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A Comparative Analysis of Student Survey Results from Non-Traditional University Students

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A COMPARATIVE ANALYSIS OF STUDENT SURVEY RESULTS FROM
NON-TRADITIONAL UNIVERSITY STUDENTS

by

Cheryl L. Betz

Dissertation

Submitted to the Faculty of

Olivet Nazarene University

School of Graduate and Continuing Studies

in Partial Fulfillment of the Requirements for

The Degree of

Doctor of Education

in

Ethical Leadership

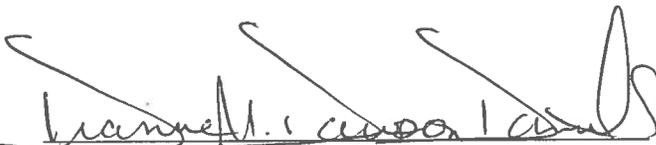
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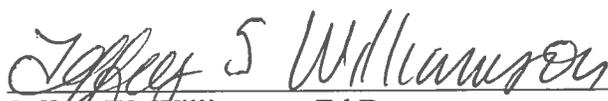
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Dissertation



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An endeavor such as this is never accomplished alone and so it is important to acknowledge the love, support, and dedication given to me during this journey. I tend to think of the people in my life as a series of families. My biological, work, school, and chosen family networks all contributed to the success of this doctoral program.

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DEDICATION

This research is dedicated to the non-traditional students who believed in themselves enough to keep pursuing their education. Never give up, even when there are countless obstacles in your way and valid reasons to give up.

To Erich, who never gives up even though he faces countless obstacles daily. You are an inspiration. To Sophie, who has surprised me from the beginning of her life. You will continue to exceed expectations as you grow into a beautiful lady. Erich and Sophie, you can do things outside of your known capacity, just trust God. To Steve, who sacrificed his own success in order for me to flourish. You are a true servant leader.

ABSTRACT

This study addressed the student support service needs of non-traditional undergraduate students at University D. An analysis of student satisfaction survey results from 2012 – 2014 allowed for a longitudinal comparison of the data for commonalities and potential relationships. The results indicated that importance ratings did not vary greatly from year-to-year, while satisfaction ratings variation ranged from .05 to .89. Further, the relationship between importance and satisfaction ratings were deemed positive and statistically significant but the relationships were found to be mainly moderate or weak. Cronbach's α was not obtained beyond the level recommended of .70 or above in order to establish an adequate level of internal consistency.

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CHAPTER I

INTRODUCTION

This study focused on the importance and satisfaction ratings of support services from a series of survey responses from non-traditional students collected over a three-year period. Through analysis of archival data, this study attempted to detect commonalities in the responses between years. Within this chapter, the framework for the study is established by identifying the problem, exploring the purpose of the research and providing a preliminary review of the literature. In addition, this chapter contains the research questions that guided the process by which the study was accomplished.

The evolution of higher education has been studied for many years. Research efforts and theories have primarily focused on the traditional college student who graduated from high school, began college the following academic year and persisted on to graduation within a reasonable timeframe (Pascarella & Terenzini, 1991). As early as the 1960s, researchers began studying an emerging student population classified, at the time, as adult students (Astin, 1976). Over the past 50 years, this population of students has been described using many different terms, such as, adult student (Astin), transfer-in student (National Center for Education Statistics, 2014), and nontraditional student (Horn & Carroll, 1996). This research study utilized the term non-traditional student as defined by the institution where this research study was conducted. This institution described non-traditional students as working adults enrolled in courses at one of its off-campus centers that were closely aligned to the definition described by Horn and Carroll. Horn

and Carroll's definition of a non-traditional student included students who possessed at least one of the following attributes, delayed college enrollment, attended college part-time, classified as financially independent, employed full-time while attending college, responsible for dependents other than a spouse, or was considered a single parent.

The amount of research about the non-traditional student population has increased in recent history, but there is still much to be learned about this growing population of students. The National Student Clearinghouse Research Center (2013) has indicated that student populations such as the transfer student population are, "an important area for new research" (p. 9) by those who want to better understand and serve this growing segment in higher education.

Several organizations, both for-profit and non-profit, have studied the non-traditional student population and published their research findings allowing colleges and universities serving this population the opportunity to better understand the wants and needs of non-traditional students. One such organization, Noel-Levitz, has conducted a variety of research projects about college and university students, including studies related to non-traditional students. Noel-Levitz (2013b) suggested that in order for institutions of higher education (IHE) to understand this subpopulation of students, the variables associated with student satisfaction and motivation should be "carefully quantified and monitored [in order to] guide and focus successful interventions that form pathways to student success" (p. 10).

Surveys conducted on a large national scale yield results that can be utilized to gauge what the student satisfaction climate was at the time the survey was conducted. Findings from national surveys, while useful for understanding the macro educational

climate, may not provide statistical data that IHEs need in order to make improvements to their institutions.

Third party information is valuable for assessing national trends; however, IHEs concerned about their own institutional effectiveness in serving non-traditional students may choose to conduct their own research. In addition, IHEs should conduct longitudinal studies gauging multiple variables affecting student satisfaction with their educational experience as opposed to relying on the singular variable of overall student satisfaction levels (Elliott & Shin, 2002). By conducting a multi-variant study, researchers can potentially obtain data about individual attributes of a service or academic program affecting the students' satisfaction level.

University D, a small Midwestern University, conducted a multi-variant study examining the levels of importance and satisfaction with support services among its non-traditional student population. This research study analyzed student satisfaction survey results from annual surveys conducted over a three-year period beginning in 2012 through 2014. This research study sought to provide University D with a system for evaluating satisfaction survey results for improvements that could be applied to the evaluation of future survey results.

Statement of the Problem

In 2013, the National Center for Education Statistics (NCES) reported “in recent years, the percentage [increase] in the number of students age 25 and over has been larger than the percentage increase in the number of younger students” (U.S. Department of Education, 2013). NCES further reported that this trend was projected to continue through 2020 (U. S. Department of Education). Moody’s Investors Service announced in

2013 that institutions of higher education were poised to experience stressful market conditions in 2014 because of the national economic condition (Moody's Investors Service, 2013). These predictions by NCES and Moody's present a potential shift in how colleges and universities will operate in the future causing a potential shift in how colleges and universities serve their students, especially the growing population of non-traditional students.

Non-traditional students have different life demands than traditional students typically have (Deggs, 2011; Donaldson, Graham, Martindill, & Bradley, 2000; Forbus, Newbold, & Mehta, 2011). Coccari and Rayshekhar (1995) found evidence to support the idea that different types of students considered different factors when selecting a university. The research covering student differences in life demands and college selection criteria supports the need for additional research about what student support services non-traditional students deem important.

Colleges and universities often do not have separate student support services for non-traditional students (Samuels, Beach, & Palmer, 2011). This finding is surprising because non-traditional students have become an important part of colleges and universities efforts to reach populations outside of traditional and historical markets (Wardley, Belanger, & Leonard, 2013). If colleges and universities want to understand and serve the important needs of non-traditional students, then they should seek to understand the needs of their non-traditional students in order to improve support services that non-traditional students deem important.

The purpose of this research study was to analyze non-traditional students' level of satisfaction with services identified as important at University D, in order to make

recommendations about which support services could be improved. According to the 2012 Comprehensive Self-Study Higher Learning Commission report submitted by University D, the University enrolled a total of 2,262 undergraduate students in fall 2011 across all campuses (University D, 2012). Out of the 2,262 undergraduates enrolled in fall 2011, 1,271 were considered non-traditional students. With over half of their undergraduate population comprised of non-traditional students, University D took note of this student population and the service needs of these students.

The administrative division that oversees the non-traditional student population at University D began conducting student satisfaction surveys in 2012, continued in 2013 and again in the spring of 2014. University D utilized a private educational survey company, Company E, to conduct the survey and compile a final report for each year. By analyzing non-traditional student data collected over a three-year period, the researcher attempted to identify trends in the data collected in order to determine what services or programs the students deemed important and to what level the students were satisfied with the services and programs identified as important. Recommendations were made for improvements to the services and programs deemed important but received low satisfaction scores

Background

Since the 1970s, the NCES has tracked undergraduate student enrollment at IHEs in the United States (National Center for Education Statistics, 2011). These data have been further categorized by age of the student at the time of enrollment. Students aged 25 years or older, also called non-traditional students, have consistently reported increased enrollment numbers through 2010. The NCES has projected that enrollment trends for

non-traditional students will continue to rise through 2020 (National Center for Education Statistics). Many researchers have sought to better understand this population of students with research that has contributed to the greater body of knowledge pertaining to non-traditional students.

Non-traditional Student Attrition

Bean and Metzner (1985) offered a model of student attrition for non-traditional students. The Bean and Metzner model was based upon the research conducted by the research team and yielded support for the attrition model as well as differences in the attrition process for traditional and non-traditional students. The model explained that four sets of factors were primarily responsible for non-traditional student attrition. One of the factors deemed important in this model was student psychological outcomes. Within the psychological outcomes category, satisfaction levels were noted as one of the variables identified as having a direct effect on students enrollment decision making process.

Many student satisfaction studies have been conducted since Bean and Metzner's (1985) model was introduced. Student satisfaction studies have been performed taking into account a number of variables. Such studies about student satisfaction have served a variety of roles related to the higher education environment.

Student Expectations and Satisfaction Gaps

Through a student satisfaction survey, Hampton (1993) sought to determine if gaps existed between student expectations of a service and the student's satisfaction with the service they received from the university. The researcher surveyed students about their satisfaction with the quality of education, teaching, social life, campus facilities,

their own effort to pass courses, and student advising. Overall, Hampton's findings suggested that there was a statistically significant correlation between student perception gaps and the satisfaction levels of service quality.

Service expectation and satisfaction gaps were further examined by Ham and Hayduk (2003) as they sought to determine if rating gaps existed between student expectations and perception levels of service quality in a higher education setting. Ham and Hayduk determined that the students' perceptions of the quality of service they received had a statistically significant correlation to the customer satisfaction levels reported by the students. Additionally, the authors found that the students' previous experiences with the university and their education level influenced the students' perceptions of the quality of service they received.

Satisfaction Ratings and Loyalty

Nesset and Helgesen (2009) utilized existing service quality and management principles about customer satisfaction and loyalty from the business sector and applied this knowledge to the higher education industry. Interestingly, the researchers defined the students as the customers of higher education and in doing so sought to apply principles found in the business world related to customer service and the effects of customer loyalty. The researchers determined that a student's positive and negative feelings had an impact on satisfaction with the university. In addition, Nesset and Helgesen found that higher levels of satisfaction felt by students positively impacted student loyalty and their perception of the university. Later research by Bowden (2011) further supported Nesset and Helgesen's findings related to satisfaction ratings and loyalty. Bowden noted that

satisfaction had a statistically significant effect on the feelings of loyalty students had toward the university.

While some of the aforementioned research studies included non-traditional students within the research population, many surveyed multiple postsecondary populations. Applying the research findings from studies that included a number of different student populations can limit the effectiveness of a research study. Pascarella and Terenzini (1991) made the argument that findings from studies conducted about traditional students could not necessarily be directly applied to the non-traditional student population, supporting the need for future research about non-traditional students separate from traditional students.

Characteristics of Non-traditional Students

Within their model of non-traditional undergraduate student attrition, Bean and Metzner (1985) discussed non-traditional student characteristics that distinguished this group of students from other student classifications. Bean and Metzner suggested that non-traditional students have at least one of the following characteristics, aged 25 years or older, commute to campus, or are enrolled at part-time status.

Kasworm (2003) expanded on the definition of life circumstances reported by non-traditional students. Kasworm found that non-traditional students experienced a number of circumstances that traditional students did not have to contend with while completing a degree. Specifically, these circumstances included family demands from life partners and children, and balancing work demands, often times from full-time employment.

Kasworm also noted (2003) that four-year, private IHEs attracted non-traditional students through their adult focused degree programs and the format in which these programs were delivered. Kasworm recommended that “contemporary leaders” (p. 9) could welcome non-traditional students by creating an environment that is supportive of needs by this population. This statement by Kasworm could also help four-year, private IHEs, who are already meeting the degree needs of non-traditional students, with an area to focus future service and programming efforts on in order to continue attracting students.

Astin and Lee (1972) suggested that small, private, IHEs could remain financially stable by increasing enrollment but still holding onto the tenets that made their institutions attractive to students. Astin and Lee’s assertion along with Kasworm’s (2003) recommendation to IHE administrators serving non-traditional students, provided the basis for the research conducted on non-traditional student population in this study.

Research Questions

The purpose of this research was to analyze non-traditional students’ level of satisfaction with support services the students identified as important at University D, in order to make recommendations about which support services could improve. Student services provide support through several administrative functions performed by university personnel (Tait, 2000).

This study sought to address the following research questions:

1. What are the average importance ratings for the individual student support services rated each year the survey was performed?

2. What are the average satisfaction ratings for the individual student support services rated each year the survey was performed?
3. What is the relationship between the yearly survey importance and satisfaction ratings for the support services rated?

Ho: There is no relationship between the importance and satisfaction rating scores for the support services rated between years.

H₁: There is a relationship between the importance and satisfaction rating scores for the support services rated between years.

Description of Terms

Academic programs. A series of instructional programs designed intentionally for completion of a degree (National Center for Education Statistics, 2014).

Accelerated programs. A program designed to allow students to complete their studies in less time than the usual, or traditional, timeframe (National Center for Education Statistics, 2014).

Completer. A student who has completed the degree program and been awarded a degree (National Center for Education Statistics, 2014).

Distance education program. A degree program which allows the student to complete all necessary coursework to be completed through courses offered online (National Center for Education Statistics, 2014).

Four-year institution. An institution of higher education that offers degree programs at the bachelor degree level or higher that can typically be completed within four years (National Center for Education Statistics, 2014).

Higher Learning Commission – North Central Association of Colleges and Schools (HLC-NCA). HLC-NCA is an independent accreditation body, one of six regional accreditation bodies within the United States and recognized by the U.S. Department of Education. The HLC grants institutions of higher education the ability to grant accredited degrees (Higher Learning Commission, 2013a).

Institution of higher education (IHE). An institution offering degree programs and is accredited by an accreditation, like the HLC-NCA, body recognized by the U.S. Department of Education (National Center for Education Statistics, 2014).

Integrated Postsecondary Education Data System (IPEDS). IPEDS is part of the National Center for Education Statistics responsible for collecting data annually from IHEs (National Center for Education Statistics, 2014).

Non-traditional student. A student attempting to complete a postsecondary degree who possesses one or more of the following characteristics, delayed enrollment into college, enrolled as a part-time student, considered financially independent, worked full-time while enrolled in college, responsible for dependents other than a spouse, or was a single parent while enrolled in college (Horn & Carroll, 1996).

National Center for Education Statistics (NCES). NCES is responsible for collecting and analyzing statistical data for the U.S. Department of Education (National Center for Education Statistics, 2014).

Off-campus center. A campus or site located away from the main campus of an institution offering courses or programs equal to those offered at the main campus (National Center for Education Statistics, 2014).

Student support services. A series of services designed to provide support through several administrative functions performed by university personnel (Tait, 2000).

Transfer-in student. A student who has transferred college credit from one institution to another (National Center for Education Statistics, 2014).

Two-year institution. An IHE offering programs or degree offerings that typically takes two years to complete (National Center for Education Statistics, 2014).

Significance of the Study

This study was significant because the information gathered through analysis provided University D with areas to improve within its student support services. The study further provided University D with a methodology for tracking satisfaction and importance rating trends from future survey results. Resulting information from this study provided University D with areas that were recognized as development opportunities for the University's administrative leaders to consider investing funding toward the identified areas of importance that need improvement.

The administrative leaders and board of trustee members of University D benefited from the deeper analysis of the data presented in this research study by providing additional information that will help University stakeholders make informed decisions about the support services used by its non-traditional students. Student satisfaction is an area that should be a concern for IHE administrators. If satisfaction ratings are not addressed, it could impact retention rates and application rates (Galloway & Wearn, 1998).

The study also provided University D's frontline support service practitioners, working with non-traditional students, a better understanding of what the needs are of this

student population. Academic advisors are considered one of the support service groups assisting non-traditional students at University D. Academic advisors play an important role in retaining students through to completion. Connections between academic advisors and students could influence a student's decision to remain enrolled (Coll & Zalaquett, 2008). The knowledge gained through this research study could impact the training and customer service policies guiding frontline support service personnel.

Finally, the non-traditional students enrolled at University D will benefit if the University chooses to make improvements to its student support services deemed important by its students. Educational accreditation bodies, such as the Higher Learning Commission (HLC), have criterion that must be met by institutions who wish to remain accredited. The Higher Learning Commission (2013b) required that accredited institutions have faculty and staff in place in order to offer high-quality programs and student services to all of its students.

Process to Accomplish

This study utilized previously collected survey data from University D's non-traditional student population in 2012, 2013, and 2014. University D worked with a private company to help create and administer the survey each year to University D's students. This company distributed the surveys electronically to students along with periodic reminders to complete the survey until an adequate sample of the population was obtained. Raw data and the final analysis report for each annual survey was provided to University D. Permission to use the data for this study was granted from University D's survey coordinator, dean of the division serving non-traditional students, and the vice

president of academic affairs. Additional approvals and permissions were obtained from Institutional Review Boards prior to completion of this research study.

Measures

A survey instrument was used to gather data from the non-traditional students at University D. The survey collected student demographic information, student satisfaction and importance levels with University D's support services. Students were asked to complete the satisfaction and importance sections using a Likert rating system for each of the support services measured. 1 = Very Satisfied/Important and 5 = Not at all Satisfied/Important. This scale assumed equal intervals.

The survey administered in 2012, 2013 and 2014 assessed a variety of student support services. Each year, the survey measured the levels of satisfaction and importance for the same student support services. The student support services rated included, academic advising, staff, cost/financial aid, library services, technology support, tutoring, admissions, registration, career services, and book store services.

The survey was created through collaboration between the private company, Eduventures, and University D. The company specialized in survey creation, and through their expertise, face validity of the survey was established. University D piloted the study by distributing the original survey in 2012 to its current employees who served non-traditional students.

The surveys were distributed to the entire population of University D's non-traditional student population. A Cronbach's Alpha analysis was conducted to establish reliability of the University D survey.

Tavakol and Dennick (2011) recommended using Cronbach's Alpha as a more practical way to establish reliability for multi-item measures as compared to other tests of reliability such as test-retest. Cronbach's Alpha provides, "a measure of the internal consistency of a test or scale" (p. 53). Tavakol and Dennick stated that an acceptable value for alpha ranged from 0.70 to 0.95. The surveys Cronbach's Alpha reliability results for the 2012 survey averaged 0.871 (A. Southard, personal communication, April 25, 2014). The Cronbach's Alpha scores fall in the acceptable range as defined by Tavakol and Dennick.

A complete list of validity measures and scores were requested but were not made available at the time of this report. Additional validity measures on the annual surveys because the original purpose of the University D survey project did not require separate validity testing based on University D's research purposes (A. Southard, personal communication, April 25, 2014). University D utilized the same survey created in 2012 for 2013 and 2014 with the purpose of looking at the satisfaction ratings for each individual year and not between years.

Population

The population studied for this research consisted of the entire non-traditional student population at University D. Satisfaction surveys were distributed to the non-traditional undergraduate students enrolled in the professional studies program at University D in 2012, 2013, and 2014. During the time in which the surveys were conducted, University D's non-traditional student program consisted of six bachelor degree completion campuses, off campus programs for theological studies, and an online campus which served students from over 30 states.

Sample

The sample studied for this research consisted of the non-traditional students who responded to the satisfaction survey distributed in 2012, 2013, and 2014. University D choose to survey their entire population of non-traditional students, making it unnecessary to select a sample of the students to receive the survey. Random sampling procedures were not completed.

Each year the surveys were distributed using only one modality, email. Distributing the survey electronically could have affected the response rates. All University D students have an email address provided to them with the opportunity to forward email messages sent to the University D account to an alternate email address. Those who did not check electronic messages regularly may not have completed the survey.

Question 1. What are the average importance ratings for the individual student support services rated each year the survey was performed?

Question 2. What are the average satisfaction ratings for the individual student support services rated each year the survey was performed?

Questions 1 and 2 were primarily concerned with creating a set of descriptive statistics for each student support service. The average score, or mean, for importance and satisfaction of each student support service were calculated. These longitudinal data provided University D with a basic understanding of the importance and satisfaction ratings separately (Question 1 = importance, Question 2 = satisfaction) for each year and each service. These questions fit within the scope of this research study in that one of the goals of this project was to provide University D with an easy to understand and

repeatable process for these type of descriptive data in future years enabling them to conduct future longitudinal comparisons of the importance and satisfaction ratings for the student support services. Independent and dependent variables were unnecessary for the calculation of the average, or mean, of each importance and satisfaction score. The data collected from Question 1 and Question 2 acted as guideposts for the information from Question 3 where the correlations between importance and satisfaction were tested.

An extraneous variable that could have impacted these research questions was the level of interaction the students had with each of the support services being rated. The survey instrument did not ask students to report the level at which they interacted with, or how they interacted, with the support services that they were being asked to rate importance and satisfaction. For example, some students utilized the services provided by the Financial Aid Office more than others. Another extraneous variable present in this research study was the fact that students could have completed the survey more than once across years due to being enrolled in courses over multiple years.

Question 3. What is the relationship between the yearly survey importance and satisfaction ratings for the support services rated?

Ho: There is no relationship between the importance and satisfaction rating scores for the support services rated between years.

H₁: There is a relationship between the importance and satisfaction rating scores for the support services rated between years.

There were two variables for this research question, the level of importance and the level of satisfaction the students rated for the support services. The students' level of interaction with the support services and access to take the survey over multiple years

were the same extraneous variables as stated for Research Questions 1, and 2. A Pearson-Product Moment correlation analysis was performed to determine if a significant correlation existed between variables.

Summary

The analyses conducted in this research study expanded on the previous studies completed by University D in several areas. First, the analyses utilized in this study used the previously collected student satisfaction data over a three-year time period in order to expand the understanding of University D's non-traditional student population. Secondly, the raw data were provided by a private company allowing for more in-depth analyses of the variables. Prior to this research study, University D only had access to the final report summarized the survey findings. And finally, the research study included recommendations to University D about ways in which improvements could be made to increase satisfaction in the areas students identified as important but had consistent low satisfaction ratings. The remaining chapters of this study examine the literature related to non-traditional students, the methodology of the research study, as well as review and discussion of the findings.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

This literature review focuses on a number of areas regarding non-traditional students. To begin, an examination of the term non-traditional student and a brief history of this population within Institutions of Higher Education (IHE) will be explored. Secondly, a synopsis of private IHEs is provided to establish context as to how University D fits into the non-traditional market place. Next, a number of national student satisfaction index instruments and their results will be explored in order to offer insights into recent trends related to student satisfaction and non-traditional learners. To conclude, related student support service studies and theories will be evaluated for their relevance to the non-traditional student population.

Definition and History of the Non-traditional Student Population

The term non-traditional student is closely associated with several other terms that have been used almost interchangeably throughout the history of this population. Terms like adult learners (Council for Adult Experiential Learning, 2005; Sadler, 1982), adult students (Astin, 1976), and older students (Hughes, 1983; Terrell, 1990) focused on the age of the student as the main defining characteristic that differentiated the non-traditional and traditional student populations. The assertion that age could be used as the main defining factor between traditional, ages 18 to 24, and non-traditional, ages 25 and

older, was one of the conclusions posited by Bean and Metzner's (1985) conceptual model of non-traditional students.

Hughes' (1983) research further explained there were three distinct themes that made up key differences between the non-traditional and traditional student populations. These themes included the number of commitments the students had outside of college, the amount of focus or importance placed on the campus experience, and the types of learning that influenced each of these populations. Hughes' themes pointed out that there were other factors besides age which impacted how a student should be categorized as a traditional or non-traditional student.

The research conducted by Horn and Carroll in 1996 examined the enrollment, re-enrollment and degree obtainment of college students in the mid-1980s through the early 1990s. They used a series of characteristics to define the non-traditional student population. Horn and Carroll defined non-traditional students as those who had at least one of the following characteristics, "delayed enrollment into postsecondary education, attended part time, financially independent, worked full time while enrolled, had dependents other than a spouse, was a single parent, or did not obtain a standard high school diploma" (p. 5).

Horn and Carroll (1996) utilized a more expansive definition of non-traditional student in order to better identify possible factors that could impact a student's attrition within their degree program and ultimately impact whether or not the degree would be attained at all. The non-traditional student population definition articulated by Horn and Carroll has been utilized in part by the National Center for Education Statistics (2002) to define the non-traditional student population as early as the 2000s. Horn and Carroll's definition of non-traditional students provides the level of detail in student characteristics

and use, within a national organization, that provide this study with an appropriate definition to coincide with the non-traditional student population at University D.

Characteristics of Non-traditional Students

Non-traditional students carry with them certain commonalities that have evolved through the decades since the return of the servicemen in World War II. Rose (1994) described the atmosphere surrounding the return of the World War II veterans between 1944 through 1956. IHEs were not prepared for the influx of veterans who returned from war and enrolled in college using the G.I. Bill to complete their education in the years following World War II. According to the U.S. Department of Veterans Affairs (2014) the Servicemen's Readjustment Act of 1944, more commonly known as the G.I. Bill, provided returning soldiers with education benefits allowing them to become college educated. Three years after the G.I. Bill was enacted, veterans made up 49% of the college admissions within the U.S. (U.S. Department of Veterans Affairs).

Rose (1994) described an education environment experienced by the veterans similar to the environment described over the decades that non-traditional students face. Rose found that IHEs did try to accommodate the needs of returning veterans who shared several of the characteristics of non-traditional students as described by Horn and Carroll (1996) but the services evolved as the populations' needs evolved. Some of the accommodations included the need for different counseling and career services, as well as a new way to award college credit for previous life or military experience.

Contemporary studies reflect the need for IHEs to continue making accommodations in support service areas in order to meet and satisfy the needs of the non-traditional student population (Lundberg, McIntire, & Creasman, 2008; Miller & Lu, 2003; Samuels, et al, 2011). Returning veterans can be seen as the starting point when IHEs recognized the

needs of non-traditional students, but this was just the beginning of the growth within this student population. In the two decades following the GI Bill boom, a second wave of non-traditional students entered the scene, female non-traditional students.

Women became more interested in obtaining advanced degrees in conjunction with the women's movement in the 1960s and 1970s (Astin, 1998). The needs of women have been researched over several decades with findings resulting in the notion that women's educational support needs and reasons for returning to school differ from men (Astin, 1976, 1998; Home, 1998; Horn, 1997; Kasworm, 1990; Shank, Winchell, & Myers, 2001; Terrell, 1990). Consistent with Astin's work related to the women's movement, research completed in the 1980s indicated that adult women were returning to college out of boredom with their role, and dissatisfaction, of being a housewife (Badenhoop & Johansen, 1980).

Previous research studies described above indicated that non-traditional students are distinct from the traditional student population and that those distinctions could result in the need for different types of support. Another distinction relevant to this research study is the type of institution University D is and how the institution fits within the realm of IHEs. The following section will focus on the private IHEs.

Private Institutions of Higher Education

The NCES defines a private institution of higher education as: "An educational institution controlled by a private individual(s) or by a nongovernmental agency, usually supported primarily by other than public funds, and operated by other than publicly elected or appointed officials. These institutions may be either for-profit or not-for-profit" (National Center for Education Statistics, 2014).

While the definition used by the NCES is accurate, it is limited in its scope for understanding private IHEs in respect to this study; limited in that the definition does not include characteristics, challenges or differences private IHEs possess. This portion of the literature review focused on the some of these defining characteristics in order to provide a deeper understanding of private IHEs.

Institutional Visibility as a Defining Characteristic

Astin and Lee (1972) sought to divide private colleges into two categories, visible and invisible. According to their selection criteria, private colleges fell into one of these categories based on the selectivity of their admissions requirements and the institutions' enrollment. The researchers posited that private IHEs' visibility provided certain benefits and drawbacks. Astin and Lee determined that the private IHEs who were considered invisible, based on their name recognition, lesser admissions selectivity, and smaller enrollment size, faced different challenges and threats to their viability in the marketplace than private IHEs with higher visibility, more selective admissions criteria, and a larger enrollment size.

Private IHEs with lower visibility have made several common changes throughout the years in an attempt to remain operational and potentially attract different student segments that typically would not show an interest in attending previously. Astin and Lee (1972) described a few of the changes invisible private IHEs have implemented in order to attract new student markets. Some of these changes included a change in name or religious affiliation, expansion of offerings either on its main campus or through off-campus programs.

In certain areas, University D has followed this pattern of change described by Astin and Lee (1972). While University D still remains firmly associated with its

founding religious denomination, it has undergone several name changes. University D has also expanded its potential reach to different student segments by offering more degree programs and expanding to off-campus programs. These changes are attempts to remain viable through expansion and change.

Southern New Hampshire University is a contemporary example of what a change in program offerings can do for a private IHE struggling for visibility and viability. Kahn (2014) discussed steps Southern New Hampshire University took to grow its online program offerings which led to the school's growth from 2,000 students in 2009 to 34,000 in 2014. Southern New Hampshire University supported their online program growth by increasing their marketing to reach a national audience, as well as an increase in personnel, both faculty and staff, to support the growth.

Southern New Hampshire University's growth tactics have been questioned by other institutions that raised concerns about the quality of the courses and academic oversight of their online program (Kahn, 2014). Southern New Hampshire University leaders explained that the school had to respond to the growing competitive higher education market by creating an online program that would meet the needs of non-traditional students. Southern New Hampshire University claimed that only 20% of the students in the United States interested in attending college would be served by the traditional college system, and explained that their basis for the redesign of customer service and national online programs was to serve the other 80% of students who need a non-traditional approach to education (Kahn).

Student Support Services

This focus on making changes to distinguish Southern New Hampshire University in the IHE marketplace reflected findings consistent with the priorities students valued as

reported by Noel-Levitz. Noel-Levitz (2011) conducted a 15-year longitudinal study to gather information about student satisfaction and priorities at private IHEs. Among the conclusions of this Noel-Levitz study, it was determined students attending private IHEs valued academic quality and the overall success of the institution. One of the conclusions reached by Noel-Levitz research team was regarding technology and the role it played in improving satisfaction levels. This conclusion was based on the advancements in technology to diversify course offerings to the online market and increased availability of student support personnel and services.

While the Southern New Hampshire University example and the Noel-Levitz research study provide recent documentation of the importance of changing to meet the needs of students and the private IHE marketplace, these examples do lack supporting and historical research about private IHEs. Astin (1993) ascertained that private IHEs, typically those with a smaller student population, had a “high percentage of expenditures devoted to student services” (p. 321). While the amount budgeted directly for student services was not presented in the University D HLC self-study document, the number of staff and faculty were reported. In 2012, University D reported employing a total of 70 full-time faculty members and 133 full-time staff members. These staff members are primarily charged with carrying out some form of student support for University D.

Tait (2000) asserted that one of the main functions of student support services personnel was to develop effective student-centered programs that meet the needs of their institution’s population. Furthermore, Tait argued that because of the different types of IHEs that exist, there could not be one universal approach for student support services that would work for every student. Tait recommended that IHEs obtain a comprehensive understanding of the characteristics possessed by their students; even as specific as

understanding the characteristics of students enrolled in particular programs. While O'Connor's (1994) research preceded Tait's work, it supported the recommendations made by Tait. Through a case study approach, O'Connor found that non-traditional students expressed different, more specialized needs than the traditional students at the same university. The non-traditional students in this research study suggested changes in the student support structure including modifications to the student support services' hours of operation.

In contrast to Tait's (2000) assertion that student support services need to be developed after examining an IHE's student population characteristics and O'Connor's (1994) research about the needs of non-traditional students, Astin's (1993) research was broader, using data from a number of institutions in order to frame a conversation around students experience and satisfaction with college.

Astin (1993) used multi-institutional and longitudinal data gathered by the Cooperative Institutional Research Program (CIRP) from traditional college students to provide a comprehensive review of what factors affected students related to their college experience. One aspect reviewed by Astin was the satisfaction levels students expressed about a number of variables compared with the type of institution, either private or public and large or small, the student attended. Astin concluded that the size of the school had a greater, more positive, impact on student satisfaction levels as opposed to the type of institution a student was attending. The research results indicated that smaller IHEs reported a lesser negative effect on student satisfaction with individual support services than larger IHEs. Astin used two variables to define institutional size, "the total institutional full-time equivalency (FTE) enrollment, and the total undergraduate FTE enrollment" (p. 326).

Astin's (1993) work focused on the traditional college student population. While the differentiation between public and private institutions is beneficial, it does not draw a clear line for how institutions should work to meet the needs of the non-traditional student population. The focus on the non-traditional student population in research studies concerned with college student satisfaction levels with student support is not as extensively studied as the traditional student population. A natural assumption for college administrators would be to use what is known about the traditional student population and apply it to the non-traditional student population. Pascarella and Terenzini (1991) asserted that results from research studies that focused on traditional students could not necessarily be applied to the non-traditional student population. Different life circumstances, such as work and enrollment status are some of the factors that separate the traditional and non-traditional populations. These life circumstances make it difficult to directly apply findings from studies about traditional students onto non-traditional students.

Through their analysis of studies focusing on the impact college has on students, Pascarella and Terenzini (1991) found that student needs differed between students who displayed characteristics associated with independence, characterized as "internally motivated, flexible, or having a high need for achievement" (p. 104) and characteristics associated with dependence, characterized as those with weaker traits of independence. For example, students who were characterized as being dependent required more structured setting or more involvement from those in authority. Some smaller private IHEs, such as University D, could offer more structured settings designed to meet the needs of students who may require more assistance in order to be more successful or more satisfied with their educational experience.

University D offered students the opportunity to attend its main campus as a residential student or one of its off-campus locations as an online and or commuter student. Pascarella and Terenzini (1991) determined that the type of institution, whether residential or off-campus, impacted the students' cognitive and psychosocial development. These developmental processes help students learn how to analyze, integrate, and examine on a level that is not reached by those students who are part of a commuter campus. Pascarella and Teranzini's research, supported by Chickering (1974), stressed that this was an important finding in that efforts must be made to increase the cognitive and psychosocial development of off-campus students to that of traditional residential students. One of the efforts suggested by Pascarella and Teranzini in order to enhance commuter students' cognitive and psychosocial development was that of academic advising and degree program planning.

Cross (1992) examined research models and theories specifically concerned with non-traditional students and found it difficult to prescribe one particular theory or model that would meet the needs of non-traditional students. Cross concluded that, "It is unlikely that there will ever be a single theory of adult education. Instead, there will be many theories useful in improving our understanding of adult learners" (pp. 111 - 112). Based on this observation, Cross created a model that could help guide future research conducted about non-traditional students. The Chain-of-Response model was developed by Cross to help better understand non-traditional students' participation in education. One of the factors which controls students' behavior for perusing education was described by Cross as information and its importance and potential impact on a student's persistence through the chain-of response model. Cross asserted that if non-traditional

students do not have correct information then barriers are created, potentially affecting a student's motivation to persist.

Additional research found that traditional students had different needs than non-traditional students. Bauman et al. (2004) conducted research to gain an understanding of the advising needs of non-traditional students. Within their work, the researchers suggested that non-traditional students were less satisfied with the student support services they received versus the levels of satisfaction reported by traditional aged students. These findings offer support for the assertion Pascarella and Teranzini (1991) and Chickering (1974) made regarding the need to bridge the gap between the college experience traditional residential students had and that of the non-traditional commuter students.

Studies conducted about higher education, and subsequent theories, have primarily focused on the traditional college student who graduated from high school, began college the following academic year and persisted to graduation within a reasonable timeframe (Pascarella & Terenzini, 1991). In order to bridge this gap of knowledge, a further review of the literature related to student satisfaction is required to provide a broader perspective of national trends that may exist between traditional and non-traditional students. The following section provides an overview of several national student satisfaction index instruments and their results to discuss the needs of non-traditional students.

Student Satisfaction Index Instruments

IHEs exist to educate students, without students IHEs would not exist. Survey instruments can provide IHEs with information about the wants, needs and satisfaction levels of their student population. These survey results can be used by IHEs to discern

areas for improvement and potential future growth. Numerous researchers (Astin, 1993; Astin, 1998; Astin & Lee, 1972; Birkholz, 2004; and Gilardi & Guglielmetti, 2011) have conducted individual or institutional research studies focused on the needs of students with the hopes of furthering the field of education. Brown and Linnemann (1995) discussed the importance of surveying students in their research focused on non-traditional students. Specifically, they recommended high-level college administrators consider conducting surveys in order to make programmatic changes tailored to meet the needs of non-traditional students.

To better understand the landscape and usefulness of student surveys, a review of several national surveys were examined, specifically recent studies from the Cooperative Institutional Research Program (CIRP), the American Council on Education (2014a), the Council for Adult and Experiential Learning (2005), Noel-Levitz (2013a), and Eduventures (2013). Not all of the surveys reviewed focused upon student satisfaction, but they provided a sense of the types of tools and data that are available to college administrators concerned with making improvements at their institutions and addressing students' needs. The organizations listed above do not represent an exhaustive list of companies or IHEs conducting student research; the list represents three nationally known organizations as well as two private companies with extensive backgrounds in serving IHEs.

Cooperative Institutional Research Program

The Cooperative Institutional Research Program (CIRP) is part of the Higher Education Research Institute at the University of California Los Angeles. One of CIRP's founding director and senior researcher, Alexander W. Astin, has published a number of seminal works using the data collected through the CIRP (Astin, 1993; Eagan, Lozano,

Hurtado, & Case, 2014). Astin (2003) described CIRP's primary reason for the survey, "has always been to conduct longitudinal studies of student development by following up on various entering classes" (p. 23). Astin's (1999) student development theory focused on the concept of student involvement based upon an inventory of a student's areas and level of involvement. Astin (1999) theorized that the more a student was involved the more a student would learn or develop. Astin's (1999) student development theory further considers the characteristics of the student and encourages IHEs to consider these characteristics when creating policies and procedures in order to allow for student learning, involvement and development to flourish.

According to the Higher Education Research Institute (2014a), their organization oversees CIRP who has gathered data on more than 15 million college students from more than 1,900 IHEs in the past 44 years. The predominant research conducted by CIRP is *The Freshman Survey*, a national survey designed to gather information about incoming college freshman. Information gathered includes demographic and economic factors, past and future educational experiences, as well as a number of factors related to the students' belief systems (Higher Education Research Institute, 2014b). While this annual survey provides a breadth of information regarding first-year traditional college students; it does not include information about non-traditional students on a national scale. CIRP's freshman survey may provide better insight into meeting the needs of non-traditional students if the researchers surveyed non-traditional students.

American Council on Education

Since 1918, the American Council on Education has existed to serve the higher education community by representing IHE administrators, students and related associations (American Council on Education, 2014a). Within its mission, the American

Council on Education specifically stated that in addition to the IHEs it supports, the Council also serves, “adult learner organizations in their efforts to serve students and society” (American Council on Education, 2014b).

The American Council on Education (2014b) also conducts its own national research in order to better serve students and society, however, much of the research conducted was about administrative issues, programming, budget, and alumni. The American Council on Education’s work with non-traditional students focused on the aforementioned issues rather than student satisfaction issues. While the American Council on Education did conduct a survey on alumni whose age at the time the survey was conducted would classify them as non-traditional students’ the research was still focused on those alumni who were traditional students. This national alumni survey provides IHEs with several important findings that could be utilized to make improvements to the college environment.

Some of the important findings included a high value placed on the education the alumni received, and most of those surveyed felt as though their education prepared them for the workforce (Corrigan, 2011). Corrigan further explained that alumni understood the value of obtaining a degree beyond the economic implications to include the overall societal benefits of education. This is a relevant finding in that it supports the importance for education within the society at large not just those of a certain age.

One of the drawbacks of this survey is that it is not done annually; this leaves little opportunity for comparing the findings for a deeper understanding of alumni opinions. The lack of longitudinal data and supporting theories necessitates further review of other survey options that are available to IHE administrators. Another drawback is the depth at which the research findings were described, specifically,

foundational theories tied to the purpose of the ACE alumni survey. In the following section the work of two organizations, the Council for Adult and Experiential Learning (2005) & Noel-Levitz (2013a), will be examined. Their work attempted to combine their research efforts in order to serve IHEs working with non-traditional students.

Council for Adult and Experiential Learning and Noel-Levitz

The Council for Adult and Experiential Learning (CAEL) (2005) and Noel-Levitz (2013a) worked collaboratively to create and distribute the Adult Learner Inventory that would present a comprehensive overview of non-traditional student satisfaction and priorities. The 2013 survey gathered data from non-traditional students from a wide range of IHEs including private, public, four-year, and two-year institutions (Noel-Levitz, 2013a).

While the survey did focus on the non-traditional student population, the wide range of types of institutions created an array of results. Within the research study analysis, Noel-Levitz (2013a) suggested IHEs consider collecting data from their own student populations and to do so on a regular basis to determine what priorities should be addressed in order to improve satisfaction rates. The research conducted by Noel-Levitz (2013a) and the Council for Adult and Experiential Learning (2005) presented IHEs with a good base and support to conduct student satisfaction surveys.

While Noel-Levitz (2013a) and the Council for Adult and Experiential Learning (2005) utilized the Adult Learner Inventory with the goal of making recommendations to IHEs, the survey was based upon eight principles of effectiveness for serving non-traditional students. Flint (2005) described these principles as being outreach, life and career planning, financing, outcomes, method of instruction, student support systems, technology, and institutional partnerships.

CAEL and Noel-Levitz's use of the Adult Learning Inventory was to provide feedback to those institutions who participated in the Adult Learning Focused Institution Coalition (Flint, 2005). This type of coalition is beneficial for the institutions who participate but those institutions that do not participate have an option of performing individual institutional research projects. In order to conduct individual institutional research projects, some IHEs may turn to consulting firms like Eduventures. Eduventures.

With 20 years of research experience, Eduventures is relatively new to offering educational research services when compared to the organizations previously discussed. Eduventures consults, advises and conducts custom and national surveys for the IHE market (Eduventures, 2014). Eduventures based the content of its surveys upon the questions and trends facing their client base (A. Reidy, personal communication, February 3, 2015). The Eduventures research team bases much of their survey work around Malcom Knowles' andragogical theory of human resources development (A. Reidy, personal communication, February 3, 2015).

Knowles' (1973) andragogical theory of human resources development is described as a process by which learning occurs rather than a prescription of how learning can occur. The Knowles andragogical theory is based upon several assumptions that are either derived from or directed toward the adult learner experience. Some of these assumptions include involving collaborative work between the student and teacher to create an appropriate learning environment for adult learners.

Eduventures (2012) conducted its first national analysis of enrolled and unenrolled non-traditional aged consumers to better understand the opportunities and threats related to this market. The Adult Higher Education Consumer Analysis was a

national survey geared toward developing a longitudinal data set for IHE administrators to draw from for forecasting and decision making (Eduventures).

The Adult Higher Education Consumer Analysis resulted in several conclusions relevant to the non-traditional student market. Eduventures (2012) noted that competition for adult students had increased and would continue to increase in the future as the number of traditional aged students decreased and funding sources decreased. Further analysis of the data led Eduventures to claim that adults are interested in completing their education but anticipate a number of time and cost barriers.

While these findings and recommendations add to the knowledge of the non-traditional market, there are two issues related to this particular research. First, Eduventures (2012) started this project with the goal of creating a longitudinal data set for future IHE administrators to utilize. The data from the 2012 survey is the only year reported so far, so its usefulness and impact are undetermined. The second issue related to the 2012 Eduventures survey is the enrollment status of those who completed the survey. The survey was distributed to both enrolled and unenrolled students aged 18 to 70. This clearly mixes the traditional and non-traditional student populations making it harder for IHE administrators to utilize the results directly to non-traditional students.

In reviewing the national studies previously conducted by the organizations above, a gap in knowledge is still apparent. In the following section, research studies about student support services are examined in order to understand what additional information is available to IHEs looking to improve their student services for non-traditional students.

Student Support Service Studies

In this section, a review of research related to student support services is examined. The research examined encompasses studies that focused on traditional and non-traditional student populations. Some of the studies discussed will cover a combination of the two student populations.

Student Attrition Factors

Research related to student support services within higher education for non-traditional students began with Bean and Metzner's (1985) work about student attrition. The model proposed by Bean and Metzner addressed the growing non-traditional student population early on in emergence of the non-traditional population by creating a model for attrition students. The researchers included traditional aged students within their research. The creation of this model furthered the discussion of the non-traditional student and the differences between traditional students.

Further research by Champagne and Petitpas (1989) continued the discussion related to the needs of non-traditional students, again, compared with traditional students. Their work asserted that non-traditional and traditional students share some similarities in dealing with transitions. Even though some similarities existed, they suggested that IHEs need to give more consideration to support services that meet the needs of non-traditional students.

Terrell (1990) furthered Champagne and Petitpas' (1989) work by suggesting IHEs make changes to meet the various support needs of non-traditional students. Terrell identified a number of time and cost barriers unique to non-traditional students and made specific recommendations to IHEs that would accommodate the students' needs. Some of the student support service recommendations were directed at financial aid, increased

course offerings and locations, and creation of a one-stop shop environment which had extended hours.

Clement and Rickard (1992) broadened the discussion surrounding student support services by speaking with 210 prominent IHE leaders whose roles were tied to student support services. They asserted that student services should, “include viewing each student as a unique individual, recognizing the educational importance of out-of-class activities, valuing a sense of community, and living out an ethic of service” (p. 5). The authors recognized the value of uniqueness which created several specializations within student support services. Those IHE leaders who participated in Clement and Rickard’s study emphasized the importance of working across institutional areas outside of their own. They suggested this would increase the likelihood of support and better understand the struggles felt by other departments.

Recognizing the non-traditional student population consisted of sub-groups which can be categorized by gender and race, Horn (1997) proposed the CLAIRE model for meeting the needs of non-traditional students. Horn’s model was designed to assist personnel in having a better understanding of how best to meet the service needs of non-traditional students. This model provided a micro-level understanding of non-traditional needs, whereas the work by Donaldson and Graham (1999), to follow, examines this population in a broader sense which spurred additional research about traditional and non-traditional students.

Non-traditional Student Outcomes

Donaldson and Graham (1999) continued the discussion related to non-traditional student differences as it related to outcomes for this group of students. While their Model of College Outcomes for Adults focused mainly on educational outcomes, it further

addressed the differences between the traditional and non-traditional student population. Specifically, Donaldson and Graham hoped to explain that non-traditional students had different experiences than traditional students. And they further asserted that non-traditional students' experiences made them a unique group with different abilities and ways of understanding and processing concepts.

Samuels, et al. (2011) examined Donaldson and Graham's (1999) Model of College Outcomes for Adults by focusing on the academic and social experiences non-traditional students had while completing their degree in a traditional college campus setting and how these experiences differed from those suggested in Donaldson and Graham's model. Donaldson and Graham's model stated that non-traditional students have different life experiences, environmental factors, expectations, and areas of expertise than traditional students. Donaldson and Graham's model suggested that the qualities and characteristics of non-traditional students led to, and impacted, the outcome of these students completing their degree. Samuels et al. sought to determine what role the support systems of non-traditional students played in their persistence to complete their degree at a traditional campus.

Samuels et al. (2011) found that the social component of being in a traditional college environment did not contribute to the non-traditional students' persistence to complete their degree. Their findings suggested that the academic connections between the classroom and life situations of the non-traditional students were an important factor for persistence toward degree completion. The authors suggested university administrators study their population of non-traditional students in order to provide proper support services to help students persist to graduate, noting that transfer credit

policies and classroom demographics were common barriers experienced by the non-traditional students.

Conclusion

The call by Samuels et al. (2011) for Institution of Higher Education (IHE) administrators to study their non-traditional student population demonstrates the support within the research to investigate this sector of students more closely. Pascarella and Terenzini's (1991) analytical research of studies related to education resulted in the recommendation that findings from research conducted about traditional students could not necessarily be directly applied to non-traditional students. This assertion by Pascarella and Terenzini supported the research and subsequent recommendation by Noel-Levitz (2013a) and the Council on Adult and Experiential Learning (Flint, 2005). Noel-Levitz and the Council on Adult and Experiential Learning stated that IHE administrators not only need to better understand their non-traditional student populations but that IHEs should conduct longitudinal research specific to their institutions' population. They further posited this type of research would provide IHE administrators with more applicable information to make improvements to the services their students felt were important.

Summary

The review of the related literature explored the definition and history of the non-traditional student population, as well as provided an understanding of the related literature and student support services. The literature was then related to the statement of the problem this research sought to address. Chapter III addressed the methodology that was used to perform the secondary research on the existing data set from University D's

non-traditional student population student satisfaction surveys from 2012, 2013, and 2014.

CHAPTER III

METHODOLOGY

Introduction

This research study focused on the importance and satisfaction ratings of support services from a series of survey responses from non-traditional students collected by University D over a three-year period. Through analysis of archival data, this study attempted to detect commonalities in the responses between years. Within this chapter, the framework for the study is established through explanation of the research design, description of the population studied, and data collection methods. In addition, the reasons or rationale for choosing the research method for each research question, and statistics used within this study will also be discussed. Finally, any limitations this study presented will also be explored.

The data utilized within this secondary research study came from satisfaction survey results obtained from University D's non-traditional students. University D is an institution of higher education in the liberal arts tradition offering four-year and advanced degrees to both traditional and non-traditional students. It is important to note that University D is affiliated with a religious denomination with a deep connection, both in mission and support, to its founding and sponsoring organization.

The student survey conducted in 2012, 2013, and 2014 by University D was administered by educational research firm, Eduventures (2013), in order to gauge the satisfaction and importance levels of its undergraduate non-traditional students about a

variety of topics. While the initial survey results of this annual survey provided University D with an understanding of the attitudes of its non-traditional students, the results from each year were not compared to the previous year or analyzed in aggregate. The purpose of this research study was to analyze non-traditional students' level of satisfaction with services identified as important at University D, in order to make recommendations about which support services could be improved, and develop an action plan to implement recommended improvements. This was accomplished through the following research questions.

Question 1. What are the average importance ratings for the individual student support services rated each year the survey was performed?

Question 2. What are the average satisfaction ratings for the individual student support services rated each year the survey was performed?

Question 3. What is the relationship between the yearly survey importance and satisfaction ratings for the support services rated?

Ho: There is no relationship between the importance and satisfaction rating scores for the support services rated between years.

H₁: There is a relationship between the importance and satisfaction rating scores for the support services rated between years.

The following section describes the research designed used to answer each of the research questions addressed within this study.

Research Design

Ratings for the student support services were gathered in order to assess the University D non-traditional students' level of importance and satisfaction. This research study focused on secondary research analysis methods in order to gain a better

understanding of the annual data collected. Glass (1976) suggested three forms of research, primary, secondary, and meta-analysis research as ways to conduct educational research. Glass defined secondary analysis as, “the re-analysis of data for the purpose of answering the original research question with better statistical techniques, or answering new questions with old data.” (p. 3).

Glass (1976) defined primary research as original research conducted on data typified by survey distribution and data analysis. The author stated that researchers should not only be concerned with conducting primary research but that secondary research can offer a more in-depth understanding of existing data.

In educational research, we need more scholarly effort(s) concentrated on the problem of finding the knowledge that lies untapped in completed research studies....The best minds are needed to integrate the staggering number of individual studies. This endeavor deserves higher priority now than adding a new experiment or survey to the pile. (p. 4).

This research study was conducted in keeping with Glass’s recommendation to utilize secondary research analysis as a way to gain a deeper understanding of already existing data. The research design used both descriptive and inferential statistical methods in order to answer the research questions.

Research questions one and two focused on the descriptive nature of the data acquired for each year. Descriptive statistics were the most appropriate choice to analyze the data for questions one and two. Specifically, the mean for each student support service satisfaction and importance rating provided a longitudinal view and understanding of how the data compare year to year (Salkind, 2014).

The third research question addressed within this study was to determine if there was a relationship between student support service importance and satisfaction ratings of non-traditional university students at University D over a three-year period. In order to address this research question, importance and satisfaction ratings from 2012, 2013, and 2014 were analyzed. The entire non-traditional student population at University D was given an opportunity to complete the student support service survey each winter semester the student was enrolled at the University. Random sampling procedures were unnecessary for this research study because the entire non-traditional student population was invited to participate in the survey. The nature of the survey being distributed annually meant that responding students were in naturally occurring groups and not in assigned yearly designations; the lack of random assignment eliminated experiment as a methodological option.

No groups were being compared in order to answer this research question, instead, the student support service ratings were compared in aggregate. The lack of group comparison means this study was neither experimental nor quasi-experimental. The aggregate importance and satisfaction ratings for each student support service were used in order to determine if there was a relationship between these two continuous ratings. The basis of this research question was to examine the relationship between the rating scores, and not determine a cause or effect for either rating. With the focus of this research question being the relationship between two continuous variables (importance rating and satisfaction rating), the most appropriate methodology to use for this research question was the correlation method.

There were two directly controlled variables (DCV) for this research study. The first DCV was that all of the students surveyed were from one school, University D; no

outside universities or colleges were invited to participate in the annual surveys. The second DCV was the type of student that was surveyed. University D sought to gain a better understanding of the student support service importance and satisfaction ratings from their population of non-traditional students. This DCV was noted through the University D campuses and programs invited to participate each year in the survey. This question used a correlation method meaning no independent or dependent variables were identified or assessed. Because this research question utilized a correlation method for analysis, it was appropriate to identify an independent and dependent variable. For this question, the independent, or X axis, was the importance ratings and the dependent variable, or Y axis, was the satisfaction ratings.

Population

Each year the survey was conducted, demographic information was gathered about the non-traditional students at University D. The focus of this section is to provide a better understanding of the non-traditional student population at University D. This section will provide an overview of the population of non-traditional students at university, the number of respondents, the number of valid survey completers as well as the students' demographic data for each year the survey was conducted.

Respondent data

University D asked its entire non-traditional student population to participate in the annual student satisfaction survey. In 2012, there were 1,191 non-traditional students surveyed and 221 responded. Of the 221 respondents, 205, or 17.21% of the non-traditional student population surveyed were deemed to be usable for this research study. In 2013, there were 1,254 non-traditional students surveyed and 333 responded. Of the 333 respondents, 310, or 24.72% of the non-traditional student population surveyed, were

deemed to be usable for this research study. In 2014, there were 1,197 non-traditional students surveyed and 359 responded. Of the 359 respondents, 334, 27.9% of the population, were deemed to be usable for this research study. It is important to note that after the 2012 survey was completed, University D offered the chance to receive one of two \$100 gift cards as incentive for those who responded to the survey in 2013 as well as 2014.

Gender, age, and race/ethnicity

In 2012, University D provided demographic information to their accrediting body, the North Central Association of the Higher Learning Commission (NCA-HLC). Within the NCA-HLC 2012 accreditation report, University D provided gender, age, and race/ethnicity information for their entire student population. This section provides an overview of the general undergraduate population demography at University D.

The 2012 University D accreditation report provided information about the gender breakdown of the undergraduate student population. University D reported that there were a total of 2,276 undergraduate student enrolled in the fall 2011 semester. Further, University D reported that the gender breakdown revealed that women made up a larger portion of the student population in the fall 2011; there were 1,306 women and 970 men during that semester.

Within the 2012 accreditation report, University D also provided the breakdown of its fall 2011 undergraduate student population. University D reported the ages of its students within ranges of age. The age ranges represented in Table 1 are typical of the age ranges associated with non-traditional students.

Table 1

Age Range of University D Undergraduate Students in Fall 2011

Range of Age in Years	# of students in each range
22 - 24	259
25 - 29	294
30 - 34	253
35 - 39	187
40 - 49	353
50 - 64	171
65 and over	13

Note. The age ranges represented within this table represent the ages associated with the non-traditional student population. The number of students in each category are the combined totals for part-time and full-time students. This information was gathered by University D and can be found in the *Higher Learning Commission – University D institutional report 2012*.

The 2012 report prepared by University D for the North Central Association of the Higher Learning Commission also provided race and ethnicity information about for the undergraduate student population. Of the 2,276 undergraduate students enrolled in the fall 2011 semester, there were two race/ethnicities which accounted for the majority of the students. The top race/ethnicities categories reported were the white/non-Hispanic category with 1,623 students recorded in this category, and African-American with 274 students within this category.

Data Collection

While this research study focused on secondary analysis of existing data, it is still important to discuss the protocol Eduventures and University D used to collect data and which data were used from the primary research. Within this section the development of

the survey instrument, data collection methods, and permission procedures will be discussed.

Survey instrument

In 2011, Eduventures and University D began working on the creation of a proprietary survey to administer to the University D non-traditional student population (Eduventures, 2013). See Appendix A for the 2012 University D non-traditional student survey. The survey discussed in this study was the same for each year, 2012, 2013, and 2014, the survey was administered. Only five of the survey instrument questions were used within the scope of this study. Survey questions four and five contained the student support section which included the importance and satisfaction ratings portion of the instrument. Also present within these two questions were items related to academics and were not included in the analysis of this study. These questions were rated on a Likert scale from 1 to 5, 1 = very important/satisfied through 5 = not at all important/satisfied, or not applicable. This scale was chosen in order to allow for a greater depth in differentiation of importance and satisfaction ratings (A. Southard, personal communication, April 25, 2014).

The three demographic questions were presented to students at the end of the survey. These three questions were measured by providing students with a choice for one nominal selection for each category presented. It is also important to note that students had the option to not answer any, all, or a portion of the survey. It was further noted by Eduventures (2013) that completion of the survey was voluntary.

Data collection methods

Each winter semester, Eduventures (2013) obtained student names and the University D email addresses for the University's currently registered non-traditional

students. The 2012 survey was emailed to students in February and the 2013 and 2014 surveys were emailed in March. Due to an all University survey administered in February and due to increase participation, University D changed the launch of its non-traditional student survey to a month later. Once the initial invitation to participate in the survey was delivered to students, Eduventures sent reminder emails to those who had not yet responded at two weeks and four weeks after the initial survey launch. As mentioned earlier, in 2013 and 2014 University D decided to offer a gift card incentive in order to increase the number of responses. The winter semester was chosen for the time of survey distribution because this semester had historically the highest enrollment providing University D with an opportunity to reach the largest number of its student population within an academic year.

Permissions

Permission from University D was obtained from its Institutional Review Board as well as the lead administrator who oversees the non-traditional student population. As part of the permission agreement from University D, a fictitious name for the University and its affiliates was requested.

Analytical Methods

This research study sought to describe the relationship between student support service importance rating scores, satisfaction rating scores, and the year each survey was conducted. The research questions sought to review the importance and satisfaction data with a longitudinal focus through the use of descriptive quantitative research methods. More specifically, this type of research is best examined using both descriptive and correlation techniques. The first two questions of this study were:

1. What are the average importance ratings for the individual student support services rated each year the survey was performed?
2. What are the average satisfaction ratings for the individual student support services rated each year the survey was performed?

Questions one and two were primarily concerned with creating a set of descriptive statistics for each student support service. The average score, or mean, for importance and satisfaction of each student support service were calculated utilizing the software package SPSS. The longitudinal display provided University D with an understanding of the importance and satisfaction ratings separately (Question 1 = importance, Question 2 = satisfaction) for each year and each service. These questions fit within the scope of this research study in that one of the goals of this project was to provide University D with an easy to understand and repeatable process to collect for these type of descriptive data in future years allowing them to conduct future longitudinal comparisons. Independent and dependent variables are unnecessary for the calculation of the average, or mean, of each score. The data collected from question one and question two will act as guideposts for the results of question three where the correlations between importance and satisfaction for each student support service will be tested. The third research question and its associated hypotheses, were:

3. What is the relationship between the yearly survey importance and satisfaction ratings for the support services rated?

Ho: There is no relationship between the importance and satisfaction rating scores for the support services rated between years.

H1: There is a relationship between the importance and satisfaction rating scores for the support services rated between years.

The goal of question three was to explore the relationship, either positive or negative, between the independent variable, importance ratings, and the dependent variable, satisfaction ratings, for the 16 student support services. Question three examined the relationship between importance and satisfaction rates on a year-to-year basis, 2012, 2013, and 2014. In short, question three is attempting to examine if satisfaction is related to the importance of the service and what services have the closest or most significant correlations, either positive or negative, at the .05 level.

The Spearman rank correlation coefficient was the most appropriate inferential statistic to use in the analysis of this research question for a number of reasons. First, this research question sought to determine if there was a relationship between the variables, and not a cause and effect between one variable and the other. Second, the nature of the results stemming from this research question presented in a monotonic fashion and were not normally distributed. The Spearman rank correlation coefficient does not restrict the use of data that are not normally distributed. Additionally, the results presented were positively skewed. Third, the variables utilized were measured on an ordinal level further supporting the use of the Spearman rank correlation coefficient which assumes variables are measured at least on an ordinal scale. Additionally, there were no more than two variables being examined per student support service, ruling out the possibility of a multiple regression analysis (Salkind, 2014).

Limitations

There were a number of limitations associated with this research study. These limitations included the proprietary nature of the survey, survey invitation methods, survey response rate, and additional comparisons for a greater understanding. Each of these limitations will be discussed.

The first limitation is the proprietary nature of the survey administered each year. Eduventures and University D created this survey specifically for use at University D. This means that only face and content validity were able to be established leaving the construct and criterion validity unobtainable at the time this study was completed. Face and content validity should be established prior to construct and criterion validity are established (Salkind, 2014). Validity is important to establish because it acknowledges the truthfulness of data being gathered and studied.

The second limitation presented in this study was the survey invitation methods. University D provided the students' University assigned email addresses to Eduventures to use for invitation distribution. This method presents a limitation in that if students did not utilize their University D email on a regular basis, they could have missed the opportunity to participate in the survey. The email addresses used could have also led to a lower response rate. It is also noteworthy to mention that students were not part of a random sample. All students received an opportunity to participate in the study through the email invitation and self-selected whether or not to participate.

The third limitation presented was the low response rate for the survey in 2012 and 2013. The first year saw a usable number of responses of less than 20%, with only 17.21% of the population responding, or 205 of 1,191 students. The second year response rate did improve and saw a 24.72% response rate, or 310 of 1,254 students. And in the third year, 27.9% of the student population responded, or 334 of 1,197. Also, the students could have responded in more than one year if they were enrolled in the winter semester in any or all of the years the survey was performed.

The last limitation to note is the need for an additional variable asking about frequency of student support service use for comparison of ratings students gave for

importance and satisfaction for each service. This frequency of use variable would allow University D additional knowledge about its student support service needs. While the importance and satisfaction ratings presented valuable information to University D, it would be useful to know why students are making these determinations. One way to investigate this would be to also gauge frequency of use students interacted with each of the individual student support services.

Summary

Within this chapter the key research design methods and procedures were discussed as well as population characteristics and data collection methods. The analytical methods used to examine the data and answer the three research questions were also explored. Finally, limitations to the study techniques, data, and variables were discussed.

The information presented in chapter three is crucial to understanding the data and results that will be covered in chapter four. Within chapter four each of the three research questions will be answered and recommendations for further research will be made along with recommendations to University D for which student support service offices may need improvement.

CHAPTER IV

FINDINGS AND CONCLUSIONS

Introduction

The following chapter includes sections related to the research findings and conclusions of the three research questions explored. For review, the research questions addressed within this study included:

Question 1. What are the average importance ratings for the individual student support services rated each year the survey was performed?

Question 2. What are the average satisfaction ratings for the individual student support services rated each year the survey was performed?

Question 3. What is the relationship between the yearly survey importance and satisfaction ratings for the support services rated?

Ho: There is no relationship between the importance and satisfaction rating scores for the support services rated between years.

H₁: There is a relationship between the importance and satisfaction rating scores for the support services rated between years.

In addition to findings and conclusions, implications of these findings and recommendations for future research projects, as well as actions for University D to consider are explored. Preceding chapters set the stage for this study leading to the results of the research conducted. Chapter one provided background information, research questions to be explored, and rationale for the study. Chapter two, the review of related

literature, provided a brief history, contextual setting for University D, and definition of the non-traditional student. Also covered in chapter two were relevant student support service studies and theories related to the non-traditional student. Chapter three explained the methodology used for this research study. These chapters lay the foundation for the discussion within chapter four related to the research results. To begin, a look at some of the pertinent findings obtained by the 2012, 2013, and 2014 surveys is examined.

Findings

For this research study, survey data for student support service importance and satisfaction ratings were analyzed longitudinally. In addition to the analysis of the student support services, analysis was conducted for the survey respondents' demographic information in aggregate. Demographic information collected from the 2012, 2013, and 2014 surveys included gender, age, and work status at the time students completed the survey.

Gender, age, and work status

The survey instrument included questions regarding demographic information for three areas, gender, age, and work status. The aggregate number of usable respondents for the surveys was 849 of the non-traditional student population surveyed. Of the 849 students who responded, 274, or 32.27%, were male, 527, or 62.07%, were female, 23 students, or 2.71%, preferred not to answer, and 25 students, or 2.94%, did not answer the demographic question related to gender.

Further, students were asked to identify their age at the time the survey was administered. Of the 849 respondents, 28, or 3.3%, chose not to identify their age. The mean student age was found to be 39.45 years old. For the same number of students the

mode value of age was 22 years old with 34 of the respondents indicating that as their age at the time of the survey.

In addition to gender and age, the survey instrument asked students to report their work status at the time the survey was conducted. Students could choose from nine different work status categories. The most frequent response was employed full-time, with 520 of 849 students responding this as their current work status. Within Table 2, the remaining frequencies and percentages for each of the work status categories are presented.

Table 2

Aggregate Frequency and Percentage of Work Status Selected by Students in 2012, 2013, and 2014

Work Status	<i>f</i>	%
Employed full-time	520	61.2
Employed part-time	139	16.4
Not employed, but seeking employment	79	9.3
Not employed, and not seeking employment	17	2.0
Self-employed, consultant, or freelancer	18	2.1
In the military	2	.2
Retired	11	1.3
Other	24	2.8
Prefer not to answer	14	1.6
Missing data	25	2.9
Total	849	100.0

Data collected about importance and satisfaction ratings were utilized from 2012, 2013, and 2014 in order to examine the research questions of this study.

Question 1. What are the average importance ratings for the individual student support services rated each year the survey was performed?

This research question sought to examine longitudinally the importance ratings for each student support service rated. The average rating was calculated for each student support service importance ratings of non-traditional university students at University D over a three-year period. In order to answer this research question, the importance ratings for each of the 16 student support services were analyzed using the mean rating. Once the mean rating for each year was calculated, the mean for each year was compared for any substantial differences between the years. Table 3 displays the results of each of the 16 student support service importance ratings. The rating scale for the support services was 1 = very important and 5 = not at all important. This scale assumed equal intervals between the rating numbers.

Table 3

Mean Importance Ratings for Individual Student Support Services

<u>Student Support Service</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>Range</u>
Academic Advising	1.26	1.27	1.33	.07
Quality of Staff	1.19	1.27	1.29	.17
Availability of Staff	1.35	1.47	1.48	.13
Cost	1.27	1.38	1.31	.11
Financial Aid	1.55	1.62	1.52	.10
Library Services	2.28	2.37	2.47	.19
Computer and Technology Support	1.91	2.03	2.11	.20
Tutoring and Other Support Services	2.43	2.46	2.62	.19
Billing Procedures	1.88	2.00	2.07	.19
Admissions and Document Review	1.66	1.78	1.86	.20
Course Registration Services	1.44	1.53	1.56	.12
Career Services and Networking	1.98	2.08	2.02	.10
Newsletter and UD Communications	2.54	2.81	2.86	.32
Book Store	2.61	2.67	2.73	.12
Parking	2.41	2.46	2.57	.16
Computer Labs	2.53	2.71	2.82	.29

Results indicated the importance rating means from year-to-year do not show a range greater than .32. Because the rating scores did not vary past .32 between years indicates that the rating for each of the support services was relatively consistent over a three year period. Support services with an importance rating range above .20 included newsletter and UD communications, and computer labs. These two services also had the lowest importance ratings.

Question 2. What are the average satisfaction ratings for the individual student support services rated each year the survey was performed?

This research question sought to examine longitudinally the satisfaction ratings for each student support service rated. The average rating, or mean, was calculated for each student support service importance ratings of non-traditional university students at University D over a three-year period. In order to answer this research question, the satisfaction ratings for each of the 16 student support services were analyzed using the mean rating. Once the mean rating for each year was calculated, the mean for each year was compared for any substantial differences between the years. Table 4 displays the results of each of the 16 student support service satisfaction ratings. The rating scale for the support services was 1 = very satisfied and 5 = not at all satisfied. This scale assumed equal intervals between the rating numbers.

Table 4

Mean Satisfaction Ratings for Individual Student Support Services

<u>Student Support Service</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>Range</u>
Academic Advising	1.30	1.44	1.38	.14
Quality of Staff	1.45	1.49	1.43	.06
Availability of Staff	1.53	1.51	1.47	.06
Cost	2.20	2.39	2.23	.19
Financial Aid	1.92	1.92	1.77	.15
Library Services	2.18	2.20	2.05	.15
Computer and Technology Support	2.11	2.00	1.97	.14
Tutoring and Other Support Services	2.38	2.20	2.16	.22
Billing Procedures	2.08	2.07	1.98	.10
Admissions and Document Review	1.68	1.82	1.65	.17
Course Registration Services	1.51	1.61	1.51	.10
Career Services and Networking	2.26	2.16	2.00	.26
Newsletter and UD Communications	2.22	2.22	2.17	.05
Book Store	2.33	2.42	2.28	.14
Parking	2.20	2.15	2.10	.10
Computer Labs	3.39	2.15	2.25	.14

Mean comparison demonstrated that the satisfaction rating from year-to-year indicated less variance in score ranges than the variance in score ranges for importance ratings. The satisfaction rating score ranges varied from .05, indicating very little change in student satisfaction from year-to-year, to .26, indicating a slight change in satisfaction ratings year-to-year compared to support services with smaller rating score ranges.

Support services with a satisfaction rating range above .20 included tutoring and other support services, and career services.

Question 3. What is the relationship between the yearly survey importance and satisfaction ratings for the support services rated?

Ho: There is no relationship between the importance and satisfaction rating scores for the support services rated between years.

H₁: There is a relationship between the importance and satisfaction rating scores for the support services rated between years.

This research question sought to determine if there was a relationship between student support service importance and satisfaction ratings of non-traditional university students at University D over a three-year period. In order to answer this research question, the importance and satisfaction ratings for each of the 16 student support services were analyzed using the Spearman rank correlation coefficient. Results indicated a significant positive relationship between the importance ratings and satisfaction ratings for each of the 16 student support services. Further, the significance levels for each of the 16 student support services were at the .00 level, below the .05 level needed in order to establish significance for this question.

While each of the relationships were deemed statistically significant, the obtained value for most of the student support services were calculated to be less than a strong obtained value. According to Salkind (2014), a correlation with a range of .20 to .40 is considered a weak relationship while a correlation with a range of .40 to .60 is considered a moderate relationship. When utilizing Cohen's standard that obtained values over .50 represent a large relationship between the variables (Salkind, 2014; Yockey, 2011). Cohen's standard obtained values over .50 correspond to a large effect size between

variables. Obtained values for the student services, when calculated, were less than strong based on Cohen's standard are represented in Table 5. The obtained values and Cronbach's α scores assessing consistency across satisfaction and importance ratings for each services for those services with an obtained rho value less than .50 are also reported in Table 5.

Table 5

Spearman Correlation Coefficient Obtained Values with rho Values < .50 and Cronbach's α Assessing Internal Consistency between Importance and Satisfaction Ratings for Each Student Support Service

Student Support Services	r_s	Cronbach's α
Academic Advising	0.34	0.42
Availability of Staff	0.33	0.42
Quality of Staff	0.30	0.38
Cost	0.11	0.18
Financial Aid	0.31	0.43
Library Services	0.43	0.57
Computer and Technology Support	0.43	0.54
Tutoring and Other Support Services	0.40	0.51
Billing Procedures	0.26	0.32
Admissions Services and Document Review	0.40	0.52
Course Registration Services	0.38	0.53
Career Services and Networking	0.38	0.46
Parking	0.38	0.52
Computer Labs	0.45	0.59

The student support services with obtained values of .50 and higher were newsletter and University communications, and book store. The relationship between importance and satisfaction ratings for Newsletter and university communications were

significant, rho (622), .54, $p = .00$, ($\alpha = .68$). This result indicates that 29% of the variance in the importance ratings scores for newsletter and University communications can be explained by the variance in the satisfaction rating scores for the same student support service. This would also mean that 71% of the variance between the importance and satisfaction ratings cannot be explained by either the importance or satisfaction ratings. Students' importance and satisfaction scores for University communications may reflect the different needs of non-traditional students when trying to obtain information from University D. What University communications they receive they are generally satisfied with, however, the importance of these communications are minimal due in part to the fact they are not central to a satisfactory student experience.

The relationship between importance and satisfaction ratings for book store were significant, rho (594), .51, $p = .00$, ($\alpha = .66$). These written results and the information provided in Table 5 indicate that a significant positive correlation was found between the importance ratings and the satisfaction ratings for each of the student support services. This result indicated that 26% of the variance in the importance ratings scores for the book store can be explained by the variance in the book store satisfaction rating scores. This would also mean that 74% of the variance between the importance and satisfaction ratings were not explained by either the importance or satisfaction ratings. While the results for the bookstore show a strong correlation the lower levels of importance and satisfaction could be attributed to the fact that non-traditional students are generally off-campus thus making a face-to-face bookstore experience difficult. The distance needed to travel or utilization of the bookstore website could make it impractical for non-traditional students to fully utilize the bookstore services as they are currently constructed.

The percentage of non-determined variance for the newsletter and University communications and book store could mean that there is another variable impacting the ratings that students are assigning to each of the support services. Knowing that the non-determined variance is greater than 70% for the two student support services with the largest obtained value suggests that University D would need to investigate further as to why students rate the importance and satisfaction levels for support services in the manner in which they do.

The descriptive statistics for all of the student support services are reported in Table 6. It is noteworthy to mention that the aggregate importance and satisfaction Cronbach's α reliability scores for each of the student support services was below .70 suggesting that additional measures should be taken to increase the reliability of this proprietary survey. According to Yockey (2011) the Cronbach's α score should be at .70 and above in order to establish an adequate level of internal consistency.

Table 6
Student Support Service Descriptive Statistics

Student Support Service	<i>M</i>			<i>SD</i>	
	<i>n</i>	Importance	Satisfaction	Importance	Satisfaction
Academic Advising	829	1.28	1.38	0.65	0.78
Availability of Staff	830	1.43	1.50	0.67	0.78
Quality of Staff	828	1.25	1.45	0.57	0.77
Cost	839	1.32	2.28	0.70	1.15
Financial Aid	685	1.36	1.86	0.80	1.04
Library Services	564	2.07	2.13	1.02	1.07
Computer and Technology Support	651	1.82	2.01	0.96	1.04
Tutoring and Other Support Services	484	2.17	2.24	1.07	1.10
Billing Procedures	792	1.96	2.04	1.02	1.04
Admissions Services and Document Review	800	1.75	1.72	0.91	0.90
Course Registration Services	823	1.51	1.55	0.77	0.78
Career Services and Networking	580	1.78	2.12	0.98	1.10
Newsletter and University Communications	622	2.49	2.20	1.16	1.00
Book Store	594	2.40	2.33	1.23	1.15
Parking	459	2.17	2.14	1.21	1.07
Computer Labs	389	2.24	2.25	1.19	1.08

Note. The scale range for the importance and satisfaction scores was 1 = very important/very satisfied, to 5 = not at all important/not at all satisfied. The mode for each of the student support service importance and satisfaction ratings was 1.00, except for the importance rating of newsletter and University communications and satisfaction ratings of tutoring and other support services, newsletter and University communications, book store, and computer labs all had a mode of 3.00. The range for each of the student support services was 4.00.

Conclusions

After reporting and analyzing the data for the three research questions within this study, a number of conclusions can be drawn leading to recommendations and implications for further study. Prior to presenting conclusions related to the research questions, the gender, age and work status of the University D students will be examined. Gender, age, and work status.

Gender is addressed within this study in both broad and specific manners. The entire student population for University D is discussed in chapter three. This population overview of University D indicated that during the fall 2011 semester there were 1,306 females and 970 males enrolled at the University. The 2012, 2013, and 2014 survey results suggested that the gender split within the University D's non-traditional population was 527 female and 274 male. This suggested that University D's traditional and non-traditional student populations are both predominately female. The number of women enrolled at University D during this time frame would support Astin's (1998) assertion that the women's movement of the 1960s and 1970s increased interest in obtaining an advanced degree.

Age and work status are two of the key factors used by researchers to help define the non-traditional student population. University D non-traditional students reported a mean age of 39.45 years old, with the mode age being 22 years old from 34 of the survey respondents. The mean age of 39.45 falls within the defining age of non-traditional student used by Bean and Metzner (1985). The mode age of 22 years old is classified by Bean and Metzner as one more associated with the traditional age student. This would indicate that University D is serving a number of traditional age students within its non-traditional program. As changes related to non-traditional student policies and services

are considered by University D, the institution should be mindful of the impact these changes may have upon the traditional age student within the non-traditional program.

The work status of University D's non-traditional students, as indicated by the survey results displayed in Table 2, reflects that most of University D's students are employed full-time. This employment classification was used by Horn and Carroll (1996) as one of their defining characteristics of a non-traditional student. These three characteristics discussed, gender, age, and work status, confirm that University D's non-traditional students have similar identifiers expressed by Bean and Metzner (1985) and Horn and Carroll as defining factors of the non-traditional student population. The assertion that characteristics of the typical University D non-traditional student coincide with the characteristics of non-traditional students as defined by Bean and Metzner; Horn and Carroll should help University D administrators with the adoption of best practices for policies, procedures, and services designed for this specific group of students.

Question 1. What are the average importance ratings for the individual student support services rated each year the survey was performed?

This research question attempted to identify if any major shifts in rating of importance for a particular student support service occurred over the 2012, 2013, and 2014 years. The results indicated that two student support services, computer labs and newsletter and UD communications, had a range in importance scores greater than .20. Both of these support services importance mean ratings were in the mid to high two range, indicating a neutral to somewhat important response by the students. This finding would suggest that these particular services would not need a great deal of attention given to them by University D administrators. The support services that obtained mean ratings of 1.19 to 1.38 range included academic advising, quality of staff, and cost. These

consistent ratings of very important would indicate that University D students have common expectations for student support services. Cross (1992) purported that non-traditional students need clear information about their program. This supported the continued need for academic advising performed by quality University D staff in order to justify the need for the cost students incur for attending University D.

Question 2. What are the average satisfaction ratings for the individual student support services rated each year the survey was performed?

This research question attempted to identify if any major shifts in rating of satisfaction for a particular student support service occurred over the 2012, 2013, and 2014 years. The results indicated that there were two support services with score ranges greater than .20. The top areas with the highest range in mean scores were tutoring and other support services, and career services and networking.

The years in which the surveys were conducted, University D was undergoing a change in service approach to these areas to better meet the needs of their non-traditional students. Pascarella and Terenzini (1991) performed a meta-analysis of seminal education research through the 1990's. Through their analysis, Pascarella and Terenzini concluded that students with different characteristics, such as those possessed by non-traditional students, need different services than students displaying qualities mainly held by traditional students. This assertion supports the need for different services but does not explain why during the transition to improved services the student support service would still receive unsatisfactory ratings unless the changes made to these services were ineffective or not fully implemented. Changes made to student support services could be changes that non-traditional students did not approve of or deem important. If University D were to make changes to a particular student support services without fully

understanding the need of its non-traditional student body, then the change could lead to an unsatisfactory rating in the future.

It is worth noting that the services with the highest and most consistent satisfaction ratings were academic advising and quality of staff. This finding is noteworthy because both of these services were also rated to be two of the most important student support services.

Question 3. What is the relationship between the yearly survey importance and satisfaction ratings for the support services rated?

Ho: There is no relationship between the importance and satisfaction rating scores for the support services rated between years.

H₁: There is a relationship between the importance and satisfaction rating scores for the support services rated between years.

This research question sought to determine if there was a relationship between student support service importance and satisfaction ratings of non-traditional university students at University D over a three-year period. The obtained value for all but two support services, newsletter and University communications, and book store, was below the .50 value needed for strength of relationship. Further, there was a positive significant relationship reported for each support service at $p = .00$. This finding would indicate that students' level of importance rating and satisfaction rating are in some way related to one another. The variance in the satisfaction and importance for the newsletter and bookstore indicated that 71% and 74% of the variance between the importance and satisfaction ratings were not explained by the other rating. This would indicate other factors or variables, besides importance and satisfaction, influenced the ratings. Non-traditional students have many facets to their lives, learning styles, and needs from an institution

(Hughes, 1983). Some of these factors, such as more life experience, different life demands, and higher expectations from service could be contributing variables as to why non-traditional students rate certain services the way they do.

An additional conclusion from question three relates to the Cronbach's α scores achieved when testing the internal consistency of the items related to the 16 student support services. There were only two services which reached α at .68 and .66. Yockey (2011) stated that Cronbach's α should be at .70 or above in order to establish an acceptable level of internal consistency. The reliability results from this study would indicate additional measures be taken to improve the reliability of the survey.

The importance, satisfaction ratings, and reliability scores of the proprietary survey could be further compared to findings of national survey results for non-traditional students. Utilizing the longitudinal data of this research, University D could continue this yearly comparison allowing for greater depth of understanding of its non-traditional students' support service needs. Longitudinal data can provide valuable understanding of what and how student support service needs changed over time. Possessing this type of information can help guide University D in the decisions to be made for services with high importance ratings and low satisfaction ratings.

Implications and Recommendations

Implications and recommendations for further research and modification of this research project are discussed within this section. After drawing conclusions based on the research data findings, recommendations and implications for further study can be drawn.

Questions 1 and 2

The conclusions from question one and two suggested that a longitudinal focus for the data used by University D be taken if the annual student satisfaction survey

continued. Glass (1976) suggested that secondary research on existing data can be done to answer new questions. In addition to a new look at existing data on non-traditional students, University D could compare the importance and satisfaction scores for the same student support services to the ratings given by its traditional student population.

Pascarella and Terenzini (1991) suggested that research, and its resulting conclusions, about traditional students could not automatically be transferred to the non-traditional student population.

The annual satisfaction and importance ratings should be used to help guide the procedures and policies University D intends to enact related to its non-traditional student population. Tait (2000) and O'Connor (1994) supported this assertion through their work focusing on modifications made to student support services for non-traditional students. Tait's research further supported examining the characteristics of the students as a whole and also by program. What this implied was that by taking a closer look at the demographic information of individual students gathered from the survey. The demographic information may need to be expanded from just gender, age, and work status, to other areas like first generation college student, race, and ethnicity.

Question 3

The main implication of question three relates to the Cronbach's α scores obtained within this research study. The Cronbach's α scores obtained were below the acceptable .70 mark for reliability. This may be caused by the fact that the survey used by University D was a proprietary survey. The Council for Adult and Experiential Learning (CAEL) (Flint, 2005) and Noel-Levitz (2013a) created and distributed a survey titled the Adult Learner Inventory. This student survey may be a more reliable method for gathering data about University D's non-traditional student population. According to

research conducted by Mount Olive College, Noel-Levitz reported reliability and validity within satisfactory ranges for the Adult Learner Inventory with scores of .79 for importance and .83 for satisfaction (Johnson, n.d.). University D may even consider joining the Adult Learning Focused Institution Coalition (Flint, 2005) to provide administrators with an additional option for gathering data about its non-traditional students.

The obtained Cronbach's α scores for each of the student support services were below the .70 point for acceptability. This could be a result of the proprietary nature of the survey used by University D. University D could consider taking action to improve the Cronbach's α scores in a number of ways. Providing a definition of what each student support service encompasses or is composed of could provide a students with a consistent understanding of each service. Further, University D could consider utilizing a national survey designed to better understand non-traditional students' needs. A national survey could provide an opportunity for University D to gather data using an instrument with greater reliability.

Future research

With a study containing three years of student data, a number of ideas or points to consider arose during this research. The first question that arose was how does University D track similar data about its traditional student population? During the literature review phase of this study, some of the literature reviewed provided pieces of guiding information as it relates to serving the traditional and non-traditional market. These two student populations do not exist in the world of higher education in solitude. This is evidenced by the data and information provided within University D's Fall 2011 student population data and 2012 Self-study Higher Learning Report. Working on student

support service solutions should include meeting the needs of all students who utilize the service, not just one segment of the student population.

Future research could be performed comparing the importance and satisfaction ratings for the entire University D student population, instead of one segment of the student population. University D could administer a modified version of the proprietary student satisfaction survey to its traditional and non-traditional students. This survey would allow for a comparison of importance and satisfaction ratings between these two student groups. Information gathered from this type of research study could provide University D with a more holistic plan for improving or modifying student support services. Analyzing the data for both student groups will be an important tool for making improvements to student support services. But data should be accompanied by direct student input on improvements to be made to student support services. Direct student input could be gathered through the inclusion of open-ended questions asking for direct suggestions and then analyzed for themes present in the students' responses.

To summarize, the non-traditional student population has become a service category target of Institutions of Higher Education (IHEs) based on the growing demand for degree completion by this population. If IHEs are going to meet the needs of this unique student population, they will need to understand what potential and current non-traditional students deem important and how satisfied students are with the services they receive. Providing excellent service to non-traditional students can create a sustainable market for an IHE looking to increase its presence in the world of education. Through excellent, student-centered support services for non-traditional students, IHEs may distinguish themselves as leaders in the non-traditional segment. With this in mind,

University D may continue to expand their non-traditional student base through careful consideration of the feedback it receives from its annual survey results.

In conclusion, this chapter provided an in-depth review of the findings of this research study. Major conclusions able to be drawn from this research were also discussed. Finally, implications and recommendations were purported to advance the research about non-traditional students and the support services they need in order to complete their educational goals.

The information presented in chapter four is crucial to understanding the student support service needs of the non-traditional student body of University D. While the data analyzed in Questions 1 and 2 revealed consistent ratings for several of the student support services, the information revealed from the analysis completed on Question 3 is useful but most likely not transferable to broader applications because of the aggregate Cronbach's α scores for each of the student support services falling below the .70 score of acceptance for reliability.

Finally, this research study sought to address the student support services utilized by University D's non-traditional student population. The purpose of this research study was to analyze non-traditional students' level of satisfaction with services identified as important at University D, in order to make recommendations about which support services could be improved. Through the use of descriptive and inferential statistical analysis, the results indicate that more research about University D's non-traditional students' needs should be performed but possibly through a more formalized survey instrument that has an established Cronbach's α reliability of greater than .70.

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Appendix A

University D Student Satisfaction Survey

Appendix A

Continuing and Professional Education Learning Collaborative University D Student Satisfaction Survey February 2012

E-Mail Survey Invitation

Dear University D Student,

So that we can better understand how to meet the needs of students like you, we would like to obtain your feedback about your experiences at University D. The survey should take no more than 10 minutes to complete. Your responses will be kept confidential and only reviewed in aggregate. **Your feedback is very important to us. Thank you in advance for your participation and for being part of the University D community!**

Current Student Academic Profile

Q1. What is your 'home center' at University D? (This would be the Center where your academic advisor is located). Please select one.

- Battle Creek
- Benton Harbor
- Jackson
- Lansing
- Metro Detroit
- Monroe
- I am enrolled in the Theological Studies Program
- I am enrolled in a fully online program

Q2. Which of the following best describes your current status as a University D student?

Please select one.

- I am a new/ fairly new student in my University D Program
- I have been in my program for some time now
- I am quite far along/ near finishing my University D Program

Q3. How do you take most of your courses at University D? Please select one.

- On-campus, daytime
- On-campus, evening
- On-campus, weekend
- Online
- Other, please specify: _____

Satisfaction With Student Services and Academics

Q4. How *important* to you are the following services at University D? Please rate each on a 1 to 5 scale, with 1= Very Important, and 5=Not at All Important; Please select “Not Applicable” if the factor does not apply to you

- Academic advising
- Available programs
- Quality of faculty
- Quality of staff
- Availability of faculty
- Availability of staff
- Course availability and diversity
- Cost
- Financial aid
- Library services
- Computer and technology support
- Tutoring and other support services
- Billing procedures
- Admissions services and document review
- Course registration services
- Career services and networking
- Newsletters/other University communications
- Book store
- Parking
- Computer labs

Q5. How *satisfied* are you with the following services at University D? Please rate each on a 1 to 5 scale, with 1= Very Satisfied, and 5=Not at All Satisfied; Please select “Not Applicable” if you have not used the service

- Academic advising
- Available programs
- Quality of faculty
- Quality of staff
- Availability of faculty
- Availability of staff
- Course availability and diversity
- Cost
- Financial aid
- Library services
- Computer and technology support
- Tutoring and other support services
- Billing procedures
- Admissions services and document review
- Course registration services
- Career services and networking
- Newsletters/other University communications
- Book store
- Parking
- Computer labs

Q6. Do you have any suggestions for University D regarding student services?
Please write-in.

Q7. How would you rate your satisfaction with University D *faculty* on the following attributes? Please rate each on a 1 to 5 scale, with 1= Very Satisfied, and 5=Not at All Satisfied; Please select “Not Applicable” if the factor is not applicable to you.

- Knowledgeable
- Engaging
- Efficient
- Friendly
- Helpful
- Available

Q8. Please indicate the extent to which you agree or disagree with the following statements regarding University D faculty. *Please rate each on a 1 to 5 scale, where 1=Strongly Agree, and 5=Strongly Disagree; Please select "Not Applicable" if the statement is not applicable to you.*

- My questions are answered in a timely manner
- I receive feedback on assignments in a timely manner
- The faculty challenges me intellectually
- The faculty care about my personal growth and development
- The faculty care about my professional growth and development
- The instruction within my major field is excellent

Q9. Was your program/course at University D clearly and accurately portrayed to you prior to enrolling? *Please select one.*

- Yes
- Somewhat
- No

Q10. To what extent does the program/course you are enrolled in at University D meet your academic expectations? *Please select one.*

- Meets all expectations
- Meets some expectations
- Neutral
- Does not meet some expectations
- Does not meet any expectations

Q11. Please indicate the extent to which you agree or disagree with the following statement: "The content of the courses within my major is valuable." *Please select one.*

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Q12. Is there anything else you would like to tell us about your academic experience at University D?

Impact of University D

Q13. Please rate your agreement with the following statement, “Enrolling at University D has impacted my *professional* life in a positive manner.” Please select one.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Q14. Please rate your agreement with the following statement, “Enrolling at University D has impacted my *personal* life in a positive manner.” Please select one.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Q15. We would like to learn more about how your program and experience at University D Heights may have impacted your life since enrollment. Have any of the following outcomes resulted from your experience at University D? Please select all that apply.

- Received/Anticipating a promotion
- Changed companies/organizations in the same industry/sector
- Made a career change to a new industry/sector
- Developed a clearer sense of purpose in life
- Became more effective in my current job
- Gained more confidence in my professional career
- Gained more confidence in my personal life
- Developed a life-long learning orientation
- Improved managerial/leadership skills
- Became more analytic/developed my analytical skills
- Developed more effective communication skills
- Developed a broader perspective
- Developed more effective interpersonal skills
- Developed a greater ethical sensitivity
- Developed stronger critical and analytical thinking skills
- Developed new friendships and connections
- Other, please specify: _____

Q16. Is there anything else that you would like to tell us about the impact of enrolling at University D on your professional or personal life?

Please write-in

Overall Satisfaction

Q17. How likely are you to recommend University D to someone you know? Please select one.

- Very likely
- Somewhat likely
- Neutral
- Not very likely
- Not at all likely

Q18. How satisfied are you with your overall educational experience at University D University? Please select one.

- Very satisfied (**Continue to Q19**)
- Somewhat satisfied (**Continue to Q19**)
- Neutral (**Skip to Q20**)
- Not very satisfied (**Skip to Q20**)
- Not at all satisfied (**Skip to Q20**)

Q19. What has made your educational experience at University D satisfying? Please write-in.

Q20. What would you change about University D? Please write-in.

Q21. Please indicate the extent to which you agree or disagree with the following statement “University D offers a quality education for the price of tuition.”

- Strongly agree
- Agree
- Neutral / no opinion
- Disagree
- Strong disagree

Marketing / Web Site Satisfaction

Q22. How did you first learn about University D? *Please select all that apply.*

- University D alumni
- University D enrolled student
- Community college faculty or counselor
- Friend or work colleague
- General word-of-mouth
- Employer
- Television advertisements
- Radio advertisements
- Newspaper advertisements
- Trade journal advertisements
- Outdoor billboards
- Direct mail
- College or employer fairs
- Professional conferences - display booth
- College Guidebook or course catalog
- School Web sites
- Internet search engines
- Web directories of college programs
- Other, please specify: _____

Q23. Before selecting University D, what other colleges or universities did you consider attending? *Please select all that apply*

- A local community college in my area
- University of Michigan
- Wayne State University
- Michigan State University
- Eastern Michigan University
- Western Michigan University
- Central Michigan University
- Oakland University
- Davenport University
- Rochester College
- Baker College
- Concordia University
- Walsh College
- Spring Arbor University
- Other university/college in Michigan, please specify: _____
- Out of state university/college, please specify: _____

Q24. How would you rate your satisfaction with University D's Web site? *Please select one.*

- Very satisfied
- Somewhat satisfied
- Neutral
- Not very satisfied
- Not at all satisfied

Q25. Do you have any suggestions for improving University D' Web site? Please write-in.

Q26. Would you be willing to participate in a focus group?

- Yes
- No

Demographics

Q27. Please specify your gender. Please select one.

- Male
- Female
- Prefer not to answer

Q28. Which of the following best categorizes your current work status? Please select one.

- Employed full-time
- Employed part-time
- Not employed, but seeking employment
- Not employed, and *not* seeking employment
- Self-employed, consultant, or freelancer
- In the military
- Retired
- Other, please specify: _____
- Prefer not to answer

Q29. Please select your age. Please select one.

[Drop-down list of 18 to 65+]