)	1, 2, 3, 4
It is not important for me to graduate from this university (RQ 2)	1, 2, 3, 4
I am confident I made the right decision to attend this university (RQ 2)	1, 2, 3, 4
I plan on enrolling in the [subsequent] semester (RQ 2)	1, 2, 3, 4
* (1) strongly agree, (2) agree, (3) disagree, and (4) strongly disagree	

Data was also collected to determine whether there was a difference in retention for those who participated in the engagement initiatives (RQ 3), as well as frequency of participation in engagement initiatives (RQ 4), and was collected from four sources (Table 4) at the end of each semester.

The engagement initiatives measured were: orientation email engagement (opened = 1, did not open = 0), engagement email data analytics (any opened email = 1, did not open any email = 0), completion of module four of the online orientation (completed module 4 = 1, did not complete = 0), and SmarterMeasure assessment completion (attempted = 1, did not attempt = 0), and were matched against actual registration (or non-registration) into the subsequent term (RQ 3, 4).

These points of data are dichotomous (0 to 1), indicating non-participation (0) versus participation (1) of any engagement initiative presented at these data points (Table 4). Three of the four initiatives (orientation email, SmarterMeasure assessment, and orientation module 4) included a third code, 3 = did not have the opportunity to participate, and as such, they were excluded from this analysis. A copy of the survey question is also listed in Appendix A.

Table 4

Engagement Practices

Engagement Initiative	Type	Coding
Orientation email engagement	Ordinal, Dichotomous	0 = no 1 = yes
Engagement email analytics	Ordinal, Dichotomous	0 = no 1 = yes
SmarterMeasure assessment	Ordinal, Dichotomous	0 = no 1 = yes
Orientation module 4	Ordinal, Dichotomous	0 = no 1 = yes

Confidentiality

Respondents had been previously informed that the information collected would not be anonymous, but that results would remain strictly confidential. Upon analysis of data, static student information was coded, removing personally identifiable information such as student username and student identification number in order to preserve student confidentiality.

Data Analysis

The statistical analyses of the data were conducted using SPSS statistical software. In the following paragraphs, each research question is further addressed with the statistical analysis to be performed.

Research question (1) Which commonly used engagement practices do the University's distance learners expect? This question was addressed using descriptive statistics (frequency, mean, range, and standard deviation) to analyze responses to each expectation question, as displayed in Table 2.

Research question (2) What is the relationship between a student's initial self-reported commitment and actual persistence into the subsequent term? This question was addressed using descriptive statistics to analyze responses to each question, and independent sample t-tests were used to analyze the difference between learners' mean ratings of self-reported commitment and retention into the subsequent term. There were four questions presented to the respondent to measure self-reported commitment, as displayed in Table 2.

Research question (3) What is the relationship between the type of engagement practices and retention of the University's adult distance learners? To address this question, a logistic regression was used to test for a relationship between the type of engagement practice (denoted in Table 4) and actual retention of the student into the subsequent term.

Research question (4) What is the relationship between the frequency of engagement participation and subsequent retention of the University's adult distance learners? This question was addressed using a logistic regression to indicate the relationship between frequency of participation by the student and retention of the student into the subsequent term. Using the engagement practices denoted in Table 4, frequency would be measured using 0, 1, 2, 3, or 4 (ordinal variables).

Last, research question (5) asked, what is the relationship between the degree of satisfaction and subsequent retention of the University's adult distance learners? This question was addressed using a hierarchical logistic regression to test for the strength of the relationship among each degree of satisfaction (on the four point scale: 1= very

unsatisfied, 2 = unsatisfied, 3 = satisfied, 4 = very satisfied) and actual retention into the subsequent term with the addition of each engagement initiative.

The following chapter will include the results of the analyses performed and described in chapter three. Discussion of the results will include narrative for each individual research question and statistical outcome in chapter five.

Chapter IV: Results

The purpose of this study was to identify ways in which student services engagement efforts assisted with distance learner persistence, as retention of adult distance learners is vital to any university that depends on this population for revenue and is therefore important for perpetuation of the institution. The study examined evidence of statistical significance as to whether currently used engagement practices performed by the university were effective, and/or how effective these practices are for engaging distance learners as it pertains to learner retention. The study results could help the university determine how to translate current and effective practices for that of adult distance learners. This chapter will include a discussion of the results.

Research Question 1

The first question, *Which commonly used engagement practices do the University's distance learners expect?* was analyzed using descriptive statistics (frequency, mean, range, and standard deviation) to analyze responses to each expectation question addressed in this study.

The survey range given for each expectation question followed a scale of 1 – 4; (1) strongly agree, (2) agree, (3) disagree, and (4) strongly disagree; however, using SPSS, the scale was reverse coded to: (1) strongly disagree, (2) disagree, (3) agree, and (4) strongly agree. The mean response is consistently over 3; respondents selected *agree* or *strongly agree* over 90% of the time.

Table 5

Engagement Expectation Descriptive Statistics

Variable – Engagement Expectations	<i>n</i>	<i>M</i>	<i>Range</i>	<i>SD</i>
Clearly communicate policies and procedures relevant to distance learners (drop, refunds, complaint process, etc.)	96	3.34	1-4	.844
Provide timely and relevant communications to me as an online student	94	3.27	1-4	.806
Respond quickly when I request information	94	3.27	1-4	.819
Provide an online orientation to online students	96	3.17	1-4	.914
Provide dedicated student services for distance learners	96	3.32	1-4	.888

Research Question 2

The second question: *What is the relationship between a student's initial self-reported commitment and actual persistence into the subsequent term?* was analyzed using descriptive statistics and independent samples t-tests. Descriptive statistics were run to analyze responses to each question, and independent sample t-tests were run to analyze differences in the relationship between learners' mean ratings of self-reported commitment and retention into the subsequent term. There were four questions presented to the respondent to measure self-reported commitment. As noted in chapter 3, one question, *It is not important for me to graduate from this university*, was designed [by the department] as a negative statement.

Self-reported commitment was rated on a Likert-type (ordered), four-point scale, ranging from (1) strongly agree, (2) agree, (3) disagree, and (4) strongly disagree, over a series of four questions regarding determination, importance, confidence, and plans to enroll in the subsequent term. Three of the four statements had means close to 1 (between 1.0 – 1.5), regardless of whether the learner was retained, indicating a response of *strongly agree* or *agree*.

Responses to the negatively worded statement, *It is not important for me to graduate from this university*, had means close to 3, and a larger standard deviation, indicating a broader range of agreement in the responses - between the *agree* to *strongly disagree* range. Full descriptive statistics are outlined in Table 6.

Table 6

Self-Reported Commitment Descriptive Statistics

Variable -Self-Reported Commitment Question	Retained ⁺	n	M	Range	SD
I am determined to finish my program, regardless of obstacles	0	13	1.08	1-4	.277
	1	86	1.17	1-4	.465
It is not important for me to graduate from this university	0	13	2.77	1-4	1.235
	1	86	3.36	1-4	.957
I am confident I made the right decision to attend this university	0	13	1.54	1-4	.660
	1	86	1.31	1-4	.579
I plan on enrolling in the [subsequent] semester	0	13	1.38	1-4	.768
	1	84	1.25	1-4	.599

+ Retained into subsequent semester - (0) no, (1) yes

The independent samples t-test findings for the self-reported commitment statements are displayed in Table 7. A single statement: *It is not important for me to graduate from this university* was found to have statistical significance at the $p < .05$ level. This indicates there is a statistically significant difference between the mean responses of the retained versus not retained respondents in relation to the statement, *it is not important for me to graduate from this university*, and subsequent retention. More specifically, those who were not retained had a mean response of 2.77 on a scale of 1-4 (strongly agree to strongly disagree); those who were retained had a mean of 3.36 (using the same scale). Full results can be found in Table 7.

Table 7

Self-Reported Commitment Independent Samples Test

Variable - Self-Reported Commitment Question	<i>t-value</i>	<i>Sig. (2-tailed)</i>
I am determined to finish my program, regardless of obstacles	-.734	.464
It is not important for me to graduate from this university	-1.996	.049*
I am confident I made the right decision to attend this university	1.279	.204
I am confident I made the right decision to attend this university	.725	.470

*Note: Significant at the $p < 0.05$ level.

Research Question 3

The third research question: *What is the relationship between the type of engagement practices and retention of the University's adult distance learners?* was

analyzed using a logistic regression to test for a predictive relationship between the type of engagement practice and actual retention of the student into the subsequent term. None of the independent variables were found to hold statistical significance; no predictive relationship exists.

Table 8

Type of Engagement Practice and Retention

Variable - Engagement Initiative	<i>Exp(B)</i>	<i>Sig.</i>
Orientation email engagement (n = 52)	.000	1.0
Engagement email analytics (n = 100)	.000	.999
SmarterMeasure assessment (n = 52)	.860	.845
Orientation module 4 (n = 63)	.348	.189

Research Question 4

To answer the fourth question: *What is the relationship between the frequency of engagement participation and subsequent retention of the University's adult distance learners?* a logistic regression was performed to determine whether a predictive relationship exists between frequency of participation by the student and retention of the student into the subsequent term. Using the engagement practices denoted in Table 3, frequency was measured using 0, 1, 2, 3, or 4 (ordinal variables).

Frequency was found to be statistically significant at the $p < .05$ level, indicating a predictive relationship exists between the frequency of participation and subsequent retention. The *Exp(B)* of .501 indicates that the more engagement activities (frequency)

the student participated in, the less likely he or she was to be retained. More specifically, the outcome of being retained is 0.5 times as likely with a one-unit increase in frequency of engagement participation; or in other words, the odds decrease by 50%. Full results are in Table 9.

Table 9

Frequency of Participation in Engagement and Retention

Variable – Frequency of Participation	<i>Exp(B)</i>	<i>Sig.</i>
Frequency	.501	.012*

Note: * Significant at the $p < 0.05$ level.

Research Question 5

Lastly, research question five: *What is the relationship between the degree of satisfaction and subsequent retention of the University’s adult distance learners?* was analyzed using a hierarchical logistic regression to test for the strength of the relationship among each degree of satisfaction (on the four point scale: 1= very satisfied, 2 = satisfied, 3 = dissatisfied, 4 = very dissatisfied) and actual retention into the subsequent term. Each independent (predictor) variable was added to the model to determine whether the variable had an effect on retention in the presence of the previous variables.

The model was designed with the factor of timeline as the focus. The first variable in the model was *Provided dedicated student services for distance learners*, as student services advisers are a consistent part of the support provided for students throughout their lifecycle from their first contact with campus. The next variable added was, *Provided an online orientation to online students*, as it is the first intentional

engagement initiative for new students. The third variable added to the model was, *Quick response when I requested information*, as emails follow once the student has identified his or her student service adviser. The fourth variable, *Timely and relevant communications provided to me as an online student*, is the next intentional initiative utilized to engage the student consistently throughout the semester. And *Clear communication of policies and procedures relevant to distance learners provided (drop, refunds, complaint process, etc)*, was added last in the hierarchical model, as it can be both embedded in the prior variable, but also can be less intentional and regular, as these types of communication happen throughout the semester and student lifecycle based on student need.

At each stage (as each variable was added to the model) statistical significance was tested to determine whether adding the variable added predictive or explanatory power in the presence of the previous variable. Reviewing the Omnibus tests at each stage showed that adding the second through the fifth variable to the first yielded no additional predictive power. Table 10 shows the full statistical results of the Omnibus tests for each stage in the model.

Table 10

Omnibus Test Results

Variable - Satisfaction Question	Sig.
Stage 1: Provided dedicated student services	.051
Stage 2: Provided an online orientation to online students	.266
Stage 3: Quick response when I requested information	.787
Stage 4: Timely and relevant communications provided to me as an online student	.878
Stage 5: Clear communication of policies and procedures relevant to distance learners provided (drop, refunds, complaint process, etc.)	.636

Reviewing the final results show the strength of the relationships were not statistically significant at the $p < 0.05$ level for four of the five variables (Table 11).

However, one variable, indicating satisfaction with *Provided dedicated student services for distance learners* was found to be statistically significant, indicating a relationship between level of satisfaction with the provision of dedicated student services and subsequent retention.

Although four of the five variables were not statistically significant, looking at the Exp(B) results for *Provided dedicated student services for distance learners* and *Quick response when I requested information* show that the outcome of being retained is 0.64 times and 0.82 times as likely, respectively, with a one-unit increase on the satisfaction

scale (1 = very satisfied; 4 = very dissatisfied); in other words, lower satisfaction is related to lower retention.

Table 11

Variables in the Equation

Variable - Satisfaction Question (Hierarchical)	<i>Exp(B)</i>	<i>Sig.</i>
Provided dedicated student services for distance learners	.641	.049*
Provided an online orientation to online students	1.228	.342
Quick response when I requested information	.823	.730
Timely and relevant communications provided to me as an online student	1.131	.819
Clear communication of policies and procedures relevant to distance learners provided (drop, refunds, complaint process, etc.)	1.163	.641

Note: *Significant at the $p < 0.05$ level.

The results of the statistical analyses indicate that, despite the significant volume of theory and research regarding engagement practices as being important for learner retention, few were found to be statistically significant or predictive in this study. The three variables that were statistically significant – self reported commitment statement: *It is not important for me to graduate from this university*, frequency of participation in engagement initiatives, and the relationship between satisfaction with the provision of dedicated student services and retention – are all fundamental to the theory of using engagement to increase retention by knowing your students and providing opportunities for engagement.

The following chapter will include a discussion of the results of the analyses performed and described in chapter three and displayed in chapter four. Chapter five reviews the results of each research question in more detail and further discussion.

Chapter V: Discussion

The purpose of this study was to identify ways in which student services engagement efforts assisted with distance learner persistence, as retention of adult distance learners is vital to any university that depends on this population for revenue and is therefore important for perpetuation of the institution. The study examined evidence of statistical significance as to whether currently used engagement practices performed by the university were effective, and/or how effective these practices are for engaging distance learners as it pertains to learner retention.

The research questions posed were:

- (1) Which commonly used engagement practices do the University's distance learners expect?
- (2) What is the relationship between a student's initial self-reported commitment and actual persistence into the subsequent term?
- (3) What is the relationship between the type of engagement practices and retention of the University's adult distance learners?
- (4) What is the relationship between the frequency of engagement participation and subsequent retention of the University's adult distance learners?
- (5) What is the relationship between the degree of satisfaction and subsequent retention of the University's adult distance learners?

A discussion of results from chapter four are included in this chapter. This chapter is organized by research question, with a discussion of results for each.

Discussion Overview

The most noticeable finding of this study was that despite the significant volume of theory and research regarding engagement practices as being important for learner retention, few were found to be statistically significant or predictive in this study. The results of this study identified three variables that were statistically significant in contributing to retention of distance learners. More detail is outlined in each of the subsequent sections.

Research Question 1

Results from research question one were consistent with the literature in that learners have an expectation of engagement from the university that is clear, timely, and relevant. For example, within the andragogical model, Knowles, Swanson, & Holton (2011) identified that timing is key with adult learners; those who work with them need to time relevant learning experience (such as training) to coincide with developmental tasks (such as a new experience). As is specific to this study, those learners who are getting ready to learn in an online environment need learning experiences that coincide with this new experience, such as an orientation to online learning that occurs before the online course begins.

Tinto (2010, 2012) further suggested that the institution has an obligation to establish conditions that promote student success, and a fundamental pillar of the institutional framework consists of involvement, or as it's more commonly referred to, engagement. As specific to this study, providing the student with preparation (an orientation) and a consistent connection to the university through timely and relevant communication and dedicated student services advisers.

The theory of student persistence (Braxton, Doyle, Hartley III, Hirschy, Jones, and McClendon, 2014) also suggests that the perception of institutional commitment to student welfare affects a student's commitment to the institution. Providing expected services is evidence that the university values its students and is committed to their success.

Analyzing the responses to the questions regarding engagement: *Clearly communicate policies and procedures relevant to distance learners, Provide timely and communications to me as an online student, Respond quickly when I request information, Provide an online orientation to online students, and Provide dedicated student services for distance learners* showed that respondents "agreed" or "strongly agreed" over 90% of the time that these engagement initiatives were expectations of the learner, from the university. Both theory and this resultant data supports the rationale for continuing to provide these services to distance learners in an attempt to keep them prepared, informed, and engaged with the institution.

Research Question 2

Results from research question two were varied in regard to alignment with the literature. The literature reported that learner self-commitment has a positive relationship with retention. Self-commitment is measured in multiple ways (in this case, through four commitment statements) but is a perception of the individual. These perceptions may be established based on learner characteristics, such as self-direction, self-efficacy, and locus of control.

In this study, self-direction speaks to the learner's ability to take control of the learning process, despite being a physical distance from the institution (Hsu & Shiue,

2005). Furthermore, students with a higher locus of control believe that events occur as a result of their own behaviors – that they have control of their outcomes (Harrell & Bower, 2011; Morris, Wu, & Finnegan, 2005). Last, self-efficacy directly relates to student success in that those who see themselves as capable and prepared are more willing to put forth greater effort, and by doing so, increase their perseverance when confronted with obstacles (Tinto, 2012).

Given these three characteristics, respondents who have a higher level of all of these are more likely to perceive they have the ability to take control of their learning, have control over their success, and believe that through hard work and perseverance, they will succeed as learners. They are able to answer self-reported commitment questions with confidence and believe their convictions (perceptions) accurately represent their intended outcomes.

Analyzing the descriptive responses to the questions regarding self-reported commitment: *I am determined to finish my program, regardless of obstacles, It is not important for me to graduate from this university, I am confident I made the right decision to attend this university, I plan on enrolling in the [subsequent] semester* showed that respondents “agreed” or “strongly agreed” that they perceive themselves to hold a high level of commitment to their experience at this university, regardless of whether they were subsequently retained.

Additionally, analyzing the independent samples test showed only one statement, *It is not important for me to graduate from this university*, as holding statistical significance at the $p < 0.05$ level, indicating that there was a difference between the mean responses of the retained versus not retained respondents in relation to the statement and

subsequent retention. This statement was the only negatively worded statement in the set.

In other words, those who did not persist answered with a broader range for this specific statement in that they agreed, disagreed, or strongly disagreed that it was not important to graduate from this university. Additionally, since this statement was worded negatively, this equates to an interpretation of the results as, “I agree, disagree, or strongly disagree that it is not important to graduate from this university; or in other words, I disagree, agree, or strongly agree that it *is* important.” As this study only addressed the “what” and not the “why,” it is difficult to know the reason for the range in agreement/disagreement, other than to say that the results infer that those not retained were not as committed to graduating from *this* university.

Those who were retained responded with less variability, generally indicating that they disagreed or strongly disagreed, which would imply they are more committed to graduating from *this* university. Additionally, since this statement was worded negatively, this equates to an interpretation of the results as, “I disagree or strongly disagree that it is not important to graduate from this university; or in other words, I agree or strongly agree that it *is* important.” It is difficult to ascertain a student’s commitment to a specific university, as that may vary with time, money, and convenience, and as stated in the previous paragraph, this study addressed only the “what.” However, as specific to this statement, those who were retained were more strongly committed (they had a higher level of agreement) than those who were not retained.

The lack of significance of the other statements may have happened as a result of the sample. There were only a small number of respondents available who were not

retained. Therefore, in order to measure whether a significant difference existed between the mean ratings of self-reported commitment of retained and not retained, for each statement, a larger number of non-retained respondents might have assisted in determining whether a truly significant difference in the means existed.

Research Question 3

Research question three was posed in an attempt to determine whether there was a predictive relationship between the type of engagement practice and retention. Results from research question three (regression analysis) were not statistically significant. The four types of engagement practice (orientation invitation, engagement emails, readiness assessment, and completion of at least part of the orientation) did not appear to have any statistically significant predictive effect on retention.

It is conceivable that, despite the literature to the contrary, which depicts each engagement event to be separate and distinct, the four types of engagement presented in this study may be too similar to show any relationship variation, and therefore, have no predictive value. It is also possible that as adult learners, they simply self-identify which help or communication they need based on their self-perception of readiness or knowledge. Moreover, adult learners may have preferences about which type of engagement interests them; since none of the engagement initiatives are mandatory, they might not be strong predictors for retention.

Research Question 4

Research question four was posed in an attempt to determine whether there was a relationship between the frequency of engagement and retention. Results from research question four (regression analysis) were reported as statistically significant. In other

words, the frequency of participation in the four types of engagement practices (orientation invitation, engagement emails, readiness assessment, and completion of at least part of the orientation) had a statistically significant effect on retention. However, that effect on retention was negative. The odds ratio of .501 (an odds ratio below 1 specifies a negative relationship) indicates that the outcome of being retained is .5 times as likely with a one-unit increase in frequency of engagement participation; the odds decrease by 50%. This is not aligned with current literature.

Although the literature researched regarding specific institutional engagement initiatives showed that an online orientation, communication, and student services advisement were important, it had not specifically considered whether frequency of engagement was a significant factor. However, according to Tinto's framework for institutional action (2010, 2012) and the theory of student persistence in commuter colleges and universities (Braxton, Doyle, Hartley III, Hirschy, Jones, & McClendon, 2014), the more engaged a learner is with the institution, the higher the incidence of success (retention).

In addition, literature has shown that adult learners face four primary barriers when transitioning into higher learning: institutional (policies, advisement), situational (time management, balancing outside responsibilities), educational (past GPA, time out of school), and psychological (self-esteem and self-efficacy) (Brewer & Yucedag-Ozcan, 2013). Given this, it can be deduced that removing of these barriers by frequency of participation in engagement would logically result in a higher incidence of retention.

For example, the orientation may help remove or reduce the situational barrier by helping prepare learners so that they may be better able to manage time. The readiness

assessment may help remove or reduce the psychological barrier by better informing distance learners about what it means to be an online learner, giving them more self-confidence to manage the online learning expectations. These are critical, as attitudinal factors have been shown to be important.

Therefore, despite the results of the statistical results, theory and previous research support the rationale for continuing to provide multiple opportunities for engagement and engagement initiatives to distance learners in an attempt to keep them engaged and reduce barriers. Since this study was quantitative in nature, instead of qualitative, the results do not indicate why the relationship might be negative, only that a negative relationship exists in this study.

Research Question 5

Research question five used a hierarchical logistic regression in an attempt to determine whether a relationship exists between degree of satisfaction and subsequent retention. An analysis of the results from research question five showed one variable as statistically significant; the other four were not statistically significant.

The degree of satisfaction (on a four point scale: 1= very satisfied, 2 = satisfied, 3 = dissatisfied, 4 = very dissatisfied) for four of the five satisfaction questions posed did not appear to have any effect on retention individually, nor by building in each into the regression model. However, the degree of satisfaction showed a relationship between the learner's satisfaction with the provision of dedicated student services and subsequent retention.

As noted in the discussion of research question one, research and literature have shown that learners have an expectation of engagement from the university that is clear,

timely, and relevant. This supports the rationale for continuing to provide these services to distance learners at this institution. However, if provided, it is also important to analyze whether learners are satisfied with the services they have received. It is logical to posit that learners who are satisfied with the services they expect would have a higher incidence of retention. In this case, though, only one of the four variables, *provision of dedicated student services*, had any statistical significance or predictive value.

Despite the study data, online orientations have been frequently researched in literature, and they have been touted as a way to increase learner persistence by communicating holistic expectations as to what is required to be a successful distance learner (Braxton, et al., 2014; Hoy, 2004; Stanford-Bowers, 2008; Wojciechowski & Palmer, 2005). It is important for an institution to consistently provide an orientation and subsequently measure learner satisfaction of the orientation provided.

Additionally, Tinto's (2010, 2012) extensive research on retention and institutional action suggests that the institution has an obligation to establish conditions (e.g., provide communication, engagement opportunities) that promote student success. Therefore, results notwithstanding, literature continues to support providing the student with services, and as a consequence of providing this support, determining whether the learner is satisfied with the services provided.

Conclusions

As stated at the beginning of this chapter, the most noticeable finding of this study was that despite the significant volume of theory and research regarding engagement practices as being important for learner retention, few were found to be statistically

significant or predictive in this study. However, despite the fact that the data was at times disparate with the literature, there are explanations as to why this could be the situation.

For example, although respondents were very agreeable (agree to strongly agree) regarding their expectation of engagement from the university (from the pre-survey results), once given these engagement initiatives, data did not necessarily prove that it affected subsequent retention. There are several possible speculations for this disparity.

For example, students may expect they are given the *opportunity* to participate in all initiatives, but that does not necessarily mean they will participate. Or, their expectation may not be aligned with their reality once the semester begins, and they may find they do not have the time to truly engage with the university in all aspects of engagement provided. Last, because these are generally adult learners, life (work, family, etc.) responsibilities may interfere with their education, regardless of engagement and commitment.

In regard to the results of research question four concerning a relationship between the frequency of engagement and retention, the inconsistency between literature and the data might be a result of those who are more engaged are only more engaged because they need more guidance or help. Although prior research may view these engagement initiatives as opportunity for involving the learner, the learner may see these as opportunities to reach out for needed assistance from the institution because of a lack of preparedness or understanding.

Finally, although the statistical analyses did not show a predictive relationship between degree of satisfaction and retention, a different way to look at the results would be to categorize the services in terms of ones the institution “pushes” out to students and

ones students “pull” from the university. Students may be more likely to be satisfied with services that they not only perceive they need, but that are responsive to them when they are requested. This happens to be the case with the provision of student services advisers and quick response time. Although dedicated student services advisers do push out information to students on a regular basis, it is generally the student who initiates contact with the student services provider when there is an immediate need for service (a question, a problem), with the expectation of a quick response. The other items listed (orientation, communications) are pushed to students from the university, versus being requested. It is therefore possible that this is the reason why those two variables had a positive relationship with retention (lower satisfaction = lower retention).

The following chapter will include implications of the results of the analyses displayed in chapter four and discussed in chapter five. Chapter six examines the implications on practice and future research in more detail and ends with a description of limitations of the study.

Chapter VI: Implications

The purpose of this study was to identify ways in which student services engagement efforts assist with distance learner persistence, as retention of adult distance learners is vital to any University that depends on this population for revenue and is therefore important for perpetuation of the institution. The study examined evidence of statistical significance as to whether currently used engagement practices performed by the University were effective, and/or how effective these practices are for engaging distance learners as it pertains to learner retention.

This chapter will include implications and recommendations for practice and future research. The chapter is organized first by implications and recommendations for practice, then closes with implications and recommendations for future research.

Implications and Recommendations for Practice

As it is concerned with current practice, these results are relevant to those who provide services to nontraditional adult distance learners, as well as administrators who oversee these services and practices. In general, although strongly supported by current literature, this study showed mixed results in regard to the affect of engagement on retention. In other words, in some instances, results were aligned with literature and previous research, and in other instances, results were disparate.

Results from research question one were aligned with current literature, which supports the use of engagement communications and initiatives that are clear, timely, and relevant to the institution's distance learner population. This has implications for practitioners, including student services advisers, as it supports the expectation for

communication and contact with distance learners by those who are in relevant positions to provide services. For example, student services advisers in departments or units that serve distance learners should start or continue to provide services that engage learners with the university. Services specifically discussed as expected in this study include timely communications regarding relevant policies and procedures and providing these services, and other individual responses to students, quickly. Even though student satisfaction with these variables was not necessarily predictive in regard to retention, providing students the opportunity to engage or participate is still important in maintaining student involvement with the university.

This has implications for administrators as well, as leaders might consider what broader initiatives are occurring for the larger population of distance learners, such as the provision of an online orientation and consistent student services advisement. As per the results, services such as these are an expectation of this institution's distance learners.

As an outcome of the research, it is recommended that institutions consider providing consistent student services, a uniform response time for student queries, an online orientation for new distance learners, and have a communication plan to ensure that relevant information is being provided in a clear and timely manner, as is expected by distance learners. Although this study does not explain why learners expect these services, or what other services they might expect, at minimum, results showed agreement that these services are expectations.

Results from research question two were mixed; while the descriptive statistics were aligned with literature, the results of the independent t-test were not. This may have implications for the level of predictability an institution can expect as a result of self-

reported commitment. Although learners may, in “normal” circumstances, perceive them to be committed to their education, as well as to the institution, but that may not hold influence over “other-than-normal” situations that may arise. For example, if a student feels entirely committed today, and holding all other life situations constant, this might result in predictive retention. However, despite a student’s current commitment, a change in life events, such as divorce, marriage, or death, to name a few, may disrupt the student to the point of attrition. In other words, the student may feel he or she needs to drop out in order to focus on the event at hand.

As a result of this descriptive data, it is recommended that institutions continue to encourage learner self-reported commitment by fostering the individual characteristics of self-direction, self-efficacy, and locus of control. The respondents were in strong agreement regarding self-reported commitment; the institution may want to foster these perceptions so that students are, at the very least, capable of holding a strong self-perception to commitment in normal situations. In this way, if an other-than-normal life event occurs, having a high level of each of these characteristics may help the student overcome the difficulties posed.

Whether there is a way to increase a student’s commitment to the specific university was not a part of this study; however, given the statistical significance of the difference in means between commitment and those who were retained and those who were not for this particular statement, there may be further implications for the university to consider, as students who are not committed to the university may be more likely to transfer out of the university.

Results of question three showed no significant relationship between the type of engagement and retention. This has implications for practitioners in that these results may suggest that providing a number of different initiatives is not important for retention. However, it has yet to be proven whether, long-term, having a variety of initiatives may actually be conducive to retention.

As an outcome of this research, until more data can be collected and analyzed long-term, it is recommended that, in the interim, institutions continue to provide varying means of engagement to its distance learners, as literature has proven that, individually, these engagement activities have a relationship with retention, despite the study's results to the contrary. The university should consider, as well, that adult students may have preferences as to which type of initiatives are most valued; as such, it is important to ensure these initiatives are continued, so that the opportunity to engage is still present.

Results of question four regarding frequency of participation in engagement initiatives showed to be statistically significant, but have a negative relationship, with retention. Taken without context, this indicates that the more a student is given engagement initiatives from the university, the less likely the student is to persist.

Although the study's result implies that the more engaged the learner is with the initiatives provided, the lower the probability of retention, this may not be due to the engagement, per se; it may be a result of students who engage more frequently need more assistance or information, and may not be as self-sufficient as others.

As such, it has implications for practitioners as it supports the need to provide multiple opportunities for learners to engage with the university and its staff, as students who need help may not speak up, or may only speak up when prompted to do so. It is

further recommended that institutions continue to provide a variety of engagement activities throughout the semester and within the student's life cycle at the institution, in order to give them the opportunity to engage with the institution, but ensure the information is clear, timely, and relevant.

Results of question five showed only one variable to be significant – the satisfaction of the student with the provided dedicated student services adviser. However, despite the lack of statistical significance, data from the first research question results regarding expectations of these identical engagement initiatives show that expectations from the learner are present, and in order to fully meet those expectations, the institution needs to provide the service when it is needed. Therefore, it does not seem practical to stop providing services simply because of a lack of significance in a single study; making that conclusion is possibly shortsighted.

The results of the study notwithstanding, there are definite implications for practice if the university stops providing these services because there is not presently a relationship with retention. Despite the results, practitioners should be intentional about the quality of services and engagement they provide to distance learners, as it may be that a *lack* of satisfaction in services has a greater affect on retention than a high level of satisfaction. In other words, the absence of the service and satisfaction may result in a higher incidence of attrition.

For example, providing an expected service might be an assumption of the learner, and therefore, providing this service, with the resultant high level of satisfaction, may be an expectation. As such, it is not recognized and identified in the same way as a lack of the service, or providing poor services with the resultant low level of satisfaction,

is. Until the institution has enough significant data to support a discontinuation of services, continuing the services would seem to be more farsighted and success-oriented.

Implications and Recommendations for Future Research

The primary implication this study has for current and future research is that it did not fully align with what research has, in the past, proven: engagement has a relationship to retention. As a result of this lack of alignment with past research, there are implications for future research to investigate further into studying engagement practices and the retention of distance learners.

However, it should also be stated by literature and in practice that retention and engagement are both very context-dependent. For example, the measure of retention can vary from institution to institution and population to population. Additionally, the provision of engagement, also, can change from institution to institution or semester to semester. Although engagement and retention were not shown to have a strong relationship in this study, the implication for future research, in the broad sense, is to continue to test the current research questions with additional data before determining that no relationship exists.

More specifically, future research may include an analysis of expectation and satisfaction over a longer period of time, or for a more specific (or broad) population. This is difficult to ascertain, however, because populations change as new students start programs, and current students leave or graduate. The population, therefore, is dynamic in nature, and as such, those who research this population may have a difficult time identifying exactly how engagement is important to retention. Collecting data over a

longer period of time, and therefore, over varying populations, may result in trends that are not easily or readily identified in the short-term.

It is recommended that self-reported commitment be also measured consistently over a longer period of time. In addition to this, future research should also include qualitative data on self-reported reasons for leaving (graduating, withdrawing, stopping out). Adding a qualitative component in future research may help institutions identify patterns in reasons for attrition, which may assist with determining how much of their student attrition is “normal” and will not be affected by the institutional initiatives, versus how much of their attrition is preventable, and could be affected by institutional engagement initiatives.

For the purposes of future research, it is further recommended that frequency of participation be monitored for significance. Students may easily be overwhelmed by too many opportunities to engage, and as a result, retention may decrease as students are inundated with engagement that is not clear, timely, or most importantly, relevant. As new initiatives are provided, the institution should continue to research and assess whether the engagement has a positive affect or is otherwise redundant. Future research may also include a qualitative aspect, in an attempt to determine why frequency might have a negative relationship with subsequent retention. It is possible that “frequent engagement” might not have the same meaning or affect for nontraditional students than traditional students.

Last, as it relates to future research regarding learner satisfaction, despite the absence of statistical significance, as stated earlier in implications for practice, it may be that a *lack* of satisfaction in services has a greater affect on retention than a high level of

satisfaction. In other words, a lack of service and satisfaction may be more predictive for attrition and retention than consistent service and high satisfaction. Future research may want to address this by considering the ways in which to measure the value of the services provided, as expectation does not seem to accurately measure this. Adding a qualitative component could assist with finding out why these services are expected, but providing them does not result in increased persistence and retention.

Limitations

Being that each investigation has its own unique limitations, this particular investigation operated with the following limitations.

Population

This data used in this study was gathered over two semesters, which assessed the responses from a limited number of distance learners at this institution over a limited time frame. The instrument used to collect learner perceptions was sent to only those who are in distance programs; furthermore, participation in the survey was voluntary. Therefore, there was a lack of random sampling of participants. The perceptions of those learners who decided to participate may not necessarily represent the perceptions of those who chose not to participate.

This study was also limited to a single mid-sized, public university in the Midwest. The composition and disposition of its learners may vary from distance learners at other institutions, even those with similar offerings. This limits the generalizability of these research findings to other institutions.

Last, although the literature defines nontraditional as being over 25 years of age, the population at this university includes students enrolled in online and distance

programs who are as young as 20. Although age in and of itself does not define “nontraditional,” it is one factor that is considered.

Instrumentation

The instrument contained only engagement and support services that are specific to the institution and offered to distance learners at that point in time. Other possible engagement and support efforts were not included nor measured with this instrument; therefore static data regarding other initiatives is not available.

This instrument captured only quantitative data; the results of this data can only answer the “what” of this study; it cannot address the “why.” As such, it was difficult to make research-based recommendations based only on the results of the study. This was particularly difficult after reviewing the literature and previous research that supported engagement as it pertains to retention and student success.

Methodology

The methods that were used to collect static data were limited to a single day of data capture each semester, which is the standard operating procedure of the institution. The usage of this data ensures consistency from one semester to the next, but it represents the description of one particular day in time: a single day in the given semester.

The reason this is a stated limitation is that although a majority of distance learners are registered by any given day of the semester, there are courses that start throughout the entire semester, and as such, registration continues into the semester. There may be a number of additional students who were not registered on the day the data was pulled, but who might yet intend on registering later into the semester. Perceptions from those students would not have been collected for this study.

Additionally, if the student registered late, he or she would not have been counted as retained into the subsequent term.

Final Reflections

This study was performed as a result of the desire of the department to understand its learners and their expectations, as well as attempt to identify if their engagement initiatives have a positive relationship with retention. However, the results are limited to the institutions and its learners at this point in time. Future research may represent different findings based on the respondent sample. When attempting to review literature, Theory, and past research and practice, and align them with current practice, it is apparent that although all of these resources can help to inform practice, context seems to play a significant role and should be taken into consideration when making decisions regarding this population.

In other words, although this research attempted to explain the “what,” in order to gain a complete picture of this population’s needs and expectations, as well as relationship between engagement and retention, future research should strive to address the “why.” There are a number of resultant unknowns, and including a qualitative component in the future might help address these unknowns so that current and future practice can better be defined to be effective for retention.

References

- Allen, I.E. & Seaman, J. (2013). Changing course: Ten years of tracking online education in the United States. Retrieved from:
http://sloanconsortium.org/publications/survey/changing_course_2012
- Allen, I.E. & Seaman, J. (2014). Grade change: Tracking online education in the United States. Retrieved from: <http://sloanconsortium.org/publications/survey/grade-change-2013>
- Aragon, S. & Johnson, E. (2008). Factors influencing completion and noncompletion of community college online courses. *American Journal of Distance Education*, 22(3), 146-158.
- Ashby, A. (2004). Monitoring student retention in the Open University: Definition, measurement, interpretation and action. *Open Learning*, 19(1), 65-77.
- Aslanian, C. & Clinefelter, D. (2013). Online college students 2013: Comprehensive data on demands and preferences. Louisville, KY: The Learning House, Inc.
- Banas, E. & Emory, W. (1998). History and issues of distance learning. *Public Administration Quarterly*, 22(3), 365-383.
- Barefoot, B. (2004). Higher education's revolving door: Confronting the problem of student drop out in US colleges and universities. *Open Learning*, 19(1), 9-18.
- Baum, S., Ma, J., & Payea, K. (2013). *Education pays 2013: The benefits of higher education for individuals and society*. New York: The College Board.
- Boyle, F., Kwon, J., Ross, C. & Simpson, O. (2010). Student-student mentoring for retention and engagement in distance education. *Open Learning*, 25(2), 115-130.

- Braxton, J., Doyle, W., Hartley III, H., Hirschy, A., Jones, W., & McLendon, M (2014). *Rethinking College Student Retention*. San Francisco: Jossey-Bass.
- Brewer, S. & Yucedag-Ozcan, A. (2013). Educational persistence: Self-efficacy and topics in a college orientation course. *Journal of College Student Retention, 14*(4), 451-465.
- Brown, J. (2004). Marketing and retention strategies for adult degree programs. *New Directions for Adult and Continuing Education, 103*, 51-60.
- Bunn, J. (2004). Student persistence in a LIS distance education program. *Australian Academic Research Libraries, 35*(3), 253-270.
- Cabrera, A. F. (1994). Logistic regression analysis in higher education: An applied perspective. In John C. Smart (ed.), *Higher Education: Handbook of Theory and Research* (225-256). Volume 10. New York: Agathon Press.
- Chu, R. & Tsai, C. (2009). Self-directed learning readiness, Internet self-efficacy and preferences towards constructivist Internet-based learning environments among higher-aged adults. *Journal of Computer Assisted Learning, 25*, 489–501
- Clay, M., Rowland, S., & Packard, A. (2008-2009). Improving undergraduate online retention through gated advisement and redundant communication. *Journal of College Student Retention, 10*(1), 93-102.
- Dynan, L., Cate, T. & Rhee, K. (2008). The impact of learning structure on students' readiness for self-directed learning. *Journal of Education for Business, 84*(2), 96-100.
- Education Advisory Board, The. (2011). *Measuring and improving online student retention*. Washington, DC: Author.

- Eduventures, Inc. (2012). *The adult higher education consumer 2012: Which way now?*
Boston, MA: Author.
- Fain, P. (2012a). Accreditor will require colleges to stop ignoring adult student retention.
Inside Higher Ed. Retrieved from:
www.insidehighered.com/news/2012/07/11/accreditor-will-require-colleges-stop-ignoring-adult-student-retention
- Fain, P. (2012b). College credit without college. *Inside Higher Ed*. Retrieved from:
<http://www.insidehighered.com/news/2012/05/07/prior-learning-assessment-catches-quietly>
- Flegle, L. (2009). The instructor's role in retention: Teaching students to stay in school.
Retrieved from <http://voices.merlot.org/forum/topics/the-instructors-role-in>
- Frankel, J.R., Wallen, N.E., & Hyn, H.H. (2015). *How to design and evaluate research in education*. Ninth Edition.
- Gilardi, S. & Guglielmetti, C. (2011). University life of nontraditional students:
Engagement styles and impact on attrition. *The Journal of Higher Education*,
82(1), 33-53.
- Hagedorn, L. (2005) How to define retention. In A. Seidman (Ed.), *College Student Retention: Formula for Student Success*, American Council on Education, Westport, CT.
- Harrell II, I. & Bower, B. (2011): Student characteristics that predict persistence in community college online courses. *American Journal of Distance Education*, 25(3), 178-191.

- Hart, C. (2012). Factors associated with student persistence in an online program of study: A review of the literature. *Journal of Interactive Online Learning, 11*(1), 19-42.
- Hoy, C. (2004). Situating the adult learner in the online classroom. *Theory, Research, Education, and Training, 158-161*.
- Hsu, Y. & Shiue, Y. (2005). The effect of self-directed learning readiness on achievement comparing face-to-face and two-way distance learning instruction. *International Journal of Instructional Media, 32*(2), 143-156.
- Huett, J., Kalinowski, K., Moller, L., & Huett, K. (2008). Improving the motivation and retention of online students through the use of ARCS-based e-mails. *The American Journal of Distance Education, 22*(3), 159-176.
- Kemp, W. (2002). Persistence of adult learners in distance education. *American Journal of Distance Education, 16*(2), 65-81.
- Kenner, C. & Weinerman, J. (2011). Adult learning theory: Applications to non-traditional college students. *Journal of College Reading and Learning, 42*(2), 87-96.
- Knowles, M., Swanson, R., & Holton, E. (2011). *Adult learner: The definitive classic in adult education and human resource development* (7 ed). Saint Louis, MO: Routledge.
- Lumina Foundation. (2012). Strategic Plan 2013-2016. Retrieved from: http://www.luminafoundation.org/advantage/document/goal_2025/2013-Lumina_Strategic_Plan.pdf

- Merriam, S. (2001). Andragogy and self-directed learning: Pillars of adult learning theory. *New Directions for Adult and Continuing Education*, 2001(89), 3-14.
- Monroe, A. (2006). Non-traditional transfer student attrition. *The Community College Enterprise*, 12(2), 33-54.
- Morris, L, Wu, S., & Finnegan, C. (2005). Predicting Retention in Online General Education Courses. *American Journal of Distance Education*, 19(1), 23-36
- NACADA. (2005). NACADA statement of core values of academic advising. Retrieved from the *NACADA Clearinghouse of Academic Advising Resources* Web site: <http://www.nacada.ksu.edu/Resources/Clearinghouse/View-Articles/Core-values-of-academic-advising.aspx>
- Nash, R. (2005, Winter). Course completion rates among distance learners: Identifying possible methods to improve retention. *Online Journal of Distance Learning Administration*, 8(4), 1-27.
- Nichols, M. (2010). Student perceptions of support services and the influence of targeted interventions on retention in distance education. *Distance Education*, 31(1), 93-113.
- O’Keeffe, P. (2013). A sense of belonging: Improving student retention. *College Student Journal*, 47(4), 605-613.
- Park, J-H. & Choi, H. J. (2009). Factors influencing adult learners' decision to drop out or persist in online learning. *Educational Technology & Society*, 12(4), 207–217.
- Pusser, B., Breneman, D., Gansneder, B., Kohl, K., Levin, J., Milam, J., & Turner, S. (2007, March). Returning to Learning: Adults’ Success in College is Key to America’s Future. Indianapolis, IN: Lumina Foundation for Education, Inc.

- Radwan, R. & Leeds, E. (2009) The impact of face-to-face orientation on online retention: A pilot study. *Online Journal of Distance Learning Administration*. Retrieved from: <http://www.westga.edu/~distance/ojdla/winter124/ali124.html>
- Rovai, A. (2002). In search of higher persistence rates in distance education online programs. *Internet and Higher Education*, 6(1), 1-16.
- Rovai, A. & Downey, J. (2010). Why some distance education programs fail while others succeed in a global environment. *Internet and Higher Education*, 13, 141-147.
- Simpson, O. (2004). The impact on retention of interventions to support distance learning students. *Open Learning*, 19(1), 79-95.
- SmarterMeasure. (2014). Retrieved August 16, 2014 from the SmarterMeasure website: <http://www.smartermeasure.com/>
- Stanford-Bowers, D. (2008, March). Persistence in online classes: A study of perceptions among community college stakeholders. *MERLOT Journal of Online Learning and Teaching*, 4(1), 1-10.
- Tinto, V. (2006-2007). Research and practice of student retention: What next? *Journal of College Student Retention: Research, Theory, and Practice*, 8(1), 1-19.
- Tinto, V. (2010). From theory to action: Exploring the institutional conditions for student retention. In J. C. Smart (ed.), *Higher Education Handbook of Theory and Research*, 25 (51-89). Chicago: Springer Netherlands.
- Tinto, V. (2012). *Completing college: Rethinking institutional action*. Chicago: The University of Chicago Press.

- UPCEA (2012). Measuring nontraditional student success: An imperative for college and universities. Retrieved from: <http://www.insidetrack.com/outsideresearch/upcea-research-1/>
- Wojciechowski, A. & Palmer, L. (2005, Summer). Individual student characteristics: Can any be predictors of success in online classes? *Online Journal of Distance Learning Administration*, 8(2), 1-21.
- Wyatt, L. (2011). Nontraditional student engagement: Increasing adult student success and retention. *The Journal of Continuing Higher Education*, 59(1), 10-20.
- Yukselturk, E. & Bulut, S. (2007). Predictors of student success in an online course. *Educational Technology & Society*, 10(2), 71-83.
- Zirkle, C. (2003). Distance education and career and technical education: A review of the research literature. *Journal of Vocational Education Research*, 28(2), 161-181..

Appendix A: Pre-Survey Questions

To what level do you agree with the following statements:

	Strongly Agree	Agree	Disagree	Strongly Disagree
I am determined to finish my program, regardless of obstacles.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is not important for me to graduate from this university.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am confident I made the right decision to attend this university.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I plan on enrolling in the winter or spring semester(s).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to your expectation of for the following statements.

The University should...

	Expectation			
	Strongly Disagree	Disagree	Agree	Strongly Agree
Provide an orientation to online students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provide dedicated student services for distance learners (financial aid, advisement, library, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clearly communicate policies and procedures relevant to distance learners (drop, refunds, complaint process, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to your expectation of for the following statements.

My Student Services Adviser should...

	Expectation			
	Strongly Disagree	Disagree	Agree	Strongly Agree
Provide timely and relevant communications to me as an online student	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Respond quickly when I request information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix B: Post-Survey Questions

To what level were you satisfied with the services provided for you this fall semester by the University?

	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Not Applicable
The online orientation for online students (Introduction to Distance Learning @UW-Stout – for new students)	<input type="radio"/>				
The dedicated student services provided to distance learners (financial aid, advisement, library, etc.)	<input type="radio"/>				
Clear communication of policies and procedures relevant to distance learners provided (drop, refunds, complaint process, etc)	<input type="radio"/>				

To what level were you satisfied with the services provided for you this fall semester by your student services adviser?

	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Not Applicable
Timely and relevant communications were provided to me as an online student	<input type="radio"/>				
Quick response when I requested information	<input type="radio"/>				