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Graduate Student Perceptions of Support Services in Online Degree Programs

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GRADUATE STUDENT PERCEPTIONS OF SUPPORT SERVICES
IN ONLINE DEGREE PROGRAMS

by

LYDIA KARAKOLIDIS CROSS

(Under the Direction of Daniel W. Calhoun)

ABSTRACT

Increasing enrollments of online students has impacted higher education institutions over the last twenty years. While much of the research related to online learning has focused on instructional design and student persistence variables, the role of student support services is a needed area of research. This study set out to evaluate online graduate students' perceptions of their satisfaction and importance in three student support service areas: enrollment services, academic services, and student services at one public, four-year institution in southeastern Georgia. Findings from this quantitative study indicated satisfied online graduate students in a majority of the areas, with mean difference statistical analyses highlighting needed areas of improvement. Discussion and implications from the findings suggest practical recommendations for this institution, and others, to evaluate student services and make improvements where needed. Recommendations for future research include whether or not access to support services impacts online progression throughout their programs.

INDEX WORDS: Graduate students, Online learning, Student support services, Higher education

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DOCTOR OF EDUCATION

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DEDICATION

This dissertation is dedicated to my family: my supportive husband and partner in life, Todd; our three amazing children who now have my full and undivided attention, Andrew, Caroline, and Charlie; and to my mother, Irene, who taught me to be the independent and strong woman that I am today. I could not have completed the coursework and writing without the support and backing from all of you and I am so thankful and blessed to have you all in my life.

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Finally, I dedicate this dissertation to God as all things come from Him.

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CHAPTER 1: INTRODUCTION

Enrollments in online courses and programs continue to increase at higher education institutions in the United States (U.S.), particularly at public, four-year and private not-for-profit institutions (Allen & Seaman, 2015). The most recent U.S. Department of Education National Center for Education Statistics (NCES, 2016) *Enrollment in Distance Education Courses* report indicates that in fall 2014, 28.5% of all undergraduate and graduate students in the U.S. were either enrolled exclusively in an online program or were taking at least one online course. In comparison, in fall 2012 (NCES, 2014) this number was 25.8%, showing a 3-4% enrollment increase in U.S. online courses in the span of two years. While the pace of growth for online enrollments has slowed some since the early-to-mid 2000s, it still outpaces traditional on-campus enrollment growth (Allen & Seaman, 2017).

While enrollments continue to increase in online programs and courses, retention of online students poses a challenge for leaders at public, higher education institutions. Research shows that online student attrition rates can be 10-34% higher than on-campus student attrition rates (Atchley, Wingenbach, & Akers, 2013; Carr, 2000; Fetzner, 2013; Patterson & McFadden, 2009; Willging & Johnson, 2004). Higher online attrition rates are problematic for both online students and higher education institutions. For one, the student fails to reach the end-goal of graduation and may have incurred debt with no degree attainment. Also, the higher education institution has lower, publicly-reported retention and graduation rates which can draw scrutiny from state legislatures and the federal government. As more state legislatures consider moving to performance-based funding formulas for higher education budgets instead of headcount funding formulas, institutions may encounter negative budgetary implications if they fail to retain, progress, and graduate online students. Traditionally, state legislatures have allocated

public institutions' budgets based on enrollments; performance-based funding models would allocate state monies based on retention and graduation rates of students.

Chief academic officers at public, four-year institutions report that online learning is essential in their institutions' long-term strategic plans (Allen, Seaman, Poulin, & Straut, 2016), so it can be presumed that public institutions will continue to move additional courses and programs into online formats. Distance education, or online learning, is a separation of the learning experience from a campus and requires interactive systems to connect students to instructors and resources (Ayers Schlosser & Simonson, 2006). Converting courses and programs into an online format is only one aspect of distance education, and oftentimes the implementation of ancillary resources that support online student success may not be fully considered.

Colleges and universities have invested considerable time, funding, and personnel to create support services for on-campus students, but have not necessarily matched those services for online students (Bailey & Brown, 2016; Crawley & Fetzner, 2013; Dare, Zapata, & Thomas, 2005; Floyd & Casey-Powell, 2004; Kendall, 2005). There are many aspects incorporated into what constitutes support services, such as admissions processes, library services, tutoring availability, financial aid counseling, career counseling, and academic advising (Crawley & Fetzner, 2013). Since students' online experiences will include interactions outside of the learning management course system where instruction occurs, institutions must carefully consider and evaluate multiple areas that contribute to student success (Bailey & Brown, 2016; Crawley & Fetzner, 2013; Shea & Armitage, 2002). Support services are critical to student success and must be considered by institutions that offer fully online programs (Crawley & Fetzner, 2013).

Background

The growth of enrollments in online learning at public institutions has outpaced growth in traditional on-campus programs for the last two decades (Allen & Seaman, 2017; Moore & Fetzner, 2009). According to Moore and Fetzner (2009), the early growth of online learning was due to its “convenience, flexibility, and affordability” (p. 3). More recent data indicate convenience, flexible class schedules, and program costs are still the predominant reasons students seek online learning; between 80-90% of 107,000 online students at public, four-year institutions surveyed since 2012 indicate these three factors as the top reasons for seeking online degree programs (Ruffalo Noel Levitz, LLC, 2016). While a convenient means for completing programs, online learning is not without its problems.

Critics of online learning in the early growth period of the mid-2000s, including college faculty, did not equate the educational requirements and rigor of online courses to traditional on-campus programs (Allen et al., 2016; Allen & Seaman, 2015; Casey, 2008; Moore & Fetzner, 2009). In contrast, the most recent online tracking survey report by Allen et al. (2016) shows that approximately 70% of chief academic officers believe learning outcomes for online courses are comparable to on-campus courses; the same report indicates that approximately 30% of faculty agree that learning outcomes of online courses are comparable to on-campus courses. Faculty perceptions of online learning quality still vary greatly from those of chief academic officers, but Allen et al. (2016) note that faculty views of quality have shown marginal increases each year the survey is administered. The same report indicates that faculty resistance tends to be one of the major reasons some institutions do not offer online programs (Allen et al., 2016).

A considerable amount of online learning research focuses on the quality of instruction, including instructor knowledge and course design elements. Research-based initiatives such as

Quality Matters (QM, 2017) focus solely on the training of faculty to design and evaluate online courses and programs. Institutions can use Quality Matters' (2017) standardized rubrics to evaluate instructor training, online course elements, and instructional design. While inordinately valuable for institutions to have more effective courses and programs, there is more to the online learning experience than what happens in the learning management system (Crawley, 2012). Evaluation must occur in all areas online students interact in during their experience at an institution from the time they submit an application for admission until they graduate (Crawley, 2012).

A second area of research related to online learning is on individual learner factors that promote retention or increase attrition. While there is not one ultimate factor that causes online student attrition, general themes have emerged from the range of factors researched. One of the primary factors seen across the research is communication issues, which includes timely, or untimely, feedback from instructors, and students' ability to easily access information (Hart 2012; Muilenburg & Berge, 2005; Ortiz-Rodriguez, Telg, Irani, Roberts, & Rhoades, 2005). Another primary factor found in online attrition studies is issues in social interaction and engagement, both with instructors and classmates (Bolliger & Inan, 2012; Gaytan, 2013; Park & Choi, 2009). Both communication and engagement issues factor more prevalently in the instructional elements of online learning, so recommendations for change have been for instructors/faculty on the learning management side of online learning.

Recognizing a need in the evaluation of services for institutions that offer online programs, Ruffalo Noel Levitz, LLC created the *Priority Survey for Online Learners* in 2011. Institutions that utilize the instrument to evaluate their online students' expectations and satisfaction do so in five areas: academic services, enrollment services, institutional perceptions,

instructional services, and student services. Since its implementation, the instrument has been administered to over 118,000 students across approximately 130 U.S. universities, colleges, and community colleges (Ruffalo Noel Levitz, LLC, 2016). National trend data from the 2012 to 2016 administrations of the *Priorities Survey for Online Learners* report that expectations and importance around enrollment support services, academic support services, and student support services contribute to students' satisfaction regarding their online learning experience (Ruffalo Noel Levitz, LLC, 2016). These national data also indicate a significant gap between online students' expectations of services and their satisfaction with currently available services (Ruffalo Noel Levitz, LLC, 2016). Institutions that participate in this survey have the ability to see the specific gaps in their support services areas.

Before a student enrolls in an online course, the student has more than likely interacted with several other departments including an office of admissions, financial aid, and/or the university or college bookstore. Navigating the registration system and adding online courses to schedules will occur before the student has any formal interactions with instructors. These pre-instructional experiences occur either by the student navigating the process alone or by communicating with academic and student affairs support staff (Crawley, 2012). Whether or not higher education institutions are providing necessary support services for online students is a question any institution that offers online programs should investigate. There is no particular support services model that fits every institution, but meaningful and research-based evaluations of support services are an essential first step in ensuring online students have access to the full range of support they need to be successful in their programs (Britto & Rush, 2013; Crawley, 2012).

Statement of the Problem

As previous research has shown, online learning is a convenient means of attaining a higher education degree for varying types of students; however, higher online attrition rates are a cause for concern for higher education. Online learning can be an isolating experience for students, and this isolation, lack of student engagement, and lack of administrative support can lead to these higher attrition rates. Student perception studies are important as they provide understanding of student experiences and themes can emerge across multiple studies around the same topic. Many studies regarding online students' perceptions of their online experiences examine institutional processes related to course design, instructor interactions, communication, and student characteristics or dispositions. There is a need to add to the research regarding online graduate students' perceptions of their expectations and satisfaction of online support services. Understanding online graduate student perceptions related to support services will add to the base of research related to online learning. Additionally, these data can inform evaluative practice for institutions that offer fully online programs to better meet the needs and expectations of online students.

Purpose Statement

As online enrollments are anticipated to grow and attrition rates are higher for online students, it is critical for educational leaders to examine institutional processes to ensure that online students have the necessary support mechanisms in place. Researching online learners' perceptions and experiences in their programs is one method institutions can use to begin evaluating online support services. Therefore, the purpose of this study was to examine the perceptions of currently enrolled online graduate students at one institution using archival data from this specific institution collected by Ruffalo Noel Levitz, LLC's *Priority Survey for Online*

Learners.

The *Priority Survey for Online Learners* measures online student perceptions in the following areas: academic services, enrollment services, instructional perceptions, instructional services, and student services. The emphasis of data analyzed was in the areas of academic services, enrollment services, and student services as the researcher believes these are the three areas within the survey related to support services available to online learners. Utilizing data previously collected in these areas allowed the opportunity to create recommendations for institutions and added to the research on online student support services.

Research Questions

The purpose of this study was to evaluate current online graduate students' perceptions related to their access of support services. Online graduate students from one public, four-year southeastern regional institution were surveyed in 2017 using the Ruffalo Noel Levitz, LLC's *Priority Survey for Online Learners*. The *Priority Survey for Online Learners* instrument asked online graduate students in a college of education to evaluate their satisfaction, expectations, and level of importance across five core areas, but only three core areas were used to answer the research questions: academic services, enrollment services, and student services. Utilizing a quantitative research approach with archival data collected by the institution, the primary research question this study sought to answer was:

What are the perceptions of online graduate students regarding their access to online support services?

Sub-research questions included:

1. How do online graduate students rate their levels of satisfaction and importance of their institution regarding online support services offered?

2. Is there a difference between online graduate students' ratings of satisfaction and their importance expectations of services?
3. Is there a difference between the online graduate students surveyed at this one institution compared against the national online learners' dataset?

Ultimately, the results from the sub-research questions answered the primary research question.

Theoretical Frameworks

As an online student retention model does not exist, this study utilized two theoretical models closely related to the topic to ground the interpretation of data analyzed. The first theoretical framework is Bean and Metzner's (1985) nontraditional undergraduate student attrition model. Bean and Metzner's (1985) nontraditional undergraduate student demographics mirror traditional online graduate learner characteristics. Understanding characteristics of non-traditional students and the issues they face in degree attainment is valuable to assist them. Also, as the primary data source derives from a satisfactions and expectations survey, Cardozo's (1965) seminal research on customer effort, expectations, and satisfaction model is used as the secondary theoretical framework. If one views students as consumers of a product (i.e. a college education/degree), understanding their expectations and current satisfaction can be used to enhance the product. A brief overview of both models follows below, with detailed information provided in further chapters.

Nontraditional Undergraduate Student Attrition Model

Bean and Metzner's (1985) conceptual framework on nontraditional undergraduate student attrition stems from Tinto's (1975) student retention model which focuses on the role of social integration as a retention barrier. During the 1970s and 1980s, a specific type of student began attending college in larger numbers: the nontraditional student. Bean and Metzner (1985)

identify nontraditional undergraduate students as being “older than 24 years old, or do not live in a campus residence (e.g. is a commuter), or is a part-time student, or some combination of these three characteristics” (p. 489). As this population expanded in higher education in the 1970s and 1980s, retention of these students became an issue, and researchers sought to understand why. Bean and Metzner (1985), through a detailed review of prior research, created their conceptual framework upon Tinto’s (1975) model, but with one crucial difference: the role of external or environmental variables disproportionately impacts nontraditional student retention. These variables include issues related to family/employer support, funding, family responsibilities, and hours of employment (Bean & Metzner, 1985). If a student has the background and academic characteristics to be successful, these can be negated by any major external issue that arises. Therefore, it is incumbent upon the institution to create and implement support structures to mitigate external pressures, when possible (Bean & Metzner, 1985).

Extrapolating Bean and Metzner’s (1985) model of undergraduate student attrition, online graduate students tend to fit the descriptors of nontraditional students. According to the NCES (2016), approximately 75% of undergraduate and graduate students enrolled in online courses and programs are 24 years of age and older. Additionally, approximately 65% of online learners attend college part-time, particularly at the graduate level (NCES, 2016). Online programs afford students the ability to attend college from anywhere, so the primary residence of the student could be thousands of miles from the home institution. In reality, the majority of online learners are within 100 miles of the institution, but it is still a considerable distance when considering access to on-campus support services (Allen et al., 2016). As the majority of online graduate students attend part-time, it can be assumed many also work either part-time or full-time. Working and attending graduate school concurrently can bring forth issues categorized by

Bean and Metzner's (1985) external variables, so institutions should ensure access to support services are available.

Customer Effort, Expectations, and Satisfaction Model

As the *Priority Survey for Online Learners* primarily measures student satisfaction and expectations of services, the second theoretical framework utilized by this study is Cardozo's (1965) seminal work on customer effort, expectations, and satisfaction. Cardozo (1965) found that a customer's efforts and expectations influenced their evaluation and satisfaction of the product and experience. When consumers put effort in pursuing information on the product and high expectations are assigned, satisfaction of the product was higher; inversely, when consumers did not have adequate information to explain the product coupled with then lower expectations of the product, satisfaction in the product was lower (Cardozo, 1965). An important detail in this study is that the subjects were given either full or limited information about the product, and the level of information they had influenced their expectations.

While this is a marketing-based research study, the idea that universities are business-centered and customer driven can be argued, making this study applicable as a theoretical basis. Tying into higher education and the student experience, students' expectations and experiences will factor into their ratings of satisfaction at the institution. Using Cardozo's (1965) model in a higher education context, the accessibility and clarity of information available to students influences their overall satisfaction with the institution.

Methods

This study used a quantitative research approach utilizing archival data collected from the administration of the Ruffalo Noel Levitz, LLC's *Priority Survey for Online Learners* to graduate online students. This survey was administered in spring 2017 in a college of education

at a public, four-year comprehensive doctoral institution in southeastern Georgia. Graduate online students were the focus as the online programs in this university's college of education are only offered at the graduate level. Permission was received by the researcher from both the college of education administrators and Ruffalo Noel Levitz, LLC to analyze data collected from the survey administration.

More details are provided in Chapter 3 regarding data collection procedures, but in brief, the survey was administered and managed by Ruffalo Noel Levitz, LLC. The college of education provided graduate online student e-mails and first names to create personalized invitation and reminder e-mails. Ruffalo Noel Levitz, LLC provided raw data files, a spreadsheet with typed comments from respondents, and guides for data analysis to the college of education at the end of spring semester 2017. While Ruffalo Noel Levitz, LLC had the capability to see who completed the survey (known only by the student's e-mail address), this information was not shared with the institution. As such, there were no personal student identifiers available to this researcher in the data files.

The standard instrument of the survey was used, but the college of education added ten institution-specific questions based on institutional interest in certain areas. These ten questions were chosen by the college of education associate dean for graduate education and research and the director of the graduate advising center. Ruffalo Noel Levitz, LLC provided the psychometric properties related to reliability and validity, and all items asked on the standard instrument were rated highly reliable and valid. While the instrument covers five areas, including overall institutional ratings, this study will only analyze three of the areas: academic services, enrollment services, and student services as they are most relevant to the issue being explored.

Once appropriate approvals were received from the Institutional Review Board (IRB) at the researcher's institution, data were analyzed using quantitative statistical analysis computer applications. Descriptive data tables are provided to review responses by age, gender, enrollment status, and employment status to ensure the sample is representative demographically to the population surveyed. A dependent samples t-test was completed to determine the difference in level of importance and level of satisfaction for each item and support service category. Based on the mean differences between importance and satisfaction, a prioritization matrix was created for the items that have higher mean difference values between students' current experiences and expectations. Data tables and the prioritization matrix guided the interpretation of results. To determine if there were meaningful differences between the institutions' respondents and the national online learner dataset, a two-tailed t-test and Cohen's *d* calculations were completed. Implications for online learning research are presented in Chapter 5, as well as practical recommendations for higher educational leaders to evaluate processes at other institutions.

Significance of the Study

As online student enrollments increase, particularly at public higher education institutions, educational leaders must evaluate current support services to ensure that online students have the resources needed to be successful in their degree programs. As research shows online student attrition rates are typically higher than for on-campus students, it is even more critical to ensure institutions provide supports for online students to be retained, progress in their programs, and graduate. Research shows that connection to the institution and institutional resources impact retention rates. As many states move toward performance-based funding models that will provide higher education funding on retention rates rather than enrollment

headcounts, it is important for educational leaders to address online attrition issues. Research related to online students has primarily been focused on the student and his or her internal and external motivations, as well as how the learning management system or course design contributes to persistence. As such, there is an opportunity to investigate the role that support services play in students' experiences and expectations in online programs.

Utilizing archival data collected by the institution studied from the Ruffalo Noel Levitz, LLC *Priority Survey for Online Learners*, this study is significant in many ways. Firstly, it adds to existing research on online learning, particularly on the role of support services in online program satisfaction. While research on support services has increased within the last decade, more research is needed. Continued research on online students could lead to an extension of an existing theoretical framework or provide foundation for the creation of an online student retention model. Additionally, institutions may also be able to use the analysis and recommendations to evaluate their current processes and make necessary changes in an effort to increase online graduate student retention at their specified institution.

Many administrative offices within a higher education institution can use the findings from this study, particularly the mean difference statistics and prioritization matrix, to provide suggested areas of improvement for the online learning experience. Online students, particularly graduate students as they are the focus of this study, can benefit as institutions could use these findings to evaluate and implement more accessible student support services. Vice-presidents for academic affairs, student affairs, and information technology can utilize the results and implications in the following ways:

- 1) Understand online graduate students' expectations, satisfaction, and level of importance in the availability of support services, which can help improve students'

- experiences and potentially improve retention, progression, and graduation rates.
- 2) Evaluate individual support service areas to see where improvements are needed. For example, academic tutoring accessibility for academic affairs; career services counseling accessibility for student affairs; and accessibility for technical support for information technology.
 - 3) Collaboration between these three areas, and a center for online learning if available at the institution, to evaluate and create combined or “one-stop shop” services for online students in critical areas identified by administrators.

Definitions of Key Terms

Online learning - Online learning is most simply defined as students and instructors learning and teaching in varied locations (Ayers Schlosser & Simonson, 2006; Moore & Kearsley, 2011). Online learning can be partially or fully online. For purposes of this study, only fully online graduate students will be studied.

Online support services - Online support services are the non-instructional aspects of higher education. Generally, they fall into five categories: academic services, the administrative core, communication, student communities, and personal services (Shea & Armitage, 2002). This study will analyze archival data within academic services, enrollment services, and student services. Enrollment services is a subset of the administrative core and student services is personal services.

Student satisfaction - Student satisfaction is defined in this study as the perceived feelings of whether or not students are receiving the product or service that aligns with their expectations of the institution (Cardoza, 1965; Giese & Cote, 2000).

Support services - Support services are defined as the non-instructional services offered by

institutions to provide academic, administrative, and personal support to online students (Bailey & Brown, 2016; Crawley & Fetzner, 2013; Shea and Armitage, 2002).

Embedded within these categories are online orientations, access to advisement, tutoring, library services, etc.

Chapter Summary

The rapid development of technology within the last two decades has allowed students to experience higher education virtually and at their own pace. Students attracted to online learning are typically 24 years of age and older and take courses part-time. Higher education institutions have capitalized on this demographic and the growth of online courses and programs has exploded during this time. While it is technically fairly simple to move instruction into an online format using a learning management system, it is more challenging for institutions to provide the same level of support services to online students that have been traditionally available to on-campus students.

Student retention theories indicate that the more involved a student is in the college community, the more likely they are to persist at the institution (Tinto, 1975; Bean & Metzner, 1985). As research shows that online students tend to feel more disconnected from the institution and have issues in accessibility and timeliness of information, their attrition rates tend to be higher than on-campus student attrition rates. Higher scrutiny on higher education from state legislatures and the federal government regarding retention and graduation rates is something that institutions cannot ignore, as there are budgetary implications for the institution.

The majority of existing research on student attrition in online programs has focused on instructional design or student characteristics. Consequently, this researcher believes there is a need to add to the research in the area of support services, particularly at the graduate level.

Therefore, the purpose of this study was to better understand the needs and expectations graduate online students have regarding their access to support services. Having a baseline understanding of online expectations and importance is a first step for institutions to evaluate the infrastructure of support services available.

Organization of the Study

This dissertation is organized into five chapters including the introduction, literature review, methodology, data analysis, and discussion and implications of the data analysis. Chapter 1 covered an introductory examination of online growth and higher online attrition rates, framed by a brief background and two theoretical frameworks. Chapter 1 also included information on the need for this study and the intended research design. Chapter 2 provides a targeted literature review to establish a more detailed background on the issues involved with online learning and online support services. Chapter 3 details the research design, study population, and data collection procedures. Chapter 4 provides data analysis, including descriptive statistics and data tables. Chapter 5 discusses the data, while tying finding back to prior research; additionally, implications of the data and recommendation for future research are presented.

CHAPTER 2: REVIEW OF LITERATURE

While considerable research has been conducted on individual student factors, engagement within individualized online courses, and instructional design, research is limited on how institutional processes and student support systems contribute to graduate students' overall experience and satisfaction in their online degree programs. To set the stage for data analysis of support services in online programs, a review of existing literature related to online learning is essential. This review of literature is not meant to be a comprehensive examination into all facets of online learning and the role of support services, but is meant to highlight critical aspects of online learning that ties in with the data to be analyzed for this study.

Four primary search services were used for this literature review: Georgia Southern University's Discover service; the ProQuest dissertation database, Google Scholar®, and ERIC, the Education Resources Information Center database. Keywords for the search included: online learning, online attrition, online student retention, online accreditation, online support services, graduate students, performance-based funding, and online educational leadership. Articles searched were limited to those in English, allowed for full Portable Document Format (PDF) access, and published in scholarly and peer-reviewed journals. The initial search was for articles more recent than 2010; however, in reviewing those articles found, several older articles were used which provided value to the literature review. Additional sources for context included educational statistics reports, as well as regional accreditation recommendations and requirements.

Organization of the Literature Review

This literature review is framed by two theoretical models, Bean and Metzner's (1985) nontraditional undergraduate student attrition model and Cardozo's (1965) customer effort,

expectations, and satisfaction model. As this study is focused on higher education leadership, it is important to provide a brief overview of two educational policy challenges directly related to online student attrition rates and the role of support services for online students: meeting accreditation requirements and the move to performance-based funding models. Beyond the theoretical frameworks and educational leadership challenges, the remaining topics discussed throughout this chapter include a historical context of online learning; barriers to online student retention; factors that promote positive online learning experiences; the role of support services in online learning; existing support services models; and models of analyzing online support services at institutions.

Theoretical Frameworks

To date, there has not been a seminal theoretical study on online student attrition. As such, analyzing online student attrition with theory requires choosing other frameworks with reasonable similarities. Briefly mentioned in Chapter 1, the demographics of graduate online learners share similarities with the demographics of non-traditional undergraduate learners. As such, Bean and Metzner's (1985) seminal study on nontraditional undergraduate student attrition is one theoretical framework that this study will use to explore online student learner characteristics. Additionally, market-research theory around consumer satisfaction and expectations aligns with the type of data analyzed for this study, so Cardozo's (1965) seminal study on customer effort, expectation, and satisfaction is the secondary framework applied.

Nontraditional Undergraduate Student Attrition Model

According to Bean and Metzner (1985), nontraditional undergraduate students have higher attrition rates than traditional students who attend on-campus. Prior to this model, the major study on college student dropouts was Tinto's (1975) model on student retention. Tinto

(1975) postulates that failure to socially integrate into the college or university is a major factor in a traditional undergraduate student's decision to drop out. The limitation of Tinto's (1975) model for Bean and Metzner is that it only describes the characteristics of traditional, undergraduate college students: those who are in the 18-24 age demographic, attend college full-time, and who typically live in on-campus residence halls or close by the institution if they live off-campus.

During the 1980s, Bean and Metzner realized that college enrollment demographics were changing: older students were attending college for the first time and they tended to commute to campus (1985). This demographic shift was largest at community and two-year colleges (Bean & Metzner, 1985). As attrition rates for this population of student tended to be higher than that of their traditionally-aged college counterparts, it prompted Bean and Metzner (1985) to synthesize retention research up until that point to create their own conceptual model of nontraditional student attrition. There is no definitive definition of a nontraditional student, but Bean and Metzner (1985) ultimately set the criteria as a combination of three demographic characteristics: age, enrollment status, and residence.

The nontraditional undergraduate student attrition model incorporates four variable groups that ultimately impact academic outcome and a student's decision to leave the college or university: background variables (e.g., age, enrollment status, gender, residence, educational goals, etc.); academic variables (e.g., study habits, academic advising, course availability, major exploration, etc.); environmental variables (e.g., outside employment, finances, family encouragement, etc.); and to a lesser extent, social integration variables (Bean & Metzner, 1985). While Tinto (1975) theorizes social integration as one of the most important issues impacting traditional undergraduate student retention, this is not typically the case for nontraditional

students. Social integration activities for traditional students tend to be activities occurring on-campus, so nontraditional, off-campus students are not likely to benefit from those activities (Bean & Metzner, 1985).

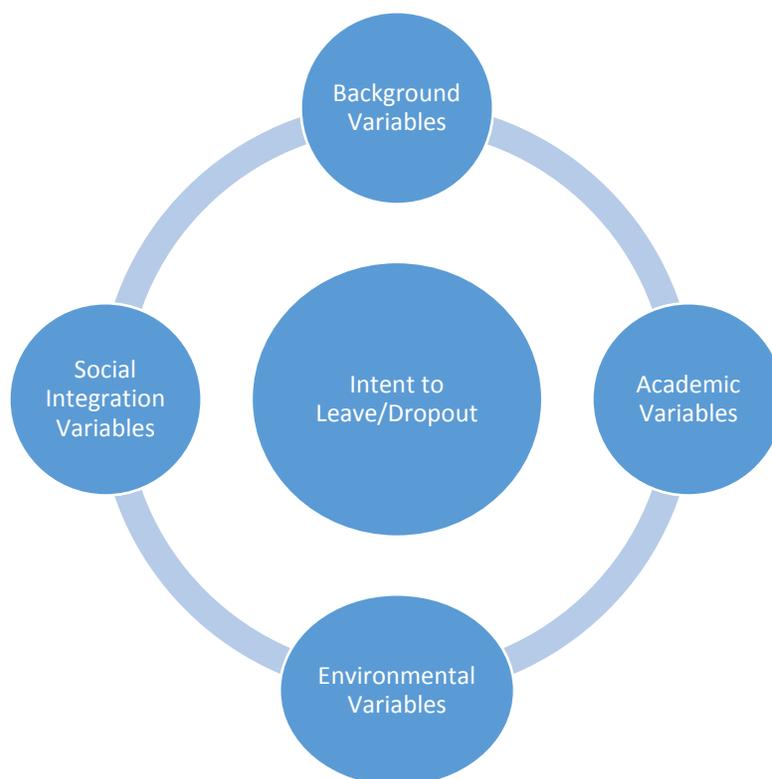


Figure 1. Four variable groups that may contribute to non-traditional student attrition. Adapted from Bean and Metzner's (1985) nontraditional undergraduate student attrition model.

Research for nontraditional students demonstrates they are “more affected by the external environment than by the social integration variables affecting traditional student attrition” (Bean & Metzner, 1985, p.485). This does not fully diminish the role of the other variables in retention, but external environment issues negatively impacts nontraditional students more than any other variable (Bean & Metzner, 1985). Higher education institutions can generally control for background variables due to admissions criteria, provide academic support for the academic variables, but are less able to decrease external environment issues experienced by nontraditional

students (Bean & Metzner, 1985). Ultimately, Bean and Metzner (1985) suggest that institutions provide as much support, both academically and financially, to better assist nontraditional students' progression through their programs.

Customer Effort, Expectations, and Satisfaction Model

The second theoretical model that frames this study is Cardozo's (1965) seminal work on customer effort, expectation, and satisfaction. In a controlled laboratory setting, Cardozo (1965) conducted experiments with undergraduate business administration majors on their effort, expectations, and satisfaction with a shopping task for ballpoint pens. All participants were given the same exact ballpoint pen to use in the experiment and told to use the pen to look through product catalogs and write down characteristics of 31 items in the catalogs. Both catalogs had the same products, but with different prices and varying degrees of product information available, including the pens used in the experiment. In one catalog, the pen price was \$1.95 and in the other, \$0.39. The final activity was for participants to rate their efforts in research activities, their satisfaction with the pen, and their expectations of the pen.

Based on data analysis of the participants' ratings, Cardozo (1965) concludes that customers who expend high amounts of effort and have more detailed information about the product will have higher expectations and satisfaction levels, oftentimes regardless of price; those who expend little effort or just have surface or incomplete information about the product will have lower expectations and satisfaction with the product. Customer satisfaction with a product is important in the business world as "satisfaction with a product presumably leads to repeat purchases, acceptance of other products from the same [company], and favorable word-of-mouth publicity" (Cardozo, 1965, p. 244). Ultimately, access to information is key in how a consumer will view a product.

Correlating this framework into the study of online graduate student support services, the more amount of detailed information available to students, coupled with their effort at making use of that information should lead to higher levels of expectations and satisfaction with the online learning experience at the institution. Educational research has corroborated this data in that online students who have high levels of satisfaction are more likely to complete another degree at the same institution and refer the institution to a friend (Ruffalo Noel Levitz, LLC, 2016). The current higher education landscape offers prospective students hundreds, if not thousands, of options when it comes to choosing an online degree program and online programs compete for this limited pool of applicants. Institutional quality is essential in marketing to prospective applicants, and that quality will be derived from the experiences that current (and former) students have at the institution. Therefore, it is incumbent upon the institution to provide the support services that online students expect and need. Failure to do so leads to challenges for students and educational leaders.

Educational Leadership and Policy Challenges

A dichotomy exists within online learning: chief academic officers intend to move more programs into online formats to grow the population of online learners, but retention rates are lower for online students (Atchley, Wingenbach, & Akers, 2013; Carr, 2000; Fetzner, 2013; Patterson & McFadden, 2009; Willging & Johnson, 2004). This dichotomy creates a larger high-risk student population that faces additional struggles to successfully progress and graduate from programs compared to on-campus students. Educational leaders need to be proactive in creating the infrastructures needed to assist online students *prior* to moving additional courses and programs fully online. When online learning was on the cusp of exploding, Carr (2000) cautioned institutions to ensure appropriate infrastructures are in place before moving into the

online market, but not all institutions have heeded that advice. As such, these issues create a “perfect storm” environment because support services for online students are not always considered before institutions move programs fully online.

Coupled with the students’ internal and external barriers to online learning are the policy and administrative challenges educational leaders face when implementing online programs. Regional and national accrediting agencies have begun to focus on institutions that offer online programs to ensure equal access for both on-and-off-campus learners; failure by an institution to meet accreditation standards can do great damage to the institution. An additional challenge for educational leaders is the scrutiny from national and state governments on low college completion and retention rates. Many states have already passed measures, and others are in the pipeline to pass, that change state allocated budgets to higher education institutions from head-count formulas to performance-based funding models. Lower retention and graduation rates for online students could potentially impact state-funded institutions with decreased funding from state legislatures.

Meeting Accreditation Requirements for Online Services

As online programs have increased dramatically the last two decades, regional accreditation bodies have adjusted their standards to “require [that] distance learning students receive equivalent services provided to those on campus” (Hardy & Meyer-Griffith, 2012, p. 7). A requirement outlined by the Council of Regional Accreditation Commissions (C-RAC, 2011), is that institutions must prepare budgets and personnel for online learning to include support services such as orientation programs, accessible formats of financial aid, course registrations, career counseling, and academic support; access to learning support services such as libraries, publications, and information resources; and that institutions regularly evaluate services offered

to determine if the services meet student needs. This is a critical challenge for institutional effectiveness offices responsible for accreditation activities and upper-level administration, as institutions must ensure equivalent access to meet accreditation requirements (Keil & Brown, 2014). Failure to do so can result in issues with initial accreditation or reaffirmation accreditation reviews by site teams.

Utilizing case study methodology of one institution in the southeastern United States, Hardy and Meyer-Griffith (2012) emphasize that institutional leaders must align with three objectives when planning and implementing online services to meet accreditation requirements: identify students' needs, make the services available to students when students need them, and provide equivalent services that on-campus students have. There are several components within these objectives that must also be met: assessment and evaluation of current processes; planning appropriately for the design and function of the services; the staffing and training of the staff; and the technology required to implement the services (Hardy & Meyer-Griffith, 2012). Ultimately, educational leaders must first understand accreditation requirements and then assess and evaluate current processes in place for online students. The key to meeting accreditation requirements is to ensure equitability between online and on campus students.

Performance-Based Funding for Higher Education

According to McLendon and Hearn's (2013) historical review of performance-based funding in higher education, performance-based funding policies were introduced beginning in 2000 in many states, but never implemented. As higher education has faced more scrutiny at the state and federal levels in recent years, performance-based funding models versus head-count enrollment based funding models have re-appeared in state legislatures (McLendon & Hearn, 2013). At the end of fiscal year 2015, 32 states in the United States have transitioned or are

transitioning to performance-based funding based on progression and graduation rates (National Conference of State Legislatures (NCSL), 2015).

Criteria for performance-based funding models include student progression, degrees conferred, and other institution specific measures including job-placement rates, success of low-income or underrepresented populations, and time-to-degree completion (NCSL, 2015).

Performance-based funding presents a critical challenge for educational leaders with online programs as the change in funding will reward schools with increased rates of retention and progression and as the research has shown, online retention rates tend to be lower. Institutions with significant online enrollments will have to carefully monitor student progression and ensure support services are in place to stem the higher attrition rates within the programs; if not, institutions may see decreased state funding based on the performance criteria outlined by state policies.

Context of Online Learning

Before discussing current issues within online learning, it is important to set the historical context. Distance education has existed in some form since the late 1800s with the origination of post office correspondence courses, which further led into radio and television as mediums to relay knowledge outside of a brick and mortar institution (Casey, 2008). Distance education during these times was defined as a “separation between teacher and student throughout the learning process” (Casey, 2008, p. 46). While some students utilized distance education methods, predominantly correspondence courses, it was the mid-1990s and the production of personal computers and the internet made it easier to attend classes without being physically present, leading to the phenomenon that would become known as online learning (Casey, 2008). As online learning initially exploded across the United States in the late 1990s/early 2000s, there

were doubts as to its quality. Online learning gained legitimacy through accrediting bodies, major higher education institutions, and corporate businesses that began accepting and approving online programs; once the Ivy League schools embraced online education, other colleges and universities followed suit (Casey, 2008). What was once considered an inferior means of learning now became an equally acceptable format, with the appeal of flexibility for students.

As previously noted, the National Center for Educational Statistics (2016) data indicate that almost 30% of all undergraduate and graduate students enrolled in higher education do so through partially or fully-online formats. A unique aspect to online education is the high proportion of adult learners as online programs afford adult learners the opportunity and flexibility to return to school; although, a challenge for institutions is to provide the tools of support needed for this population (Askov & Simpson, 2001). Interestingly, enrollments at private, for-profit institutions are decreasing due to more stringent federal oversight related to costs, but these institutions tend to have more extensive and accessible student services offices in place (Allen & Seaman, 2015).

In one of the first articles to directly address online learner retention rates, Carr (2000) reported that online student retention rates are lower than traditional on-campus student rates and cautions institutions that plan to increase online offerings to ensure that they do more to retain online learners. Carr (2000) recognized in this article that higher attrition rates for online learners are attributed to diverse factors that are difficult to generalize across students and institutions. While highly cited in the online learning literature, Carr's (2000) article has been discussed by researchers as accurate for the institutions reviewed, but that it could not be generalized due to the sampling used by institutions. Numerous studies within the last 15 years on online attrition have presented similar statistics, but those studies have generally been

institution-specific (Atchley, Wingenbach, & Akers, 2013; Carr, 2000; Fetzner, 2013; Patterson & McFadden, 2009; Willging & Johnson, 2004). One major limitation to online retention studies is that there has not been a national longitudinal study, so existing research corroborates other research, but results are not generalizable.

Community of Inquiry Framework

As discussed previously, online learning faced early struggles from critics who doubted its equivalency to on-campus instruction. An early study on presence in the online learning environment created the Community of Inquiry framework, which describes what constitutes a “worthwhile educational experience” (Garrison, Anderson, & Archer, 2000, p. 88). According to Garrison et al. (2000), three core elements comprise the Community of Inquiry framework, and if all three are present, will produce a successful online learning experience: cognitive presence, social presence, and teaching presence. The three elements are distinct, but also work in tandem to create the overall learning experience. While this framework predominantly focuses on instructional design, cognitive presence includes how students gain knowledge, and gaining knowledge of resources in and outside of the classroom is essential.

Garrison et al. (2000) indicate cognitive presence is a challenge in traditional on-campus classrooms, but is a more pronounced challenge in online learning. The basis of cognitive presence in online learning is communication and how access to information promotes or hinders cognitive critical thinking by the student (Garrison et al., 2000). This is one of the early studies to highlight the importance of communication as a barrier for online learner success, a factor discussed more fully in this chapter.

The second core element, social presence, also presents a challenge for the Community of Inquiry framework as it is more difficult for online students to recognize social cues and

oftentimes be their “real selves” in the online environment (Garrison et al., 2000, p.96). The type of online classroom and instructional style (i.e., synchronous versus asynchronous) can either promote or stymie social and collaborative interactions between students and the instructor. Collaborative learning activities are supported by Garrison et al. (2000) as they suggest that collaboration enhances social presence and students with more social presence will be more cognitively present.

Tying cognitive and social presence together is the role of teacher presence, as the teacher designs the course, available access to information, and the collaborative activities present in the online classroom experience (Garrison et al., 2000). At the time of this study, there was little research or best practices for bolstering teaching presence in online learning, but Garrison et al. (2000) indicate that teaching presence binds the other two areas and instructional activities must be well-planned and designed. Elements of productive teaching presence include use discussion boards in the learning management system, timely and corrective feedback, and the sharing of course content in meaningful and relevant ways (Garrison et al, 2000).

Retention, Progression, and Graduation Barriers for Online Students

As online student enrollments have continued to increase, most online learning research has focused on personal and instructional factors that lead to persistence and attrition. In reviewing the research related to persistence and attrition factors, the studies indicate that there is no one conclusive factor that contributes to online student attrition, but rather a multitude of factors (Gaytan, 2013; Hart, 2012; Muilenburg & Berge, 2005; Rovai & Wighting, 2005; Park & Choi, 2009; Willging & Johnson, 2004). Factors that contribute to online program persistence include, but are not limited to, quality of and frequent communication, a sense of belonging and community within the online environment, institutional support to students, and student self-

discipline and motivation (Gaytan, 2013; Hart, 2012; Rovai & Wighting, 2005). Willging & Johnson (2004) note program quality is partly measured by student completion rates, so if an online program has higher dropout rates, program quality can be called into question. Some factors are difficult for an institution to address, such as a student's self-motivation, but through the use of student support services, persistence barriers can potentially be lessened (Willging & Johnson, 2004). Before delving more fully into online student perceptions of their experiences, describing characteristics of a 21st century online learner is essential.

Online Learner Characteristics

Prior to the 2000s, typical distance education learners were predominantly male, employed, married, and in their 30s on average (Dabbagh, 2007). On average, these adult distance education learners were completing courses to enhance their education and professional careers and not necessarily complete an initial degree (Conceicao, 2007; Dabbagh, 2007). Intrinsic motivation and being self-starters were typical adjectives used to describe these students (Conceicao, 2007). Additionally, these learners completed distance education courses primarily through correspondence courses from institutions farther away.

According to Dabbagh (2007), once the internet and personal computers were more easily accessed, the type of distance/online learner characteristics became emerging, from a fairly homogenous set of characteristics to heterogeneous. Online learners in the 21st century now include a range of ages, from young to older; also, online learners may choose fully online programs in cities they live because they like the flexibility and are not necessarily interested in taking courses on-campus; and 21st century online learners are more adaptive to changing technology than other generations of distance education learners (Dabbagh, 2007). While there are more traditionally-aged students seeking online education for their degrees, the overall online

learner population still is predominantly non-traditional/adult in terms of age, and online learners tend to have full-time employment and families (Ortagus, 2016). The issues that impact these online learners, through their own perceptions and from institutional evaluations of courses and programs is discussed further.

Student Perceptions of their Online Experiences

Many studies related to online persistence and attrition are completed through the lens of student experiences and perceptions. One of the first and most thorough studies related to factors contributing to online attrition was Muilenburg and Berge's (2005) factor analysis research. Using literature related to persistence, the researchers created a survey which was piloted to colleagues and students for review and edits, and then sent out to a large online student population across several institutions. Utilizing 1,056 student surveys, Muilenburg and Berge (2005) analyzed responses using factor analysis methodology and grouped 47 factors into 8 overall themes that the researchers indicate are barriers to online learning: administrative issues, social interaction, academic skills, technical skills, learner motivation, time and support for studies, cost and access to the internet, and technical problems.

The barrier ranked most severe is social interaction, which is related to the effectiveness and enjoyment of the online learning experience (Muilenburg & Berge, 2005). Isolation and lack of social interaction as an issue within online learning is seen in other studies as well, so connecting online students to the institution remains a significant challenge for many institutions. Embedded within the administrative issues factor are several components that are related to online support services: lack of academic advisors, lack of tutors, and difficulty contacting academic or administrative staff (Muilenburg & Berge, 2005). Ensuring that appropriate support roles for academic and administrative staff are in place is important to mitigate barriers to online

program success for students (Muilenburg & Berge, 2005).

Willging and Johnson's (2004) study examined three cohorts of one online master's degree program. The participants of the study were those who dropped out of their program after completing one course and the average dropout rate between the three cohorts was 34%. Using an online survey, the researchers contacted program dropouts to answer questions related to attrition factors. The researchers contacted the program dropouts through e-mail, phone, and physical mail to increase response rates. From the 28 former students who completed the questionnaire and through logistic regression analysis, the researchers isolated several themes of reasons students leave their programs: personal, job-related, program-related, and technology-related reasons (Willging & Johnson, 2004). Willging and Johnson (2004) suggest institutions create support services to target online students who may need extra assistance in mitigating dropout factors.

In a similar study Park and Choi (2009) focused on three categories of factors that contributed to online student persistence: individual characteristics, external factors, and internal factors. Using a population of 147 learners who either completed or dropped out of an online course, the researchers surveyed the participants with a Likert-scale instrument. Using logistical regression analysis, Park and Choi (2009) find there is no one factor that contributes to a student dropping out of online courses, but a combination of factors. Online learning persistence is an individualized experience and can be affected by the student's own internal motivation, job and family support for the student, financial problems, time management issues, and/or the online provider's infrastructure of support (Park & Choi, 2009). Their findings add to the research and corroborate similar findings from other studies, so there are recognizable patterns in the research related to retention factors.

A more recent study by Gaytan (2013) looks at barriers of online learning for students through the views of faculty experts. Utilizing three faculty expert roundtables comprised of 15 faculty and the Delphi technique for data analysis, the three themes of factors affecting online student retention found are student self-discipline, quality of faculty and student interaction, and institutional support to students (Gaytan, 2013). Expanding on the theme of institutional support, the faculty experts define it is appropriate “support from the institution regarding admissions, registration, financial aid, tutoring, programs, policies, and procedures” (Gaytan, 2013, p. 152). Gaytan (2013) links these findings back to Tinto’s (1975) and Bean and Metzner’s (1985) theories regarding student retention and make recommendations for online programs to ensure that adequate support services are in place, especially for at-risk students who would be more prone to drop out.

Communication. Communication issues appear most frequently in the research related to students’ perceptions of expectations and experiences in online environments. As online students are dependent on technology to interact with faculty and other administrative offices, clear and accessible communication is critical to effectiveness in the online environment. In a larger, qualitative study, Ortiz-Rodriguez, Telg, Irani, Roberts, and Rhoades (2005) used open-ended response questionnaires to survey what factors students believed contributed to quality online programs and experiences. Using 208 responses and inductive coding methodology, Ortiz-Rodriguez et al., (2005) find communication to be the most frequent factor related to student perceived program quality. Embedded within the concept of communication in this study is the use of tools in the online environment that increase contact, frequent feedback from instructors, and accessibility to instructors (Ortiz-Rodriguez et al., 2005).

Hart’s (2012) comprehensive review of literature synthesized factors related to online

student persistence. By examining nine articles specifically related to persistence factors, Hart (2012) concludes that persistence is a complicated issue to isolate, but that there were prominent themes from the research including quality communication, motivation, peer and family support, a sense of belonging, and time management. If these factors are present for an online student, they are generally able to be successful in an online program. The most common theme from the literature review is quality communication as a factor of persistence. Ensuring that students have access to communication tools, inside and outside of the learning management system where courses are housed, is essential for institutions to have in place (Hart, 2012). Structures must also be in place for students to have access to information and personnel outside of daily business hours.

Student engagement and sense of belonging. The online education environment can be isolating, and student engagement and connectedness to the institution and peers is an area of increasing study. Online learning affords convenience and ease of access to the student, but it can be challenging in sense of belonging and engagement for the student (Bolliger & Inan, 2012; Irani, Wilson, Slough, & Rieger, 2014; Rovai & Wighting, 2005). Using the *Dean Alienation Scale* and the *Classroom Community Scale*, Rovai and Wighting (2005) find that students' feelings of isolation and powerlessness contributes to alienation and are inversely related to their feelings of classroom community. Participants in the study were 117 students enrolled in six online programs at one institution. Rovai and Wighting (2005) recommend future research should focus on how to reduce feelings of isolation and what institutions and instructors can do to more effectively build a sense of community as research has shown that increased feelings of community support student persistence. A strength in this research is using an established and reliable instrument, the *Dean Alienation Scale*, to study online student engagement to their

institution.

Much of the research on student engagement and connectedness has been completed through perception studies and the concept of connectedness was only one piece of the larger study. As such, Bolliger and Inan (2012) created the *Online Student Connectedness Survey* (OSCS) instrument to close a gap in the research on student connectedness in online programs by surveying only connectedness constructs. Using extensive literature reviews, an expert panel for review of the instrument, and a pilot study of the instrument, Bolliger and Inan (2012) find the instrument to be valid and reliable and could be used for future studies on online student connectedness. Use of this instrument, suggested by the researchers, would be for institutions to evaluate their online offerings and make revisions and integrate more social connectedness strategies (Bolliger & Inan, 2012). A large scale study has not been completed using this instrument, so as of now, understanding student connectedness in online programs remains at localized, institutional levels.

A more recent study by Irani, Wilson, Slough, and Rieger (2014) focuses on social connectedness and perceived isolation from graduate students in online education programs at one institution. Utilizing a mixed methods study, the researchers analyzed ratings scales from a survey and comments from focus groups to highlight a disconnect in social relationships, limited access to college and academic resources, and a feeling from students in not getting a 'real' graduate experience in their programs. The focus groups consisted of 10 students across a range of graduate programs, as well as six faculty from those programs. This was a unique study in that it incorporates faculty perceptions in an online student's experience. Irani, et al. (2014) recommend that institutions explore and implement processes that will mitigate feelings of isolation and disengagement. Specific recommendations include online orientations, centralized

information access, and regular communication outside of the academic setting to help students be successful in the online environment (Irani et al., 2014).

Strategies to mitigate barriers for online learning. Expanding on findings by Muilenburg and Berge (2005), Angelino, Williams, and Natvig (2007) conducted a comprehensive literature review to study online education's higher attrition rates and recommend strategies to engage online learners. The criteria for the literature review were articles within six years, excluding seminal studies, and articles focused on retention of online students. Data from the 30 articles reviewed support an average of 10-30% higher attrition rates of online students compared to campus students (Angelino et al., 2007). Angelino et al. (2007) recommend four strategies to increase retention rates: student integration and engagement, learner centered teaching approaches, creating learning communities, and increasing accessibility to online student services.

Regarding increasing accessibility of online student services, the researchers suggest that institutions focus on meeting the needs of the students, and not just the services that are easy for institutions to provide (Angelino et al., 2007). Specifically, institutions should make available the following areas for online students: “assessments, educational counseling, administrative processes such as registration, technical support, study skills assistance, career counseling, library services, students’ rights and responsibilities, and governance” (Angelino et al., 2007, p.8). These recommendations mirror similar studies’ findings on the need for comprehensive academic and support services to be accessible for online students.

Kilburn, Kilburn, and Cates (2014) expand upon previous studies regarding online student retention by focusing on system availability as it relates to privacy, value, and loyalty of an institution. The researchers surveyed one 4-year public institution’s online students with an

established customer perception instrument and received a sample size of 136 out of 941 students. Specifically focusing on the system availability aspect of the research, Kilburn et al. (2014) highlight that system and institutional accessibility and responsiveness has the strongest relationship to a student's level of satisfaction. When the system is down, and access to support services and the learning management system are not available, students' perceptions of quality diminish and can contribute to dissatisfaction with the institution (Kilburn et al., 2014). Satisfaction with the learning environment then impacts perceived value and loyalty to the institution (Kilburn et al., 2014). The researchers recommend ensuring technical support is regularly available and for institutions to have strong technical infrastructures.

According to Beck and Milligan (2014), online students' institutional commitment changes when they begin courses and interact with academic and social environments within the institution. Research shows that institutional commitment is a factor related to persistence and success for online students and isolation from the academic and social aspects of an institution can create lower levels of institutional commitment, which leads to attrition (Beck & Milligan, 2014). Using Beck and Milligan's *College Persistence Questionnaire* (CPQ), an institution can survey its online students and discover their levels of institutional commitment and pinpoint target areas (e.g., advising effectiveness, social integration, collegiate stress) to improve at the institution to increase commitment (2014).

Overall, the research indicates there are a multitude of factors that contribute to barriers for online student progress through their programs. There are aspects that cannot be mitigated by an institution, such as self-efficacy and self-motivation (Muilenburg & Berge, 2005), but access to support services is a common barrier to student progression and one that can be addressed by institutions. When students do not have access to the systems and support structures needed,

institution quality can be called into question and affects perceived value and loyalty to the institution (Kilburn et al., 2014). Recognizing these factors leads to better understanding of the leadership and policy challenges educational leaders encounter when planning and implementing support services for online students.

Support Services in Online Learning

The crux of many of the issues related to communication and social engagement in online programs is the question as to how institutions can create systems that will connect students to the resources they need to be successful. This is where researching the role of online support services can seek to answer that question. Prior to 2010, this has been a somewhat neglected area of research. While more recent research has incorporated the role of support services in online learning, there is still a need for additional studies. Additionally, inconsistency among some higher education institutions exists in the access of support services for online learners compared to on-campus students. Before examining different aspects of online support services, and students' perceptions of those services, an overview of support services characteristics is essential.

Support Services Characteristics

According to Thomas, Quinn, Slack, and Casey (2002), “[support] services have a central role to play providing academic, social, financial, and personal support to students and potential entrants to enable them to succeed in higher education” (p. 6). No formal model of student support services structures exists for higher education institutions, but typical services include admissions offices, orientation, academic advising, tutoring centers, career services, financial aid offices, writing and learning support offices, and student affairs offices, which will include students' social and service offices (Lei, 2016; Stewart, Goodson, Miertschin, Norwood, & Ezell,

2013; Thomas et al., 2002). These services offered on-campus tend to be in centrally-located areas of campus, maintain business-day hours, and are staffed by in-person advisors, staff, or administrators (Thomas et al., 2002). Some institutions may have student services all grouped together in an integrated manner or may be spread across campus, but regardless, on-campus students have in-person opportunities to access to services (Thomas et al., 2002).

Hossler, Ziskin, and Gross (2009) note that institution administration should be involved in creating a campus culture that promotes retention and that academic and student affairs offices must work together to provide the support needed for students to be successful. Before institutions can begin to set up processes and support services, students should be evaluated to determine their needs. Institutions may find differences between student demographics in terms of the services they would want or need to integrate more fully into the institution. Once institutions understand the needs of their students, thoughtful consideration and planning of the support services for online students can take place. Continuous evaluation of the services must also be considered.

One of the biggest challenges for institutions implementing support services for online students is combating the traditional models of higher education organization where services are in silos and offices are independent of others (Kleeman, 2005). Kleeman (2005) argues these silos and independent office structures do not provide holistic services to online students and instead often result in students being referred back and forth between offices to get all their questions and/or needs met. Kleeman (2005) coins this concept as the “virtual runaround” (p. 93). Kleeman (2005) poses three leadership challenges for institutional administration: shift the paradigm of student affairs isolation to collaboration; create a shared vision of websites and web infrastructures for online students; and organize the personnel that can create the changes.

Kleeman (2005) argues collaboration must occur between offices to offer services, but that the services should be accessible to online students from one central location, i.e. website or web portal.

Online Students' Satisfaction and Expectations of Support Services

Online student perception studies have been used to explain internal and external attrition factors, and studies related to online support services have also used this method. Dare, Zapata, and Thomas's (2005) study on the integration of student affairs and services for online students provided an analysis of services offered or not offered to online students. Utilizing a questionnaire for online and on-campus students, the researchers investigated students' level of importance and satisfaction of several student services available on campus (e.g., advising center, career services, computer help desk, and student organizations). There were over 2,000 students (both online and on-campus) that participated in the study, which was approximately 30% of the student population and a representative sample size.

Results indicate that there were no significant differences between on-campus and online students' satisfaction of services, but that there is a difference on the level of importance placed on the different categories by student type. For example, online students do not rate student organizations as an important service, but tend to indicate administrative services as most important; for example registration offices, advising, and the library are deemed most necessary (Dare et al., 2005). The researchers conclude that student affairs professionals must do more to incorporate student services for online students to be more inclusive for all students. Replicating this survey at additional institutions could provide more universal understanding of the support services online students say they need and want to be successful.

In an earlier study, Cain, Marrara, Pitre, and Armour (2003) find that a majority of

graduate students tend to be unaware of support services available to them and that some of those who are aware do not think they need the services. The methodology for this study was a small focus group of graduate students enrolled in fully online programs at one institution. The major theme from the focus group discussion is that students do not believe they need online support services, but that they should be able to depend solely on their course instructors to have knowledge of campus resources, including financial aid, registration and academic policies (Cain et al., 2003). Essentially, Cain et al. (2003) report that graduate students want online instructors to serve as their point of contact for all institutional processes and questions, which at most higher education institutions, is an unrealistic and unmanageable expectation of faculty roles.

A more recent study by Milman, Posey, Pintz, Wright, and Zhou (2015) investigates the perceptions of importance and satisfaction of support services along with personal factors and grit of first and second year graduate master's students. Utilizing a survey instrument created from existing research, Milman et al. (2015) surveyed one institution's online master's students in two academic programs along several areas of support offices, including administrative services, academic services, and technical services. Responses show that these students rated services differently based on actual use. For example, students rate offices they interact with the most, including technology support, registrar offices, financial aid, and admissions as most important (Milman et al., 2015). Offices that the researchers deem unique to certain student populations rate as less important including veteran affairs, international student offices, and the counseling center (Milman et al., 2015). This study complements existing research on online support services in that oftentimes, students' perceived needs will vary based on the institution and type of student population at that institution.

Design and Evaluation Models for Online Support Services

As more research is conducted on online support services, several planning and evaluative tools and models have emerged that higher education institutions can use for self-study and analysis. Aversa and MacCall's (2013) case study paper is one example of an institution that evaluated current processes, determined areas of improvement, implemented support services based on research-based best practices, and saw an increase in retention and graduation rates. Areas of support added included administrative, student, academic experience, instructional delivery, technology preparedness, faculty preparedness, social integration, and communication (Aversa & McCall, 2013). Within each of these areas were specific activities, linked to research-based attrition studies, which were implemented by faculty and staff to be proactive in recognizing and stemming a student issue. Crucial for many of these initiatives was that it required sufficient data, time, and personnel to implement. Online student monitoring can be a very time-intensive process. While not generalizable outside of the institutional population studied, this paper serves as an example of supports implemented which could be modeled at other institutions.

Evaluating current online support services infrastructures utilizing various models as frameworks is one initial process for an institution. The three models below highlight different aspects of the evaluative process from evaluating infrastructures only to incorporating online learner feedback. Utilizing a combination of these models would be the recommended method for an institutional self-study. All three models require sufficient personnel time and resources, so that must be a consideration for institutional administration prior to beginning the evaluative process.

WICHE/WCET Web of Student Services. Much of the research analyzing support

services for online students draws from Shea and Armitage's (2002) "web" of student services framework created for the Western Interstate Commission for Higher Education/Western Cooperative for Educational Technologies (WICHE/WCET). The five core areas of the web of services includes academic services, the administrative core, communication, student communities, and personal services (Shea & Armitage, 2002). Within the five core areas are specific offices that should be in place at an institution that offers online degree programs and Shea and Armitage (2002) recommended that the services for online students be comparable to those offered for on-campus students.

A recent case study analysis of one institution's move to centralized student services for online students (Sullivan & Pagano, 2012) is an example of an institution that evaluated internal processes and deemed these strategies ineffective at meeting the needs of distance learners. There are specific studies like these of internalized examinations and process changes, but they are not generalizable to the overall issue of online student services because institutions vary so greatly. However, it is important for institutions to evaluate their own services as Sullivan and Pagano (2012) conducted. Even without generalizability occurring, understanding the needs of students at the individual institution is a step in the right direction.

Both Crawley and Fetzner (2013) and Kendall (2005) utilized the WICHE/WCET recommended categories of online student services created by Shea and Armitage (2002) to evaluate the current structures in place for their institutions' online students. Within the five categories are 31 guidelines or offices that institutions should ensure are in place. Using these guidelines, Crawley and Fetzner (2013) provided examples of practical applications that institutions could set in place for each of the five categories. These categories and guidelines can be used by academic leaders to analyze and evaluate if their own institutions are providing what

the WICHE/WCET recommends. Crawley and Fetzner (2013) highlighted that student services for online students is an evolving process, much like student services for on-campus students was, so it will take resources, effort, and time to put many of the practices in place. Kendall (2005) also used the WICHE/WCET recommendations to analyze the researcher's home institution along the categories. The web of services is an extremely useful framework for analysis of online services and one that could be used to evaluate any institution that offers online programs.

Inclusive Student Services Process Model. An earlier study by Floyd and Casey-Powell (2004) created the *Inclusive Student Services Process Model*, a framework designed for institutions to design and evaluate programs and processes to support students in online programs. The framework consists of five phases: the learner intake phase, learner intervention phase, learner support phase, learner transition phase, and the measurement phase (Floyd & Casey-Powell, 2004). By using this model, institutions can answer prompts within each phase and evaluate if current processes in place meet the needs of students. If not, those are the gaps in services that institutions can address. If an institution is not willing to address the student services needs that online students expect, Floyd and Casey-Powell (2004) argued that students will seek other institutions that will provide those services. Recruitment of students, both on-campus and online, is a competitive process and institutions regularly seek the *extra edge*, so it will be essential for colleges and universities to invest the resources needed to connect online students to the institution.

COMFORT Model. Utilizing a combination of research-based evidence and recommended best practices for support services, Newberry and DeLuca (2014) created the COMFORT model as “a holistic strategy of providing services from which both the institution

and online students benefit” (p.27). The researchers noticed their institution was not providing an acceptable level of services to support online students, so this model was created from a compilation of student, faculty, and staff evaluative surveys coupled with research-based models, including the WICHE/WCET web of student services framework (Newberry & DeLuca, 2014). Newberry and DeLuca (2014) define the COMFORT acronym as follows: C = Communication plan; O = Orientations; M = Maintenance of student-centered policies; F = Feedback from all constituents to create and evaluate services; O = Outreach; R = Resources that are accessible and learner-focused; and T = Team-Based.

Development of the model was a result of collaborative committees across academic and student affairs at Duquesne University to evaluate current services accessible for online learners; additionally, there is a standing task-force committee that regularly evaluates activities associated with the model at Duquesne (Newberry & DeLuca, 2014). Intended use of the model is for institutions to evaluate their own processes to determine where gaps in online student services may exist. What differentiates this model from previous ones is that it highly emphasizes the role of online student input, as well as the role of campus teams to implement initiatives (Newberry & DeLuca, 2014).

Chapter Summary

The purpose of this review of literature was to explore peer-reviewed research on the historical context of online learning, establish the theoretical frameworks used to explain online student attrition for the study, examine factors related to student persistence, and examine what research has been completed on the role of student support services. Most faculty and academic leaders realize that online education is not leaving higher education, and thus, it becomes imperative to ensure that students enrolled in online programs have the support services in place

to feel connected and supported in their progression. The retention of online students is an issue that is seeing more focus and concern from chief academic officers (Allen & Seaman, 2015).

What is limited in the research is students' own perceptions of what support services they need to be successful in their online programs. Through the research, it is known what internal and external factors can contribute to an unsuccessful student experience and there are the recommendations from the research for institutions to make changes, but the goal is to determine what changes institutions should make.

CHAPTER 3: METHODS

The field of online learning research is relatively new in that it was only roughly 20 years ago that significant numbers of students began to earn degrees utilizing personal computers and technology. Online learning afforded, and continues to afford, convenience and flexibility for students seeking a non-traditional educational approach (Moore & Fetzner, 2009; Ruffalo Noel Levitz, LLC, 2016). As online learning enrollments increased annually across the United States over the past two decades, educational researchers began noticing attrition rates for online learners were higher than for on-campus students in comparable programs and sought to determine factors as to why this was occurring (Atchley, Wingenbach, & Akers, 2013; Carr, 2000; Fetzner, 2013; Muilenberg & Berge, 2005; Patterson & McFadden, 2009; Willging & Johnson, 2009). As such, early research in this area has predominantly focused on instructional course design, student engagement within courses, and personal characteristics of online learners that contribute to retention or attrition. A gap in the research is on the role of online support services and how it impacts a student's online experience at the institution. As online learner enrollments are projected to increase at public, four-year colleges and universities in the future (Allen & Seaman, 2015), it is critical for institutions to evaluate the online support services infrastructures currently in place.

While research related to online support services and its role in the online learner experience has increased within the last five years, many of those studies have been through the lens of institutional processes rather than the online learner's personal experiences. Support services contribute to an online learner's holistic experience at their institution, and one method of evaluating access is through assessing student perceptions. There oftentimes can be a difference in perception of needed services between institution administration and students. As

such, this study intended to quantitatively analyze online learner satisfaction and expectation perceptions to evaluate the accessibility of support services at one public, four-year institution in southeastern Georgia. Utilizing archival data from a survey administered within the last year to online graduate students at this particular institution, the primary research question this study sought to answer was:

What are the perceptions of online graduate students regarding their access to online support services?

Sub-research questions included:

1. How do online graduate students rate their levels of satisfaction and importance of their institution regarding online support services offered?
2. Is there a difference between online graduate students' ratings of satisfaction and their importance expectations of services?
3. Is there a difference between the online graduate students surveyed at this one institution compared against the national online learners' dataset?

Research Design

In reviewing online learning research, studies have been conducted using both qualitative and quantitative research designs, including studies related to online student perceptions. As this study used archival survey data from the Ruffalo Noel Levitz, LLC *Priority Survey for Online Learners*, the research design was a quantitative approach. According to Creswell (2008), “survey designs are procedures in quantitative research in which you administer a survey or questionnaire to a small group of people (sample) to identify trends in attitudes, opinions, or characteristics of a large group of people (population)” (p. 61). The specific type of survey design is the cross-sectional survey design as the data that were analyzed were collected at one

point in time to a smaller population (Creswell, 2008). Creswell (2008) indicates that cross-sectional survey design can be used to measure attitudes, beliefs, community needs and/or evaluate a program. Variable and group comparisons can be analyzed in cross-sectional survey designs, but this study intends to present descriptive statistical data on online learner perceptions, while also analyzing the gap between satisfaction and expectations. Further data analysis along demographic variables may occur depending on if there are notable differences between various student categorizations (e.g., gender, age, and/or previous online learning experience).

Population

The research setting for this study was a college of education at a public, four-year comprehensive higher education university in southeastern Georgia. The institution has a large undergraduate residential population that predominantly draws students from Georgia. Graduate student enrollment is 13% of the total university enrollment and the majority of graduate programs offered at the institution are in hybrid or fully-online formats. The college of education at this institution offers both undergraduate and graduate programs, but all fully-online programs are only offered at the graduate level. Undergraduate students take online courses throughout their programs, but the undergraduate students must be residential to complete local field experiences. As such, while undergraduate students in this college of education take online courses, they were not included in this study due to their access to on-campus support services.

The college of education at this institution began offering fully-online programs in 2005. Prior to the Great Recession of 2008, graduate enrollments exceeded 1,500 students each year. Graduate student enrollment within the college of education at the time of the survey (spring 2017) was approximately 1,275 students. This population was selected for this study as the online students were surveyed within the last year regarding their perceptions of their online

learning experience. The survey included questions about instructional experiences, but three core areas of the survey were related to areas that would be considered support services. Data collected from the survey administration were provided through a secure download to the college of education administrators upon the close date of the survey. The data were available to this researcher for use in the study with permission from both the college of education administrative team and Ruffalo Noel Levitz, LLC.

Sample

Out of 1,275 graduate students enrolled in the college of education, 749 were enrolled in fully-online programs. To ensure an adequate response rate would be collected, all online graduate students were sent the survey. Survey administration was managed entirely by Ruffalo Noel Levitz, LLC, with enrollment information provided by the Associate Dean for Graduate Education and Research's office. The only information provided to Ruffalo Noel Levitz, LLC was students' first names and their official university e-mail address. Once the survey closed, initial information provided by Ruffalo Noel Levitz, LLC indicated the response rate was 19% or 142 complete student responses, which based on the initial population that received the invitation is adequate for data analysis (Nulty, 2008). While a higher return rate would have been preferred, review of the demographics indicated it was fairly representative to the original sample population.

Table 1

Descriptive Statistics of Participant Demographics

N=142

Demographic Characteristic	<i>N</i>	Percent	Sample Percentage
<u>Gender</u>			
Female	121	87%	82.4%
Male	18	13%	17.6%
Total*	139	100%	100%

<u>Age</u>			
19 to 24	8	5.8%	5.3%
25 to 44	99	72.4%	84.1%
45 and over	31	21.8%	10.6%
Total*	138	100%	100%
<u>Credit Hour</u>			
<u>Enrollment</u>			
Part-Time (less than 6 hours)	97	69.8%	79.9%
Full-Time	42	30.2%	20.1%
Total*	139	100%	100%
<u>Employment</u>			
Full-Time	125	89.9%	N/A**
Part-Time	8	5.8%	N/A**
Not Employed	6	4.3%	N/A**
Total*	139	100%	

*No Response not included in totals

**Unknown data from the institution

Table 1 indicates additional demographic characteristics from the participants including gender, age, credit hour enrollment, and employment. The gender breakdown is also representative to the population demographic in that females in this college of education enroll in graduate programs disproportionately higher than males. The average age of enrolled graduate student in this college of education is 33, so again, the sample is reasonably representative to the population surveyed. Age, credit hour enrollment, and employment demographics tie to Bean and Metzner's (1985) nontraditional student model characteristics of graduate students being over the age of 24 and enrolled predominantly part-time. Approximately 70% of students enrolled in these programs attend part-time and 90% of students enrolled are employed full-time. Full-time employment is one of the characteristics of external variables in Bean and Metzner's (1985) nontraditional student attrition model. Other demographic characteristics were collected by the survey including ethnicity, marital status, and previous online learning experience. As these characteristics were not the focus of the study, they are not included in this chapter, but

could be utilized for further research on this topic.

Instrumentation

The Ruffalo Noel Levitz, LLC *Priority Survey for Online Learners* instrument was used to answer the research questions for this study. The instrument was developed by Ruffalo Noel Levitz, LLC in 2011 and as of 2016, had been administered to over 100,000 online undergraduate and graduate students across 130 public and private institutions in the United States (Ruffalo Noel Levitz, LLC, 2016). Reliability and validity data for the instrument were provided to the researcher by the Associate Vice-President for Retention Solutions at Ruffalo Noel Levitz, LLC upon request and can be found in Appendix A. All importance and satisfaction scales except two met Cronbach's Alpha; those that did not meet the .70 reliability value acceptable were evaluated further with factor analysis and found to measure what they intend to measure.

The *Priority Survey for Online Learners* instrument included demographic questions on gender, age, ethnicity/race, enrollment status, employment status, and previous online learning experience. The institution added one demographic question of major/program to be able to disaggregate responses by that additional variable, if necessary. The standard instrument's 26 scale items were used (Appendix A), and the institution was able to add up to 10 institution-specific questions from a pre-approved list of questions provided by Ruffalo Noel Levitz, LLC. Institution-specific scale questions were chosen by the Associate Dean for Graduate Education and Research. All scale items were Likert-scale based, with the lowest agreement/importance value at "1" and the highest agreement/importance value at "7." A value of "4" indicated neutral responses.

The *Priority Survey for Online Learners* instrument also included questions regarding

perceived reputation of the institution, where students learned of the institution, and factors that contributed to their enrollment (e.g., cost, flexibility, and employment opportunities). While not within the scope of the research study, these questions' responses may be included in the discussion and implications chapter to bridge the role of online support services to the whole online learning experience. The instrument also had one open-ended question for students to type comments about their overall online experience.

Data Collection

As mentioned previously, the data analyzed were archival data from the Ruffalo Noel Levitz, LLC's *Priority Survey for Online Learners* survey completed within the last year at the college of education at one public, four-year institution in southeast Georgia. All aspects of the data collection process were managed by Ruffalo Noel Levitz, LLC. The first step of the data collection process was for Ruffalo Noel Levitz, LLC to create an institution-specific, secure web portal. Administrators with log-in credentials to the portal uploaded the required student enrollment information, which was a spreadsheet with only the students' first names and official institution e-mail address. No other personal identifiers were included in the spreadsheet.

Once initial student information was uploaded into the portal, the college of education was able to set the start and closing date of the survey, and schedule reminder e-mails to be sent periodically throughout the open period. All e-mails stressed the importance of the survey, the brevity (15-20 minutes to complete), and that no personally identifiable information would be included. The survey initially was to remain open for five weeks, with three scheduled reminder e-mails. Once the initial closing week approached, an alert from Ruffalo Noel Levitz, LLC indicated that the return rate was below the recommended percentage and suggested extending the survey. An administrator was able to modify the closing date, and schedule two additional

reminder e-mails.

At the conclusion of the second open period, the return rate was at 19%, which was deemed acceptable by the college of education administrators. Two weeks after the closing date of the survey, Ruffalo Noel Levitz, LLC provided secure log-in credentials to administrators to access all data from the survey, including raw data files of scaled-item responses and a spreadsheet with all comments written by students from the open-ended comment question. Data files were downloaded to an administrator's computer as the institution only has online access to the data files 90 days from the completion of the survey. This researcher has access to these data due to the nature of the researcher's role at the institution studied.

Data Analysis

Once approval was received to analyze the archival data, the researcher downloaded the data files to begin addressing the research questions (see Chapters 4 and 5). Demographic data tables were presented above to provide an overview of respondents' information and to determine representation to the sample population. Descriptive statistical tables are provided in Chapter 4 with satisfaction and importance averages, which address sub-research questions. The overall institutional evaluation questions in the instrument provided initial analysis for the primary research question, but will be fully addressed in discussion and implications. The results for all research questions provide information for interpretation, discussion, and recommendations for practice in Chapter 5.

Limitation, Delimitations, and Assumptions

There are several limitations to this study, but the primary limitation is generalizability due to population and sample size. A potential limitation was if the students who responded were representative to the sample, but this was not found to be the case once data were analyzed.

An overall limitation to using archival, or secondary, data is that data available may not fully be able to answer the research questions, but the data provided were sufficient to answer the research questions. An additional limitation to using secondary data is that the researcher was not fully involved in the data collection process (Johnston, 2014).

The primary delimitation of this study is the population demographics of respondents to the survey. Only one higher education institution was used in the study, and the subsection of the student population was graduate students in online education programs. While this precludes generalizability, analysis of this population at this institution provided important data for administrators and advisors to better serve these students. An assumption of this study is that students answered the scale questions honestly and thoughtfully. Additionally, an assumption was that the responses would be representative to the original sample population, and they were fairly representative.

Ethical Considerations

This study was designed to ensure integrity of the research and minimize ethical issues that could arise. There are no funding implications of this research, nor sponsorship from external entities. As this study used archival data, which contained no personally identifiable student information, student confidentiality was maintained. The researcher had no means to connect individual or aggregated responses to a particular student. Ruffalo Noel Levitz, LLC managed all aspects of the survey administration, and all survey invitation e-mails were sent via Ruffalo Noel Levitz, LLC on behalf of the institution. The invitation and reminder e-mails emphasized to online students that the survey was voluntary, anonymous, and that data would be shared with the institution. No deception to the students was made during the survey process. Data were provided to the institution via a secure, password protected web portal to select

administrators at the institution and data files can be provided upon request. The researcher submitted appropriate documentation seeking Institutional Review Board (IRB) approval to move forward with data analysis. Once approval to analyze data was obtained, the data files were analyzed on one computer in the researcher's locked office. The data files are stored per the requirements of IRB and will be destroyed at the recommended date.

Chapter Summary

This study was a quantitative research design intended to analyze graduate online student responses from archival survey data collected in 2017. The survey measured graduate online student perceptions of their satisfaction and expectations in areas of student support services. The data collection process was managed through an external organization, Ruffalo Noel Levitz, LLC, with permission of the institution profiled in this study. Data were provided to the institution upon completion of the survey, with anonymous student responses. The research questions for this study sought to answer what are the students' current satisfaction and expectations of services, while examining differences between satisfaction and expectations. This research will add to existing online learning research, while adding to limited research on the role of support services in online students' experiences.

CHAPTER 4: RESULTS

This chapter will include a brief overview of the purpose of the study, reiteration of the research questions, and an overview of the research methodology. Each research question will be addressed utilizing data tables and narrative descriptions of the findings. This chapter will conclude with a summary of the results and findings, leading to further discussion and interpretation in Chapter 5.

As online learning continues to grow annually in the United States, it is important to understand online students' experiences in their programs. One aspect of online students' experiences is their interaction and access to support services outside of the instructional learning management system. Before a student begins online coursework, the student most likely has interacted with staff or administrators from a variety support services offices within the institution. Support services include, but are not limited to, admissions offices, orientation, academic advising, tutoring centers, career services, financial aid offices, writing and learning support offices, and student affairs offices, which will include students' social and service offices (Lei, 2016; Stewart, Goodson, Miertschin, Norwood, & Ezell, 2013; Thomas et al., 2002). There is no one set model for how an institution should implement access to support services for online students, but institutions should evaluate the needs and expectations from their students (Bailey & Brown, 2016; Crawley & Fetzner, 2013; Shea & Armitage, 2002).

As such, this study sought to examine perceptions of online graduate students at one public, four-year institution on their satisfaction and level of importance in three areas of support services from an established instrument: enrollment services, academic services, and student services. This study employed a quantitative research design as the instrument used to collect data was a cross-sectional survey design (Creswell, 2008). Utilizing archival data from the

Priority Survey of Online Learners survey administered to online graduate students at this particular institution, the primary research question this study sought to answer was:

What are the perceptions of online graduate students regarding their access to online support services?

Sub-research questions included:

1. How do online graduate students rate their levels of satisfaction and importance of their institution regarding online support services offered?
2. Is there a difference between online graduate students' ratings of satisfaction and their importance expectations of services?
3. Is there a difference between the online graduate students surveyed at this one institution compared against the national online learners' dataset?

The research questions will be answered below through narrative descriptions of the data, as well as through data tables where needed.

Addressing the Research Questions

One primary research question guides this study, with three sub-research questions providing data analysis, interpretation, and context to answer the primary research question. Each question will be addressed separately below with data tables and/or descriptive narrative of the data. As the questions are interrelated, there may be crossover between each section in the findings.

Primary Research Question

The primary research question asked what the perceptions of online graduate students regarding their access to online support services were. This primary research question is answered through an accumulation of the sub-research questions and overall institutional

evaluation questions in the *Priority Survey of Online Learners* instrument. In addition to the scale items and demographic questions, there were three summary items asked of respondents: (1) So far, how has your college experience met your expectations? (2) Rate your overall satisfaction with your experience here thus far; and (3) All in all, if you had to do it over, would you enroll here again? Each item had a Likert-scale from 1 to 7 with 1 indicating much worse than expected/not satisfied at all/definitely not, respectively to the three questions; and 7 indicating much better than expected/very satisfied/definitely yes, respectively.

Table 2

*Institutional Summary Items**N=142*

Summary Item	Institution Mean	National Online Learner Mean	Mean Difference
So far, how has your college experience met your expectations	5.16	5.19	-0.03
Rate your overall satisfaction with your experience here thus far	5.96	5.84	0.12
All in all, if you had to do it over, would you enroll here again?	6.04	5.88	0.16

The average mean values in Table 2 for summary item (1) was 5.16, summary item 2 was 5.96, and summary item (3) was 6.04. These summary items indicate relatively high agreement that the online experience at this institution has met expectations, has provided a satisfactory experience, and that the majority of students would enroll again at this particular institution and/or program. There were no statistically significant differences between the institution and the national data set.

In addition to the summary items in Table 2, reviewing data provided from the *Priority Survey of Online Learners* holistically across the areas of enrollment services, academic services, and student services, the online graduate students' surveyed rated levels of satisfaction highly

across the majority of areas. Ultimately, the answer to this primary research question is that online graduate students at this institution are satisfied with their educational experience and access to support services.

Sub-Research Questions

Tables 3 addresses sub-research questions one and two regarding online graduate students' ratings of satisfaction, level of importance, and the differences between satisfaction and importance values. Satisfaction and level of importance were both evaluated on a Likert-scale that ranged from 1 to 7 values. For satisfaction ratings, a 1 indicated not at all satisfied, while 7 was completely satisfied. A value of 4 indicated neutral. For the level of importance ratings, a 1 indicated not at all important and a 7, very important. Again, a value of 4 indicated neutral.

Means are presented in Table 3 for both online graduate students' perceived satisfaction and level of importance, along with the standard deviation for both sets of means. Scale items are included under the headings of enrollment services, academic services, and student services. The instrument did not group the scale items together in the survey, but were grouped by topic in the data files provided by Ruffalo Noel Levitz, LLC. The final two columns in Table 3 reports the dependent samples t-test values to determine differences between satisfaction and importance and Cohen's *d* effect size values between satisfaction and importance means.

Table 3

Graduate Online Student Institution Satisfaction (SAT) and Importance (IMP) Ratings and Dependent Samples t-test between SAT and IMP.

N=142

Scale and Item	SAT Means	SAT SD	IMP Means	IMP SD	<i>t</i> -test	Cohen's <i>d</i>
Enrollment	6.17	0.98	6.61	0.92	N/A	N/A
Adequate financial aid available	5.79	1.67	6.44	1.19	-4.74*	-0.38
Receive timely information on availability of financial aid	5.92	1.42	6.50	1.08	-4.49*	-0.39
Registration for online courses is	6.43	1.13	6.84	0.42	-4.51*	-0.48

convenient						
Billing and payment procedures are convenient for me	6.46	0.92	6.63	0.78	-2.36*	-0.21
Academic	5.98	0.94	6.54	0.94	N/A	N/A
My program advisor is accessible by telephone and e-mail	6.14	1.37	6.67	0.72	-5.47*	-0.67
My program advisor helps me work toward career goals	5.68	1.47	6.47	0.94	-6.91*	-0.62
Program requirements are clear and reasonable	6.09	1.09	6.77	0.52	-7.29*	-0.69
There are sufficient offerings within my program of study	5.89	1.34	6.69	0.69	-7.23*	-0.68
Appropriate technical assistance is readily available	6.16	1.31	6.56	0.89	-4.91*	-0.45
Adequate online library resources are provided	6.36	1.00	6.62	0.66	-4.19*	-0.41
Tutoring services are readily available for online courses	5.16	1.69	5.74	1.70	-5.80*	-0.51
Student Services	5.94	0.98	6.39	1.10	N/A	N/A
This institution responds quickly when I request information	6.07	1.15	6.63	0.74	-5.82*	-0.52
Channels are available for providing timely responses to student complaints	5.56	1.52	6.30	1.10	-6.53*	-0.59
Online career services are available	5.89	1.57	6.01	1.49	-5.25*	-0.46
I am aware of whom to contact for questions about programs and services	6.03	1.29	6.64	0.71	-5.82*	-0.58
The bookstore provides timely service to students	6.08	1.18	6.25	1.29	-3.96*	-0.35

*The mean difference is significant at the .05 level

Table 3 highlights that overall, online graduate students are satisfied with the services provided in the areas of enrollment services, academic services, and student services. Within each area, satisfaction means range from the lowest value of 5.16 (tutoring services are readily available for online courses) to the highest value of 6.46 (billing and payment procedures are convenient for me). In all scale items, online graduate students rated level of importance highly in that all means except one were over 6.0 and close to 7.0, which indicated important to very important. The lowest importance mean was tutoring services are readily available for online

students, which is interesting as it is also the lowest mean for satisfaction.

The second to last column in Table 3 reports the dependent samples t-test values between the importance means and satisfaction means. All t-test values were significant at a 95% confidence level indicating there is a difference between the graduate students' satisfaction and importance means. These values indicate students place a higher importance on each student support area than they are currently satisfied with at this institution. All areas except 'billing and payment procedures are convenient for me' had medium to high effect sizes in the Cohen's d values. These medium and higher effect value sizes again indicate a difference in the perceived importance of services compared to perceived satisfaction with services.

Another means of evaluative data is to examine the mean difference between importance and satisfaction and create a prioritization matrix. Table 4 below represents the higher mean difference values within each sub-area. These mean difference values indicate areas that need further attention by the institution and provide data to answer the primary research question and sub-research question two.

Table 4

Mean Difference Prioritization Matrix (in order of highest difference to lowest within each sub-area)

Scale and Item	Mean Difference
<u>Enrollment</u>	
Adequate financial aid available	0.65
Receive timely information on availability of financial aid	0.58
<u>Academic</u>	
There are sufficient offerings within my program of study	0.80
My program advisor helps me work toward career goals	0.79
Program requirements are clear and reasonable	0.68
Tutoring services are readily available for online courses	0.58
My program advisor is accessible by telephone and e-mail	0.53
<u>Student Services</u>	

Channels are available for providing timely responses to student complaints	0.74
I am aware of whom to contact for questions about programs and services	0.61
This institution responds quickly when I request information	0.56

Utilizing guidance from Ruffalo Noel Levitz, LLC, institutions can evaluate the mean difference values to determine what their priority areas are. For purposes of this study, this researcher identified mean difference values 0.50 or higher as high and are highlighted in the prioritization table above, Table 4. As noted in Table 4, two scale items related to financial aid information and adequate aid options present the highest mean difference values in enrollment services. Within academic services, five of the seven scale items had mean difference values of 0.50 or higher. This area indicates the highest need for the institution to examine further. The highest mean difference value from the three areas is in the academic services section: adequate course offerings for program of study progression. The three scale items with mean difference values higher than 0.50 in the student services sub-area all relate to ease and timeliness of communication.

Sub-research question four addresses if there is a meaningful statistical difference between this institution's respondents compared to the national online learner dataset. Benchmarking data were provided by Ruffalo Noel Levitz, LLC for satisfaction means. Data calculations to answer this research question are found in Table 5 below. In order to determine if there were any meaningful differences, a two-tailed *t*-test was completed for each scale's satisfaction means (institution and national).

Table 5

Two-tailed t-test and Cohen's d Effect Size between Institution (INT) Satisfaction Means and National Online Learners (NOL) Dataset Satisfaction Means
INT N=141; NOL N=131074

Scale and Item	INT	INT	NOL	NOL	t	Cohen's
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	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		<i>d</i>
Enrollment	6.17	.98	6.07	1.08	1.10	0.01
Adequate financial aid available	5.79	1.67	5.82	1.55	0.23	-0.02
Receive timely information on availability of financial aid	5.92	1.42	5.84	1.51	0.63	0.05
Registration for online courses is convenient	6.43	1.13	6.39	1.08	0.44	0.04
Billing and payment procedures are convenient for me	6.46	.92	6.20	1.24	2.50*	0.24
Academic	5.98	0.94	5.94	1.02	0.47	0.04
My program advisor is accessible by telephone and e-mail	6.14	1.37	6.09	1.33	0.45	0.04
My program advisor helps me work toward career goals	5.68	1.47	5.65	1.60	0.22	0.02
Program requirements are clear and reasonable	6.09	1.09	5.96	1.30	1.19	0.11
There are sufficient offerings within my program of study	5.89	1.34	5.96	1.30	0.64	-0.05
Appropriate technical assistance is readily available	6.16	1.31	6.09	1.27	0.65	0.05
Adequate online library resources are provided	6.36	1.00	6.11	1.26	2.36*	0.22
Tutoring services are readily available for online courses	5.16	1.69	5.67	1.57	-3.85**	-0.31
Student Services	5.94	0.98	5.89	1.15	0.52	0.05
This institution responds quickly when I request information	6.07	1.15	6.02	1.35	0.44	0.04
Channels are available for providing timely responses to student complaints	5.56	1.52	5.57	1.62	0.07	-0.01
Online career services are available	5.89	1.57	5.74	1.47	1.22	0.10
I am aware of whom to contact for questions about programs and services	6.03	1.29	5.98	1.40	0.04	0.04
The bookstore provides timely service to students	6.08	1.18	6.07	1.29	0.09	0.01

df= 131214 for all t values

*The mean difference is significant at the .05 level

**The mean difference is significant at the .01 level

The majority of scale items indicated no meaningful differences between the institution's online learners compared to the national dataset. The national dataset included records from 131,074 respondents. Two scale items' means, billing and payment procedures' convenience and adequate library resources, were meaningfully different at the $p < .05$ value. For both, the institution's satisfaction means were higher than the national online learner dataset. One scale item, tutoring services are readily available for online courses, was meaningfully different at the

$p < .01$ value. For this item, the institution's level of satisfaction was lower than that of the national online learner dataset. Cohen's d was also calculated to determine if there were any meaningful differences in effect sizes. The majority of scale items indicated no meaningful differences in effect size. Both the t -test values and Cohen's d values show that this institution is on par with national averages on student perceptions in the three areas of student support services: enrollment, academic, and student.

Chapter Summary

Overall, satisfaction data from this institution's online graduate student population are high, with all levels of agreement mean averages being 5 and above. Additionally, there were no meaningful differences as a whole in the areas of enrollment, academic, and student services between the institution and the national data set. The dependent samples t -test values and Cohen's d effect sizes between level of importance and satisfaction means did highlight areas that the institution should prioritize in addressing from faculty, staff, and administrators within the particular college. And finally, there were no meaningful differences between the institution's respondents and the national online learner dataset, so this institution is not an outlier in any major way compared to national data. There are areas for further discussion and analysis, which will be presented in Chapter 5.

CHAPTER 5: DISCUSSION AND RECOMMENDATIONS

This chapter will provide a brief overview of the study including the problem statement, purpose statement, research questions, and the research methodology employed. A summary of the results from Chapter 4 will be presented to discuss the research questions in more depth. Implications for practice, limitations of the study, and recommendations for future research will follow. Finally, the chapter will summarize the study in the conclusion.

Introduction

Enrollments in fully online courses and programs continue to grow nationally, particularly at public, four-year institutions (Allen & Seaman, 2015). The explosion of online learning in the early 2000s was precipitated by emerging technologies coupled with its convenience, flexibility, and affordability and those reasons continue to drive many students into online learning (Moore & Fetzner, 2009). While online enrollments have not kept pace to the early 2000s, the rate of those who choose online learning continues to grow each year (Allen & Seaman, 2017; National Center for Education Statistics, 2016). While online learning does afford convenience and flexibility for students, it is not without its critics and issues. Faculty at public higher education institutions have been slower to embrace online learning versus institutional administrators (Allen, Seaman, Poulin, & Straut, 2016). Also, the increase in online learning enrollments is matched by increased attrition rates for online learners compared to on-campus learners, which is problematic to higher education (Atchley, Wingenbach, & Akers, 2013; Carr, 2000; Fetzner, 2013; Patterson & McFadden, 2009; Willging & Johnson, 2004)..

The primary view of online learning is through instructional lenses, but incorporated within the online learning experience are the ancillary support services students utilize in varying levels. There is no steadfast model of how an institution sets up its online support services, but

some examples of areas that would be available include admissions processes, access to libraries, tutoring, counseling, financial aid, academic advising, and career services. These entities tend to be well-founded for on-campus students, but may not always be considered or evaluated appropriately for online students (Bailey & Brown, 2016; Crawley & Fetzner, 2013; Dare, Zapata, & Thomas, 2005; Kendall, 2005). Therefore, it is important for institutions that offer online programs to evaluate the level of services offered to online students.

Problem Statement

Online learning research has predominantly focused on the design of the instructional learning experience, including teaching pedagogy and instructor practices. Another primary area of research is on retention or attrition factors, focused on the internal and external variables that impact a student's online progression. More recent research has begun to focus on the role of student services in an online student's experience, but that research is still fairly new. As such, this researcher believes it is important to research current students' experiences in their online learning environments to better understand their satisfaction with services and their expectation for support services. Doing so at an institutional level affords the opportunity for student feedback to impact changes needed in their online experiences. Additionally, this study adds to the current research related to online learning, but through the lens of support services.

Research Questions

The purpose of this study was to examine current online graduate students' perceptions related to their satisfaction and expectation of support services at on public, four-year institution in southeastern Georgia. Utilizing the Ruffalo Noel Levitz, LLC *Priority Survey for Online Learners* instrument, archival data collected by this institution were evaluated along three areas of support services: enrollment services, academic services, and student services. The research

design was a quantitative approach intending to answer the following primary research question through statistical analysis:

What are the perceptions of online graduate students regarding their access to online support services?

Sub-research questions included:

1. How do online graduate students rate their levels of satisfaction and importance of their institution regarding online support services offered?
2. Is there a difference between online graduate students' ratings of satisfaction and their importance expectations of services?
3. Is there a difference between the online graduate students surveyed at this one institution compared against the national online learners' dataset?

The three sub-research questions were used to answer the primary research question.

Summary of Findings

This study analyzed archival data collected from the *Priority Survey for Online Learners* instrument which was administered to currently enrolled online graduate students at one public, four-year institution in southeastern Georgia in spring 2017. While the instrument's items covered five areas related to online students' experiences, for purposes of this study, only three areas were analyzed statistically: enrollment services, academic services, and student services. Each area had between four to seven scale items that students were asked to rate their current level of satisfaction and importance level. Both scales were from "1" to "7" with "1" indicating not satisfied/not important to "7" indicating very satisfied/very important. From the initial sample size of 749 e-mailed the survey, the institution collected 142 responses, which were then analyzed for this study. Other demographic characteristics were collected including ethnicity,

experience with online learning, and family situation. As these characteristics were not relevant to this study, they were excluded from the demographic descriptive table, but they could be evaluated in future study which will be discussed in recommendations for future research.

Demographically, the respondents were representative to the initial sample in gender, age, and program. Almost 70% of respondents are enrolled part-time and 90% are employed full-time, which is important to note because these students mirror the characteristics of both Bean and Metzner's (1985) nontraditional undergraduate student model, as well as characteristics of a 21st century online learner (Dabbagh, 2007). These factors, in addition to 95% of respondents being over the age of 24, highlights the demographic similarities between Bean and Metzner's (1985) descriptors of nontraditional students. Understanding the characteristics of this student population is critical as literature shows that online learners with these demographics oftentimes struggle with nonacademic issues that impede their progress in their programs (Bean & Metzner, 1985; Gaytan, 2013; Park & Choi, 2009; Willging & Johnson, 2004). Examples of these nonacademic or external factors that impact this population of students include financial problems, and time management, job support, family support (Bean & Metzner, 1985; Gaytan, 2013; Park & Choi, 2009). Understanding these demographics and factors outside of the instructional settings is essential for evaluating if access to services is appropriate at this, and other institutions. Institutions should do what they can to mitigate external factors; while it is impossible to do so in all areas, ensuring that supports are in place to help students in need is one step in offering a quality online learning experience (Angelino, Williams, & Natvig, 2007; Gaytan, 2013; Irani, Wilson, Slough, & Rieger, 2014).

Research Questions Discussion

One primary research question encompasses the discussion for this section, with three

sub-research questions providing evidence to support the findings for the primary question. The three sub-research questions' data were analyzed statistically and descriptively to provide a holistic view of the online graduate students' satisfaction and expectations at this institution. Findings from the research questions are linked to concepts found in the two theoretical frameworks that ground this study, Bean and Metzner's (1985) nontraditional undergraduate student model and Cardozo's (1965) customer effort, expectations, and satisfaction model. Additional concepts from Chapter 2's review of the literature will be tied to implications for practice discussed further below.

Primary Research Question

The primary research question for this study asked about the perceptions of online graduate students regarding their access to online support services. This question is answered by the sub-research questions, in addition to three summary questions found in the *Priority Survey for Online Learners*: (1) So far, how has your college experience met your expectations? (2) Rate your overall satisfaction with your experience here thus far; and (3) All in all, if you had to do it over, would you enroll here again? Respondents indicated a mean average of 5.16, 5.96, and 6.04, respectively to the question order above, which indicates overall they are satisfied with their experience at this institution and if they had to make the choice to attend the institution again, would do so. Data provided from the three areas of focus (enrollment services, academic services, and student services), in addition to comparing the institution against the national data set, corroborates the finding that overall, the online graduate students at this institution are satisfied with the access of services that the institution provides. There are gap areas and challenges for the institution, which will be discussed further in implications for practice, but overall satisfaction is high.

Sub-Research Questions

The first sub-research question indicated that overall, online graduate students at this particular institution were satisfied with their experiences in three targeted areas: enrollment services, academic services, and student services. Each area had an overall agreement level close to 6, which supports the finding that respondents are satisfied with services. Importance means were even higher, with the average means being approximately 6.5, which indicates these areas are very important to the students. These results are supported by Cardoza's (1965) theory in that customer effort and expectations will influence their satisfaction of products. Online graduate students at this institution rated their expectations high and believe they are receiving satisfactory services across the majority of areas. Application of Cardoza's (1965) theory is also supported in that over 80% of online graduate students indicated they would probably or definitely enroll at the institution again, if they could do so. Satisfaction with a product, in this case, their program, leads to repeat purchases and spreading their experiences to peers and friends (Cardoza, 1965). While not a theoretical framework grounding this study, these satisfaction data also support prior research by Kilburn, Kilburn, and Cates (2014) and how students' perceptions of access to information, technology, and services relates to students' perceived value and loyalty to the institution. As students in this study indicated agreement levels of above 6 in that they would re-enroll in this institution, loyalty to this institution is high, which is a byproduct of their satisfaction with services provided.

The second sub-research question examined statistical differences between importance and expectation means. Statistical analysis indicated that students' expectations are higher than their satisfaction in all areas. This indicates a need for the institution to evaluate each area to ensure these differences are mitigated to the best ability of the institution to do so.

Table 4's prioritization based on mean difference values (scores higher than 0.05) showed the majority of higher mean difference values were in the academic support services area. Scale items within this area included program of study progression issues, advisement issues, and tutoring. The enrollment sub-area had two high mean difference values in the area of financial aid, including information and availability. Bean and Metzner (1985) indicate financial issues as one of the external variables that factor into a nontraditional student's ability to progress in their program. While this study cannot directly correlate student satisfaction in this area to impeding progression, it is noted in the research that external variables do impede progression and financial aid or support fits within that category (Bean & Metzner, 1985; Park & Choi, 2009). The third sub-area of student services found communicative issues for the higher mean difference values, including timeliness of responses as well as knowing who to contact. This will be discussed more in implications, but retention research indicates communication as one of the highly cited issues within online learning (Hart, 2012).

The third sub-research question examined differences between the institutional data collected in this instance against the national online learner dataset provided by all Ruffalo Noel Levitz, LLC. These national data represented over 130,000 records from all institutions that have had this survey administered on their campuses. While no individual data were provided, aggregated means and standard deviations were provided for satisfaction scale items from the standard instrument. Data analysis from the two-tailed t-test indicated no meaningful differences between the institution and the national dataset in the aggregated three areas (enrollment services, academic services, and student services), but there were some differences in scale items such as: billing procedures, adequate library offerings, and tutoring services availability. Only tutoring services availability indicated meaningful lower levels of satisfaction than the national

dataset. Cohen's *d* effect size calculations also indicated no meaningful differences between the two samples. That there are no major differences between the institution and nationally is a positive result for the institution. While there is room for improvement, there are no major 'red flags' that demonstrate overall student dissatisfaction along support services offered.

Implications for Practice

This study presents several implications for practice including implications for institutional administration, online graduate (and undergraduate) students, and evaluating support services. In the discussion that follows, implications will be presented for all three areas that link the data analysis with prior research on online learners and online support services. Within the implications, practical suggestions for each area are presented that this researcher believes enhances the holistic online learning experience. Because the concepts are related, similar recommendations within each subheading may present themselves. While these suggestions may not work for all institutions and all student types, they can provide a starting point for further evaluation at the institution studied, and additional institutions.

Implications for Online Graduate Students

There were three general themes that emerged from the findings of this study that highlighted the largest gaps between online graduate students' satisfaction and importance: financial aid access and information; program of study offerings and advisement issues; and timeliness and channels for communication. These themes corroborate prior research related to online learning in that these issues are found across a cross-section of studies: financial aid access and information about financial aid (Bean & Metzner, 1985; Park & Choi, 2009; Willging & Johnson, 2004); program of study and advisement (Angelino, Williams, & Natvig, 2007; Gaytan, 2013; Muilenburg & Berge, 2005); and communication issues, including access to

information and timely responses (Garrison, Anderson, & Archer, 2000; Hart, 2012; Ortiz-Rodriguez, Telg, Irani, Roberts, & Rhoades, 2005).

Communication is the most frequent factor in online learning research related to student' progression and students' perceived quality of the institution (Ortiz-Rodriguez, et al., 2005) and it is clear from this study that communication issues need attention. The inability to access information can cause perceptions of unease in online students, which then impact perceived institutional quality (Beck & Milligan, 2014; Cardoza, 1965; Kilburn, Kilburn, & Cates, 2014). Therefore, identifying methods for online graduate students to find information handily, as well as have timely access to faculty and staff for assistance, is an important step in addressing issues of communication.

It is important to note that not all services are necessary depending on the institution and the population served (Cain, Marrara, Pitre, & Armour, 2003; Milman, Posey, Pintz, Wright, & Zhou, 2015). But, in relation to this study, these issues of communication and access to information are so prevalent in the study and corroborated by research that this and other institutions should be mindful of where information is housed and on what websites. All links on websites should work and should not be so embedded in other pages it is difficult to find information. Access to financial aid applications and the approval process for funding should be clearly outlined. If possible, financial aid websites should regularly highlight funding opportunities outside of student loans on their websites including links to scholarship databases. Program of study offerings should be clear, with posted advisement sheets and course rotations offerings in several locations where students access information, including program websites, the learning management system, and the institution's academic calendar. Additionally, timeliness of outreach is imperative between advisors and online graduate students. Regular and timely

feedback from any entity on campus is an expectation for online learners.

Implications for Online Support Offices

Many institutions that offer online programs have ‘online campuses’ or centers/offices dedicated to supporting online faculty and students. These types of offices or centers run the gambit from fully autonomous campuses that handle all matters related to online programs from admissions to graduation, to offices embedded within academic affairs that focus on one or two elements of the online experience. Regardless, the staff in these types of offices are typically dedicated to instructional design support for faculty and for assisting online students with technical issues. The institution where these data originated from has a center for online learning that incorporates both of these populations, and findings from this study can be utilized in several ways.

One such use of these data and findings could be as one data point for a case study that could be completed at this institution. Led by the center for online learning, a team could begin investigating all aspects of the online learning experience at this institution. A case study of this nature would enable evaluation across many areas, determine areas of improvement needed, and link to research-based practices for improvement (Aversa & McCall, 2013; Floyd & Casey-Powell, 2004). Understanding the timing of the service is critical as well, as there are different phases in the online learning experience (Floyd & Casey-Powell, 2004). For example, if prospective online graduate students struggle in the intake phase or the beginning of the application process, adjustments need to be made there to ensure admission barriers are mitigated.

Findings from this study already highlight needed areas of improvement at this institution in three areas of student support: enrollment services, academic services, and student services. If

utilizing other evaluative models, such as the Shea and Armitage (2002) Western Interstate Commission for Higher Education/Western Cooperative for Educational Technologies (WICHE/WCET) web of student services, many of the scale items within the three areas are linked to the five core areas of the web of student services: academic, administrative, communication, student communities, and personal services. The Shea and Armitage (2002) web of student services model can be a framework to determine which areas are being met and which areas are not.

Additionally, these data can provide a baseline discussion for the institution, and other institutions, to utilize Newberry and DeLuca's (2014) COMFORT model to evaluate student services needs. The COMFORT model incorporates the following elements: C = Communication plan; O = Orientations; M = Maintenance of student-centered policies; F = Feedback from all constituents to create and evaluate services; O = Outreach; R = Resources that are accessible and learner-focused; and T = Team-Based (Newberry & DeLuca, 2014). The key to this model and using the data from this research is to bridge together offices and outreach to constituents that need to have a voice in the planning and evaluation of student services. Teamwork and communication between the office of online learning, student affairs, and academic affairs is critical.

Implications for Institutional Administration

A primary focus in the higher education landscape right now is retention, progression, and graduation (RPG) of all students, both undergraduate and graduate and on-campus and online (McLendon & Hearn, 2013). With the potential for performance-based funding based on RPG rates instead of headcount funding formulas, it is important for higher education administrators to focus on factors that improve educational experiences for online learners

(McLendon & Hearn, 2013). Improving the educational experience, and particularly access to support services, for online learners must be a team effort and the institution must adopt the culture that promotes student success (Hossler, Ziskin, & Gross, 2009; Kleeman, 2005). As Kleeman (2005) highlights, academic and student affairs must shift campus cultures from isolation of services to collaboration of services. To institute this shift in campus culture, it must come from institutional administration including the president, vice-presidents, and academic deans. Ultimately, the drive for campus evaluation of services, through a center for online learning or an online campus as discussed further in this chapter, must come from the upper administration.

One practical recommendation is that institutional administration convene a body to complete evaluations of current support services for online students. Depending on the institution's structure, this committee could be constituted directly from the president or provost or through a faculty senate or other governing body. Representation from multiple areas of campus is critical and should include faculty, staff, and administrators from student affairs, enrollment management offices, online learning or teaching offices, and online faculty. Additionally, students must be represented, hopefully both at the graduate and undergraduate level as their needs can vary. In addition to evaluating the services available for students using one of the models mentioned in the previous section, this committee should also ensure that equitable access is available for accreditation requirements (C-RAC, 2011; Hardy & Meyer-Griffith, 2012). Access to services is both a necessity for student success, but also for the institution to meet its accrediting body's requirements.

This evaluation process must be continuous and not a one-time event. As student populations change, new technologies emerge, and institutions add or decrease online program

offerings, continuous evaluation and improvement must be ensured. One way to ensure this continuous evaluation process occurs is to have it housed in a central online campus or online teaching and learning office. The office should be staffed with administrators, staff, and faculty with experience and expertise in online learning, pedagogical teaching and design, and those who can effectively collaborate with student affairs, academic affairs, information technology services, and enrollment management services. As this requires substantial funding for personnel, office space, and other tangible resources, this would have to be created by the senior administrative level.

Recommendations for Future Research

Findings from this study reveal a need to expand the research related to support services for online graduate (and undergraduate) students. Further research could include the following: an different research approach and methodology, such as case study or program evaluation; analysis of different demographic variables including potential differences between first-time online students and returning online students; use of an instrument that could directly analyze potential correlations between retention/attrition and access to online support services; and an expanded sample size at one, or multiple, institutions within a geographic area.

To fully examine the issues of access of support services for online learning, case study or program evaluation methodologies could be appropriate for future research. Utilizing data from the *Priority Survey for Online Learners* could be one element of analysis, as mentioned in the implications. Utilizing one of these other methodological approaches would include interviews with current (and potentially former) online students; analysis of office structures and policy documents; and would incorporate teams of faculty, staff, students, and administrators.

Another area of future research utilizing the dataset from the *Priority Survey for Online*

Learners would be to analyze demographic characteristics and report if there are any meaningful differences. Demographic variable analysis could occur by gender, age, race/ethnicity, enrollment status, and/or first-time enrollment versus returning enrollment in an online program. The latter demographic characteristic could potentially highlight differences between new and returning online students and their expectations and satisfaction of support services.

An additional future area of research would be to analyze if there are correlations between retention/attrition and an online student's access to support services. An instrument would need to be created for this purpose as this researcher is not aware of an existing instrument. The instrument would need to be created, and then tested for validity and reliability. This area of research would be a critical informational piece for institutions if they are able to see correlations to the services they offer and their ability to retain or lose students if services are not available.

A final recommendation for future research is to expand the dataset for the *Priority Survey of Online Learners* at the institution studied and to implement the survey, either annually or every other year, to get baseline and then comparative data. Utilizing this dataset should be part of a continuous improvement model for the entire institution, across all programs that are offered fully online. Expanding the dataset to include all online students at a particular institution is recommended as there may be differences between majors and colleges.

Chapter Summary

Understanding online graduate students' satisfaction and importance levels related to their access to support services is critical information for any institution that offers online courses or programs. Also, the evaluation of support services for online students must be a shared responsibility between institutional administrators, academic affairs, student affairs,

and/or centers for online learning. Findings from this study support concepts found in online learning research about communication and access to information; in addition, supports the notion of customer service and satisfaction of a product, in this case higher education as the product. While this study was limited to one population of learners at one institution, there are implications and recommendations for research that contribute to the library of research on graduate online students.

Conclusion

As Chapter 1 highlighted, enrollments in online programs and courses are projected to increase annually, particularly at public, four-year institutions (Allen & Seaman, 2017). As the most recent data indicate, more than one quarter of undergraduate and graduate students take courses virtually and do so due to the convenience, flexibility, and affordability that online learning provides (Moore & Fetzner, 2009; NCES, 2016). Online learning encapsulates more than the instructional elements and includes academic, administrative, and student support offices. To meet regional accreditation requirements, institutions must offer equitable access to these support services for online students, in addition to the offerings for on-campus students (Council of Regional Accreditation Commissions, 2011; Hardy & Meyer-Griffith, 2012).

One method to begin the evaluative process at an institution on access of support services for online students is to survey currently enrolled students, which is what this study sought to do at one institution. By understanding the satisfaction and importance levels of currently enrolled graduate students, institutional administration can pinpoint target areas for improvement. While this study does not evaluate all potential services available, it is a starting point for this institution, and others who utilize the *Priority Survey for Online Learners*, to make corrective action where needed. Furthermore, more research can and should be completed to add to what

online graduate students expect from their institutions in the area of support services and whether or not accessibility impacts retention, progression, and graduation.

References

- Allen, E., & Seaman, J. (2017). Digital learning compass: Distance education enrollment report 2017. Retrieved from <https://onlinelearningconsortium.org/read/digital-learning-compass-distance-education-enrollment-report-2017/>
- Allen, E., & Seaman, J. (2015). Grade level: Tracking online education in the United States. Retrieved from <http://onlinelearningconsortium.org/read/survey-reports-2014/>.
- Allen, E., Seaman, J., Poulin, R., & Straut, T. (2016). Online report card: Tracking online education in the United States. Retrieved from <https://onlinelearningconsortium.org/read/online-report-card-tracking-online-education-united-states-2015/>.
- Angelino, L., Williams, F., & Natvig, D. (2007). Strategies to engage online students and reduce attrition rates. *The Journal of Educators Online*, 4(2), 1-14.
- Askov, E., & Simpson, M. (2001). Researching distance education: Penn state's online adult education med degree on the world campus. *Research to Reality: Putting VET Research to Work*. Proceedings from the 4th Australian Vocational Education and Training Research Association Conference. Adelaide, Australia.
- Atchley, W., Wingenbach, G., & Akers, C. (2013). Comparison of course completion and student performance through online and traditional courses. *The International Review of Research in Open and Distance Learning*, 14(4), 104-116.
- Aversa, E., & MacCall, S. (2013). Profiles in retention part 1: Design characteristics of a graduate synchronous online program. *Journal of Education for Library and Information Science*, 54(2), 147-160.
- Ayers Schlosser, L. & Simonson, M. (2006). *Distance education: Definition and glossary of*

- terms* (2nd ed.). Greenwich, CT: Information Age Publishing.
- Bailey, T., & Brown, A. (2016). Online student services: Current practices and recommendations and implementation. *Journal of Educational Technology, 44*(4), 450-462.
- Bean, J., & Metzner, B. (1985). A conceptual model of nontraditional undergraduate student attrition. *Review of Educational Research, 55*(4), 485-540.
- Beck, H., & Milligan, M. (2014). Factors influencing the institutional commitment of online students. *Internet and Higher Education, 20*, 51-56. doi:
<http://dx.doi.org/10.1016/j.iheduc.2013.09.002>.
- Bolliger, D., & Inan, F. (2012). Development and validation of the online student connectedness survey (oscs). *The International Review of Research in Open and Distance Learning, 13*(3), 41-65.
- Britto, M., & Rush, S. (2013). Developing and implementing comprehensive student support services for online students. *Journal of Asynchronous Learning Networks, 17*(1), 29-42.
- Cardozo, R. (1965). An experimental study of customer effort, expectation, and satisfaction. *Journal of Marketing Research, 2*, 244-249.
- Cain, D., Marrara, C., Pitre, P., & Armour, S. (2003). Support services that matter: An exploration of the experiences and needs of graduate students in a distance learning environment. *Journal of Distance Education, 18*(1), 42-56.
- Conceicao, S. (2007). Understanding the environment for online teaching. *New Directions for Adult and Continuing Education, 113*, 5-11.
- Carr, S. (2000). As distance education comes of age, the challenge is keeping the students. *Chronicle of Higher Education, 46*(23), A39-A42.

- Casey, D. (2008). A journey to legitimacy: The historical development of distance education through technology. *TechTrends*, 52(2), 45-51.
- Council of Regional Accrediting Commissions (C-RAC). (2011). Interregional guidelines for the evaluation of distance education programs (online learning.). Retrieved from <https://www.msche.org/publications/Guidelines-for-the-Evaluation-of-Distance-Education-Programs.pdf>.
- Crawley, A. (2012). Supporting *Online Students: A Guide Planning, Implementing, and Evaluating Services*. San Francisco: Josey-Bass.
- Crawley, A., & Fetzner, M. (2013). Providing service innovations to students inside and outside of the online classroom: Focusing on student success. *Journal of Asynchronous Learning Networks*, 17(1), 7-12.
- Creswell, J.W. (2008). *Educational research: Planning, conducting, and evaluating Quantitative and qualitative research* (3rd ed.). Upper Saddle River, NJ: Pearson.
- Dabbagh, N. (2007). The online learner: Characteristics and pedagogical implications. *Contemporary Issues in Technology and Teacher Education (CITE) Journal*. Retrieved from: <http://www.citejournal.org/volume-7/issue-3-07/general/the-online-learner-characteristics-and-pedagogical-implications/>
- Dare, L., Zapata, L., & Thomas, A. (2005). Assessing the needs of distance learners: A student affairs perspective. *New Directions for Student Services*, 112, 39-54.
- Fetzner, M. (2013). What do unsuccessful online students want us to know? *Journal of Asynchronous Learning*, 17(1), 13-27.
- Floyd, D., & Casey-Powell, D. (2004). New roles for student support services in distance learning. *New Directions for Community Colleges*, 128, 55-64.

- Garrison, D.R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education*, 2(2-3), 87-105.
- Gaytan, J. (2013). Factors affecting student retention on online courses: Overcoming this critical problem. *Career and Technical Education Research*, 38(2), 147-155.
- Giese, J., & Cote, J. (2000). Defining consumer satisfaction. *Academy of Marketing Science Review*, 2000, 1. Retrieved from <http://libez.lib.georgiasouthern.edu:2048/login?url=http://search.proquest.com/docview/200857197?accountid=11225>
- Hardy, K., & Meyer-Griffith, K. (2012). Meeting accreditation requirements: Are you serving distance learners? *Journal of Asynchronous Learning Networks*, 16(5), 7-18.
- Hart, C. (2012). Factors associated with student persistence in an online program of study: A review of the literature. *Journal of Interactive Online Learning*, 11(1), 19-42.
- Hossler, D., Ziskin, M., & Gross, J. (2009). Getting serious about institutional performance in student retention: Research-based lessons on effective policies and practices. *About Campus*, 2-11. doi: 10.1002/abc.271.
- Irani, T., Wilson, S., Slough, D., & Rieger, M. (2014). Graduate student experiences on-and-off campus: Social connectedness and perceived isolation. *Journal of Distance Education*, 28(1), 1-16.
- Johnston, M. (2014). Secondary data analysis: A method of which the time has come. *Qualitative and Quantitative Methods in Libraries*, 3, 619-626.
- Keil, S., & Brown, A. (2014). Distance education policy standards: A review of current regional

- and national accrediting organizations in the United States. *Online Journal of Distance Learning Administration*, XVII(III), 1-14.
- Kendall, J. (2005). Implementing the web of student services. *New Directions for Student Services*, 112, 55-68.
- Kilburn, A., Kilburn, B., & Cates, T. (2014). Drivers of student retention: System availability, privacy, value, and loyalty in online higher education. *Academy of Educational Leadership Journal*, 18(4), 1-14.
- Kleeman, G. (2005). Weaving silos- a leadership challenge: A cross-functional team approach To supporting web-based student services. *New Directions for Student Services*, 112, 89-101.
- Lei, S. (2016). Institutional characteristics affecting the educational experiences of undergraduate students: A review of literature. *Education*, 137(2), 117-122.
- McLendon, M., & Hearn, J. (2013, November-December). The resurgent interest in performance-based funding for higher education. *Academe*, 1-14. Retrieved from <http://www.aaup.org/article/resurgent-interest-performance-based-funding-higher-education#.VhrRBPIVhBc>
- Milman, N., Posey, L., Pintz, C., Wright, K., & Zhou, P. Online master's students' perceptions of institutional supports and resources: Initial survey results. *Online Learning*, 19(4). Retrieved from: <https://onlinelearningconsortium.org/read/online-learning-journal/>.
- Moore, J., & Fetzner, M. (2009). The road to retention: A closer look at institutions that achieve high course completion rates. *Journal of Asynchronous Learning Networks*, 13(3), 3-22.
- Moore, M., & Kearsley, G. (2011). *Distance education: A systems view of online learning* (3rd ed.). Belmont, CA: Wadsworth.

- Moore, J., & Shelton, K. (2013). Social and student engagement and support: The Sloan-c quality scorecard for the administration of online programs. *Journal of Asynchronous Learning Networks*, 17(1), 53-72.
- Muilenburg, L., & Berge, Z. (2005). Student barriers to online learning: A factor analytic study. *Distance Education*, 26(1), 29-48.
- National Conference of State Legislatures. (2015). Performance-based funding for higher education. Retrieved from <http://www.ncsl.org/research/education/performance-funding.aspx>.
- Newberry, R. & DeLuca, C. (2014). Building a foundation for success through student services for online learners. *Journal of Asynchronous Learning Networks*, 14(4), 25-40.
- Nulty, D. (2008). The adequacy of response rates to online and paper survey: What can be done? *Assessment & Evaluation in Higher Education*, 33(3), 301-314.
- Ortagus, J. (2017). From the periphery to prominence: An examination of the changing profile of online students in American higher education. *The Internet and Higher Education*, 32, 47-57.
- Ortiz-Rodriguez, M., Telg, R., Irani, T., Roberts, T., & Rhoades, E. (2005). College students' perceptions of quality in distance education: The importance of communication. *The Quarterly Review of Distance Education*, 6(2), 97-105.
- Park, J. H., & Choi, H. J. (2009). Factors influencing adult learners' decision to drop out or persist in online learning. *Educational Technology & Society*, 12(4), 207-217.
- Patterson, B., & McFadden, C. (2009). Attrition in online and campus degree programs. *Online Journal of Distance Learning Administration*, XII(11). Retrieved from <http://www.westga.edu/~distance/ojdla/summer122/patterson112.html>.

- Quality Matters. (2017). Retrieved from <https://www.qualitymatters.org/>.
- Rovai, A., & Wighting, M. (2005). Feelings of alienation and community among higher education students in a virtual classroom. *Internet and Higher Education*, 8, 97-110. doi:10.1016/j.iheduc.2005.03.001.
- Ruffalo Noel Levitz, LLC. (2016). 2015-2016 research report: National online learners' satisfaction and priorities report. Retrieved from <https://www.ruffalonl.com/papers-research-higher-education-fundraising/2016/2015-16-national-online-learners-satisfaction-and-priorities-report>.
- Shea, P., & Armitage, S. (2002). Guidelines for creating student services. Retrieved from <http://www.wiche.edu/pub/11627>.
- Stewart, B., Goodson, C., Miertschin, S., Norwood, M., & Ezell, S. (2013). Online student support services: A case based on quality frameworks. *MERLOT Journal of Online Teaching and Learning*, 9(2), 290-303.
- Sullivan, E. B., & Pagano, R. (2012). Relevant adult programs, resilient students, and retention-driven administration. *New Directions for Higher Education*, 159, 21-29. doi:10.1002/he.20023.
- Thomas, L., Quinn, J., Slack, K., & Casey, L. (2002). *Student services: Effective approaches to retaining students in higher education*. Staffordshire: Institute for Access Studies.
- Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research*, 45, 89-125
- U.S. Department of Education, National Center for Education Statistics. (2014). Enrollment in distance education courses, by state: Fall 2012. (Report No. ED-IES-09-C-0006).

Retrieved from <http://nces.ed.gov/pubs2014/2014023.pdf>

U.S. Department of Education, National Center for Education Statistics. (2016). *Digest of Education Statistics, 2015*, Table 311.15. Retrieved from <https://nces.ed.gov/fastfacts/display.asp?id=80>.

Willing, P., & Johnson, S. (2004). Factors that influence students' decision to dropout of online courses. *Journal of Asynchronous Learning Networks*, 8(4), 2-15.

Appendix A

PSOL Survey Reliability and Validity

The reliability of the PSOL survey was assessed using Cronbach's Alpha which tests how well a collection of items agree with one another. The commonly accepted rule is that a value above .70 is acceptable as proof of reliability among items. Table 1 presents Cronbach's Alpha for satisfaction and importance. All values but two (Institutional Perceptions for both importance and satisfaction) were above .70. That satisfaction value was just below .70. In both cases, factor analysis was performed among the scale items to determine if there was any multidimensionality but none was detected. That supports the claim that the items within each scale are measuring like concepts.

Table 1. Cronbach's α – Importance & Satisfaction

Scale	Cronbach's α - Importance	Cronbach's α - Satisfaction
Institutional Perceptions	0.509	0.699
Academic Services	0.831	0.857
Instructional Services	0.860	0.903
Enrollment Services	0.774	0.763
Student Services	0.811	0.827

Due to the absence of another instrument to compare to the PSOL survey, validity was measured by checking the correlation between the individual scales and the question regarding overall satisfaction. The results are provided in Table 2 below. All correlations were positive and significant at the .01 level, an indication that each of the scales are associated with overall satisfaction.

Table 2. Correlation Between Scales and Overall Satisfaction

Scale	Correlation
Institutional Perceptions	0.407
Academic Services	0.261
Instructional Services	0.452
Enrollment Services	0.275
Student Services	0.415

Appendix B

Priorities Survey for Online Learners

Items within Scales

Scale: Institutional Perceptions

1. This institution has a good reputation.
6. Tuition paid is a worthwhile investment.

Scale: Academic Services

2. My program advisor is accessible by telephone and e-mail.
5. My program advisor helps me work toward career goals.
7. Program requirements are clear and reasonable.
12. There are sufficient offerings within my program of study.
16. Appropriate technical assistance is available.
21. Adequate online library resources are provided.
24. Tutoring services are readily available.

Scale: Instructional Services

3. Instructional materials are appropriate for program content.
4. Faculty provide timely feedback about student progress.
8. Student-to-student collaborations provide valuable experiences.
11. Student assignments are clearly defined in the syllabus.
13. The frequency of student and instructor interactions is adequate.
17. Assessment and evaluation procedures are clear and reasonable.
20. The quality of online instruction is excellent.
25. Faculty are responsive to student needs.

Scale: Enrollment Services

9. Adequate financial aid is available.
14. I receive timely information on the availability of financial aid.
18. Registration for online courses is convenient.
23. Billing and payment procedures are convenient for me.

Scale: Student Services

10. This institution responds quickly when I request information.
15. Channels are available for providing timely responses to student complaints.
19. Online career services are available.
22. I am aware of whom to contact for questions about programs and services.
26. The bookstore provides timely service to students.