Examining Fully Online Degree Students' Perceptions of Online Student Support Services: A Mixed Method Study Using Grounded Theory and Rasch Analysis

Tamara Dean Heimberg

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EXAMINING FULLY ONLINE DEGREE STUDENTS’ PERCEPTIONS
OF ONLINE STUDENT SUPPORT SERVICES: A MIXED
METHOD STUDY USING GROUNDED THEORY
AND RASCH ANALYSIS

A Dissertation
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education
in
Educational Leadership

by
Tamara Dean Heimberg
June 2014
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Approved by:

Dr. Doris Wilson, Committee Chair, Educational Leadership
Dr. Joseph Jesunathadas, Committee Member
Dr. Eun-Ok Baek, Committee Member
Dr. Aja Henriquez, Committee Member
ABSTRACT

The higher education market is becoming much more competitive as more students are attracted to online courses and online degree programs. In order to remain competitive, higher education institutions must provide students access to online support services. However, an online student support services plan is an often overlooked component of an online initiative even though it is a critical factor in the overall success of an online program.

This research specifically focused on online student support services for students enrolled in fully online degree programs in an effort to identify the most important online student support services from students’ perspectives, students’ perceptions of quality of services offered and, correlations between perceptions of importance and satisfaction.

This study employed a mixed method design. Data was collected through semi-structured phone interviews as well as through an online survey with Likert-type questions. Students’ perceived satisfaction and importance levels were explored by analyzing online survey items according to five areas. The five areas were: 1) Institutional Perceptions; 2) Academic Services; 3) Enrollment Services; 4) Student Services; and 5) Online Community. In total, 22 fully online degree students were interviewed and 206 fully online degree students completed and returned the online survey. Grounded Theory was used to analyze the interview data and the Rasch model was used to analyze the survey data.
Pearson correlation results indicated that there were positive relationships between importance and satisfaction for each of the five scales analyzed in this study. However, despite the fact that there were small percentages of online survey participants that reported low satisfaction levels with services that were important to them, interview participants reported that they would like access to more online services that were not currently available to them, such as: internship programs, a writing center, professional tutors with content expertise, career services (expanded to include territories/regions of online students), and health services. Findings also indicated that online services could be improved by integrating more options for live interaction with online support services staff. Additionally, the results revealed that online degree student satisfaction is highly dependent on receiving timely responses from online services staff.

This dissertation introduces the Importance, Quality and Satisfaction (IQS) Framework. This framework is formed by four domains: services, individuals, systems and environment. By implementing an IQS Framework, institutions have the opportunity to increase student satisfaction levels by providing higher quality and better delivery of their services, systems and environment.
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CHAPTER ONE

INTRODUCTION

Statement of the Problem

The traditional American college or university is based on a one-hundred and fifty year-old Harvard-style academic model (Christensen & Eyring, 2011, p. 20) entailing a large physical plant, an agrarian calendar, a publish or perish tenure-track faculty, a strong focus on discovery research and time-defined learning. These characteristics of the traditional academic model “contribute to a labor-intensive process that adds costs and resists efficiencies” (Kinser & Hill, 2011, p. viii). This academic model has become increasingly unsustainable for most state universities and community colleges especially with the recent reduction in government support for education.

According to Christensen & Eyring (2011), “if traditional universities cannot find innovative, less costly ways of performing their valuable function, they are doomed to decline” (p. xxvi). The authors stated that from a market competition standpoint “it is slow institutional suicide” (pp. xxii-xxiii). Online education initiatives can provide one solution to the budget crisis in higher education by allowing colleges and universities to better serve their students while controlling costs (Daniel, Kanwar & Uvalic-Trumbic, 2009; Groulx & Hernly, 2010; Kinser & Hill, 2011; Stuart, 2011; Young, 2008).

The adoption and implementation of effective online student services is
one area where traditional academic models can transform themselves in order to reduce costs and meet the needs of their students in a rapidly changing environment. The Sloan Consortium, a non-profit organization which promotes online education in higher education, developed the Five Pillars of Quality in an effort to develop and improve the practice of online education. These pillars include: learning effectiveness, cost effectiveness, access, faculty satisfaction and student satisfaction. The fifth pillar, student satisfaction, includes satisfaction with online support services for students (Moore, 2005, p. 6). Online student services is an often overlooked component of an online initiative (Martinez-Arguelles, Castan & Juan, 2010), yet it is a critical factor in the overall success of an online program. The objective of this study is to take a closer look at online student services from students’ perspectives. This should provide salient information on online services indicating which are most important to students in terms of supporting their success in their course or degree programs.

Significance of the Dissertation

This study addresses the importance of online student support services in transforming traditional brick-and-mortar universities through the use of cost-efficient online technologies that better serve the needs of students. With the increasing demand for anytime-anywhere degrees, institutions need to adapt their support services to meet the needs of online students. This requires a paradigm shift in terms of beliefs about teaching, learning and the organization
In addition, because online education is an emerging field and there is a limited amount of scholarly research available on the development and implementation of successful online initiatives, this research will add to the current body of research in the field. Furthermore, the goal of this research is to promote understanding, inform and provide a blueprint for other institutions as they reinvent their traditional model by developing online education initiatives such as online student services. The field of online education is one of the fastest growing areas in higher education (Moloney & Oakley, 2010; Sener, 2010); however, institutions have few successful models to follow.

Constructs Identified and Defined

A common theme in the literature regarding successful online initiatives in higher education is students having access to online support services that meet their needs (Li & Irby, 2008; Moloney & Oakley, 2010; Yadgir, 2011). Online support services are defined as all areas of campus support such as advising, registration, financial aid, library services, technical support and bookstore services (Moloney & Oakely, 2010; Yadgir, 2011). Lack of online services for students shows up as a common theme in the discussions in the literature about reasons for failure in online education or obstacles to success in online education (Moloney & Oakley, 2010; Rovai & Downey, 2009; Schulte, 2011).
Rationale

The research specific to online education enrollments shows an increasing demand for online education (Mayadas, Bourne & Bacsich, 2009; Rennie, Johannesdottir & Kristinsdottir, 2010; Vignare, 2009). However, despite increasing enrollments in online education, “a number of obstacles to scaling online programs remain at many traditional bricks-and-mortar institutions” (Moloney & Oakley, 2010, p. 68). In order for colleges and universities to develop successful online education programs, several factors must be addressed by administrators including: administrative and faculty buy-in, strategic planning, visionary leadership and online support services for students (Moloney, Oakley & Juan, 2010; Rovai & Downey, 2010). Furthermore, Hornak, Akweks & Jeffs (2010) posit that in order to remain competitive in higher education, institutions “must provide online access to student services” (p. 79). New online technologies are changing the way institutions deliver student services to all students, including campus-based students and online students. This research will specifically focus on online student support services for students enrolled in fully online degree programs in an effort to identify the most important online student support services from students’ perspectives and why, perceptions of quality of services offered and, correlations between perceptions of importance and satisfaction, if any at all.
Background

The rapidly changing environment in higher education that includes increased competition, new technologies and less government funding is forcing institutions to re-examine their practices. It is apparent that “how institutions treat students is crucial” (Vignare, 2009, p. 101). The move towards a more student-centered academic model in higher education has the potential to increase an institution’s ability to attract students. Christensen and Eyring (2011) argue that “even prestigious universities will be affected by competitors, for profit or otherwise, that put the needs of students first” (p. 351).

According to Levy (2003), there is not enough focus on support services for students in the online environment (p. 6). Many educational researchers argue that access to student services is a key component in students’ success (Levy, 2003; Tyler & Hastings, 2011). The idea that student services that are available to traditional campus-based students should be available to students in online courses/programs is also supported by Vignare (2009, p. 103).

According to Martinez-Arguelles et al. (2010), there is a gap in the literature which examines students’ perceptions of quality in online support services in higher education. This gap will be explored through this research.

Gaps in the Literature

Online education is a relatively new field and, therefore, scholarly research in online educational research is limited in its scope. Furthermore, the quality of
distance education research overall lacks longitudinal research (Miller & Ribble, 2010) with rigorous design and noteworthy, reliable, empirical studies (Schulte, 2011; Tallent-Runnels et al, 2006). As a result, there are many gaps in the research and a need for further study in the field of online education. According to Martinez-Arguelles et al. (2010), there is a need for further research that explores students' overall experiences in online student support services, through holistic evaluation.

The gap in the research that is proposed to be addressed in this study is the perceived importance, satisfaction and quality of online student support services by students enrolled in fully online degree programs. By identifying key dimensions in online services in higher education as well as quality issues from a student's perspective, this research will provide valuable information for higher education leaders and administrators as they develop online student services plans. A well-developed online services plan will not only serve the needs of online students, it will support and enhance the collegiate experience for traditional on-campus students as well (Hornak et al., 2010, p. 80).

Success Indicators

For the purpose of this research, success in online education initiatives in higher education will be defined by the following characteristics: high levels of student satisfaction during their online studies (in areas that may include instruction, instructor feedback, class interaction and/or curriculum and online
student support services); positive student performance outcomes in online courses; steady and/or increasing enrollments in online courses/programs; and strong retention and completion rates for students in online courses/programs. These success characteristics may be defined by the student, class and/or institutional level depending on the indicator.

Purpose of the Research

This two-phase mixed method study (interview, online survey) examined fully online degree students’ perceptions regarding online student support services in higher education. The purpose of this research is to fill the gap in the literature which examines students’ perceptions of online student support services by: a) discussing why online student support services are important from students’ perspectives; b) describing how students perceive the quality of online services provided; c) examining how students’ perceptions of importance correlate with perceptions of satisfaction of online student support services; and, d) offering recommendations to higher education institutions in the process of developing and/or improving online student support services.

Research Questions

The following research questions guided this study:

Research Question 1: How and in what ways do fully online degree students perceive specific online student support services to be
important?

Research Question 2: How and in what ways do fully online degree students perceive the quality of specific online student support services?

Research Question 3: How do students’ perceptions of importance correlate with perceptions of satisfaction regarding online student support services?

Limitations

This study is an examination of fully online degree students’ perceptions of online student support services in higher education indicating which are most important and why, the perceived quality of the services offered and, finally, how students’ perceptions of importance correlate with perceptions of satisfaction regarding online student support services. The scope of the study was limited to surveying participants at two small-to-medium-sized private nonprofit universities/colleges with established online degree programs. Students enrolled in fully online degree programs were the focus of the study due to their specific need for online student support services and, because of the fact that they would have very limited access to campus or, no access to campus to receive on-campus support services. Although the population sampled was limited to students enrolled at private nonprofit institutions, online programs attract a diverse student population, therefore, despite this limitation of the study, the information provided may provide a framework for other institutions that are in the
process of developing and/or improving their online student support services.

Delimitations

This study does not focus on students’ perceptions of importance, satisfaction and quality as they pertain to curriculum and instruction. This research specifically focuses on students’ perceptions of importance, satisfaction and quality regarding online student support services. Much research has already been conducted in the area of online curriculum and instruction. However, there is a lack of research in the area of online student support services.

Assumptions

Based on the literature and on the researcher’s own personal and professional experiences, the following assumptions were made prior to conducting this research:

1. Students enrolled in online degree programs at the participating site schools because the websites for online learners were attractive, easy to navigate and provided valuable information on the institutions and the online programs.
2. Private nonprofit institutions of higher learning tend to be more flexible in terms of adapting to new online platforms and using new user-friendly technologies.
3. Participants would know what online student support services meant.
4. Participants would know that the questions in both the online survey and the phone/Skype interview were tailored specifically for online degree students as opposed to on-campus students.
5. Participants would know how important or how satisfied their institutions have met their expectations for each survey item.
6. Participants in fully online degree programs would not expect to have to go to campus to access student support services.

Definition of Terms

The following terms are defined in the context of this study:

1. Online Education - the use of online technologies in formal higher education for teaching and learning (Sener, 2010).
2. Distance Education - institution-based formal education where the learning group is separated and where telecommunications systems are used to connect learners, resources and instructors (Simonson et al., 2012).
3. Online Student Support Services - all areas of campus support including: advising, registration, financial aid, technical support, library services and bookstore services (Moloney & Oakely, 2010; Yadgir, 2011).
4. Online Degree Student - a student enrolled in a degree program where all courses to complete the degree are accessible online.
5. Successful Online Initiatives - high levels of student satisfaction, positive student performance outcomes, steady and/or increasing enrollments in online courses/programs, and strong retention and completion rates.

6. Traditional Academic Model - based on a one-hundred and fifty year-old academic model entailing a large physical plant, an agrarian calendar, a publish or perish tenure-track faculty, a strong focus on discovery research and time-defined learning (Christensen & Eyring, 2011).

7. Student-Centered Academic Model - in contrast to a traditional academic model, a student-centered institution or academic model approaches all of its planning and practices with an understanding of what students need.

8. OER (Open Educational Resources) - “teaching, learning and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use and re-purposing by others. Open education resources include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials or techniques used to support access to knowledge” (The William and Flora Hewlett Foundation website, 2013).

Summary

Online education initiatives, if implemented and managed successfully,
can provide a solution to many of the challenges traditional academic institutions face in today’s rapidly changing environment (Daniel, Kanwar, & Uvalic-Trumbic, 2009; Groulx & Hernly, 2010; Kinser & Hill, 2011; Stuart, 2011; Young, 2008). To remain competitive, universities and colleges will need to be more adaptive to the needs of students. This will require offering more courses and programs online in an interactive, engaging environment as well as offering effective online support services for students. An online platform for offering courses, full-degree programs, and student support services has the power to improve student learning, student-instructor collaboration and the overall student experience in higher education. Furthermore, online education initiatives also support and promote the “democratization and the advancement of the scholarship of teaching” (Larreamendy & Leinhardt, 2006, p. 567).
Evolution of Online Education

In order to understand the evolution of online education in higher education, it is important to examine its shared history with distance education. Online education is actually a descendant of distance education, sometimes called distance learning. Distance education has an interesting and rich centuries-old history (Simonson, Smaldino, Albright & Zvacek, 2012, p. 37) and has gone through many important transitions since its beginning, impacted by the development and use of new innovative technologies.

There are numerous definitions for distance education; however, it is generally understood as a form of education “characterized by the separation of teacher and learner and of the learner from the learning group, with the interpersonal face-to-face communication of conventional education being replaced by an apersonal mode of communication mediated by technology” (Keegan, 1996, p. 8). Many researchers such as Holmberg (2001), Peters (1994), Garrison and Shale (1987) and Moore (1993) have attempted to define distance education; however, what becomes apparent is that the exact definition of distance education is always evolving. For the purpose of this study, Simonson et al.’s (2012) definition of distance education will be used: “institution-based, formal education where the learning group is separated, and where
interactive telecommunications systems are used to connect learners, resources and instructors” (Simonson et al., 2012, p. 32). According to Simonson et al (2012), “this definition has gained wide acceptance” (Simonson et al., 2012, p. 32). For a summary of the development and evolution of definitions of distance education, as cited in Johnson (2010, pp. 27-30), please see Appendix A.

Distance education has gone through three distinct phases: correspondence classes offered by mail; communications media courses via radio and television; and classes offered online through the internet (Schulte, 2011, p. 34). Casey (2008) states that the history of distance education “reflects an egalitarian approach to education. Distance education began with rudimentary vocational courses delivered by postal delivery service. Now, distance learning programs have snowballed into online instructional delivery systems capable of granting doctoral degrees” (Casey, 2008, p. 45). Casey also points out that “distance education flourished in the United States for several reasons including: 1) the great distances of citizens from educational institutions, both geographically and socio-economically; 2) the thirst for education; and 3) the rapid advancement of technology” (Casey, 2008, p. 45). The development and evolution of distance education is closely linked to advances in technology and each phase in its evolution is marked by the introduction and use of new and innovative technologies in industry and society.

**Phase One: Correspondence Classes**

Two early signs of correspondence study through regular mail service
appeared in newspaper advertisements. An ad in the Boston Gazette dated March 20, 1728, was posted by a teacher named Caleb Philips. He “offered to send weekly shorthand lessons to prospective students” (Mood, 1995, p. 1). Another early sign of correspondence study via the postal service dates back to 1833 where an ad in a Swedish newspaper marketed the study of “composition through the medium of the post” (Simonson et al., 2012, p. 37). In England, Sir Issac Pittman offered shorthand instruction via the post in 1840. Shortly thereafter, Charles Toussaint and Gustav Langenscheidt established correspondence education in Germany.

In 1873 Boston, the daughter of a prominent Harvard professor, Anna Eliot Ticknor, founded the Society to Encourage Studies at Home. Ticknor founded the Society “to provide women with a liberal education” (Larreamendy-Joerns & Leinhardt, 2006, p. 573) by offering them personal enrichment courses. After being accepted, students could choose from six subjects - English, French, German, history, science or art after which they would then receive a syllabus and assignments by mail from their instructor. The students would complete their assignments on a self-paced schedule and then submit them by mail for review. Anna Ticknor’s Society to Encourage Studies at Home served over 10,000 students over a 24-year period (Casey, 2008, p. 46; Simonson et al., 2012, p. 37) and provided women with one of the first meaningful experiences in correspondence study in the United States (Larreamendy-Joerns & Leinhardt, 2006, p. 573).
During this time, there were various distance learning courses for women and workers such as the International Correspondence Schools (ICS) which began in 1890 as the Colliery School of Mines in Pennsylvania (Casey, 2008). ICS’s programs focused on training iron and railroad workers as well as training miners in mine safety. ICS had a total enrollment of over 2.5 million students by the early 1920s (Casey, 2008, p. 46).

By the late 1800’s, higher education institutions in the United States and Britain began to incorporate correspondence study through their university extension programs (Simonson et al., 2012). Illinois Wesleyan and the University of Chicago are recognized as pioneers in the field of early distance education programs in higher education. By 1877, Illinois Wesleyan offered bachelor’s, master’s and doctoral degrees through correspondence (Pittman, 2007). The University of Chicago, established in 1890, was led by former Yale professor William Rainey Harper who was an avid supporter of correspondence study. He believed that “the student who has prepared a certain number of lessons in the correspondence school knows more of the subject treated in those lessons, and knows it better, than the student who has covered the same ground in the classroom” (Simonson et al., 2012, p. 38). Through the University of Chicago’s extension department, students could take up to one-third of their coursework towards a bachelor’s degree through correspondence studies (Larreamendy-Jones & Leinhardt, 2006, p. 574). Other established universities in the United States that offered degrees through correspondence or non-resident options
included the University of Wisconsin, Boston University, and Syracuse University as well as smaller colleges such as Mount Union College in Ohio and Lebanon Valley College in Pennsylvania (Pittman, 2007). The University of Kansas launched its first correspondence courses in the early 1900s. Richard Moulton, who developed early university extension programs at Cambridge University in England and then at the University of Chicago, explained the importance of this new form of education stating, "a university remains in an imperfect stage until it realizes how it must extend its influence to the whole body of people; how it must extend its education to the whole period of the human life; and how it must bring its high ideas to bear upon all the vital interests of mankind" (as cited in Larreamendy-Jones & Leinhardt, 2006, p. 574). Moulton’s views about distance education set a strong foundation for distance education programs in higher education that followed. Columbia University also offered courses through correspondence study beginning in 1919. According to Hampel (2010), “Columbia’s administrators envisioned home study as a form of public service...It would win good will for the university by showing that an elite private university took seriously the education of thousands of men and women unable to attend traditional courses held during the day” (Hampel, 2010, p. 2497). It was during this time that leaders at well-renowned universities in the United States, such as University of Chicago and Columbia University, established the importance of distance education in higher education.
Phase Two: Classes via Radio and Television

Advances in electronic communications technologies such as the radio and television had a great impact on distance education. Radio stations became the medium of choice in the 1920s because they allowed for faster delivery of courses (Casey, 2008; The College Blue Book: Distance Learning Programs, 2012) and, for the first time, students could hear their instructors (Casey, 2008; Simonson et al., 2012). The Federal Communications Commission (FCC) would grant educational radio licenses to over 200 colleges and universities between 1918 and 1946 (Casey, 2008, p. 46). However, most university educational programs offered through instructional radio were not offered for credit towards a degree. In the 1950s, television became the medium of choice for distance education in higher education (Johnson, 2003; Simonson et al, 2012), and many of these programs were college credit courses. Some of the more well-known programs were offered by Western Reserve University in 1951 and New York University’s Sunrise Semester of college courses broadcast on Columbia Broadcasting System (CBS) from 1957 to 1982 (Johnson, 2003). According to Johnson (2003), in the 1950s when “states were faced with shortages of teachers and school facilities...instructional television was seen as a way to ease these problems” (Johnson, 2003, p. 6). One of the main disadvantages of distance education via radio and television was the fact that “radio and television courses provided one-way communication...Typically there was only minimal interaction between instructor and students, and there was no interaction at all
among students” (The College Blue Book: Distance learning programs, 2012, p. 3). Another disadvantage with distance courses via radio and television was that students had to be listening or watching at a specific time when the course was broadcast thus putting constraints on students’ schedules.

In 1963, the FCC established the Instructional Television Fixed Service (ITFS) - 20 television channels for educational institutions for the broadcast of distance education courses (Casey, 2008, p. 46). The California State University system was the first to apply for an ITFS license in 1963 (Casey, 2008, p. 46). According to a 1979 survey by the Corporation for Public Broadcasting and the National Center for Educational Statistics, “25 percent of the nation’s colleges and universities offered courses for credit over television and 36 percent of them used broadcast television to supplement instruction” (as cited in Johnson, 2003, p. 6). Cost effective satellite technology in the 1980s helped to further develop instructional television. Learn/Alaska was the first state educational satellite system (Casey, 2008; Simonson et al, 2012). Over 100 small villages in Alaska received six hours of instructional television on a daily basis. Courses offered via cable television allowed class to be broadcast at different times allowing students to tune into their classes at their convenience. In addition, with the advent of audio and videocassette recorders, students could record a lecture and then listen or watch as their schedules allowed.

Advances in technology such as the development of multimedia instructional packages for distance learners and the popularity of and demand for
higher education, resulted in worldwide growth in distance learning. Great Britain, Australia, and Germany used similar instructional delivery systems (Johnson, 2003). The British Open University (OU), established in 1969, used correspondence materials and television broadcasts to deliver instruction. As a result of OU’s success, many other countries such as Spain, Holland, Norway and Sweden established their own version of OU (Johnson, 2003).

Phase Three: Online Classes

By the 1990s, distance education involved the personal computer, two-way audio and video conferencing and the Internet (The College Blue Book: Distance learning programs, 2012). These new technologies made two-way communication possible using interactive video, email, bulletin boards and chat rooms.

According to Johnson (2003), “distance learning is the most significant phenomenon occurring in higher education today. Everywhere one looks, whether in community colleges, four-year institutions, Ivy League colleges, research institutions or technical colleges, distance education is on the rise, and the rise is occurring at a rapid pace” (Johnson, 2003, p. 7). This explosion of distance learning is mainly the result of high-speed broadband transmission over the Internet which links computers all over the world. Martinez-Aleman and Renn (2002), point out that “online instruction delivered via the Internet is a global educational innovation that is fundamentally altering the way people engage in formal systems of higher education” (Martinez-Aleman & Renn, 2002, p. 174)
and that “online instruction is now a major strategic initiative at nine out of ten public universities and six out of ten private colleges or universities in the United States” (Martinez-Aleman & Renn, 2002, p. 175). It is important to note that broad changes in higher education along with technology are driving the expansion of distance education. Mehrotra et al., (2001) states that the following are all factors that impact the driving interest in distance education:

1) increased requirements for higher education for career advancement; 
2) the demand for flexible scheduling by potential students whose daily routines do not sync with the schedules of the traditional educational day; 
3) growing market for personal fulfillment courses; 4) shift in the public’s attitude that education is a life-long learning process; 5) required coursework for professional license renewal; 6) emphasis by employers on specific competencies; 7) shift by educators from teacher-centered education to student-centered learning; 8) increasing awareness that students vary greatly in their learning styles; 9) the need for providing flexible educational access to students with disabilities; 10) the variation in students’ willingness to participate in class and 11) the increased pressure on public institutions of higher learning from legislatures and governors to develop cost-effective models of collaboration with other institutions of higher education. (Mehrotra et al., 2001, pps. 7-9)

Today’s distance learning courses can be divided into the following categories: print-based, audio-based, video-based (two-way interactive video
and pre-recorded video) and Internet-based courses. However, most students prefer distance education courses delivered via video and Internet technologies (The College Blue Book: Distance learning programs, 2012).

Distance education has been greatly enhanced by online course management systems such as Blackboard and WebCT (now merged under Blackboard) in order to facilitate communication and instruction between the instructor and the student (Casey, 2008, p. 48). These new innovative online technologies provide more opportunities for students and instructors to interact thereby creating a more learner-friendly medium for distance education.

According to Casey (2008), some of the best universities in the world are now using distance education methods including the University of Oxford “which will join an alliance formed by Princeton, Stanford and Yale Universities to offer distance-learning courses” (Casey, 2008, p. 49).

What have we learned from history with respect to distance education? Larreamendy-Joerns & Leinhardt (2006) outline five lessons we can learn from the history of distance education: 1) This history of distance education is “the story of creative adaptation, visionary leadership, financial challenges, politics, both internal and external to universities, and most importantly, a commitment to service” (p. 582). 2) It is clear that there is an underserved population that can benefit from distance education programs. 3) Instructional quality can override media limitations. 4) The history of distance education reveals that status and quality issues emerge when disparities arise between faculty in face-to-face
teaching and faculty in distance education. 5) Quality is undermined when business becomes the prevailing model of distance programs (pp. 582-583). These lessons learned from history greatly influenced the direction of this study in that the foundation of this study is built on commitment to service, improving the learning experience for non-traditional students, and examining quality issues in online education.

Distance education or what is now often referred to as online education has become mainstream and is now accepted as a legitimate alternative to traditional face-to-face courses (Sener, 2010). According to Casey (2008), “the future of distance education seems secure because of its ability to adapt to technological trends” (Casey, 2008, p. 50). Online enrollments are surpassing traditional classroom enrollments by ten percent (Allen & Seaman, 2011) and this growth in online enrollments is expected to continue (College Blue Book: Distance Learning Programs, 2012, p. 6).

Traditional faculty in higher education have resisted online education and cast doubt on the effectiveness of distance learning. However, in response to this, academic researcher and instructor Russell published The No Significance Difference Phenomenon (1999) in which he reviewed 355 papers, articles and research studies from 1928 through 1999 and concluded that the learning outcomes (test scores and course grades) are the same for distance learners and traditional students. The studies reviewed were specifically focused on media comparison studies which compared face-to-face learning student
outcomes with distance education learning outcomes. His research is widely quoted in articles and papers discussing the effectiveness of distance education (Bates, 2005; Bernard et al, 2004; Garrison, 2011). Oblinger, Barone & Hawkins (2001) provide additional research supporting the claim that there is no significant difference in learning outcomes of distance learners and traditional students. Regarding the amount of interaction between faculty and students in a traditional classroom setting versus an online environment, the online setting can be more interactive if there are participation requirements. Some traditional face-to-face lecture classes can be so large that there is very little interaction between the instructor and the students and among the students in the class (The College Blue Book: Distance learning programs, 2012).

An interesting new trend in conventional classroom-based courses is the incorporation of online instructional technology, such as Blackboard, indicating that these new technologies for distance education are changing the way classes are taught in an on-campus setting. For example, professors teaching on-campus classes are having their students take online quizzes outside of class. In addition, the students in a conventional face-to-face class are often asked to respond to class lectures via an online discussion group (The College Blue Book: Distance learning program, 2012). Therefore, online learning tools are beneficial to both traditional and online students.

Whether or not classes are taught on-campus or online, new online instructional technologies are changing the way students learn as well as the way
faculty teach and there is a definite shift to a more collaborative learning environment (The College Blue Book: Distance learning programs, 2012, p. 6). In this learning environment, the instructor becomes a facilitator and guides the learning process, helps establish relationships, and encourages interactions among group members where group members learn from one another by exchanging ideas, and taking time to reflect on discussions. These interactions and reflections allow group members to develop a deeper and more critical understanding of ideas and beliefs (Garrison, 2011). These new online technologies are also changing the way students need to be supported and how they expect to be served in the online environment.

Section Summary

Distance learning has gone through many transitions: correspondence study through the postal service; educational courses offered through radio and television; and; distance learning via the personal computer (two-way audio and video conferencing using the Internet). The most popular distance learning classes today are Internet-based courses. There are many factors impacting the rise of online enrollments but, the main reasons why students choose online classes are flexibility and convenience. New online technologies are changing the way students learn as well as the way instructors deliver course materials, however, these technologies are also changing the way students need to be supported in the online environment in terms of online student support services.
Distance Education Theories

Even though distance education was incorporated into university extension programs in the 1880s, distance education theories did not emerge until the last few decades. Leading scholars in the field - Holmberg (2001), Keegan (1996), and Moore (1993) have all stressed the need for a theory base in distance education in order for distance education to have a solid methodological application. Traditional theories in distance education emphasize independence and autonomy of the learner, industrialization of teaching and interaction and communication (Simonson et al., 1999).

Wedemeyer’s Theory of Independent Study (1981) emphasized the independence and autonomy of the learner and defined characteristics relating to learner independence and how technology could support learner independence. Wedemeyer’s concept of Independent Study was based on the idea that students’ took the initiative for their studies, they were highly autonomous and they set their own goals. Much of Wedemeyer’s research focused on learner and instructor characteristics, quality and effectiveness.

Moore’s Theory of Transactional Distance (1993) emphasized interaction and communication. In Moore’s theory where the student and teacher are separated, he posits that, “there is a psychological and communications space to be crossed, a space of potential misunderstanding between the inputs of the instructor and those of the learner. It is this psychological and communications space that is the transactional distance” (Moore, 1993, p. 22). Moore
emphasizes dialog or student-teacher interaction, structure of the program to meet the needs of the student and the degree of student autonomy.

This next theory, Peters’ Theory of Industrialization of Teaching (1994), emphasized the industrialization of teaching and used economic and industrial theory to explain distance education. According to Peters, the principles of industrialization such as rationalization, division of labor and mass production determine the structure of distance education. He also stated that teaching has been restructured as a result of mechanization and automation.

Another theory which emphasized interaction and communication, Holmberg’s Theory of Interaction and Communication, defines seven background assumptions for the basis of his theory of distance education:

1. the core of teaching is the interaction between student and teacher
2. emotional involvement in the subject matter and a personal relationship between student and teacher contribute to learning pleasure
3. learning pleasure encourages student motivation
4. student participation in decision making concerning their study supports student motivation
5. strong student motivation aids learning
6. learning pleasure is supported by a friendly personal tone and easy access to the subject matter
7. effectiveness of teaching is demonstrated by students’ learning of what has been taught.
Keegan’s theory of distance education emphasized interaction and communication and involved the separation of teaching and learning in terms of time and space. In order for distance education to be successful, Keegan believed that teaching and learning must be reintegrated whereby the teacher and learning reconstruct the interaction that would have taken place face-to-face. Learning materials are also needed to support student/teacher interpersonal communication and a variety of teaching methods are used to support the learning process (Keegan, 1996).

The Equivalency Theory of distance education, a more recent theory, has emerged which places emphasis on equivalent learning experiences for students instead of identical learning experiences when considering the local student or the distant student. Since traditional campus-based learners and distance learners operate in different environments, “it is the responsibility of the distance educator to design, even overdesign, learning events that provide experiences with equivalent value for learners” (Simonson et al., 2012, p. 52). This theory also emphasizes interaction and communication.

Hill, Song & West (2009) looked at Social Learning Theory (Bandura, 1977) in relation to distance learning. According to this theory, learning is supported in a social context through modeling and observation. It has recently emerged as a framework to use in the research and practice of online learning environments. The premise of Social Learning Theory is that teaching and
learning are both impacted by context, culture and community, and learner characteristics (Hill et al., 2009, p. 89). Analyzing these four factors as they relate to online learning environments will undoubtedly produce new ideas for both the theory and practice of online education.

Due to the rapidly changing technologies associated with distance education, no one theory can be used as a basis or theoretical framework for distance education (Simonson et al., 1999). Researchers will need to continue to develop new theories that address how new technologies are changing and shaping distance learning and how this is impacting the learning experience. These new theories can then be used to inform the research, policies and practice of the field of distance education. With the explosion of online education courses and degree programs after stable broadband internet access became mainstream in the early to mid-2000s, much has changed in online learning in a relatively short period of time. Therefore, one of the main reasons for using Grounded Theory as a framework for analyzing the qualitative data was so the researcher could explore what is going on right now with regards to online student support services in higher education.

Section Summary

Theories in distance education have only just emerged in the last few decades. These theories focused on independence of the learner, the industrialization of teaching and, interaction and communication. According to Simonson et al. (1999), no one theory can be used as a theoretical framework for
distance education due to the rapidly changing technologies impacting the field. Therefore, Grounded Theory was chosen as a framework to use to analyze the qualitative data in order to explore the current state of students' perceptions of online student support services in higher education.

Research Studies on Student Outcomes and Online Services

Studies on Effectiveness of Online Learning

Many of the studies on online education have involved comparisons between student outcomes in an online setting and a traditional classroom setting. Sener (2010) points out that there is a large body of research that supports the idea that online education is equal to or superior to face-to-face instruction (p. 7). Other researchers also support this claim (Mayadas, Bourne & Bacsich, 2009; Miller & Ribble, 2010; Moloney & Oakley, 2010).

Tallent-Runnels et al. (2006), analyzed 76 quantitative, qualitative and mixed methods studies on online education that looked at various aspects of online education such as course environment, learner outcomes, learner characteristics and institutional and administrative factors. The following was revealed regarding online education:

1. students prefer self-paced learning even though this requires more self-management
2. students like the fact that online education is convenient and gives them autonomy
3. students with prior computer experience have a more positive attitude towards online courses
4. online learning is as effective as learning in a traditional classroom
5. the quality of online instruction affects student learning
6. in an effort to help students construct knowledge, faculty should focus on ways to improve interaction between student-teacher and student-student
7. instructor participation in discussions is important to facilitate scaffolding
8. few universities have policies for online education
9. there is a lack of technical support for both faculty and students in online courses.
  (Tallent-Runnels et al., 2006, p. 116)

One of the important recommendations that came out of this analysis of the research was that because of the impact that interaction between learners has on learning in the online environment, there needs to be further research that focuses on which kinds of interaction formats for online education are the best in terms of providing the most effective experiences for learners. Furthermore, the authors suggest that further research is needed in the area of improving the design and management of discussions in an online learning environment.

Another important finding that came out of this research was that few universities have formal policies for online education, such as an online student support
services plan.

In Means, Toyama, Murphy, Bakia & Jones’ (2009) meta-analysis of online learning studies, the authors identified over 1,132 empirical studies between 1996 and 2008 in online learning. The studies were screened for the following characteristics: online versus face-to-face comparisons, student learning outcomes, vigorous research design and ample information to calculate effect size. From the screened studies, 51 independent effects were identified for the meta-analysis. One of the important findings of this meta-analysis was that "students who took all or part of their class online performed better, on average, than those taking the same course through traditional face-to-face instruction" (Means et al., 2009, p. xiv). The above mentioned study is an important evaluation of just how effective online courses can be with regard to student learning. Therefore, it makes sense to explore students’ perceptions of online student support services in an effort to continually improve the experiences of online learners.

Studies on Online Services

There are a limited number of studies specifically involving online student support services in higher education. However, a review of the research identified five studies since 2003 that explored this topic.

LaPadula (2003) surveyed both traditional students and online students in order to determine satisfaction with online student support services as well as identify additional services that students would like to have access to online. In
total, 92 participants took part in the study. Overall, the author concluded that students were satisfied with most of the online services available to them but that students wanted access to additional online services such as: social services, academic advising, technical assistance and personal/mental health counseling.

In Herbert’s (2006) study of online student satisfaction and retention, the purpose was to identify which variables were important predictors of student retention. Variables included: satisfaction with technical assistance, library services, faculty responsiveness and quality of online instruction. Herbert found that the most important variable identified by students was faculty responsiveness. His analysis also found that there were many variables in which there were no significant differences in predicting student retention.

Responsiveness to students’ needs is an important element in the online learning environment including the area of online student support services.

Raphael’s (2006) study of perceived need for student services by distance learners examined what online degree students identified as their perceived needs with regards to student support services. A total of 272 online degree students participated in the study at six participating institutions (five were public and one was private). Academic advising was the top reported student service desired by students and personal counseling was at the bottom of the list.

In Pullan’s (2011) study of online support services for undergraduate millennial students, the researcher explored what contemporary college-aged students expect to have access to in terms of online student support services.
The researcher collected a total of 476 surveys from traditional students, online students and students enrolled in both online and on-campus classes. One of the recommendations that emerged out of this study was that online academic advising should be available for all students.

In Martinez-Arguelles et al.’s (2010) study of an online university in Spain, the authors collected information on students’ perceived service quality with online support services via an open-ended online survey and then data was classified into categories representing different online services using Critical Incident Technique (CIT). An online survey was sent out to a random sample of students. In total, 41 students took part in the study (21 men and 20 women). The main goal was to obtain a minimum of 200 critical incidents. A total of 380 critical incidents were reported. This study is important because it identifies a gap in the literature measuring users’ perceptions about quality in e-learning services in online higher education and it greatly influences this research in that this study is meant to capture fully online degree students’ experiences with regards to online student support services.

Casanovas’ (2010) review of 42 articles from education journals and 11 international conference papers between 2005-2008 identifies a gap in the research in online education adoption and implementation in higher education. This is likely the result of online education being a new field. Therefore, the topic is limited in the literature. Casanovas states that, according to his findings, online education “is at an early unroutinized development stage in universities”
and that “informal initiatives have yet to be turned into formal procedures” (Casanovas, 2010, p. 82). The findings from the above mentioned studies support the goal of this study on online student support services in higher education in that the information from this research can provide guidance to colleges and universities as they develop new policies that support online learning including a formal online student services plan.

Section Summary

The above mentioned studies reveal that few universities have formal policies for online education initiatives; online learning is an effective delivery method that supports student success, therefore, students need to have access to online student support services that complement the online learning experience; online students need access to more online services than are currently available; responsiveness to students’ needs is an important element in online learning; and; there is a gap in the research that measures students’ perceptions of quality in the online learning environment. It is hoped that the information from this study will support the development of formal policies in online learning as well as add to the research measuring students' perceptions of online student support services.

Trends in Online Education

Growth of Online Education

In the most recent annual report tracking online education in the United
States (Allen & Seaman, 2014) over 2,800 active degree-granting institutions of higher education were surveyed in regard to online education in the United States. Some of the findings included:

1. there were over 7.1 million students taking at least one online class in Fall 2012
2. approximately 33.5 percent of all higher education students take at least one course online, an all-time high
3. the online enrollment growth rate is 6.1%

Online education is the main growth engine in higher education today and in the foreseeable future (Moloney & Oakley, 2010; Sener, 2010). There is widespread agreement in the literature that online education has experienced rapid growth in higher education (Allen & Seaman, 2011; Casteneda, 2010; Li & Irby, 2008; Moloney & Oakley, 2010; Sener, 2010; Vignare, 2009). In fact, “about half of the online enrollments are estimated to be full-time traditional students” (Mayadas et al., 2009, p. 50). Furthermore, as technology savvy students graduate from high school and enter higher education, colleges and universities will need to have an online structure in place to accommodate this large pool of students. In fact, according to Vignare (2009) “almost 700,000 high school students are taking online courses at a growing number of virtual high schools” (p. 98). This makes it particularly urgent for traditional institutions to adopt comprehensive online education programs in order to keep pace with the increasing demand. This explosion in online education in higher education also
makes it particularly important for administrators to examine how their students
are being served in the online environment.

In reviewing the recent literature on online education and higher education
in general, a number of interesting findings revealed that online education may
be closer to becoming more mainstream and more accepted in traditional higher
education institutions. Some of the findings included the following:

1. growth in online course enrollments will continue to outpace
   enrollments in traditional classes in higher education (Sener, 2010)
2. HBCU and other minority-serving schools are increasingly looking into
   establishing online programs in an effort to become competitive (Stuart,
   2011)
3. students place lesser value on traditional classroom based instruction
   (Miller & Ribble, 2010)
4. students want to enroll in complete online degree programs not just
   individual classes (Moloney & Oakely, 2010)
5. perceptions of online programs are improving and gaining a wider
   acceptance as legitimate alternatives to traditional degree programs
   (Sener, 2010)
6. most students taking online classes are enrolled at state universities
   and colleges and community colleges (Mayadas et al., 2009)
7. the federal government has recognized online education has an
   important part of higher education (Mayadas, et al, 2009)
8. institutions of higher education increasingly view online programs as a form of educational innovation (Allen & Seaman, 2011)

9. philanthropic foundations (Alfred P. Sloan Foundation, Andrew W. Mellon Foundation and the William and Flora Hewlett Foundation) are funding educational initiatives that focus the use of internet technologies to increase educational quality and access to higher education (Allen & Seaman, 2011)

10. Ivy league institutions are forming alliances with other top tier institutions to offer online classes (Li & Irby, 2008)

11. the use of Open Educational Resources (OER) is “growing in momentum and maturing” (Wiley & Gurrell, 2009, p. 20); 57 percent of academic leaders believe that OER will be valuable for their institutions (Allen & Seaman, 2011, p. 22) and

12. there is an increasing global demand for higher education (Daniel et al., 2009)

The above findings inform this study in that online education is a viable form of educational delivery and the online learning market is becoming much more competitive as more students are attracted to online courses and degree programs. Therefore, it is critical to study students' perceptions of online student support services in an effort to improve the overall learning experience of online students.
Students’ Attraction to Online Learning

Students are attracted to online education for many reasons. Non-traditional students with families, mortgages and other commitments are often not able to physically attend classes on campus. Therefore, online classes provide an opportunity for them pursue a degree or to continue their education where they left off. As cited in Groulx & Hernly (2010), flexibility and convenience are the primary reasons students choose online programs (p. 62).

Other reasons for the attraction to online courses and programs include: access to programs not available in a student’s geographic area such as rural communities, professional development and career promotion goals, and increased acceptance regarding the quality of online programs. Groulx and Hernly (2010) also indicated that students like control over the type of delivery mode (ie. traditional, hybrid, online) and they wished to reduce commuting times in crowded metropolitan areas. Students are also attracted to online courses because of the greater number of choices of universities and programs and, the unique interactive learning environment with diverse students from around the country and around the world (Groulx & Hernly, 2010).

Main Providers in Online Education

Online education is now offered by a number of institutions or organizations and it is important to identify the main providers in the online education market. Public state universities and community colleges are the main providers of online education programs and courses (Mayadas et al., 2009).
For-profit universities (with campuses or online only) like Capella and University of Phoenix as well as other private online universities provide fully online degrees programs. Corporations such as Disney and Motorola (Meyer, 2009) and many others have created their own in-house corporate universities to offer online industry-specific education to their employees. Universities have formed strategic partnerships (Meyer, 2009) with private companies and these alliances focus on specialized online content for employees and management. Institutions like Western Governors University that focus on competency-based learning also offer degrees and certificates online. Lastly, universities that have created global, multinational entities also offer courses, certificates and degrees online (Meyer, 2009).

Currently, for-profit institutions, campus-based and online-only universities have been the catalysts of change and innovation in online higher education by pushing the traditional academic universities to re-examine their practices, particularly in the area of student services and degree offerings. The for-profit model in higher education places more emphasis on responding to student demand for certain courses/programs by utilizing marketing research to determine which degrees appeal to more online learners (Vignare, 2009, p. 103). According to Steele & Thurmond (2009), academic advising “contributes to the success of the student in his or her distance learning; it helps overcome the isolation students often feel while studying at a distance” (p. 86).

For-profits also use custom relationship management systems to track
and measure student interactions (Vignare, 2009) which enables institutions to continue to improve their services. This has challenged traditional non-profit institutions to pay closer attention to student needs and services because of the increased competition for students. The creation of Western Governors University (WGU), one of the first online universities that gained widespread attention in the media, put pressure on accreditation associations to agree upon a set of guidelines for distance education (Meyer, 2009, pps. 35-36). While for-profit institutions have a much different model than the traditional university, there is no doubt that they have increased competition for online enrollments and forced non-profit institutions to re-examine their institutional practices.

Section Summary

Online enrollments continue to outpace those of traditional face-to-face classes. A growing number of high school students are taking online classes making it even more important for higher education institutions to offer online courses and programs to keep up with demand. Online learning is becoming more accepted and mainstream as students’ perceptions of online programs improves. Flexibility and convenience are the main reasons why students chose online courses. The main providers of online education are state universities and community colleges. For-profit universities also offer a wide range of online programs and large corporations offer online programs for their employees. The increased competition for online enrollments has forced traditional non-profit institutions to pay closer attention to student needs and services. This further
supports the need for this study and the exploration of students’ perceptions of online student support services because serving the needs of online students will be crucial to competing for online course enrollments.

Factors that Influence Success or Failure

Successful Online Initiatives

A few institutions identified as successes in online education are frequently mentioned in the research literature. They include: SUNY (State University of New York) Learning Network which is also known as SLN, Penn State World Campus, UMass Online, University of Illinois, Springfield and University of Maryland, University College (Larreamendy-Joerns & Leinhardt, 2006; Mayadas, Bourne & Bacsich, 2009; Moloney & Oakley, 2010; Sener, 2010; Udas, 2010). Some of the common characteristics of these successful online initiatives included: strong institutional support, emphasis on online programs not just online courses, high quality training for faculty, online support services for students and financial models that supported the scaling of online enrollments (Moloney & Oakely, 2010). These universities took early steps in online education initiatives and, as a result, have solid enrollments (enrollment figures include students enrollment in online classes and full degree programs):

- SLN: over 100,000 (SUNY Learning Network website, 2012)
- Penn State World Campus: approximately 10,000 (Pennsylvania State University website, 2012)
- UMass Online: approximately 51,000 (UMassOnline website, 2012)
- University of Illinois, Springfield: approximately 5,000 (University of Illinois, Springfield website, 2012)
- University of Maryland, University College: approximately 91,000 (University of Maryland, University College website, 2012)

Common characteristics are found in the educational literature on online initiatives. These are important for the successful implementation of an online program. The main characteristics needed for successful implementation of an online program include: faculty and staff buy-in, online support services for students and well-developed curriculum design suited for the online environment (Casteneda, 2010; Larreamendy-Joerns & Leinhardt, 2006; Li and Irby, 2008; Martinez-Arguelles, Castan & Juan, 2010; Moloney & Oakley, 2010; Stuart, 2011; Yadgir, 2011). In Moloney & Oakley’s (2010) review of several successful online initiatives, the authors noticed a number of common characteristics that impacted success:

- strong institutional support and a strategic plan in place for online education
- dedicated teams that support a robust technology infrastructure
- new financial models that encourage the scaling of online programs
- the development of fully online degree programs to meet student demand
• online instruction that focuses on interactions with the students
• investment in a strong marketing plan that effectively reaches their target groups
• extensive training programs for faculty teaching online courses
• online student support services in both academic and non-academic areas such as, admissions, advising, registration, and financial aid
• scaling of experienced online faculty to keep up with the demand for online programs
• a focus on outreach and serving off-campus students. (Moloney & Oakley, 2010)

These characteristics of successful online initiatives provide a foundation or model for establishing new online programs. Neumann & Neumann’s (2010) Robust Learning Model suggests that employing several factors in a holistic manner will result in quality learning at all degree levels. One of the components included in their model is faculty, and they describe standards of conduct that faculty should follow in order to provide quality education. Some of these factors include: responsiveness and timely feedback on student assignments, flexibility, constructive and supportive feedback, committee work and course development, and engaging interactions with other students and faculty (Neumann & Neumann, 2010, p. 30). Faculty play a critical role in the online environment and it is essential that they receive high quality training and support including
extensive training programs and professional development opportunities (Moloney & Oakely, 2010). It is also important that faculty be informed of current online support services offered and encourage their students to access them as needed. Developing a community of support for online students will help students progress in their online courses and programs (Vice President of Information Technology Services at a California university, personal communication, November 1, 2013).

**Failures in Online Education**

There have been many attempts to launch online education initiatives that have not had much success or have failed. For example: Columbia University's Fanthom.com (Larreamendy-Joerns & Leinhardt, 2006), NYU Online, University of Maryland’s US Open University, Virtual Temple (Rovai & Downey, 2009), the U.K.’s e-University, the Scottish Interactive University, Dutch Digital University and NHS University (Mayadas, Bourne & Bacsich, 2009). The main reasons attributed to these failures as reported in the literature are related to lack of institutional support (Stuart, 2011), lack of support for instructors and students (Schulte, 2011), poorly designed courses for the online environment and inexperienced instructors for online courses (Rovai & Downey, 2009; Schulte, 2011). A well-designed online student services plan that is responsive to student needs will help institutions create a more extensive support system for online degree students.

Rovai & Downey (2009) provide additional reasons or factors that can lead
to failure of online initiatives. Some of the other factors include: poor planning of an online strategy, not paying enough attention to quality control issues in educational outcomes, financial management issues such as underestimating the costs involved in online programs, not focusing on brand development and a strong marketing program and not providing enough academic and social support to non-traditional learners. These factors can potentially lead to the failure of an online initiative.

Furthermore, Larreamendy-Joerns & Leinhardt (2006) state that online education may fail “if it becomes a second-class form of education...if technological solutions and pedagogical perspectives are imposed at the expense of diversity and variation” and “if, instead at aiming at the improvement of learning, it simply reproduces present educational deficiencies” (Larreamendy-Joerns & Leinhardt, p. 597). The aim of online education programs must be to provide students with high quality courses of high value to them along with a variety of online student support services that complement the learning experience.

The University of Illinois at Urbana-Champaign (UIUC) has not been able to improve its online enrollments and thus has not reached greater success in the online market. Moloney and Oakely (2010) explain that a couple of the reasons why UIUC has not reached its potential in the online market is because it only offers a small number of online graduate degrees and its faculty value spending time on research and not on teaching. In addition, Moloney and Oakely (2010)
argue that off-campus students are marginalized and not integrated into college activities, and new program initiatives, such as online programs must compete for resources with other campus initiatives (p. 65). A well-designed online student services plan which is backed by strong institutional support will help online students feel like they are a legitimate and important part of the college or university.

In examining the above reasons why online programs fail or fail to grow to keep up with market demand, it becomes clear that there are definite indicators that determine the success of online education programs such as strong institutional support, training for faculty in online instruction, well-designed curriculum for the online environment, and effective online support services for students. By exploring the students’ perceptions of online student support services, this study will hopefully provide insight into how a university or college may provide effective online support services for online students.

One of the main challenges in online education is dealing with resistance to change (Yadgir, 2011; Miller & Ribble, 2010; Moloney & Oakley, 2010). As cited in Miller & Ribble (2010), there are several reasons why faculty members in higher education resist change: increased workload, altered role of the instructor, lack of technical and administrative support, reduced course quality and negative attitudes of colleagues (Miller & Ribble, 2010, p. 3). Lack of funding for new technology and budget cuts in higher education are also posing great challenges for the development of online education programs (Moloney &
Oakley, 2010; Sener, 2010; Yadgir, 2011). Other challenges mentioned in the literature include: shortage of trained faculty, faculty acceptance of online education, developing course materials for the online environment, students being more savvy with technology than their instructors, and lack of training and technical support for both faculty and students (Li & Irby, 2008; Yadgir, 2011). In addition, the reputation of online education is often confused with some for-profit institutions offering online degrees, whose reputations are being scrutinized (Sener, 2010). Tenure and promotion practices for online instructors, lack of a full range of courses and programs offered online and a lack of a mission to serve off-campus students also pose challenges for online education (Moloney & Oakely, 2010; Sener, 2010). It appears that institutional support, faculty buy-in, and effective online student support services are the overarching characteristics required to build the foundation for an online program in higher education.

A New Generation of Online Learners and Change

In order for leaders of higher learning institutions to incorporate successful online education programs, a cultural shift needs to take place within the organization (Garza-Mitchell, 2009). For example, underlying philosophies of online education challenge the traditional organizational culture in higher educational institutions. In a traditional academic classroom, faculty members are instructors, whereas, in the online classroom, faculty members are facilitators. This shift from faculty to facilitator reflects the constructivist and cognitive philosophies of online learning (Garza-Mitchell, 2009, pp. 91-92).
There is a necessary paradigm shift in terms of beliefs about teaching, learning and the organization itself and how the organization provides services to meet the needs of students in the online environment.

In addition to shifting the culture of an organization, online initiatives require leaders to be able to embrace and promote change and understand the change process (Yadgir, 2011, p. 669). Bates and Khasawneh (2005) state that “a key competitive advantage for organizations lies in their ability to learn, be responsive and innovate” (Bates & Khasawneh, 2005, p. 107). Strong organizations with strong cultures and leaders are necessary in order for higher education institutions to innovate and transform. According to Bates & Khasawneh (2005), “in today’s competitive global environment, the ability to learn, change and innovate are of considerable practical and theoretical significance” (Bates & Khasawneh, 2005, p.107). This ability to adapt to change and innovation is particularly important as an organization learns how to effectively serve students in the online environment.

In order to guide effective change, educational leaders must first work to change the culture because effective organizational change must include cultural change. The classical definition of organizational culture, developed by E.H. Schein (1990), will be utilized in this research. Schein defined organizational culture as a model of core beliefs developed by a group of people together. Culture is relevant to the study and management of organizations because in order to foster creativity and innovation, it is necessary for organizations to
“analyze their culture and climate to determine what changes may be needed to facilitate learning” (Bates & Khasawneh, 2005, p. 107).

A change in culture involves the transformation of the organizational culture’s beliefs and shared understandings. Bass & Avolio state that, “transformational leaders change their culture by first understanding it and then realigning the organizational culture with a new vision and a revision of its shared assumptions, values, and norms” (Bass & Avolio, 1993, p. 112). Leaders not only have to understand their organizational culture, they also need to understand the changes in the technology that is being used and guide the organization through these changes (Yadgir, 2011).

Educational institutions need to be guided by leaders embracing culture that has a focus on openness. In an informative interview in the American Journal of Distance Education (2010), chief executive officer of UMass Online, Ken Udas, discusses the importance of openness in systems and organizations. He states that “any of us who serves in a leadership position has a responsibility to engage in environments of the future. We have a responsibility to understand what openness is and prepare our universities to succeed in the future. Openness is an important dialogue and it is our responsibility to engage fully” (Udas, 2010, p. 55). Online education challenges the traditional organizational culture in higher education and will require a cultural shift for an organization in order for it to successfully incorporate new online initiatives including effective online student support services for online students.
If by 2020, 40 percent of the global workforce will be knowledge workers (Daniel et al., 2009) - workers whose main capital is knowledge (ie. architects, engineers, scientists, lawyers, etc.), leaders of education will need to prepare for a new generation of online learners in higher education. The reduced funding for higher education (Gray, 2011; Kinser & Hill, 2011) has forced universities and colleges to re-examine their institutional practices. Improving access and quality to higher education while keeping costs low is not possible under the traditional academic model, based on face-to-face instruction in a campus setting (Daniel et al., 2009, p. 35) which is why the development of quality online programs including a comprehensive online student services plan is becoming increasingly more important in higher education.

Section Summary

Online education is the main growth engine in higher education today and it has experienced rapid growth in enrollments in the last few years. The rapid growth in enrollments makes it urgent for institutions to examine how their students are being served in the online environment since online support services are critical to the success of an online initiative. Lack of support for students in the online environment is one of the reasons cited why online initiatives fail. A cultural shift in an organization is necessary in order for the successful adoption and implementation of an online initiative. Higher education leaders need to embrace and promote change and provide strong institutional support to an online student support services plan.
How is the Literature Review Tied to the Purpose of This Study?

The review of the literature informs this study in many ways. First of all, it is important to learn from history. The lessons learned from the history of distance education influence this study as it is clear that online initiatives: should be committed to service, should address the needs and improve the learning experience of non-traditional students, and should examine quality issues as they emerge in the online environment. The literature also informs this study by bringing attention to the fact that online learning is a viable educational delivery method and that there is a need to provide online services to students enrolled in online courses and degree programs in order to support student success. Furthermore, a review of the literature indicates that there have been few studies which examine students’ perceptions of support services in the online environment in higher education. Additionally, as the online educational market becomes highly competitive, it is increasingly important for colleges and universities to examine the effectiveness of the services they provide online students. It is also important for administrators to develop a community of support for online learners. Making sure students have access to a variety of online services will generate a network of support systems for online students. The literature also suggests that there are definite success indicators for online education programs and online student support services is one of the criteria necessary for the implementation of a successful online initiative. Successful online programs also require leaders who can incorporate change and openness.
into the culture of an organization as online education challenges the traditional education culture in higher education institutions. The above highlights from the review of the literature support the need for this study which examines students' perceptions of online student support services in higher education.

Therefore, the main objective of this research focused on how fully online degree students perceive online student support services at their institution. The data compiled from this study intends to fill the gap in the literature in this area. The following research questions were addressed:

Research Question 1: How and in what ways do fully online degree students perceive specific online student support services to be important?

Research Question 2: How and in what ways do fully online degree students perceive the quality of specific online student support services?

Research Question 3: How do students’ perceptions of importance correlate with perceptions of satisfaction regarding online student support services?
CHAPTER THREE
METHODOLOGY

Introduction

This chapter reviews the methodology and research design of students’ perceptions of online student support services in higher education. As previously discussed in Chapter Two, the adoption and implementation of effective online student services is one area where traditional academic university models can transform themselves in order to reduce costs and meet the needs of their students in a rapidly changing environment. However, online student support services are an often overlooked component of an online initiative (Martinez-Arguelles et al., 2010) yet, services are a critical factor in the overall success of an online program (Li & Irby, 2008; Moloney & Oakley, 2010; Yadgir, 2011).

This study examined fully online degree students’ perceptions about importance, satisfaction and quality of online student support services. The researcher collected qualitative data through semi-structured phone/Skype interviews as well as quantitative data through an online survey with Likert-type questions. Students’ perceived satisfaction and importance levels were explored by analyzing online survey items in five areas. The five areas were: 1) Institutional Perceptions; 2) Academic Services; 3) Enrollment Services; 4) Student Services; and 5) Online Community. The above mentioned areas were some of the categories used in other studies involving student satisfaction with
online services (LaPadula, 2003; Martinez-Arguelles et al., 2010; Pullan, 2011; Raphael, 2006).

Research Questions

The following research questions guided this study:

Research Question 1: How and in what ways do fully online degree students perceive specific online student support services to be important?

Research Question 2: How and in what ways do fully online degree students perceive the quality of specific online student support services?

Research Question 3: How do students’ perceptions of importance correlate with perceptions of satisfaction regarding online student support services?

Participants

Participants were recruited from two private, non-profit, regionally accredited universities. Both institutions have a traditional university campus. This study used a selective sampling procedure to survey and interview students (over 18 years-old) enrolled in fully online degree programs at either the undergraduate or graduate level.

A total of 1,626 online degree students at the two institutions were sent an initial invitation from a contact person from their respective school with the link to
the online survey. At School A, an invitation email with a link to the online survey was sent out to 193 fully online degree students which resulted in a 21% response rate or 40 completed surveys. At School B, an invitation email with a link to the online survey was sent out to 1,433 fully online degree students which resulted in a response rate of 12% or 166 completed surveys. In total, 206 participants completed and returned the online survey (13%). Approximately 75 percent were female, 25 percent male, over 60 percent of the sample was between the ages of 35 to 54, at least 50 percent of the students are enrolled full-time and the most popular online degree majors are graduate degrees in a business related field (MBA, Accounting, Management). Demographic tables for the online survey can be found in Appendix B.

Regarding the interviews, the main objective was to interview at least 20% of volunteer participants or, a minimum of 20 participants from both schools. At Institution A, an invitation email was sent out to the same student distribution list as the online survey and seven students volunteered to be interviewed. At Institution B, an invitation email was sent out to the same student distribution list as the online survey and 15 students volunteered to be interviewed. In total, 22 students from both schools were interviewed. Seventeen participants were female, five were male, 5 were undergraduate students, 15 were graduate students and 2 were doctoral students. The participants were enrolled in a mix of majors.
Site Selection

The criteria for selecting the sites were: 1) private and nonprofit university; 2) a traditional campus; and 3) offering of fully online degree programs at the undergraduate and/or graduate level. Institutions were purposefully selected based upon the criteria mentioned above as well as, the number of online degree programs offered by the institution, usability and effectiveness of the institution’s website, and the institution’s mission to serve off campus students. Private, nonprofit universities were selected because of their flexibility to adopt and implement new online degree programs (Director of Virtual Learning at a California university, personal communication, July 9, 2012). The institutions in the inclusion criteria have demonstrated established online programs and have been adaptable to integrating online platforms. Focus on the above inclusion criteria allowed the researcher a representative sample of online degree students from established online programs. The researcher wanted to examine students perceptions of online student support services at more established online programs in order to study a more successful model rather than a failing model in the online learning environment.

Institution A

Institution A was a small, private, nonprofit university founded in the 1800s and located in the northeast. The university was regionally accredited by the Middle States Association of Colleges and Schools. Institution A had made a commitment to serving off-campus students by making many of their degree
programs available online with a focus on active and collaborative learning. The following fully online undergraduate degrees included: Health Services Management, Human Resources Management, Law Enforcement Leadership and Organizational Leadership. In addition, the following fully online graduate degrees included: Disaster Medicine and Management, Midwifery and Sustainable Design. At the time of this study, Institution A had approximately 200 online degree students (full-time and part-time).

Institution B

Institution B was a small, private nonprofit liberal arts college established in the 1940s and located on the east coast. The college was regionally accredited by the New England Association of Schools and Colleges. The following fully online degree were offered in an effort to support off-campus students: Associate’s degree in Liberal Studies, Associate’s degree in Business Administration, Bachelor’s degree in Business Administration in one of four concentrations - Accounting, Computer Science, Management and Marketing, a Bachelor’s degree in Criminal Justice and a Bachelor’s degree in Healthcare Administration. The college also offered a variety of fully online Master’s degrees which included concentrations in: Business Administration; Management; Accounting; Public Policy; and Professional Writing. A fully online Education Doctorate degree was also offered. The college had over 1,400 fully online degree students at the time of this study.
Recruitment

Online Survey

Participants were recruited from the above two private, non-profit, regionally accredited universities. The institutions have a traditional university campus. This study is a selective sampling procedure to survey students (over 18 years-old) enrolled in fully online degree programs at either the undergraduate or graduate level.

The researcher did not have access to the distribution list and information to identify students was not shared with the researcher by the participating institutions. Participants were invited to participate in an online survey via an invitation email with the link to the online survey. The researcher, with the assistance of Noel-Levitz, Inc., a higher education consulting firm with expertise in student satisfaction surveys, provided an online survey link to the institutions. The online survey included the informed consent form which participants agreed to complete by clicking the NEXT button on their screen.

Interviews

Students were sent an invitation email by a contact person from their respective schools and asked to volunteer to participate in a short, Skype or phone interview. If students wished to volunteer in the Skype or phone interview, they were asked to provide their preferred contact information (Skype ID or phone number) by responding to the recruitment email from their university so the researcher could contact them for a follow-up interview. Responses were not
linked to participants in the Skype/phone interviews. Participant contact information is kept in a password protected computer and there is no mechanism to link participants contact information with their interview responses.

Student consent was sought verbally for the interview prior to data collection. Before the start of the interviews, participants were informed that the audio part of the interview was being transcribed if by phone or recorded if by Skype. Students were made aware the main purpose of the project was the exploration of students’ perceptions of online student support services in higher education. This was included in the informed consent. If a student at any point wished to withdraw from participating in the study, there was no penalty. This was specified verbally for the interview data collection.

In all published materials that evolved out of this project, no students or school personnel was explicitly identified: codes were used for the schools and students involved. All data was presented in aggregate form.

Data Collection

The exploration of students’ perceptions of online student support services was carried out using a mixed-methods design. This study used two instruments: an online survey and a semi-structured interview protocol.

Online Survey

The online survey link was emailed to a total of 1,626 students enrolled in fully online degree programs at the two institutions. The rationale for using an
online survey to collect information was 1) based on the fact that online students often do not come to campus to participate in discussion groups or face-to-face interviews (Martinez-Arguelles et al., 2010, p. 158); and 2) it is much more cost-effective for the researcher to obtain the data online rather than having to travel to the participating institutions across the country.

Noel-Levitz, Inc., a higher education consulting firm specializing in survey research was approved by the researcher’s institutional review board as well as the participating schools’ institutional review boards to provide assistance with the distribution of the online survey. For Institution A, the assigned Noel-Levitz technical support specialist sent the survey link to the students on the distribution list. For Institution B, the Noel-Levitz technical support specialist sent the survey link to the school contact person and the school contact person sent the survey link to the student distribution list (This school preferred not to release the student distribution list). Students on the distribution lists for both schools received weekly reminder emails to complete the survey over a one-month period. A total of 206 students completed the online survey. The completed surveys were returned electronically to Noel-Levitz, Inc. The raw data files were then transferred to the researcher via a password-protected file transfer protocol (FTP) site for the researcher’s own in-depth analysis of the data.

**Measures.** The survey instrument that was used in this study, the Noel-Levitz Priorities Survey for Online Learners ™, PSOL, (Noel-Levitz, Inc., 2009), was chosen to measure participants satisfaction and importance levels with
regard to online student support services because it is widely used by higher education institutions (Liberty University, 2010, p. 13), it is used in academic research (Britto, 2012; Hayek, 2011; Herbert, 2006), and it has an acceptable reliability with a Cronbach alpha coefficient of above .70 for most items within the scales being measured, indicating that the items in the scales showed good internal consistency (see Table 3.1). Not all items on the PSOL were used in this study. “Instructional Services” was one scale on the Noel Levitz Priorities Survey for Online Learners (Items 3, 4, 8, 11, 13, 17, 20, 25) that was not included in this study as this research is specifically focusing on online student support services. The curriculum and instruction survey items were not included in order to keep the focus on online student support services. The survey items included and analyzed in this study fall under five main areas: Institutional Perceptions, Academic Services, Enrollment Services, Student Services and Online Community. Online Community was a researcher generated category. Items 27 through 29 were added to the PSOL survey (as allowed) as researcher generated items. These items were developed based on information gathered from the literature (LaPadula, 2003; Pullan, 2011; Raphael, 2006).

The online survey consisted of 54 Likert-type questions measuring participant satisfaction and importance levels, three multiple choice summary questions, followed by fourteen demographic questions. This study specifically analyzed Items 1 through 29, not including the eight items that fell under Instructional Services as per indicated above. Participant demographic
information will also be reported. Participants were asked to rate their satisfaction level on a seven point Likert-type scale (7 = very satisfied, 6 = satisfied, 5 = somewhat satisfied, 4 = neutral, 3 = somewhat dissatisfied, 2 = not very satisfied and 1 = not satisfied at all), and their importance level on a seven point Likert-type scale (7 = very important, 6 = important, 5 = somewhat important, 4 = neutral, 3 = somewhat unimportant, 2 = not very important and 1 = not important at all). The area table below, Table 3.1 categorizes each Likert survey item analyzed according to the area being measured:

<table>
<thead>
<tr>
<th>Item source</th>
<th>Item #</th>
<th>Area (what the item is measuring)</th>
<th>Cronbach’s alpha - Importance (Noel-Levitz reported value)</th>
<th>Cronbach’s alpha - Satisfaction (Noel-Levitz reported value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noel-Levitz</td>
<td>1, 6</td>
<td>Institutional Perceptions</td>
<td>0.51</td>
<td>0.70</td>
</tr>
<tr>
<td>Noel-Levitz</td>
<td>2, 5, 7, 12, 16, 21, 24</td>
<td>Academic Services</td>
<td>0.83</td>
<td>0.86</td>
</tr>
<tr>
<td>Noel-Levitz</td>
<td>9, 14, 18, 23</td>
<td>Enrollment Services</td>
<td>0.77</td>
<td>0.76</td>
</tr>
<tr>
<td>Noel-Levitz</td>
<td>10, 15, 19, 22, 26</td>
<td>Student Services (such as Career Services, Bookstore, etc.)</td>
<td>0.81</td>
<td>0.83</td>
</tr>
<tr>
<td>Researcher</td>
<td>27, 28, 29</td>
<td>Online Community</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>
Institutional Perceptions. Participants were asked to rate their satisfaction and importance with Institutional Perceptions. This area assessed how students perceive their college or university. The two items included: Item 1, “This institution has a good reputation” and Item 6, “Tuition paid is a worthwhile investment.”

Academic Services. This area assessed the services students utilized at their institution to achieve their academic goals, such as advising, technical services and tutoring services. There were seven items that measured this area including: Item 2, “My program advisor is accessible by telephone and email” and Item 24, “Tutoring services are readily available.”

Enrollment Services. This area measured the processes and services related to enrolling students in an online program at their institution. These services included: financial aid, registration and payment procedures. Examples of the items included: Item 14, “I receive timely information on the availability of financial aid” and Item 23, “Billing and payment procedures are convenient for me.”

Student Services. This area measured students’ perceptions of additional student programs and services offered at their institution, such as, responses to student requests, online career services and bookstore services. A couple of the items measuring this area included: Item 19, “Online career services are available” and Item 22, “I am aware of who to contact for questions about programs and services.”
Online Community. This area measured students’ perceptions of the online environment at their institution, including online support groups, online clubs and activities and online social networking groups. Participants were asked to rate their satisfaction and importance levels with regards to the Online Community at their institution. A couple of the survey items that measured this area included: Item 27, “Online peer support groups are available” and Item 28, “Online student book clubs, film clubs, and other social networking opportunities are available.”

Validity of this online survey was supported in several ways: a published survey instrument was used (Noel-Levitz Priorities Survey for Online Learners, 2009); education faculty at the researcher’s institution reviewed the online survey instrument in an effort to determine if the instrument measured the constructs and to reduce researcher bias; all participants were given the same online survey; and, the deployment of the online survey was tested in advance for any technical problems regarding the link to the survey, survey pages and survey items.

Interviews

Students volunteering to be interviewed were contacted by their preferred contact number (Skype ID or phone number). The goal was to interview at least 20 participants from both schools.

The researcher asked participants for their verbal consent to be interviewed before the interview began. Participants were informed that the
interview was recorded by Skype software or by transcription if the interview took place over the phone and their consent was assured prior to the start of the interview. Participants were asked researcher-developed questions which addressed gaps in the literature. The interview questions were researcher generated based on the literature review. The questions were:

1. Which online student support services such as, advising, financial aid, registration, technical support, library services, bookstore, and/or career services, are most important to you?

2. Why are these services that you mentioned above important to you?

3. Please tell me which online student support services you used the most.

4. a) Please tell me about the overall quality of the online student support services that you used.

   b) Describe a recent memorable experience with online student support services (positive or negative).

5. a) What other online student support services would you like to have access to as an online student?

   b) Why would you like to have access to these services?

6. a) Please recommend what improvements can be made with regards to online student support services that would enhance your experience as an online student.

   b) If your school adopted these recommendations, how would that
improve your experience as an online student?

7. Please describe how your experience as an online student has contributed to your personal and/or professional growth.

The researcher collected data from participant responses to the seven interview questions. The rationale for using Skype or phone interviews to collect additional data based on the interview questions was that this method could provide additional qualitative data that could enhance the data collected from the online survey by providing richer detail to the survey results and insight into the students’ answers.

Data Analysis

Online Survey

The Rasch model (Bond & Fox, 2001, p. 7), Winsteps program (Linacre, 2013) and the Microsoft Excel spreadsheet application were used to analyze the survey results to determine if students’ perceptions of importance correlated with their perceptions of satisfaction regarding online student support services. The Rasch model, a mathematical formula developed by Danish mathematician and statistician Georg Rasch, is an item response theory (IRT) model. The Rasch measurement model was chosen for this analysis because “the Rasch model is the only one that provides the necessary objectivity for the construction of a scale that is separable from the distribution of the attribute in the persons it measures” (Bond & Fox, 2001, p. 7). This specific objectivity was an important factor in
using the Rasch model. In other words, the measure you get for participants is independent of the items to which they respond. Another reason for using the Rasch model for the analysis was the fact that missing items become a non-issue.

After creating the code file for the Winsteps program for the five scales being analyzed in the survey, the code file was uploaded into Winsteps in order to obtain the Rasch measure for each participant for each scale included in the study. Once the Rasch measures were calculated for each participant and each scale, the participant measures were saved in Excel in order to run correlations. Summary statistics tables including reliability values and fit order tables were provided by the Winsteps program.

This quantitative portion of the study helped the researcher answer Research Question Three. In addition, summary statistics, mean squares, item fit and, inter- and intra- correlations are reported.

**Interviews**

A Grounded Theory (Charmaz, 2006; Glaser & Strauss, 1967; Strauss & Corbin, 1998) framework was used which allowed the researcher a systematic approach to analyze the data from the participant interviews. A sequential series of coding was performed to analyze the data. Strauss & Corbin (1998) define the first stage of analysis in Grounded Theory as open coding where the researcher goes through a process of labeling statements by assigning codes to the data. The authors explain that “events, happenings,
objects and actions/interactions that are found to be conceptually similar in nature or related in meaning are grouped under more abstract concepts termed categories” (Strauss & Corbin, 1998, p. 102). Through this process, categories are developed. The second stage of coding is called axial coding. Axial coding is a process of interconnecting the categories and exploring the relationships between codes. According to Strauss & Corbin (1998), during axial coding “categories are systematically developed and linked with subcategories” (p. 143). The third stage is called selective coding which is “the process of integrating and refining categories” (Strauss & Corbin, 1998, p. 143). At this stage, the researcher draws connections between the categories and produces a set of themes or core categories. Figure 3.1 represents a funnel diagram explaining the steps involved in the coding process.
To begin the qualitative analysis of the data, the researcher uploaded interview transcripts into Atlas.ti, a qualitative data analysis software program. The software program does not analyze data for the researcher rather it acts as a data organizing tool. After the interview transcripts were uploaded into Atlas.ti, the researcher went through a process of manually open coding the text. The researcher then saved the codes in Atlas.ti and printed out the participant quotes/comments associated with each code. This was the extent to which the Atlas.ti software was used.

The researcher then used the printouts for each code to manually analyze the codes and further categorize and explore the relationships between them,
moving to a higher conceptual level during the axial coding stage. Some codes were regrouped after comparing and contrasting the data. Table 3.2 presents the original 54 codes and groups.

Table 3.2

Original 54 Codes and Groups

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
<th>Group 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>excellent experience or service</td>
<td>registration &amp; advising</td>
<td>drive and initiative</td>
<td>improve experience</td>
<td>improve experience</td>
</tr>
<tr>
<td>positive experience</td>
<td>tutoring</td>
<td>work/life balance</td>
<td>writing support</td>
<td>write feedback</td>
</tr>
<tr>
<td>positive comments</td>
<td>registration</td>
<td>promotion/advancement</td>
<td>student success</td>
<td>-24/7 support</td>
</tr>
<tr>
<td>negative experience or poor service</td>
<td>registration services</td>
<td>polished professional skills</td>
<td>student achievement</td>
<td>-real-time chat feature</td>
</tr>
<tr>
<td>high cost</td>
<td>library services</td>
<td>-growth (pers. &amp; prof.)</td>
<td>save time</td>
<td>-level of satisfaction with services</td>
</tr>
<tr>
<td>frustration</td>
<td>technical services</td>
<td>-confidence</td>
<td>-round-the-clock support</td>
<td>-motivated learner</td>
</tr>
<tr>
<td>technical problems</td>
<td>reasons for choices</td>
<td>improved technical skills</td>
<td>-real-time chat feature</td>
<td>-online health center</td>
</tr>
<tr>
<td>challenges</td>
<td>full range of services</td>
<td>-independent learner</td>
<td>-time management</td>
<td>-access to OER</td>
</tr>
<tr>
<td>Blackboard</td>
<td>advising</td>
<td>-flexibility</td>
<td>-independence</td>
<td></td>
</tr>
<tr>
<td></td>
<td>technical support</td>
<td>-institution’s reputation</td>
<td>-motivated</td>
<td></td>
</tr>
<tr>
<td></td>
<td>career services</td>
<td>-organization</td>
<td>learner</td>
<td></td>
</tr>
<tr>
<td></td>
<td>financial aid</td>
<td>-time management</td>
<td>-level of satisfaction</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-convenience</td>
<td>with services</td>
<td></td>
</tr>
</tbody>
</table>

During the stage of selective coding, the researcher identified five core themes. However, after comparing and contrasting categories within each theme and themes between each other, it was found that one of the themes overlapped with other themes. Therefore, the five core themes were reduced to four. Table 3.3 highlights the resultant four themes.
Table 3.3

Resultant Four Themes

<table>
<thead>
<tr>
<th>Theme 1:</th>
<th>Theme 2:</th>
<th>Theme 3:</th>
<th>Theme 4:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvements to Online Support Services</td>
<td>Positive and Negative Experience</td>
<td>Specific Needs of Online Degree Students</td>
<td>Personal and Professional Impact</td>
</tr>
</tbody>
</table>

The four main themes that emerged after an analysis of the data included: improvements to online support services, positive and negative experiences, specific needs of online degree students, and personal and professional impact. Additionally, concepts were derived from each theme and supported by evidence from the participant interviews. These themes and concepts are explained in the following section. Findings were organized into three classifications: major trends, minor trends and significant individual remarks. This qualitative portion of the study helped the researcher answer Research Questions One and Two.

Triangulation, “the goal of seeking at least three ways of verifying or corroborating a particular event, description or fact being reported by a study (Yin, 2011, p. 81), was achieved by taking the following steps: 1) rich data was collected during the 22 participant interviews; 2) data was collected at two different school sites; 3) discrepant evidence and negative cases were reported and explained; and 4) several peer debriefing sessions took place to obtain feedback and cross-check data reporting.
Positionality of the Researcher

I understand that as a researcher, I am a research instrument and I bring a particular lens or positionality to the subject matter and issues being explored. Therefore, the following section on positionality of the researcher is included to give context to the dissertation as well as to explain any researcher biases.

I believe it is essential to understand and breakdown issues and concerns from students’ perspectives. There is increasing competition between higher education institutions for students; and therefore, I’m interested in students experiences and what we can do as educational leaders and administrators to improve the student experience and the overall quality of student services in an effort to increase an institution’s competitiveness in today’s crowded higher education market. Since technology has played a positive and significant role in my life both personally and professionally, this is why it is a main focus in my research in online student services and the student experience in higher education.

My first job after graduate school, more than 20 years ago, was working on an eight-person team as a program coordinator for the Stanford Alumni Association’s Executive Education Programs for public and private sector executives. Our particular focus was to develop and implement management and professional training programs targeting Silicon Valley technology company engineers, managers, and marketing and communications specialists. This job gave me direct exposure to the hi-tech industry in Silicon Valley as well as direct
contact with the players in the industry. Early in my career, I started learning about the positive impacts of new technologies across industry sectors from a cost-benefit and efficiencies point-of-view. As a started exploring research topics for my dissertation, I wanted to look at how new technologies were positively impacting students’ lives.

My next two jobs involved coordinating and managing two California statewide non-partisan trade-initiative campaigns, the North American Free Trade Agreement (NAFTA) and the General Agreement on Tariffs and Trade (GATT) which were spearheaded by the California Council for International Trade. I worked with the Board of Directors on all aspects of the campaigns and coordinated public affairs activities with the public affairs staff of major U.S. corporations to plan and coordinate lobbying activities. I had the opportunity to work directly with many technology companies in the Silicon Valley to establish employee grassroots action programs in an effort to promote the campaigns. While doing so, I learned how these companies used the latest software programs to disseminate information and educate their employees in an engaging and interactive format. I have learned through my research that audience engagement and delivering information in an interactive format are both key elements of the online environment. Whether it’s the corporate setting or the academic setting, the online learning principles are the same.

In my next position as Public Affairs Coordinator for one of the oldest and largest lobbying organizations in the United States, the National Association of
Manufacturers (NAM), I worked with senior management to plan and coordinate internal and external public affairs activities and special events for Fortune 500 companies, and I worked closely with NAM corporate members and state trade associations to organize and promote face-to-face dialogue with U.S. senators and representatives. As I think about the application of my research in online education, the skills I developed as a lobbyist and public affairs representative can have a great impact at the national level for an online education organization in terms of representing the organization, promoting the mission and goals, and attracting funding to support the organization's future growth.

In 1996, I was hired as an Adjunct Professor at Golden Gate University in San Francisco, a private, nonprofit university, where I taught graduate-level courses in Public Relations and Communications for the School of Business. The following year I served as Program Director for the Graduate Public Relations Program within the School of Business at Golden Gate University, and I had the pleasure of advising many domestic and international students, regarding their coursework, internships, graduation requirements and career paths. I was also responsible for the assessment of curriculum and the identification of new course possibilities, the hiring of new faculty and the program’s marketing and promotion. What I liked best during my time at Golden Gate University was working one-on-one with students and understanding issues from students’ perspectives. This background experience of working with students and seeing issues from their perspective is one of the reasons why I
wanted to study the experiences of fully online degree students. By listening to students’ voices, we have the opportunity to identity areas that need improvement in the overall student experience.

While serving as Public Relations Director for one of the largest law firms in California and one of the top firms in the U.S., many of our hi-tech clients went through IPOs at the time which again gave me exposure to some of the top players in the Silicon Valley and hi-tech industry. Strong branding, marketing and public relations was very important during this competitive time and, as the higher education market becomes more competitive, savvy marketing communications is a critical component of a university’s strategic plan.

It was while living in Switzerland that my husband and I decided to start our own online sales and marketing company. Ten years later, we have used the online sales platform to reach customers all over the world while minimizing our costs and maximizing our market potential. Online technologies allow companies like ours to streamline our operations, yet take advantage of very sophisticated web-based software and operate like a larger business with a minimum number of staff. Operating and managing an online business gives me the background in new innovative technologies and how these technologies can reach, serve and engage potential customers in new ways. Having experience with online platforms and the online environment, I can see many advantages for higher education institutions regarding implementing online technologies to enhance their online student support services and related activities.
On a personal-level, I’ve relied on technology to simplify my life. Having lived and worked in three countries, Canada, United States and Switzerland, I’ve found that being an early adapter to technology has helped me streamline my life in order to keep it more manageable and more efficient. As higher education administrators adopt online technologies to serve their students, they are streamlining campus life and actually supporting a much greener and more sustainable institution. As more students take online classes, there are fewer commuters on the roads (less smog), less paper is used as students and staff transfer information digitally, less energy is used in buildings on campus, etc.

Furthermore, as part of my doctoral studies program, I chose to take elective classes in e-learning because I wanted to experience firsthand what it is like to be an online student and, secondly I wanted to increase my knowledge base in the field of e-learning. As an online student, I found my classes to be even more engaging than some of my face-to-face classes. In the end, it comes down to how well the class material is delivered and how much interaction there is between students and between students and the instructor. An online learner constructs knowledge both independently and through an interactive social process in an online community. Therefore, it is very important that the instructor create a harmonious community of inquiry where students feel free to ask questions and learn from one another in addition to studying the textbook and other online materials such as online lectures, videos, podcasts, etc.

My particular bias towards online education is that my personal online
learning experiences were positive. However, I realize that just because my experiences as an online student were very positive, this may not be the case for other online students, and there are a myriad of reasons why students may not have a similar positive experience.

Having spent over 12 years in corporate communications and public relations and the last 10 years managing an internet sales and marketing company, I would like to bring my corporate and online business expertise to higher education in the area of online student services and improving the student experience. I’m particularly interested in how we can use innovative technologies to improve the educational experience and increase the quality of services for students in online education. Because of my interest in improving the student experience, students’ perspectives are an important piece of my research.

Confidentiality of the Data

In order to protect the human subjects in the study, codes were created for study participants. All data collected in this project will be destroyed appropriately seven years after the completion of the project. All data stored in a computer will follow the FIU/IRB Data Management/Security suggestions as provided by CSUSB.

All information collected during this study was kept strictly confidential. The researcher reported information in this study using numeric codes instead of
names, so specific participants could not be identified by anyone reading or reviewing the results of the study. The results are reported in aggregate form. All records collected for this study including transcription notes and recordings were kept confidential by being stored in a locked filing cabinet and/or stored on a password protected computer and all data collected during this study will be destroyed approximately seven years after the completion of the project.

Risks and Benefits

There were no risks expected to participants as a result of participation in the online survey or Skype/phone interviews. The main benefits for the participants taking part in this study was that they had the opportunity to voice their opinions about their experiences with online student support services and impact future development and improvements of online student support services at their institution.

Summary

The research design and methodology for this study used qualitative and quantitative instruments to explore students’ perceptions of online student support services and the importance of online student support services in higher education. A total of 22 fully online degree students participated in semi-structured phone interviews and 206 fully online degree students completed and returned the online survey. A Grounded Theory framework was used to analyze the data from the participant interviews and the Rasch model, Winsteps program
and Microsoft Excel were used to analyze the survey results. Chapter Four will discuss the findings of this research.
CHAPTER FOUR

RESULTS

Introduction

The purpose of this study was to examine fully online degree students’ perceptions of online student support services in higher education indicating which are most important, the perceived quality of the services offered and, how students’ perceptions of importance correlated with their perceptions of satisfaction. By identifying key areas of importance and satisfaction regarding online student support services from students’ perspectives, combined with the results from the participant interviews, this research can provide a blueprint for colleges and universities that are either in the early stages of developing their online student services plans or, in the process of improving their online student support systems. A well-developed online student services plan is an important component on an online program and it addresses the needs of fully online degree students. Both qualitative and quantitative methods were used to answer the research questions in this study.

Participant Interviews

This following section presents a qualitative analysis of the semi-structured interview questions. A total of twenty-two students from the two schools selected for this study volunteered to be interviewed. Of the twenty-two
who were interviewed, seventeen were female and five were male. Fifteen of the interview participants were enrolled in graduate degree programs, five participants were enrolled in undergraduate degree programs and two participants were enrolled in a doctoral degree program.

The two schools were purposefully selected based upon a set of inclusion criteria which demonstrated that the institutions had established online programs and had shown adaptability in integrating online platforms. Private, nonprofit universities were selected because of their flexibility to adopt and implement new online degree programs (Director of Virtual Learning at a California university, personal communication, July 9, 2012). Focus on the above inclusion criteria allowed the researcher a representative sample of online degree students from established online programs.

Grounded theory (Charmaz, 2006; Glaser & Strauss, 1967; Strauss & Corbin, 1998) was used to generate themes and concepts in an effort to understand online student support services from students’ perspectives in the larger context of being a fully online degree student in higher education. The qualitative portion of the study addressed the following two research questions:

- How and in what ways do fully online degree students perceive specific online student support services to be important?
- How and in what ways do fully online degree students perceive the quality of specific online student support services?
After a process of open coding, axial coding and selective coding, four main themes emerged from an analysis of the data. These themes included: improvements to online support services, positive and negative experiences, specific needs of online degree students, and personal and professional impact. Additionally, concepts were derived from each theme and supported by evidence from the participant interviews. Findings were organized according to three classifications: major trends, minor trends and significant individual remarks. The first classification, major trends, was defined as a pattern of information repeated in the data within and across participants. Minor trends were defined as a pattern of information repeated in the data within and across participants but having fewer occurrences than major trends (less data than major trends but had significant value in answering the research questions). Finally, significant individual remarks were defined as ideas articulated by only one participant. The reason why these participant comments were included was because these individual remarks or ideas were interesting and/or innovative and of interest to stakeholders in online student support services in higher education.

Themes

**Theme One: Improvements to Online Support Services**

**Concept.** The first theme that emerged from an analysis of the data called ‘improvements’ generated the following concept about the preferences of online
degree students. Flexibility and convenience are the primary reasons why students choose online programs (Groulx & Hernly, 2010). However, despite choosing the online format over traditional campus-based learning, online degree students, when asked about what other online support services they would like to have access to, seemed to desire or expect online support services to be like on-campus services. As much as technology allows, online degree students would like to have the same or similar experiences as on-campus students but in the virtual environment.

**Major Trends.** Major trends that support this concept include online students wanting access to specific services or programs that traditional students have easy access to such as an internship program, a writing center, tutoring programs, a career center and a health center. Online students expressed a desire to have online support centers or online access to the campus-based support centers. Another major trend was that online students stated that they wanted more interaction, and, specifically, more real-time interaction than what they were currently getting in the online environment, whether it was regarding interaction with online services or interaction with their online classes or instructor. For example, Participant 21 stated:

I’m going to say...I don’t know how to describe it. If I’m on campus, I have the opportunity to be involved in an internship. As an online student, I don’t have that opportunity. I didn’t find out that I couldn’t receive credit
for an internship until I had accepted the position. (Participant 21, personal communication, July 11, 2013)

Clearly, this online degree student expected to be able to enroll and receive credit for an internship and was surprised to find out this opportunity was not available to students in the online degree program. In this example, the student had expectations that the offerings to on-campus students were the same for online students. This participant articulated that a particular service was important to her but that she did not have access to it as an online degree student.

Participant 9 stated that it would be beneficial to get more tutoring and writing help, “for tutoring support...writing is a thing that everyone struggles with. You’re not sitting in a class where you can get peer reviews. Tutoring resources set up to be instant would be helpful” (Participant 9, personal communication, June 30, 2013). Similarly, Participant 7 stated that “When I went to campus, I had someone read my paper and review it with me. If there was a way for someone to review...Editorial review and critique before we hand it in” (Participant 7, personal communication, June 29, 2013). In both of these cases, the participants indicated a desire for writing support, a service that is generally offered for on-campus students.

Other examples where students indicated a need or desire for on-campus services include Participant 17’s comments about having access to career services and Participant 9’s comments on having access to an online health
Participant 17 said, “The other thing I would have liked is career support services. There was none as an online student” (Participant 17, personal communication, July 6, 2013). Finally, Participant 9 talked about having access to an online health center,

There’s such a push toward telemedicine and having access to healthcare via email. I would say there is a place for that. That would be interesting for online students to have access to. You could trouble shoot if something...if you were having trouble with your birth control. If you are an online student, you can’t access the health center. At our facility, there is nothing. A lot of college and graduate students don’t have a healthcare provider. So, if you have a problem, they might not seek care when they need it. You get dumped by your pediatrician, so you might not seek out care. (Participant 9, personal communication, June 30, 2013)

Another major trend that emerged from the data which supports the concept that online students seem to have a proclivity for services and experiences that mirror or replicate the on-campus experience is that participants commented on the fact that they would like to have more interaction and, in fact, more live interaction with staff, professors and/or other students. Participants 4 stated:

There needs to be something on Skype. Some portion of that online should have a requirement of Skype so it’s not just written stuff typed on Blackboard. There should be some type of face-to-face. Face-to-face
interaction with students. And that could be accomplished by Skype. We had one class...everyone was able to get online. The professor set it up. They gave us a link. And, we all met all online. We could actually see eight people. We could hear everything online. It was a nice experience. (Participant 4, personal communication, June 22, 2013)

When asked what other online support services they would like to have access to as a fully online degree student Participant 2 stated, “You didn’t have a live chat. I think that feature should be available. Even in class, it would be nice to have something in real time” (Participant 2, personal communication, June 22, 2013). When asked what improvements might be made with regards to online student support services, Participant 5 said, “The only thing I can think about is probably live chat. I was pretty satisfied because they were always available. But with technology now, live chat would be good. If I were to suggest anything, I would suggest that” (Participant 5, personal communication, June, 29, 2013). When asked what other online services would he/she like to have access to, Participant 10 responded, “Um, some way to chat with the librarian. That might be helpful. So, that would be helpful to have a live chat option to get help with research” (Participant 10, personal communication, June 30, 2013). Finally, Participant 22 talks about improving the online experience through increased interaction:

Well, last semester we had a class where the interaction was general, whereas, the class I have now, I have one on one interaction with the
professor. This is very important. You want that feedback. It should be direct and timely. Feedback is very important. The quality of the work is important in terms of feedback and learning. (Participant 22, personal communication, July 16, 2013)

**Significant Individual Remarks.** On the individual level, a couple of students expressed some isolated remarks that supported the concept that online degree students have an inclination towards services and experiences that mimic the on-campus experience. Participant 18 stated,

> One thing I find on Youtube is lectures from other universities. There’s a lot of lectures out there that are cutting edge. I would include current lectures out there from other professors. Some of these professors, like from Denmark, have pragmatic examples. It’s been a huge benefit. I would incorporate some lectures. (Participant 18, personal communication, July 6, 2013)

The participant’s comments above suggest that online degree students would like to have access to lectures like on-campus students but in an online format.

Participant 9 made some strong statements about online learning versus traditional campus-based learning:

> Um, I would just tell you my general opinion. I don’t like online learning. I’m an auditory learner. A lot of it is done in a self-directed fashion. I don’t get enough out of it. I miss the interaction with my peers. Although we have a lot of interaction with classmates using Adobe
Connect. I find it hard to sit in my office and do the reading. It’s not my favorite way to learn. I’d much rather be sitting in a class. If I did have the time to sit in a class, I wouldn’t be in this program. It’s a tradeoff. I can’t sit in a class because I have another life. Everything is a tradeoff. (Participant 9, personal communication, June 30, 2013)

In the example, the student is expressing her preference and desire to actually be a part of a traditional face-to-face program rather than an online program because she misses the face-to-face interaction with peers and she finds it challenges to learn on her own. However, she does not have the ability to sit in a class so she makes the choice to be an online learner. Despite the convenience and flexibility online learning offers, this student still prefers the learning experience of a traditional face-to-face campus-based program. All of the above mentioned examples provide evidence which support the concept that online degree students would like to have the same or similar experiences as on-campus students.

Theme Two: Positive and Negative Experiences

Concept. After coding student responses as positive or negative experiences, the following conclusion was drawn: online retailers specializing in customer-relationship management such as companies like Amazon and Zappos, for example, greatly influence the online environment in a way that students have high expectations for online student support services based on their experiences with online businesses/service providers. The research on
online student support services in higher education supports this concept. According to Lorenzetti (2006), students expect high quality interactions in the online environment and they expect the interactions to be of the same caliber of Amazon or Travelocity. Furthermore, according to Vignare (2009) successful public and for-profit online programs offer around-the-clock online services for their students.

**Major Trends.** One of the major trends supporting this concept is that online degree students very often report the need for timely response as the main factor which determines whether or not their recent online experience with online student support services was positive or negative. Regardless of whether or not a student is describing an online experience with technical support services, library services or with a professor, their satisfaction level is dependent upon how long it takes staff or faculty to get back to them with the information they are seeking.

For example, when asked to describe a recent memorable experience with online student support services at their school, Participant 4 stated:

Basically, being able to get articles that you can’t get on EBSCOhost. Some articles you can’t download. I just ask for the article. The librarian gets them for you really quick. I’ve gotten every article that I wanted. Sent straight to my email. Even books I’ve gotten through Interlibrary Loan. They’ve mailed them to my house. It’s been a
good experience.” (Participant 4, personal communication, June 22, 2013)

This participant perceived this service to be important to her and she also perceived this service to be a positive experience. Participant 16 described a recent memorable experience with online student support services and gave the following example, “Ah, I think last term, I sent an email regarding an online library database. She got right back to me. She sent information on how to use the database. I’ve been working with it ever since. She was very helpful” (Participant 16, personal communication, July 5, 2013).

When asked about the overall quality of the online student support services that they used, Participant 12 stated: “Terrific on all levels. Everyone is really responsive from financial services, library and our advisors. So, for everything, it’s been great” (Participant 12, personal communication, July 3, 2013). In response to the same question, Participant 15 stated that, “Um, the quality is pretty great. I can email them and contact the tech people. The tech people are great. They get back to you right away” (Participant 15, personal communication, July 5, 2013).

At the other end of the spectrum, students gave other examples where not getting a timely response negatively impacted their online experience. When asked about a recent memorable experience with online student support services, Participant 2 stated, “The most recent was financial aid. I haven’t heard back. It’s been a week. She hasn’t returned my call or email” (Participant 2,
personal communication, June 22, 2013). Another student reported a negative experience because of lack of timely response from staff. Participant 3 stated:

As my time got closer and I didn’t receive anything, I emailed them and didn’t get a response, I emailed them again and didn’t get a response. I called them on Friday because my surgery was scheduled Monday morning and reminded them I’d like to get the assignments for this um you know I could do it over the weekend. I wanted to do the assignment the week before I went into surgery. I was also finishing a class at that time, the class before it so I was finishing the class I was in and I wanted to spend Saturday and Sunday doing the next class. And that’s what they said fine to. I never got the assignment. I got the assignment emailed to me the second day after my surgery which defeated the purpose of making the arrangement. (Participant 3, personal communication, June 22, 2013)

Participant 22 also had a negative experience due to lack of response from staff:

I couldn’t attach a document to an email. Blackboard was down. I had to use my regular email. I did call but no one followed through. So I have to go back and make sure it’s not happening. When Blackboard is down, I can’t use email and I can’t attach anything. So far, I don’t think it’s been resolved. (Participant 22, personal communication, July 16)

These comments above demonstrated how frustrated students were with a lack of response or delayed response from staff. Slow response times (or no
response) is important feedback to keep in mind as this was perceived as important by online degree students.

**Minor Trends.** A minor trend was detected in the data that supports the concept that the Amazon-like culture is impacting online education programs. It appears that online student support services staff are using customer relations management (CRM) systems to manage online degree students (Hornak, Akweks & Jeffs, 2010; Vignare, 2009). This is evident from Participant 6’s comments:

I didn’t have to do anything from the very beginning. They registered for me, ordered my transcripts. They do everything from classes to financial aid. They double check, they make sure I log into classes. I think they can see my grades. It’s great. I don’t have to leave the house. They send you my tracking number for my books. She orders my books for me. They mail the books to me...Ah, with the online support, it’s just that this lady, she called me last week, checking on me. She checks on me constantly. (Participant 6, personal communication, June 29, 2013)

Another example which supports the trend of staff using CRM systems to manage online students comes from Participant 17. This student described the following recent experience with online student support services:

The most recent was a follow up call about how my course was going, did I have everything I needed? It was basically a checkpoint to see if there’s anything else I need. It’s just nice because I don’t have the brick-and-
mortar face-to-face. It’s nice when they call during the semester to make sure everything’s ok. (Participant 17, personal communication, July 6, 2013)

Another piece of evidence that supports this minor trend includes a personal example from Participant 16: “The two people in student services, they stepped right up. Maybe once or twice a quarter you’d get a call but, if you are not doing so well, you’d hear from them...what’s going on? They were really good in that department” (Participant 16, personal communication, July 5, 2013).

**Significant Individual Remarks.** On the individual level, one student’s most recent memorable experience with online student services supports the concept that the Amazon-like culture is impacting the delivery of online student services in that the student is treated more like a customer. For example, in the following situation, a student services representative responds to an email, follows up with a phone call, identifies the student’s problem and takes the time to solve the issue:

Um, the last one was figuring out the classes because they had made a change. The separated a course into two parts. The capstone project was one course. It was self-paced. But this new change almost broke the course in two. I was having problems understanding that. I sent an email to (name of representative) in student support services. She called me back and took the time to explain why they made the change. It took
away the confusion. First you take research methods and then you do your research. It ended up being two different classes. Research methods and then you finish your capstone project. Before everything was combine in one. (Participant 5, personal communication, June 29, 2013)

From the above examples, it is evident that timely response is one of the main factors which determine whether or not an online student has a positive or negative experience with online student services. This supports the concept that an Amazon culture is influencing the online educational setting in a way that the online degree student has certain expectations in terms of how they will be served in the online environment.

**Theme Three: Specific Needs of Online Degree Students**

**Concept.** The third theme that emerged from an analysis of the data called “specific needs of online degree students,” generated the following finding: online degree students come from diverse backgrounds and have different levels of work experience, technical skills and other skill sets which suggests that they will have different needs. In addition, their learning styles, expectations and needs may often be unclear or unknown (Mupinga, Nora, Yaw, 2006). Therefore, it’s important for institutions to understand the context within which students participant within an online program. This will assist online student support services staff in developing a wide range of services to ensure that the needs of all online degree students are being served.
Major Trends. One of the major trends supporting this concept is that the online degree students interviewed expressed individual preferences and needs regarding why specific online student support services were most important to them. When asked which online student support services were most important to them, such as, advising, financial aid, registration, technical support, library services, bookstore or career services, students reported different answers and gave different reasons for their choices. Library services was the most commonly mentioned service followed by advising services, registration services and technical support services. Online bookstore was not chosen by any student. Table 4.1 summarizes the online student support services most commonly mentioned by participants as most important to them.

Table 4.1
Summary of Student Responses of Most Important Online Services

<table>
<thead>
<tr>
<th>Online Student Support Service</th>
<th>% of students reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advising</td>
<td>41%</td>
</tr>
<tr>
<td>Financial Aid</td>
<td>23%</td>
</tr>
<tr>
<td>Registration</td>
<td>41%</td>
</tr>
<tr>
<td>Technical Support</td>
<td>36%</td>
</tr>
<tr>
<td>Library Services</td>
<td>45%</td>
</tr>
<tr>
<td>Bookstore Services</td>
<td>0%</td>
</tr>
<tr>
<td>Career Services</td>
<td>9%</td>
</tr>
</tbody>
</table>
By analyzing students responses, it is clear that online degree students have diverse needs. For example, Participant 1 stated that registration and advising are important because, “Registration to make sure I get the right class for the degree. And, advising to make sure I’m taking classes in the right order, not taking advanced level classes before other classes” (Participant 1, personal communication, June 19, 2013). Whereas, Participant 3 expressed that technical support services is most important:

This is my link to the school. I haven’t really had the need to use it except for once in the very beginning. But since I work full-time, I do most of my school work on weekends and if my connection was lost or I couldn’t get access to post my assignments or get my assignments, it would be a real hardship. For me to have access to the school on weekends and evenings is critical. If I have an issue, I want to know that I don’t have to wait til Monday eight o’clock normal business hours to get it corrected. If it didn’t have 24 hour or at least til midnight servicing, I probably wouldn’t have done this online. (Participant 3, personal communication, June 22, 2013)

In other examples, students highlight and explained why certain online services were most important to them. For example, Participant 7 describes why technical support and career services were most important: “I think the point of taking the online graduate degree is getting a better job. Career services is
key. And, technical support, if things don’t run smoothly and you can’t do your work that you need to do” (Participant 7, personal communication, June 29, 2013). In this next example, Participant 10 talks about the importance of online financial aid, “Financial aid, it’s very beneficial to have that online. It’s better than when you have to wait to get that in the mail. It makes it a lot more efficient. Quicker” (Participant 10, personal communication, June 30, 2013).

Additionally, there was other evidence which supports the concept that online students have diverse needs. For example, Participant 13 expressed why library services and registration services were most important, “I travel a lot for work. So, being able to register online is very helpful. My program had a particular library specialist that was assigned to our program. It made it very easy to accomplish my assignments” (Participant 13, personal communication, July 5, 2013). We learned from Participant 18 why career services are most important, “Credibility of the school. What kind of opportunities the school offers after graduation” (Participant 18, personal communication, July 6, 2013). Finally, Participant 20 stated why library services and financial aid are most important, “Well, ah, since I have a full-time job, the ability to research at any time of day or night, to be able to complete financial aid forms anytime, is really important to me. To continue to work and pursue my education” (Participant 20, personal communication, July 7, 2013).

**Minor Trends.** A minor trend emerged in the data that supports the idea that a wide range of services should be included in an online student support
services plan in order to satisfy the diverse needs of online degree students. The data indicated that students wanted access to support services not available to online students, such as, tutoring services and career services. For example, when asked what other online student support services they would like to have access to as an online student, Participant 10 said:

Having a tutor option would be a help. I don’t know how that would work. Maybe, like, either by phone, webcam, Skype or, if they have an online classroom for tutoring as a class, if we need direction in our pharmacology class where a small group of us could just get some assistance if we needed it. One on one tutoring would be awesome. (Participant 10, personal communication, June 30, 2013).

When asked the same question Participant 15 replied, “Um, maybe then, tutoring. I don’t know if the tutoring center is available online. I didn’t know if I have to set up an appointment for face-to-face help” (Participant 15, personal communication, July 5, 2013). Participant 9 stated, “tutoring support...writing is a thing that everyone struggles with. You’re not sitting in a class where you can get peer reviews. Tutoring resources set up to be instant would be helpful” (Participant 9, personal communication, June 30, 2013). Furthermore, Participant 17 mentioned “The other thing I would have liked is career support services. There was none as an online student” (Participant 17, personal communication, July 6, 2013). The above evidence supports that concept that
an online student support services plan should include a range of services to ensure that the needs of all online degree students are being served.

**Significant Individual Remarks.** On the individual level, two students made comments that support the concept that an online student support services plan should be full-service in order to meet the needs of a diverse population of online degree students.

When asked to recommend what improvements could be made with regards to online student support services that would enhance their experience as an online student, Participant 21 stated, "Having one dedicated advisor that would go from day one to thesis. It would really help to have one person that we are going to" (Participant 21, personal communication, July 11, 2013). In this example, the student indicates a desire to have a more customized experience and one-on-one attention.

To further support this concept, when asked which online student support services are most important to them (such as: advising, financial aid, registration, technical support, library services, bookstore and/or career services) and why, Participant 17 replied, “All of the above. Most important? Well, they all play a role. The support in the beginning of the program is different than in the middle or at the end. They all rank in the top level. It depends where you are in the program” (Participant 17, personal communication, July 6, 2013). This student brings up an important point regarding online student services which is that all online support services are
important but the degree of importance changes as the student moves through the program. Therefore, the evidence above supports the concept that an online student support services plan should include a full range of services in order to satisfy the needs of a diverse population of online degree students.

**Theme Four: Personal and Professional Impact**

**Concept.** The main concept derived from Theme Four: personal and professional impact is that the influence of constructivist philosophies which provide the foundation for online instruction (Garza-Mitchell, 2009) were positively impacting multiple aspects of students' lives as direct result of being fully online degree students. In online learning, students build their knowledge by being independently motivated and socially active and by interacting and collaborating with their classmates and instructors. Therefore, being a fully online degree student has the potential to develop the holistic person not just a compartmentalized part of a student's life. While this theme did not necessarily answer Research Questions One and Two, it did generate important information on the characteristics of fully online degree students. These characteristics or profiles of online students are useful for informing online student support services administrators regarding the types of customers they have to serve. The implications of this theme will be discussed in more detail in Chapter Five.

**Major Trends.** Participants reported a major trend specific to their experiences as online degree students and how it has made an impact on their personal and/or professional lives. Participants indicated that they were more
disciplined and structured in their daily activities. For example, Participant 5 stated:

I would say right off the bat that you learn so much about time management. Personally, it freed me up to do a lot of stuff. I knew when my assignments were due. I was able to plan my time better. Initially, when you think about starting grad (sic) school, kiss your personal life goodbye. This was different. I could do my assignments beforehand. In the end, I could manage my time and I still had time to spend with my family. I’m telling you this because I’m a typical last minute person. I got to the point where I did my Friday assignment on Wednesday and then you go away for the weekend and then all is well. I come from a big family. We always have something going on and I’m the cook in the family. When the cook doesn’t show up, it’s not a good thing! (Participant 5, personal communication, June 29, 2013)

This participant expressed how she was able to manage her time better as a result of her experience as an online degree student. She stated she got into the habit of doing her Friday assignments on Wednesdays, whereas, before becoming an online degree student, she described herself as a typical last minute person. Therefore, in the process of being an online degree student, she developed time management skills and discipline and these skills were also positively impacting her personal life.
Another student, Participant 6, reported how being in an online degree program taught her discipline. She stated:

Well, it teaches me discipline. That you have a timeline that you have to get stuff done. It teaches you that you have to depend on yourself. You have to focus more. Some people are not disciplined enough to be able to do classes online. So you have to be able to focus at home and depend on yourself to read things and take it in. (Participant 6, personal communication, June 29, 2013)

In this example, the participant said she learned discipline and how to follow timelines. However, the participant additionally shared that she became more self-reliant or independent as a result of being an online student. Becoming more reliant on one’s own capabilities has the potential to positively impact one’s personal and professional life in a myriad of ways.

Similarly, Participant 1 mentioned the importance of being disciplined and self-reliant in order to be a good online student:

In order to be a good online student, you have to be disciplined. You have to make the time to give to the work. I’m a very professional person. For me, that was the biggest key to get it done, on my own terms...You have to be disciplined. The other thing is, the key is it’s on you. For me, the thing was about being disciplined. It absolutely makes a difference. (Participant 1, personal communication, June 19, 2013)
Minor Trends. Two minor trends emerged from the participant interviews. These minor trends include participants stating that their confidence improved and that they felt they became more open-minded as a result of their experience as an online degree student. For example, Participant 18 stated:

What it’s done for me the most is people look at me more as a resource now. People say, what are you learning? It’s given me more credibility. It’s given me more confidence. Personally, it’s made me want to learn more about the industry. I’m planning on job transitioning. Without this program, no one would have taken me seriously. Now, I’ve got phone calls coming from the EPA. They called me two weeks ago and asked me if I was interested in working there. That was not a phone call I was expecting! Also, going to conferences and listening to thought leaders and being able to disseminate it. It’s inspiring. I never thought they would have called me.” (Participant 18, personal communication, July 6, 2013)

In this example, it is clear the student feels more confident at work. He feels strongly that without being in the online program, he would not have developed the same credibility at work. This student feels like he is more of a resource to his colleagues and he is more self-aware of the value he brings to his company.

Participant 5 also reported increased confidence level. She stated: You don’t wait. If you believe something, you just do it. That’s the first thing I noticed. I realized that it builds up your confidence. I guess it
comes from you to take the initiative yourself to get your coursework done. You just get up and do what you have to do. (Participant 5, personal communication, June 29, 2013)

This student demonstrated an increase in confidence in her abilities by taking the initiative to get the coursework done. Taking the initiative can be challenging as an online degree student because there is no in-person interaction for support and encouragement. An online student must demonstrate a particular drive for working independently without a great deal of instructor or peer support. This increased drive and independence can have other positive effects on students' lives.

The second minor trend that emerged from the data was that participants reported they became more open-minded as a result of being an online degree student. For example, Participant 20 stated, “I like the ability to learn new things, personally. Some of the classes I’ve taken have allowed me to change my viewpoint of things in the news or things going on in the world” (Participant 20, personal communication, July 7, 2013). In addition, Participant 18 mentioned, “…the biggest thing it’s done for me is be more open-minded. Because I’ve been stuck in corporate America way too long” (Participant 18, personal communication, July 6, 2013). Developing new ideas on issues and being more a open-minded person can greatly impact a person’s personal and professional life from a holistic person perspective.
**Significant Individual Remarks.** On the Individual level, there were three significant comments regarding how being an online degree student has helped participants develop their voices, positioned another participant for upward mobility in the job market and made another student take more ownership for his/her education.

Firstly, Participant 10 stated, “I think that it’s helped me develop a voice for myself. It strengthens that. And, being more confident in my thoughts. Probably just developing speaking from a more professional standpoint” (Participant 10, personal communication, June 30, 2013). Secondly, Participant 11 said, “It’s already positioned me for upward mobility in a way that I had not expected. It’s positioned me in that direction. It’s also contributed to me being appointed to a council by our state governor” (Participant 11, personal communication, July 2, 2013). Lastly, Participant 15 said, “…it’s made me actually do more of the reading. I care about it more…I’m more committed to my education now” (Participant 15, personal communication, July 5, 2013).

**Did the interview data answer the initial research questions that guided this study?**

The interview data collected not only answered the initial research questions that guided this study but it also provided context for a much deeper analysis of the perceptions of online degree students regarding how the experience of being an online degree student directly impacts their professional and personal lives; how they want to be served in the online educational
environment; and, which additional online student support services they would like to have access to as online degree students. Interpretations of these findings as well as conclusions and recommendations will be addressed in the next chapter.

The Online Survey

The next section will specifically address Research Question Three: How do students’ perceptions of importance correlate with perceptions of satisfaction regarding online student support services?

Participants were administered the Noel Levitz’ *Priorities Survey for Online Learners TM* (Noel Levitz, Inc., 2009) in the spring of 2013 in order to identify areas of online student support services that are important to students and how satisfied they were with the services provided. Students’ perceptions of importance and satisfaction were measured in five areas (Institutional Perceptions, Academic Services, Enrollment Services, Student Services and Online Community). The Rasch measurement model (1960, 1980) and the Winsteps software program (2013) were used to obtain linear measures in logit units for each student. The Rasch model was used to obtain the measures for persons responding to the survey and calibrations for the items because the model provides a more objective measure for each participant and each item resulting in more accurate analysis of the data. The measures for individuals are independent of the set of items that are used in the measurement process.
Similarly, the item calibrations are independent of the set of individuals who respond to the items. Once measures were obtained for ‘importance’ and ‘satisfaction’ in the five areas of online student services, Pearson correlations were obtained using Microsoft Excel to explore the relationship between measures. The next section describes the descriptive and fit statistics, and the inter- and intra- correlations of the variables.

Rasch Analysis

Descriptive statistics are reported (i.e., mean, standard deviation, reliability and root-mean-square error, for importance and satisfaction) and fit statistics for the five areas (i.e., Institutional Perceptions, Academic Services, Enrollment Services, Student Services and Online Community) being analyzed in this study.

The scale ranges from negative infinity to positive infinity and the mean difficulty of the items is set to have a value of zero logits. The endorsement of individuals, in logit units, is located on the linear scale with positive measure indicating levels of endorsements greater than the average difficulty of the items. A logit is:

A unit of measurement to report relative differences between candidate ability estimates and item difficulty. Logits are an equal interval level of measurement, which means that the distance between each point on the scale is equal...It puts candidate ability and item difficulty on the same
Descriptive Statistics of Student Measures

Table 4.2 is presented below for the importance and satisfaction variables analyzed in this study. In general, the mean measures for the variables were about 1 to 2 logits above the mean calibration of the items suggesting that the participant responses were on the average much more positive than the average difficulty of the items. The mean measures for the area Online Community were .60 and .80, respectively, suggesting that participants had a more difficult time endorsing the items in this scale than in the other four areas analyzed.

The largest standard deviation of 2.43 (See Table 4.2 for standard deviations) was observed for Satisfaction of Institutional Perception indicating the widest distribution of student measures across this scale. This indicates that participant responses were very diverse for this variable. One possible reason for the distribution of student responses could be the difficulty of the items. The smallest standard deviation of .92 was observed for the Satisfaction of Academic Services measure indicating the narrowest distribution of student measures across the scale. Possible conclusions could indicate that there was less variation or more consistency in student responses.

Overall, participant responses ranged from -4.68 logits (min) to 5.20 logits (max). The largest range was observed for the Satisfaction of Institutional Perceptions scale (min= -4.68, max=5.18) indicating that participant responses
were very diverse across this scale. The smallest range was observed for the Importance of Academic Services scale (min= -0.36, max=3.25) indicating that participant responses were more uniform across the scale.

Reliability coefficients were calculated to determine the internal consistency of the responses for each scale. Reliability coefficients were generally low with the exception of the reliability coefficients for the variables for importance and satisfaction for the Online Community Scale. Reliability coefficients were acceptable values of .69 (Importance of Online Community) and .72 (Satisfaction of Online Community). One possible reason for the higher reliability coefficients for the Online Community scale could be that the items within the scale were more divergent in their level of difficulty. The reliability coefficients showed that the importance and satisfaction for Institutional Perceptions, Academic Services, Enrollment Services and Student Services were less than the minimum acceptable value of .70. This means that the measures for these variables were not internally consistent among the different respondents of the survey.

The root-mean-square error (RMSE) values ranged from .58 to 1.68 for the 10 variables analyzed (See Table 4.2). The RMSE values were compared to the standard deviations to determine if the values were close to each other. There are large measurement errors in the data if the values are close to each other. The RMSE (1.68) and the standard deviation (1.72) for the Importance of Institutional Perception scale were close to each other indicating that it was not
likely to get an accurate measure of student responses. One possible reason for this could have been the small number of items in this scale (two items) or, another reason could have been because the items were not well differentiated. A high RMSE means that there is not much predictability in the data for this variable. Also, for the Importance of Enrollment Services variable with the RMSE (.99) and the standard deviation (.84), these values indicated large measurement errors in the data. The RMSE and standard deviation values for the rest of the data for the other variables analyzed were not close to each other indicating less measurement errors and more predictability in the data. These lower RMSE values for the other variables analyzed indicated that the expected values were not far from the observed values. Therefore, the variability of the data were captured in the predicted values.
Table 4.2

Descriptive Statistics of Student Measures (in logits)

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>MEAN MEASURE</th>
<th>S.D.</th>
<th>MIN.</th>
<th>MAX.</th>
<th>RELIABILITY CO</th>
<th>RMSE</th>
<th>INFIT MNSQ</th>
<th>ZSTD</th>
<th>OUTFIT MNSQ</th>
<th>ZSTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional Perceptions / Importance (2 items)</td>
<td>1.96</td>
<td>1.72</td>
<td>-2.74</td>
<td>3.73</td>
<td>.05</td>
<td>1.68</td>
<td>.89</td>
<td>-.2</td>
<td>.93</td>
<td>-.1</td>
</tr>
<tr>
<td>Institutional Perceptions / Satisfaction (2 items)</td>
<td>2.07</td>
<td>2.43</td>
<td>-4.68</td>
<td>5.18</td>
<td>.63</td>
<td>1.48</td>
<td>.92</td>
<td>-.5</td>
<td>.94</td>
<td>-.4</td>
</tr>
<tr>
<td>Academic Services / Importance (7 items)</td>
<td>1.27</td>
<td>.95</td>
<td>-.91</td>
<td>3.01</td>
<td>.27</td>
<td>.84</td>
<td>.91</td>
<td>-.2</td>
<td>.95</td>
<td>-.2</td>
</tr>
<tr>
<td>Academic Services / Satisfaction (7 items)</td>
<td>1.02</td>
<td>.92</td>
<td>-1.25</td>
<td>3.40</td>
<td>.60</td>
<td>.58</td>
<td>1.04</td>
<td>.0</td>
<td>1.01</td>
<td>.0</td>
</tr>
<tr>
<td>Enrollment Services / Importance (4 items)</td>
<td>1.20</td>
<td>.99</td>
<td>-.91</td>
<td>3.01</td>
<td>.27</td>
<td>.84</td>
<td>.91</td>
<td>-.2</td>
<td>.95</td>
<td>-.2</td>
</tr>
<tr>
<td>Enrollment Services / Satisfaction (4 items)</td>
<td>1.44</td>
<td>1.17</td>
<td>-1.30</td>
<td>3.42</td>
<td>.49</td>
<td>.84</td>
<td>.92</td>
<td>-.1</td>
<td>.95</td>
<td>-.1</td>
</tr>
<tr>
<td>Student Services / Importance (5 items)</td>
<td>1.29</td>
<td>1.12</td>
<td>-1.33</td>
<td>3.46</td>
<td>.59</td>
<td>.71</td>
<td>.94</td>
<td>-.1</td>
<td>.94</td>
<td>-.1</td>
</tr>
<tr>
<td>Student Services / Satisfaction (5 items)</td>
<td>.97</td>
<td>1.06</td>
<td>-1.79</td>
<td>3.46</td>
<td>.57</td>
<td>.69</td>
<td>.96</td>
<td>.0</td>
<td>.96</td>
<td>.0</td>
</tr>
<tr>
<td>Online Community / Importance (3 item)</td>
<td>.60</td>
<td>1.56</td>
<td>-3.09</td>
<td>3.97</td>
<td>.69</td>
<td>.87</td>
<td>.89</td>
<td>-.2</td>
<td>.88</td>
<td>-.2</td>
</tr>
<tr>
<td>Online Community / Satisfaction (3 items)</td>
<td>.80</td>
<td>2.14</td>
<td>-3.40</td>
<td>5.29</td>
<td>.72</td>
<td>1.12</td>
<td>.69</td>
<td>-.6</td>
<td>.72</td>
<td>-.6</td>
</tr>
</tbody>
</table>
Fit Statistics, Misfit and Interpretation

Fit statistics are observed in Rasch measurement “to help us detect the discrepancies between the Rasch model prescriptions and the data we have collected in practice” (Bond & Fox, 2001, p. 173). In other words, fit statistics help the researcher determine which survey items fit the model.

An infit or outfit mean square score of more than 1, for example 1.20, suggests that there is 20 percent “more variation in the observed data than the Rasch model predicted” (Bond & Fox, 2001, p. 177). An outfit mean square score of less than 1, for example .82, suggests that there is 18 percent less variation in the observed data than what was expected, according to the Rasch model.

In general, the student responses fit the Rasch model with the infit and outfit mean square values meeting the established criterion of between the values of 0.7 and 1.3. There is enough variability in the data but not too much or too little (Values greater than 1.3 would indicate unpredictability and values less than 0.7 would indicate too much predictability). There was one exception. The Satisfaction of Online Community scale had a mean square value of .69, just below the criterion of 0.7. This indicated that there is less variability in the observed data than what the model predicted. The measure for the Satisfaction of Online Community scale was a misfit. Overall, the data show that the student responses fit the Rasch model well suggesting unidimensionality of the scales.
**Pearson Correlations**

Table 4.3 presents the inter-correlations for importance and satisfaction for the five areas analyzed. The data indicated that there was a positive relationship between importance and satisfaction for each of the areas analyzed in the study. Participants in the study who indicated that an area was important to them were also likely to be satisfied with this area. The strongest correlation ($r = .55$) was observed between importance and satisfaction for Enrollment Services, indicating that participants in this study rated Enrollment Services as most important to them and the area they were most satisfied with out of the five areas analyzed.

**Table 4.3**  

*Pearson’s Correlation Coefficient ($r$), Correlations Between Importance and Satisfaction (Inter-correlations)*

<table>
<thead>
<tr>
<th>Scales (Areas)</th>
<th>$(r)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional Perceptions</td>
<td>.37</td>
</tr>
<tr>
<td>Academic Services</td>
<td>.45</td>
</tr>
<tr>
<td>Enrollment Services</td>
<td>.55</td>
</tr>
<tr>
<td>Student Services</td>
<td>.45</td>
</tr>
<tr>
<td>Online Community</td>
<td>.39</td>
</tr>
</tbody>
</table>

Table 4.4 presents the intra-correlations for importance for the five areas analyzed. The intra-correlations measure the relationships between scales for
how students rated the items for importance or for satisfaction. The data indicated that there was a strong positive relationship, in most cases, in how students rated the scales for importance. That is, if participants in the study indicated that an area of online services was important to them, they were also likely to indicate that another area of service was important to them. The strongest correlation observed was between Academic Services and Student Services ($r = .79$). The lowest correlation was observed between Institutional Perceptions and Online Community ($r = .28$), nevertheless, this still suggests a positive relationship.

Table 4.4

*Pearson’s Correlation Coefficient (r), Intra-Correlations for Importance Scales*

<table>
<thead>
<tr>
<th></th>
<th>IP</th>
<th>AS</th>
<th>ES</th>
<th>SS</th>
<th>OC</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP</td>
<td>-</td>
<td>.52</td>
<td>.54</td>
<td>.49</td>
<td>.28</td>
</tr>
<tr>
<td>AS</td>
<td>-</td>
<td>.68</td>
<td>.79</td>
<td>.58</td>
<td></td>
</tr>
<tr>
<td>ES</td>
<td>-</td>
<td>-</td>
<td>.69</td>
<td>.50</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>.67</td>
<td></td>
</tr>
<tr>
<td>OC</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note:
IP: Institutional Perceptions (2 items)
AS: Academic Services (7 items)
ES: Enrollment Services (4 items)
SS: Student Services (5 items)
OC: Online Community (3 items)

Table 4.5 presents the intra-correlations for satisfaction for the five areas
analyzed. The data indicated that there were moderately large correlations within the satisfaction scales. Therefore, the participants in the study that indicated that they were satisfied with an area of online student services were also likely to indicate that they were satisfied with another area. The strongest correlation was observed between Academic Services and Student Services ($r = .79$). The lowest correlation was observed between Enrollment Services and Online Community ($r = .47$).

Table 4.5

*Pearson's Correlation Coefficient ($r$), Intra-Correlations for Satisfaction Scales*

<table>
<thead>
<tr>
<th></th>
<th>IP</th>
<th>AS</th>
<th>ES</th>
<th>SS</th>
<th>OC</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP</td>
<td>-</td>
<td>.66</td>
<td>.55</td>
<td>.62</td>
<td>.48</td>
</tr>
<tr>
<td>AS</td>
<td>-</td>
<td></td>
<td>.61</td>
<td>.79</td>
<td>.70</td>
</tr>
<tr>
<td>ES</td>
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<td>.65</td>
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</tr>
<tr>
<td>SS</td>
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<td></td>
<td>.64</td>
<td></td>
</tr>
<tr>
<td>OC</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note:
IP: Institutional Perceptions (2 items)
AS: Academic Services (7 items)
ES: Enrollment Services (4 items)
SS: Student Services (5 items)
OC: Online Community (3 items)

Summary

Participants were administered the Noel Levitz’ *Priorities Survey for Online Learners* in order to measure student importance and satisfaction levels.
regarding online student support services. The five scales analyzed in this study were: Institutional Perceptions, Academic Services, Enrollment Services, Student Services and Online Community. Overall, there were positive relationships between importance and satisfaction for each of the five scales (r = .37 to .55). The strongest correlation between importance and satisfaction was observed for Enrollment Services (r = .55).

The relationships among the importance scales were moderately to highly correlated (r = .28 to .79). The strongest correlation observed was between Academic Services and Student Services (r = .79). The smallest correlation was observed between Institutional Perceptions and Online Community (r = .28).

The relationships among the satisfaction scales were moderately to highly correlated as well (r = .47 to .79). The strongest correlation was observed between Academic Services and Student Services (r = .79). The smallest correlation was observed between Enrollment Services and Online Community (r = .47).

In this chapter the survey data revealed positive relationships between importance and satisfaction. Overall, the participants surveyed were satisfied with the areas of online services that were important to them. However, the participant interviews suggested that there is room for improvement regarding the delivery of online student support services. Both the survey and the interview data provided a great deal of evidence to support the idea that a strong student services plan for fully online degree programs should include a wide range of
online support services that are identified as important services from students’ perspectives.
CHAPTER FIVE
DISCUSSION

Introduction

This mixed-methods study was designed to explore online degree students’ perceptions of online student support services. This study served to fill the gap in the research that explores students’ perceptions of online student support services. In addition, this study is unique in that it specifically examined the perceptions of fully online degree students in higher education. The researcher collected data through semi-structured interviews and through an online survey. Grounded Theory was used as a framework to analyze the interview data and the Rasch measurement model was used to obtain linear logit measures that were then used to examine students’ sense of importance and satisfaction with five types of online services.

This study sought to answer the following three research questions:

Research Question 1: How and in what ways do fully online degree students perceive specific online student support services to be important?

Research Question 2: How and in what ways do fully online degree students perceive the quality of specific online student support services?

Research Question 3: How do students’ perceptions of importance correlate with perceptions of satisfaction regarding online student support
services?

This chapter presents an interpretation of the themes and findings, discusses implications and recommendations, presents suggestions for future research and, lastly, provides a general conclusion of the study's findings.

Interpretation of Themes and Findings

The themes that emerged from the participant interviews as well as the correlations between satisfaction and importance provided insight and rich meaning into students’ perceptions of importance, satisfaction, and quality of online student support services offered at their institutions.

Theme One: Improvements to Online Services

This theme addressed Research Question 2: “How and in what ways do fully online degree students perceive the quality of specific online student support services?”

Even though participants chose online degree programs over traditional campus based programs, it was evident that they wanted more of the services that were available to on-campus students, and they wanted these services delivered in an interactive online format. Participants reported that they would like online access to such things as internship programs, a writing center, tutoring programs, a career center and a health center. Participants also reported that they would like to have more interactions (emails, phone calls) and more live chat interactions via an instant messaging and video chat platform with online support services
staff. The implementation of a live chat option was specifically mentioned as a way to improve online student support services.

As online degree programs become more common, online students will expect that their tuition include the types of services that are typically offered to on-campus students. Therefore, universities should focus on making the online student experience similar to the on-campus student experience with regard to accessing the same support services. For example, online students will expect to have online tutoring services where someone reviews and critiques their papers before they hand in their work; access to a professional tutor or teaching assistant who has content knowledge in specific subject areas; and access to an online career center that meets their needs (access to job posting in their own region). Overall, a successful online program will include online support services perceived by their students as important and online services staff will continually make improvements to their online services plan. Addressing the needs of online students by offering new services or improving existing services is key to attracting and retaining students. In addition, providing a live chat option so that online students can immediately communicate with support services staff is another critical component of an online student services plan. This type of student-centered approach to online services was emphasized by a higher education administrator, “A successful online program will provide support services perceived by students as important. What is important to the student is important to me. I try to think from a student’s perspective,” (Vice President of
Theme Two: Positive and Negative Experiences

This theme addressed Research Question 2: “How and in what ways do fully online degree students perceive the quality of specific online student support services?”

Students reported that timely response was the main factor that determined whether or not their experiences with online student support services were positive or negative. When describing recent memorable experiences with online student support services at their school, students were very satisfied with the quality of the services when they received a timely response. On the other hand, students reported negative experiences with online student support services when they did not get a response or when they felt the response took too long.

Furthermore, it was evident from the participant interviews that a well-developed online services system uses a customer relationship management (CRM) system to assist staff in providing services to and communicating with online degree students. CRM systems allow staff to better manage their customers. Staff use CRM systems to automate and synchronize tasks such as registering for students, ordering books for their classes, monitoring student progress, following up with students throughout the semester, etc. Students expressed that they appreciated this kind of follow up and attention from staff.

This theme can serve to inform student services administrators and staff
trainers regarding how online student support staff should be trained in terms of response time. Online degree students have high expectations in terms of how they should be served in the online environment which is why it is important that institutions serving online degree students have defined parameters and protocols in place regarding what is an acceptable response time across services.

**Theme Three: Specific Needs of Online Degree Students**

This theme addressed Research Question 1: “How and in what ways do fully online degree students perceive specific online student support services to be important?” When asked which online student support services were most important to them, participants reported different answers and gave different reasons for their choices. Online library services followed by registration (tied for 2nd place), advising, (tied for 2nd place) and technical support services (third place) were reported as the most important online services by interview participants. However, all of the services discussed, except online bookstore which was not chosen by any student, were important to students for different reasons and at different stages of their online programs. Students’ reasons for valuing services are very diverse as they are coming from very different backgrounds and they have varying levels of work experience, education, technical skills and other skill sets.

This supports the idea that an online student support services plan should be all-inclusive to meet the needs of a diverse student population. An all-
inclusive services plan would be comprised of the common online services, such as, advising, registration, financial aid, library services and technical services, as well as additional online services including professional tutoring services, a writing center, career center, health center and an internship program. Furthermore, in an effort to increase the overall service experience for online students, it may be beneficial to customize a student services plan for each student or focus on areas where that student would like more attention. For example, if a student expresses more interest in interactions with an advisor during the semester, this could be entered into the CRM to reflect the student’s preferences. If a student would like more job listings emailed to them, this could also be entered into the CRM to reflect the student’s preferences. This would enhance the online student support services experience for each student giving them more customized attention. This would require more training for staff and specifically for training in the area of CRM systems.

**Theme Four: Personal and Professional Impact**

This theme addressed Research Question 1: “How and in what ways do fully online degree students perceive specific online student support services to be important?” Although the findings did not directly answer the research question, they do provide salient information for administrators and online student services staff. Participants expressed how being online students taught them skills that impacted their personal and professional lives. These skills included time management, discipline, structure (organization) of daily tasks,
self-reliance, and a sense of ownership. Participants also reported increased levels of self-confidence, credibility, drive, initiative, and the development of individual ‘voice’.

The interviews indicated that online learning experiences were developing an individual that is more confident and self-reliant in both the personal and professional sphere. Students’ personal and professional growth or progression of skills will mean that their needs will change in terms of what kind of services they need and want. Furthermore, as students develop more confidence and voice, they will be more expressive in terms of their wants and needs regarding online student support services; therefore, they will expect that their concerns will be addressed and their needs met.

This theme can serve to inform online student support services administrators in that it provides a profile of some of the characteristics of the online degree student. Knowing their customer, the online degree student, will enable administrators to focus on services that are important to these students. Student support services can use this information to develop specific online services that best serve the needs of students with these characteristics. A confident, organized and self-disciplined online degree student will need and use online services in different ways than a typical on-campus college freshman. Knowing the characteristics of online degree students will help online services staff be more successful in providing services that are important to online students and providing services that satisfy their needs.
There were other student suggestions about online student support services and the online learning environment that did not fall under the four main themes or concepts but are worth bringing into the discussion because these suggestions can inform the research in online student support services. Participants expressed that the following would improve their experience as an online degree student: access to more open educational resources (OERs), Blackboard system improvements, extended online service hours, access to job postings for specific regions or states not just job postings for the local area, more training for professors in online instruction and a more reliable online infrastructure. Participants expressed that improvements in the above areas would enhance their experiences as an online degree students.

**Correlations: Importance and Satisfaction Scales**

For all five areas analyzed in this study, the data indicated positive relationships between importance and satisfaction. These findings addressed Research Question 3:

How do students’ perceptions of importance correlate with perceptions of satisfaction regarding online student support services? The data indicated that the strongest correlation was observed between importance and satisfaction for the area of Enrollment Services ($r = .55$). Enrollment Services was made up of four items: Item 9, “Adequate financial aid is available”; Item 14, “I receive timely information on the availability of financial aid”; Item 18, “Registration for online courses is convenient”; and, Item 23, “Billing and payment procedures are
convenient for me."

The significance of this highest scoring correlation between importance and satisfaction (Enrollment Services) is that administrators need to keep online systems current and, connectivity and bandwidth issues must be monitored. For example, there must be enough bandwidth available for the system especially during peak enrollment periods. In addition, the system’s connectivity must be stable so that students do not lose connectivity. This is an especially critical issue for fully online degree students that depend on using the online platform 24 hours a day, seven days a week for all of their needs including registering for classes, communicating with advisors, logging into their classes, participating in discussion groups, etc. Both the interview data and online survey data suggest that the area of Enrollment Services is important to fully online degree students.

The data indicated that there were strong intra-correlations for the importance scales and for the satisfaction scales within the five areas analyzed. The strongest correlation for importance was observed between Academic Services and Student Services ($r = .79$). Similarly, the strongest correlation for satisfaction within the scales was observed between Academic Services and Student Services ($r = .79$). Academic Services was comprised of seven items. Some of these items included: Item 2, My program advisor is accessible by telephone and email; Item 16, Appropriate technical assistance is available; and, Item 21, Adequate online library resources are provided. The area called Student Services was comprised of five items. Some of these items included:
Item 10, This institution responds quickly when I request information; Item 15, Channels are available for providing timely response to student complaints; and Item 22, I am aware of whom to contact for questions about programs and services.

Strong positive intra-correlations between these two areas for importance and satisfaction suggest that institutions should pay particular attention to these specific areas when developing online student support services plans. What does this mean for leadership? There should be a strong relationship between the leadership of these two areas. The leadership of Academic Services and Student Services should be working closely together and building a solid infrastructure for online students. Online students identified that these are important areas to them; therefore, schools should direct resources and staff to develop and/or improve these target areas of online services.

Although all of the inter- and intra-correlations observed were positive, there was a relatively low correlation \( (r = .28) \) for Importance observed between Institutional Perceptions and Online Community. What is the significance of this relationship and how could administrators use this information? First of all, it is often the case that institutions do not provide enough online forums for students to interact with classmates, peers or other members of the university community (Vice President of Information Technology Services at a California university, personal communication, February 27, 2014). Therefore, it is important for institutions to intentionally build online communities where students can share
their experiences and where faculty can share best practices in teaching and learning in the online environment, as well. By building a stronger and more active online community, students will not only have a clearer perception of the institution and what it stands for, they will also have a forum where they can build relationships with other students, faculty and staff and, therefore, feel more connected and supported as online students. Additionally, online instructors will have an opportunity to connect with their students, other faculty and staff in an open forum and, hopefully, feel more connected to the university community as well.

Analysis of High Importance and Low Satisfaction

In addition to the research questions that were addressed above, the ‘Analysis of High Importance and Low Satisfaction’ as presented in Table 5.1, adds support to this study by validating the results of the Pearson correlations.
Table 5.1

*Analysis of High Importance and Low Satisfaction (Percentage)*

<table>
<thead>
<tr>
<th>Scales</th>
<th>Important</th>
<th>Very Important</th>
<th>Not Satisfied at All</th>
<th>Not Very Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional Perceptions</td>
<td>24.4</td>
<td>62.2</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Academic Services</td>
<td>20.1</td>
<td>57.5</td>
<td>1.5</td>
<td>1.1</td>
</tr>
<tr>
<td>Enrollment Services</td>
<td>19.4</td>
<td>56.9</td>
<td>1.3</td>
<td>0.7</td>
</tr>
<tr>
<td>Student Services</td>
<td>18.6</td>
<td>49.0</td>
<td>1.9</td>
<td>1.5</td>
</tr>
<tr>
<td>Online Community</td>
<td>11.5</td>
<td>30.6</td>
<td>2.1</td>
<td>3.3</td>
</tr>
</tbody>
</table>

Note: Sum of percentages does not add up to 100 as not all 7 Likert categories were included in the analysis.

An analysis of high importance and low satisfaction could be used to diagnose online service areas at an institution that are in need of immediate attention. In this study, the data indicated that, overall, there were very small percentages of participants that reported low satisfaction levels with services that were important to them. Therefore, at the time of this study, the institutions did not have any service areas that were not satisfying to the majority of the participants. This validates the Pearson correlation results where the correlations indicated positive relationships between importance and satisfaction for each of the scales analyzed.
In order to move toward a conceptual framework for a successful online student support services initiative, it is important for institutions to embrace a framework such as, The Importance, Quality and Satisfaction (IQS) Framework. This was developed as a result of integrating both methods utilized in this study. This framework is formed by four domains (services, individuals, systems and environment). These four domains are described below.
Services

Besides the core online student support services described in the literature review (advising, registration, financial aid, technical support, and library services), the following five additional online service areas that emerged from the data include: internship programs/services, a writing center, professional tutoring services (tutors with content expertise), career services (expanded to include territories/regions of online students), and health services. The above offerings provide for a comprehensive set of services for an online services plan that should meet the needs of diverse online degree students whose learning styles, expectations and needs may be undefined (Mupinga, Nora & Yaw, 2006).

Individuals

This domain is concerned with the individual needs of online degree students. It is important to focus on student satisfaction with online student services because students expect high quality interactions in the online environment (Lorenzetti, 2006). According to participant interviews, key criteria for satisfaction with online student support services are: timely response and live interaction with online services staff. Online services staff should establish parameters for timely response across services, and they should offer live chat options in order to increase live chat interactions between students and online services staff.
Systems

Under this domain, there are certain technical criteria for effective delivery of quality services. Pearson correlation results signified that there must be enough bandwidth available for the system especially during peak enrollment periods and that the online platform that students use must be stable and reliable so that they do not lose connectivity. In addition, the correlations data indicated there should be a strong relationship between the areas of Academic Services and Student Services (perhaps the sharing of staff, resources, and infrastructure). Finally, access to online services for online students should be available around-the-clock (Vignare, 2009). However, if this is not possible, expanded service hours (after work and on weekends) should be implemented to accommodate online students.

Environment

This domain focuses on building an online community for online learners through the utilization of social media so that students have more online forums to interact and engage with peers, classmates, faculty, as well as other members of the campus community. With more forums to interact, online students have the opportunity to form study groups, support groups, professional and social networking groups. By developing the online community and online forums, this strengthens all three dimensions of the Importance, Quality and Satisfaction Framework.
Importance, Quality and Satisfaction Framework Outcome

An online services initiative which embraces an IQS Framework moves much closer to an ideal version of a virtual university by making the online experience similar to the on-campus student experience with regards to online degree students being able to access the same services available to traditional campus-based students. Furthermore, by implementing an IQS Framework, an institution is better able to meet the service needs of a diverse online student population and increase student satisfaction levels by providing increased quality and delivery of services, systems and environment.

Implications and Recommendations

There are important implications for stakeholders in higher education as a result of the findings of this research. This next section provides the implications of the findings and recommendations for a campus’ leadership, online student support services departments, retention departments, technology departments, and market research teams.

Campus Leadership

It is critical that university presidents, deans, directors and other top administrators provide strong institutional support for online learning (Moloney & Oakley, 2010). Campus leadership should adopt and implement formal policies and procedures regarding online education programs (Casanovas, 2010), including online student support service plans. By providing strong institutional
support, online education will become a respected, established and credible alternative to traditional face-to-face education. Furthermore, campus leadership must be committed to supporting the needs of their off-campus students. Leadership must create a culture of openness towards online learning communicating that there is no difference in quality between an online degree and a traditional degree and then supporting this by:

- providing students with high quality online support services;
- providing instructors with the training and tools they need to deliver high caliber courses; and,
- providing staff with the training they need to support both students and faculty in the online environment.

**Online Student Support Services Departments**

It will be important to establish specialty teams dedicated to the different areas of online student support, and it will be important that these teams be available for online students round-the-clock (Vignare, 2009). Online students often work full-time and have busy family lives, therefore, they do assignments and coursework at off-hours, late at night, early in the morning, on weekends, etc. Online student support needs to be available at all times to accommodate various work schedules. In addition, the training of specialty units or teams in each of the service areas, for example, online career services, online library services, online registration, etc. will increase the quality of service overall. This will create a robust infrastructure of services for online students. From a cost-
benefit perspective, it may be beneficial to outsource online services to an online education management company (consulting firm) if an institution does not have the start-up costs required to implement fully online degree programs (Stuart, 2011).

Retention Departments

In an effort to customize and improve the educational experience for every online student, the establishment of a Student Success and Engagement Department, similar to Drexel University’s model, can be an important step towards increasing retention in online enrollments. Staff in the Student Success and Engagement Department would specifically be assigned as coaches to new online students and would work one-on-one with a student for at least the first year. The role of the coach is to act as an advisor and mentor by providing academic guidance as well as social support. This relationship building between coach and student will increase student engagement and interaction with online students, a proactive approach to working with online students to make sure students are satisfied with their courses and that they have the tools they need to be successful. Coaches could employ more live chat options when interacting with students in order to make the interaction more personable.

Technology Departments

Technology departments need to invest in CRMs. CRMs allow staff to track student grades, track time students spend within the online classroom, etc. (Vignare, 2009). Online CRM systems are necessary tools for managing and
serving clients in the online environment. Staff interacting with online students will need to have special CRM training as well.

**Market Research**

It may be strategic to perform market research or hire an online learning management company to explore the market potential and new ideas in online initiatives (Stuart, 2011). It may also be interesting to research new fully online degrees for underserved student populations. There may be new student populations that can benefit from online degree programs and the institution could fulfill this market need. Institutions should survey the local region to determine which industries are hiring. For example, some regions may need more teachers, nurses and/or engineers. Then institutions can develop online degree programs that serve the market. However, in locations where hiring needs fluctuate or are unstable, it may be more beneficial for students to study online degrees with a broader content focus so that graduates’ knowledge and skills are marketable for a range of jobs in different industry sectors. For example, if there is a hiring freeze in nursing, students could alternatively study a broader discipline such as Health Sciences.

**Suggestions for Future Research**

This section provides suggestions for future research followed by a general conclusion of the study’s findings.
Building an Online Community for Online Learners

While students indicated that the area of Online Community was important to them, it was evident from the analysis of the data that there was room for improving student satisfaction in this area. Future research should focus on how institutions should build interactive and engaging forums for online students and faculty as a way to increase online support for fully online degree students. Fully online degree students may not have the social and/or emotional support from family members or coworkers, therefore, it is important for schools to provide an online community as much as possible so that online students can tap into this support network when they need to. The utilization of social media, highly interactive platforms based on mobile and web-based technologies (ie., Facebook, LinkedIn, Google Hangouts) is one way fully online degree students and other members of the university community can interact with each other, share information, build relationships as well as support groups, and increase professional networking opportunities.

Online Curriculum and Instruction

Even though the interviews focused on online student support services, participants often reported on issues related to curriculum and instruction indicating that this area was one that students wanted to discuss. Delivering valuable, high quality online courses is one of the most important elements in an online initiative for all stakeholders - students, instructors, institutions, campus leadership, alumni, the local community, and the general population, to name a
few. In order for online degrees to earn the same academic status as traditional degrees at higher education institutions, there needs to be an acceptable standard for online teaching and learning. Therefore, expanding the research in curriculum and instruction, particularly in the area of best practices in online teaching and learning, will help to inform practice and work towards increasing standards for online instructors. Ultimately, this impacts the overall success and survival of an online initiative.

**Exploring Significant Individual Remarks**

The significant individual remarks section in Chapter Four revealed some interesting and innovative ideas/comments from fully online degree students that could be further researched and developed. For example, when asked which online student support services are important to them and why, Participant 17 mentioned that all of the services are important but “it depends where you are in the program” (Participant 17, personal communication, July 6, 2013). This idea that all services play a role but it depends upon where a student is in his/her program, could be further explored. Additionally, another participant remarked that online students could benefit from cutting edge lectures from professors around the world delivered in an online format. This is an interesting suggestion and could be explored further through student focus groups and/or survey research.

**Access Issues in Online Education**

While this study did not investigate the degree of access to the
technological requirements for online degree students, it will be an important topic for future research in the field of online education. Hi-speed internet connections and wireless connectivity are prevalent in a growing number of homes in the United States; however, this may not be the case is all communities. It will be important for future researchers to address issues of inequality regarding access to hi-speed/wireless internet services and other technologies that are required in order to enroll in online degree programs at higher education institutions.

Conclusion

The participants interviewed most commonly mentioned library services, registration, advising, and technical support services as the most important online services. None of the participants interviewed mentioned online bookstore services as most important to them. However, online students are very diverse and have diverse needs. Therefore, an online student support services plan should include a wide range of services to ensure that the needs of all online degree students are being served.

Further, this study suggests that improvements can be made to online student support services by providing online degree students access to more online services that were not currently available to them such as, internship programs, a writing center, professional tutors with content expertise, a career center, and a health center. Online students would also like to have more
interaction and, specifically, more live interaction with online support services staff. A live chat option would be one way to make improvements to the current system to increase interactions between students and staff.

Finally, it is clear that timely response is the main factor that determines a student’s satisfaction level with online student support services. A timely response from an online student service representative generated high levels of student satisfaction and lack of response or lack of timely response generated low levels of student satisfaction regarding online support services.

This study emphasized the importance of the needs of the online learner and how institutions might identify areas that matter most to their online students and target areas that need improvement. The findings of this study can inform research in the area of online education and the development of online student support services plans. It is hoped that this research will encourage institutions to provide more assistance for online learners by building an online network comprised of staff with special training in serving online students in order to ensure online degree students have the services and tools they need to be successful.
APPENDIX A
DEFINITIONS OF DISTANCE EDUCATION

### Definitions of Distance Education

<table>
<thead>
<tr>
<th>ORIGINATOR</th>
<th>DEFINITION</th>
<th>CONCLUSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1967 - Peters</td>
<td>Distance education includes the following attributes to highlight economic characteristics: 1) division of labor as in course teams where several kinds of expertise are called for, 2) mass production and distribution of education materials and information, 3) sensitivity of the enterprise to economies of scale.</td>
<td>Planning and organization are viewed from an industrial model</td>
</tr>
<tr>
<td>1986 - Moore</td>
<td>Distance education is planned learning that normally occurs in a different place from teaching. As a result, it requires special techniques of course design, special instructional techniques, special methods.</td>
<td>Emphasis on organization and administration</td>
</tr>
<tr>
<td>Year</td>
<td>Author</td>
<td>Definition</td>
</tr>
<tr>
<td>--------</td>
<td>--------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1989</td>
<td>Holmberg</td>
<td>and administrative arrangements. Distance education covers the various forms of study at all levels which are not under continuous, immediate supervision of tutors present with their students in lecture rooms or on the same premise, who benefit from the planning and guidance and tuition of a tutorial organization.</td>
</tr>
<tr>
<td>1990</td>
<td>Keegan</td>
<td>Distance education is when the teacher and learner are separated in time or space but must communicate with each other via a two-way medium. In addition, the practice must involve an educational institution.</td>
</tr>
<tr>
<td>1990</td>
<td>Harasim</td>
<td>Distance education is active participation in learning and knowledge as socially constructed by participants in a shared virtual environment provided.</td>
</tr>
<tr>
<td>Year</td>
<td>Source</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>---------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1993 - United States Distance Learning Association</td>
<td>extending one’s intellectual power through mediated communication beyond the use of technologies as “cognitive delivery systems.” Distance education is the acquisition of knowledge and skills through mediated information and instruction, encompassing all technologies and other forms of learning at a distance.</td>
<td>Emphasis is on acquiring skill development</td>
</tr>
<tr>
<td>1993 - Salomon</td>
<td>Distance education is when people appear to think in conjunction or partnership with others and with the help of a culturally provided tool and implement. Distance education used the term “situated cognition” a theory that promises as a next step, a model for dealing with knowledge and learning</td>
<td>Emphasis in on mediation by whatever means available</td>
</tr>
<tr>
<td>1997 - Kirshner and Whitson</td>
<td>by networked media.</td>
<td>Emphasis is on organization and administration</td>
</tr>
</tbody>
</table>
as fundamentally social and cultural, rather than as artifacts of individual journeys through an impersonal and objective world.
APPENDIX B

PARTICIPANT DEMOGRAPHICS
<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Institution B (n=166)</th>
<th>Institution A (n=40)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>123</td>
<td>75.9</td>
</tr>
<tr>
<td>Male</td>
<td>39</td>
<td>24.1</td>
</tr>
<tr>
<td>Total</td>
<td>162</td>
<td>100.0</td>
</tr>
<tr>
<td>No Response</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td><strong>Age</strong></td>
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<td></td>
</tr>
<tr>
<td>18 and under</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>19 to 24</td>
<td>3</td>
<td>1.8</td>
</tr>
<tr>
<td>25 to 34</td>
<td>42</td>
<td>25.8</td>
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<td>35 to 44</td>
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<td>30.1</td>
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<td>45 to 54</td>
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<td>32.5</td>
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<td>55 to 64</td>
<td>15</td>
<td>9.2</td>
</tr>
<tr>
<td>65 and over</td>
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<td>0.6</td>
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<tr>
<td>Total</td>
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<td>No Response</td>
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<td>1</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
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<td></td>
</tr>
<tr>
<td>African American</td>
<td>25</td>
<td>15.3</td>
</tr>
<tr>
<td>American Indian or Alaskan Native</td>
<td>1</td>
<td>0.6</td>
</tr>
<tr>
<td>Asian or Pacific Islander</td>
<td>1</td>
<td>0.6</td>
</tr>
<tr>
<td>Caucasian/White</td>
<td>113</td>
<td>69.3</td>
</tr>
<tr>
<td>Hispanic</td>
<td>9</td>
<td>5.5</td>
</tr>
<tr>
<td>Other Race</td>
<td>6</td>
<td>3.7</td>
</tr>
<tr>
<td>Prefer not to respond</td>
<td>8</td>
<td>4.9</td>
</tr>
<tr>
<td>Total</td>
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<td>100.0</td>
</tr>
<tr>
<td>No Response</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
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</tr>
<tr>
<td>Single</td>
<td>42</td>
<td>25.8</td>
</tr>
<tr>
<td>Single with children</td>
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<td>11.0</td>
</tr>
<tr>
<td>Married</td>
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<td>22.7</td>
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<tr>
<td>Married with children</td>
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<td>38.0</td>
</tr>
<tr>
<td>Prefer not to respond</td>
<td>4</td>
<td>2.5</td>
</tr>
<tr>
<td>Total</td>
<td>163</td>
<td>100.0</td>
</tr>
<tr>
<td>No Response</td>
<td>3</td>
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</table>

*Note: N = 206*
Table 2

*Online Degree Majors*

<table>
<thead>
<tr>
<th>Majors</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>School B</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate-Healthcare Administration</td>
<td>7</td>
<td>4.3</td>
</tr>
<tr>
<td>Undergraduate-Psychology</td>
<td>1</td>
<td>0.6</td>
</tr>
<tr>
<td>Undergraduate-Liberal Studies</td>
<td>3</td>
<td>1.8</td>
</tr>
<tr>
<td>Undergraduate-Criminal Justice</td>
<td>1</td>
<td>0.6</td>
</tr>
<tr>
<td>Undergraduate-Business Administration</td>
<td>11</td>
<td>6.8</td>
</tr>
<tr>
<td>Graduate-Professional Writing</td>
<td>6</td>
<td>3.7</td>
</tr>
<tr>
<td>Graduate-Education</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Graduate-Management</td>
<td>31</td>
<td>19.0</td>
</tr>
<tr>
<td>Graduate-Accounting</td>
<td>41</td>
<td>25.2</td>
</tr>
<tr>
<td>Graduate-Public Policy</td>
<td>15</td>
<td>9.2</td>
</tr>
<tr>
<td>Graduate-M.B.A.</td>
<td>27</td>
<td>16.6</td>
</tr>
<tr>
<td>Graduate-Ed.D.</td>
<td>20</td>
<td>12.3</td>
</tr>
<tr>
<td>Total</td>
<td>163</td>
<td>100.0</td>
</tr>
<tr>
<td>No Response</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>School A</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate-Health Services Management</td>
<td>1</td>
<td>2.6</td>
</tr>
<tr>
<td>Undergraduate-Human Resource Management</td>
<td>1</td>
<td>2.6</td>
</tr>
<tr>
<td>Undergraduate-Law Enforcement Leadership</td>
<td>1</td>
<td>2.6</td>
</tr>
<tr>
<td>Undergraduate-Organizational Leadership</td>
<td>2</td>
<td>5.1</td>
</tr>
<tr>
<td>Graduate-Disaster Medicine and Management</td>
<td>16</td>
<td>41.0</td>
</tr>
<tr>
<td>Graduate-Midwifery</td>
<td>13</td>
<td>33.3</td>
</tr>
<tr>
<td>Graduate-Sustainable Design</td>
<td>5</td>
<td>12.8</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>100.0</td>
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*Note:* N = 206
Table 16
Composite Student Employment Characteristics

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<thead>
<tr>
<th>Characteristic</th>
<th>Full-time Employment</th>
<th>Part-time Employment</th>
<th>Not Employed</th>
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<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percent</td>
<td>Frequency</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>44</td>
<td>21.8</td>
<td>3</td>
</tr>
<tr>
<td>Female</td>
<td>122</td>
<td>60.4</td>
<td>17</td>
</tr>
<tr>
<td>Unknown</td>
<td>2</td>
<td>1.0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>168</td>
<td>83.2</td>
<td>20</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 and under</td>
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<td>0</td>
</tr>
<tr>
<td>19 to 24</td>
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<td>1.5</td>
<td>2</td>
</tr>
<tr>
<td>25 to 34</td>
<td>49</td>
<td>24.3</td>
<td>6</td>
</tr>
<tr>
<td>35 to 44</td>
<td>49</td>
<td>24.3</td>
<td>3</td>
</tr>
<tr>
<td>45 to 54</td>
<td>51</td>
<td>25.2</td>
<td>7</td>
</tr>
<tr>
<td>55 to 64</td>
<td>13</td>
<td>6.4</td>
<td>2</td>
</tr>
<tr>
<td>65 and over</td>
<td>1</td>
<td>0.5</td>
<td>0</td>
</tr>
<tr>
<td>Unknown</td>
<td>2</td>
<td>1.0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>168</td>
<td>83.2</td>
<td>20</td>
</tr>
<tr>
<td><strong>Current Class Load</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time</td>
<td>105</td>
<td>52.0</td>
<td>13</td>
</tr>
<tr>
<td>Part-time</td>
<td>61</td>
<td>30.2</td>
<td>7</td>
</tr>
<tr>
<td>Unknown</td>
<td>2</td>
<td>1.0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>168</td>
<td>83.2</td>
<td>20</td>
</tr>
<tr>
<td><strong>Educational Goal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associate’s degree</td>
<td>4</td>
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</tr>
<tr>
<td>Bachelor’s degree</td>
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<td>3</td>
</tr>
<tr>
<td>Master’s degree</td>
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<td>59.4</td>
<td>16</td>
</tr>
<tr>
<td>Doctoral degree</td>
<td>29</td>
<td>14.4</td>
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</tr>
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<td>Certificate</td>
<td>1</td>
<td>0.5</td>
<td>0</td>
</tr>
<tr>
<td>Self-improvement</td>
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<td>0.0</td>
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</tr>
<tr>
<td>Job-related training</td>
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<td>Other goal</td>
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<td>Unknown</td>
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<td>0.5</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>168</td>
<td>83.2</td>
<td>20</td>
</tr>
</tbody>
</table>

*Note: N = 206, four participants did not indicate employment status*
Table 17

*Enrollment Characteristics*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Institution B</th>
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<th>Institution A</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percent</td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td><strong>Current Class Load</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time</td>
<td>106</td>
<td>65.4</td>
<td>20</td>
<td>50.0</td>
</tr>
<tr>
<td>Part-time</td>
<td>56</td>
<td>34.6</td>
<td>20</td>
<td>50.0</td>
</tr>
<tr>
<td>Total</td>
<td>162</td>
<td>100.0</td>
<td>40</td>
<td>100.0</td>
</tr>
<tr>
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<td>4</td>
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</tr>
<tr>
<td><strong>Current Online Enrollment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-3 credits</td>
<td>26</td>
<td>16.2</td>
<td>11</td>
<td>28.2</td>
</tr>
<tr>
<td>4-6 credits</td>
<td>99</td>
<td>61.5</td>
<td>15</td>
<td>38.5</td>
</tr>
<tr>
<td>7-9 credits</td>
<td>8</td>
<td>5.0</td>
<td>6</td>
<td>15.4</td>
</tr>
<tr>
<td>10-12 credits</td>
<td>3</td>
<td>1.9</td>
<td>6</td>
<td>15.4</td>
</tr>
<tr>
<td>13-15 credits</td>
<td>4</td>
<td>2.5</td>
<td>1</td>
<td>2.6</td>
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<tr>
<td>More than 15 credits</td>
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<td>0.0</td>
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<tr>
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<td>161</td>
<td>100.1</td>
<td>39</td>
<td>100.1</td>
</tr>
<tr>
<td>No Response</td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Previous Online Enrollment</strong></td>
<td></td>
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<td></td>
<td></td>
</tr>
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<td>No classes</td>
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<td>1-3 classes</td>
<td>56</td>
<td>34.4</td>
<td>22</td>
<td>56.4</td>
</tr>
<tr>
<td>4-6 classes</td>
<td>22</td>
<td>13.5</td>
<td>4</td>
<td>10.3</td>
</tr>
<tr>
<td>7-9 classes</td>
<td>21</td>
<td>12.9</td>
<td>2</td>
<td>5.1</td>
</tr>
<tr>
<td>10-12 classes</td>
<td>3</td>
<td>1.8</td>
<td>2</td>
<td>5.1</td>
</tr>
<tr>
<td>13-15 classes</td>
<td>6</td>
<td>3.7</td>
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<td>0.0</td>
</tr>
<tr>
<td>More than 15 classes</td>
<td>11</td>
<td>6.8</td>
<td>2</td>
<td>5.1</td>
</tr>
<tr>
<td>Total</td>
<td>163</td>
<td>100.1</td>
<td>39</td>
<td>100.0</td>
</tr>
<tr>
<td>No Response</td>
<td>3</td>
<td>1</td>
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</tbody>
</table>

*Note: N = 206*
APPENDIX C

INSTITUTIONAL REVIEW BOARD APPROVAL LETTER
January 11, 2015

Ms. Tamara Dean
CWO, Prof. Debbie Stine
Department of Leadership and Curriculum
California State University, San Bernardino
5500 University Parkway
San Bernardino, California 92407

Dear Ms. Dean,

Your application to use human subjects, titled “Examining Online Student Support Services from Students’ Perspectives,” has been reviewed and approved by the Institutional Review Board (IRB). The attached informed consent document has been stamped and signed by the IRB chairperson. All subsequent copies used must be this officially approved version. A change in your informed consent (no matter how minor) requires resubmission of your protocol as amended. Your application is approved for one year from January 31, 2013 through January 30, 2014. One month prior to the approval end date you need to file for a renewal if you have not completed your research. See additional requirements (Items 1–4) of your approval below.

Your responsibilities as the researcher/investigator reporting to the IRB Committee include the following 4 requirements as mandated by the Code of Federal Regulations 45 CFR 46 listed below. Please note that the protocol change form and renewal form are located on the IRB website under the Forms menu. Failure to notify the IRB of the above may result in disciplinary action. You are required to keep copies of the informed consent forms and data for at least three years.

1. Submit a protocol change form if any changes (no matter how minor) are made in your research protocol/protocol for review and approval of the IRB before implemented in your research.
2. If any unanticipated/adverse events are experienced by subjects during your research, then:

   a. Two years prior to the protocols end date,

   b. When your project is ended by emailing the IRB Coordinator/Compliance Analyst.

   The CSUSB IRB has not evaluated your proposal for scientific merit, except to watch the risk to the human participants and the aspects of the proposal, related to potential risk and benefit. This approval notice does not replace any departmental or additional approvals which may be required.

3. If you have any questions regarding the IRB decision, please contact Michael Gilstrap, IRB Compliance Coordinator. Mr. Gilstrap can be reached by phone at (909) 537-7588, by fax at (909) 537-7028, or by email at mgilstrap@csusb.edu. Please include your application number in all correspondence.

4. Best of luck with your research.

Sincerely,

Sharon Ware, Ph.D.
Chair
Institutional Review Board

cc: Prof. Debbie Stine, Department of Leadership and Curriculum

909.537.7588 • Fax: 909.537.7028 • http://hr.csusb.edu/
5500 University Parkway, San Bernardino, CA 92407-2393
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