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Walden University

College of Education

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Danielle Elizabeth Valle

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Walden University 2016

Abstract

A Quantitative Evaluation of Service Priorities and Satisfaction of Online University Students

by

Danielle Elizabeth Valle

MA, Concordia University St. Paul, 2007 BS, Howard Payne University, 2003

Doctoral Study Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Education

Walden University

February 2016

Abstract

As online education grows, institutions must develop and evaluate student services to meet the needs of adult online students. The university at which the study was conducted had growing online enrollment, but no systematic examination of services from the students' perspective to drive service development and improvement. This represented a gap in self-evaluation, and the research confirmed gaps in student service offerings at the university compared to field standards. The purpose of this project study was to drive improvement of online student services based on analysis of student-driven data. The research questions asked how important academic and support services were to the university's online students and how satisfied the students were with the services. This quantitative study used the Priorities Survey for Online Students based on the expectation disconfirmation theory to collect data. The survey was sent to all of the university's 477 online undergraduate and graduate students. Descriptive statistics were used to compare the university's student responses to national data, report areas of service challenge, and assess variation in satisfaction according to previous online education experience. Key findings included lower than national mean satisfaction with career and tutoring services, challenge areas related to Blackboard preparedness, clarity of program requirements and communication channels, and lower levels of satisfaction with the most experienced online students. A presentation and white paper project were created for the university leadership with recommendations for using study results to improve and develop online student services. Social change is expected through improved and expanded online student services as a result of the project study.

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Dedication

I would like to dedicate this study to my family. Their patience, encouragement, and support has been critical to its realization. I love each of you so much. You are my why.

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I would like to take this opportunity to thank my faculty committee who have come to know this study well. I greatly appreciate your time, attention, and insight through this process. My URR Dr. Ann Jablonski provided the eye for consistency that helped keep the study focused and clear. Dr. Margie Hobbs was a wonderful source of encouragement and insight, particularly at defense opportunities! I am deeply grateful to be paired with Dr. Jennifer Seymour as my faculty chair. Your guidance, attentiveness, and partnership went above and beyond. Please accept my heartfelt thanks for the significant contribution that each of you made to this study and my success!

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Section 1: The Problem

Introduction

As the world of adult online education changes, institutions of higher education face challenges to adapt to meet the new demands of their online students. The small, Christian liberal arts university in the Midwest, which served as this study site, has felt these changes and challenges, as the expansion of online programs has become a top priority at the institution. While much attention in practice and research has been devoted to ensuring high academic standards in online education, online students require modification of support services as well. These services must keep pace with those provided on campus to boost online student persistence and retention.

In this quantitative study, I reviewed the academic literature regarding support services for online students. Because of the literature review findings, I surveyed the university's online students in order to determine what services are most important to them and how satisfied the students are with those services. I used the findings that resulted from data analyses to develop student service recommendations as part of a study project that will aid online students on the local level. The study project included a report of findings for the university leadership, including an oral/visual presentation and white paper with recommendations for service development.

Definition of the Problem

With this study, I addressed the problem of having no evaluation of adult online academic and support services at the university. The university had not collected and analyzed any data; therefore, the academic and support services were continuing to be

offered without the benefit of the student perspective to drive service delivery and development. This lack of data collection and analysis was potentially resulting in gaps in service. Quantitative survey data identified support services that are most important to the online students and the level of satisfaction students had with available services.

Online adult students are in a different stage of life than residential undergraduate students and have different support needs as a result. These online adult students need a voice to improve their academic and student services. This study gave students that voice.

Online education continues to grow rapidly as an option for degree-seeking adult students (Christensen, Horn, Caldera, & Soares, 2011; Joohi, 2014). As more institutions develop programs to appeal to online students, teaching methods and student services must be adapted for the virtual classroom. When brick and mortar libraries, tutoring centers, and academic advising offices are not accessible in person, institutions should develop electronic resources and other communication methods to meet student needs and offer support for the online student's success.

The university is a small, liberal arts Christian university in the Midwest. In addition to offering traditional programs for more than 50 years, the university has been offering services for adult associate, bachelor's, and master's degree students for more than 18 years (daily operations and curriculum specialist, personal communication, April 23, 2014). While the institution developed some of the adult program offerings on campus, the university currently offers nine online undergraduate and graduate degrees. Student academic services, such as library access, academic advising, and minimal

academic support, are available for online students. While great attention has been given to academic rigor and accreditation for online programs, less attention has been given to the assessment of support and academic services for online students. At the time of this study, the university conducted voluntary course evaluations but did not assess what support services were most important to online learners nor online students' levels of satisfaction with current services. Because the data were not collected, analyzed, and shared on a regular basis, student-driven service development was not part of regular practice at the university (dean of daily operations for adult and graduate studies, personal communication, February 21, 2014).

In addition to the lack of data related to online student services at the university, there were questions about the scope, efficacy, and accessibility of current services. For example, the university did not have a writing center for students to submit work for review and correction. Online students not living near campus did not have the benefit of working with library staff on campus for research support. A student who transferred to the university expressed anxiety about not having access to academic support because she was accustomed to accessing the writing center at her previous institution (student, personal communication, March 3, 2014). The dean of daily operations for adult and graduate studies programs expressed that some services that were available for residential students such as tutoring and library access have not been adequately adapted for adult online students. Other supports like career services were largely underdeveloped across the university (dean of daily operations for adult and graduate studies, personal communication, February 21, 2014). The dean of online learning also expressed the

desire to modify and expand services for online students but cited a lack of information and direction as one of the factors that stalled progress to date (dean of online learning, personal communication, August 13, 2014).

Because the university had not collected information from online students related to support and academic services, anecdotal reports and observation were the only means of evaluating the university's current student services (dean of daily operations for adult and graduate studies, personal communication, February 21, 2014). Further study into what services students hold to be most important and their level of satisfaction with available services addressed a gap in local university research. The study also contributed to the broader online education field as many established small universities increase their online learning offerings. Armed with firm evidence, leadership at the university will be in a better position to make data-driven changes to services for online students. The online students at the university have the opportunity for improved educational experiences with adaptation, improvement, and expansion of the student support and academic services that they deem most important. Similar institutions can look to these findings to evaluate which student services are most worthy of investment for online degree seekers. The study also serves as an example to institutions for collecting data from students and using the findings for support service development.

Rationale

Evidence of the Problem at the Local Level

At the university that is the focus of this study, there was a local problem affecting online students: Limited and unmodified academic services from the brick and

mortar institution are insufficient for online learners (dean of online learning, personal communication, January 15, 2015). Course evaluations, student anecdotal reports, academic services staff displeasure with the status quo, and deans' concerns about additional enrollment all pointed toward a significant need for change in online academic services. For example, the dean of online learning indicated that some students have reported difficulty with performing at required writing levels and keeping up with some content in the accelerated course format (dean of online learning, personal communication, May 15, 2014). This suggested the need to evaluate which support services are important to these students and to gage their level of satisfaction with existing services for the improvement and development of targeted academic support for writing, tutoring, and other services.

Currently, the university offers adults on campus financial aid, student accounts, library services, testing for credit, limited tutoring, and academic advising services. The only online service for off-campus adults is the online library. Modifications of academic services for online learners do not exist. For example, a more robust modern portal could include accessible financial and academic detail for all students but would be especially beneficial for online students who do not have the benefit of accessing these services on campus.

Additional possibilities for academic services for online students include career services, personal/social online community connection, personal finance services, and an online writing center that includes tutoring services. The dean of library services indicated that writing services with citation and research support is the area that he would

most like to develop. According to him, development of such writing services has been delayed by having other projects take precedent and leadership's perspective that faculty are able to support student writing development. The dean of library services thought that it would be necessary to establish that the services would be used regularly before he would be able to gain approval for establishment of the services (dean of library services, personal communication, December 5, 2014).

Evidence of the Problem from the Professional Literature

The dean of library services indicated a desire for an expressed student need before committing resources to online infrastructure (personal communication, February 19, 2014). Small colleges and universities across the nation face the need for online services as they try to compete in the new marketplace of higher education (Rumble, 2012). It is certainly a problem that the university lacks student services modified for the online environment, but the problem is also the need to prove the value of developing online student services to policy makers. In this study, I sought to provide the data to help answer questions such as what support services are most important to the online students at the university and how satisfied the students are with those services. The connection between support services and student persistence and retention is an important idea, particularly in relation to service development and implementation. Ultimately, administrators want evidence that they will see a return on investment in support services for online students. If current or future research documents any connection between the service, student persistence, and retention, the investment can be justified. In this respect, the review of the literature revealed the need for additional, detailed research in the field.

In this study, I will tackle one part of this research agenda: determine what current online adult students at the university perceive about services.

Unfortunately, the literature did not provide specifics regarding precisely why some students persist and other students drop online courses (Hart, 2012). This is understandable given the complicated nature of the adult student's world. Exact variables contributing to student success or failure are difficult to isolate. In general, however, support services, along with other factors, have been shown to contribute to retention (Lukosius, Pennington, & Olorunniwo, 2013). The literature has established this connection, though some students may not identify the connection between services and their success or their decision to leave a program unless services seem to be lacking (Nichols, 2010; Varner, 2013). The literature revealed several examples of services that seem to support student persistence and retention. These include online orientation prior to starting classes, attentive faculty, tutoring, and writing support (Joohi, 2014; Kelso, 2011; Ojokheta, 2011; Wolfe & Griffin, 2012).

While some connections between student services and student successes exist, the literature is limited. It seems that more focus in research is given to establishing academic standards related to online education instead of the adaptation and development of student services in online education. In this study, I addressed the local problem related to a lack of evaluation but also contributed to the larger body of research specific to online student services.

Definitions

Academic services: For the purposes of this study, academic services are defined as support provided to a student to increase the likelihood of academic success and/or participation persistence. Such services include, but are not limited to, writing and library services, tutoring, academic advising, and faculty/student support.

Academic Services scale: This scale is a collection of items on the Priorities

Survey for Online Learners related to services needed for student success in coursework.

These include technical services, library services, and academic advising (Noel Levitz,
Inc., 2013).

Adult and graduate studies: This department at the university serves adult students seeking associate, bachelor, and master's degrees online and on campus. All of the university's online students are adult undergraduate and graduate students served by this department.

Disconfirmation theory: This theory in its most basic explanation states that if a person's expectations of a product or service quality match the experience with that product or service, the subject will report satisfaction with the product or service. If the expectations are higher than the actual experience with the product or service, the subject will report being dissatisfied or less satisfied with the product or service. If, however, the experience with the quality of the product or service is higher than the anticipated quality, the person is likely to report being more satisfied (Krenbiel & McCylure, 1997). By analyzing the difference between the expected and perceived quality, negative disconfirmation, confirmation, or positive disconfirmation is established indicating

consumer dissatisfaction, satisfaction, or extreme satisfaction respectively (Khalifa & Liu, 2003).

Enrollment Services scale: This scale is a collection of items on the Priorities Survey for Online Learners related to services needed for prospects to become students. These services include financial aid, registration, and student account services (Noel Levitz, Inc., 2013).

Student services: For the purposes of this study, student services are defined as a larger category of all services provided to a student from inquiry to graduation. These include academic services, but also encompass enrollment support, registrar services, financial aid and student account services, career services, mental health support, and any other support offered to students.

Student Services scale: This scale is a collection of items on the Priorities Survey for Online Learners related to communicating with students and handling complaints as well as services beyond the degree program (Noel Levitz, Inc., 2013).

21st century services: For the purposes of this study, the term 21st century services refer to student services identified in the review of the literature as standard higher education services but that are not currently available at the university. Specifically, 21st century services refer to writing centers, tutoring, and the use of social media (Noel Levitz, Inc., 2013).

Significance

The university recently joined a company that specializes in online higher education in a partnership intended to increase online student enrollment and degree

offerings dramatically. This company has a strong history of growing institutional online enrollment by thousands, and in some cases, tens of thousands of students (vice president for academic affairs, personal communication, May 9, 2014). The university managed all curriculum, faculty, and course content, while the university and the company delivered recruitment and some student support services collaboratively. While the partnership did not persist beyond the first year of implementation, the university goal of dramatically increased online enrollment has not changed.

The university did not have any hard data from online students regarding their knowledge of academic and support services available to them. Because previous evaluations have been limited to information regarding faculty and course content, students' preferences, access practices, and satisfaction with student support and academic services was largely unexamined. There are scattered anecdotal student reports about difficulty with online library services, for example, but these have not been systematically documented nor used to direct change in services (dean of library services, personal communication, February 19, 2014). In the 18-year history of adult services at the university, only one student has self-identified as having a diagnosed learning disability that required academic accommodations (vice president for student development, personal communication, June 10, 2014). Given that hundreds, if not thousands, of students have been in the university's online program, it is possible that some students were in need of specialized support but were not aware of how to access resources. In light of the potential for online growth, it was important to learn more

about the status of the university in terms of effectively offering services that are important to online students and that meet their needs satisfactorily.

My intention with this inquiry was to push current university evaluation measures beyond academics and assess the priorities and level of satisfaction with student support services for online students. Through this process, I was able to identify student services that are important to the university's online students and support previous observations about potential gaps in current service offerings. I asked students to report their level of satisfaction with current offerings. The assessment of the students' satisfaction with services revealed areas of strength and areas for potential improvement or service development. I consolidated data from the online students' perspective into a project to increase university leaders' understanding of the efficacy of services in meeting student needs. I will present this project to the university leaders to equip them with the information needed to make decisions regarding the delivery and development of student support and academic services. After reviewing the findings and recommendations of this study, I expect the development of new solutions to meet the expectations of the university's online learners. The ultimate goal is a process of regularly evaluating the effectiveness of student services to improve institutional quality (Dursun, Oskaybas, & Gokmen, 2014).

Guiding/Research Questions

This research project addressed three central questions. First, how satisfied are online students at the university with current services and support compared to national data? Second, what services and support are important to online students at the

university but are areas of challenge with regard to satisfaction? Finally, how does the level of satisfaction with student services vary for students according to previous online education experience?

These central questions emerged from conversation with administrative deans in leadership over Adult and Graduate Studies at the university and from research into the growing world of adult online education. These questions guided the process of data collection and analysis. The first three research null hypotheses and alternate hypotheses emerged from the first research question. These three hypotheses indicated the need for statistical analysis of the overall levels satisfaction with enrollment services, academic services, and student services scales at the university compared to levels of satisfaction from national data. The second research question required analysis of the possible gap between the students' reported level of importance and level of satisfaction with service items in the enrollment, academic, student, and 21st century scales. High levels of importance and relatively low levels of satisfaction would reveal a service area challenge. The final research question required filtering the raw data according to reported previous online education experience. The number of online courses students reported taking prior to completing the study survey measured their previous online education experience. In this analysis, I assessed potential service satisfaction variation reported by students with different numbers of online courses previously taken. If the research showed significant variation, service improvement and development could be targeted for students according to their previous online education experience.

Hypotheses for Satisfaction Comparison

1. $H1_0$: There is no statistically significant mean difference at the p < .05 level between the university satisfaction scores and the national satisfaction scores for the Enrollment Services scale.

 $H1_a$: There is a statistically significant mean difference at the p < .05 level between the university satisfaction scores and the national satisfaction scores for the Enrollment Services scale.

2. $H2_0$: There is no statistically significant mean difference at the p < .05 level between the university satisfaction scores and the national satisfaction scores for the Academic Services scale.

 $H2_a$: There is a statistically significant mean difference at the p < .05 level between the university satisfaction scores and the national satisfaction scores for the Academic Services scale.

3. $H3_0$: There is no statistically significant mean difference at the p < .05 level between the university satisfaction scores and the national satisfaction scores for the Student Services scale.

 $H3_a$: There is a statistically significant mean difference at the p < .05 level between the university satisfaction scores and the national satisfaction scores for the Student Services scale.

Service Area Challenges

Items identified as challenge areas represent an important opportunity for service improvement or development. A challenge area indicates a high level of reported

importance with a corresponding relatively low level of reported satisfaction. I identified service challenge items in two ways statistically. I identified an item as a challenge area if the score was in the top half of importance but in the lower quartile of satisfaction. The mean importance score minus the mean satisfaction score rendered the gap score for each scale and custom institutional items. I also identified an item as a challenge area if it was in the upper quartile of performance gap. I reported the mean importance and satisfaction scores, standard deviation, and gap score for each item. I reported service challenges descriptively.

Hypotheses for Satisfaction According to Previous Online Education Experience

4. $H4_0$: There is no statistically significant mean difference at the p < .05 level between satisfaction scores for students with varying previous online education experience for the Enrollment Services scale.

 $H4_a$: There is a statistically significant mean difference at the p < .05 level between satisfaction scores for students with varying previous online education experience for the Enrollment Services scale.

5. $H5_0$: There is no statistically significant mean difference at the p < .05 level between satisfaction scores for students with varying previous online education experience for the Academic Services scale.

 $H5_a$: There is a statistically significant mean difference at the p < .05 level between satisfaction scores for students with varying previous online education experience for the Academic Services scale.

6. $H6_0$: There is no statistically significant mean difference at the p < .05 level between satisfaction scores for students with varying previous online education experience for the Student Services scale.

 $H6_a$: There is a statistically significant mean difference at the p < .05 level between satisfaction scores for students with varying previous online education experience for the Student Services scale.

7. $H7_0$: There is no statistically significant mean difference at the p < .05 level between satisfaction scores for students with varying previous online education experience for the 21^{st} century services scale.

 $H7_a$: There is a statistically significant mean difference at the p < .05 level between satisfaction scores for students with varying previous online education experience for the 21^{st} century services scale.

This study's analyses determined if satisfaction varied between students depending on the number of online classes the student had taken before. Significant variation may indicate the need for differentiated support services. An example might be the development of orientation services for students with minimal previous experience with online classes. I incorporated findings and recommendations into the study project and will present them to university leadership.

Summary

The university had no evaluation process in place for assessing the online students' priorities and satisfaction related to support services. In addition to the lack of evaluation, according to the dean of online learning, there was also a lack of direction for

support service development (dean of online learning, personal communication, August 13, 2014). The need for assessment and guidance in this area is critical to ensure that students have a positive experience and persist. Not only was the lack of service evaluation a gap in practice at the university, a deficit in the academic research was found. Most research related to online learning focused on academic standards in the classroom, rather than the adaptation of support services for students in online programs.

In order to address the local problem, as well as contribute to the larger body of academic literature, I created a study specifically focused on online student support services. The findings from the research questions provided the university with valuable information regarding how satisfied students are with current services and what services are most important. The findings reported in the subsequent project will help the university leadership identify areas of service strength and areas of potential development informed by the priorities of the students. The findings also contributed to the body of academic literature on online student services. They findings may be particularly useful for other small, liberal arts institutions that are expanding their online programs.

Review of the Literature

Introduction

The review of the academic literature revealed significant topics that influenced the course of this study. The dearth of literature regarding online student services points to a gap in research. The abundance of research about the positive impact of online writing centers indicated a gap in practice for this university's service menu. I organized this literature review by headings that guided the searching process. The search terms

used in the Education Research Complete, ERIC, and SAGE Premier databases included the following: *student satisfaction, online academic services, student services, online student support, student retention*, and *online writing labs*.

The first section relays the important theoretical background upon which this research and survey are based: disconfirmation theory. The next five sections fall under the following headings: (a) online education growth, (b) challenges for services and retention, (c) the human connection, (d) limits in the literature, and (e) inadequate support services. I organized the sections in this way to describe trends in the field of online education and service provision as well as to describe the deficits in the literature and practice at the university.

Many of the references fell under headings of online education growth and challenges for services and retention. This is indicative of the rapidly changing landscape of online education in relation to traditional higher education delivery. The section on inadequate support services contains significant research on the importance of online writing center support and using social media to reach students. These literature resources point to a gap in practice at the university where no formal writing support is offered outside the classroom and the institution does not currently engage online students through social media platforms. Several articles were identified that cited limits of the literature pertaining to student services. The search indicated a general lack of research on student services, particularly for online students. In contrast, the literature on other adult online learning, such as academic rigor, was prolific. In particular, there was significant research on the comparison of online course delivery and face-to-face

delivery. This research study contributed to filling that gap in the literature, as well as the gap in practice at the university.

Theoretical Foundation

The theoretical framework for this inquiry was the disconfirmation theory established in marketing and consumer satisfaction literature as a primary model for assessment (Churchill & Surprenant, 1982; Khalifa & Liu, 2003; Oliver & DeSarbo, 1988). The expectation disconfirmation theory posits that consumer satisfaction is ascertained by evaluating the difference between expectations and perceptions of service quality (Khalifa & Liu, 2003). In this doctoral study, I examined the level of importance (expectation) that the university's students placed on a variety of support and academic services and students' reported level of satisfaction (perceptions) with those services. By analyzing the difference between the expected and perceived quality, negative disconfirmation, confirmation, or positive disconfirmation is established indicating consumer dissatisfaction, satisfaction, or extreme satisfaction respectively (Krenbiel & McCylure, 1997). In studying the online students' experience from a customer satisfaction perspective, I identified areas of strength and opportunities for service improvement.

Online Education Growth

Online education has grown rapidly in recent years. From 2003 to 2009, the percentage of students in the United States who had taken an online class grew from 10% to 30% with more than 6 million students enrolled in online courses by 2010 (Allen, Seaman, & Sloan, 2011; Christensen et al., 2011). Though online learning is growing as

an option for more students and institutions, the literature revealed little regarding the specifics of why some students persist in coursework and others drop (Hart, 2012). Retention of online students is a concern for the university, as it is for institutions concerned about degree completion rates and financial implications of student persistence. Services designed to increase persistence and retention must be evaluated and considered as part of overall management of the financial health of the institution as retention of students also means the retention of revenue (Rumble, 2012). Support services designed to relieve student stress and improve performance in the online classroom may help.

Adequate student academic services are among many factors that influence online student retention (Lukosius et al., 2013). The literature indicated that student support services are related to student success but that students may not necessarily cite a lack of services as contributing to their decision to leave a program (Nichols, 2010; Varner, 2013). Students do not tend to attribute academic services to be a significant factor in their success, but are more likely to note when services are lacking. "In other words...it seems that students are sensitive to a lack of support services but not to the presence of support services – even where those support services make a demonstrable difference to student outcomes" (Nichols, 2010 p. 106). Institutions must be willing to put forth the effort and spend the capital needed to implement comprehensive service centers that use technology to meet the specific needs of online students (Hardy & Meyer-Griffith, 2012).

Challenges for Services and Retention

One challenge that institutions must face when offering online programs is how to offer student services typically available to traditional students in an appropriately adapted format for online students (McMurtry, 2012). Specific services beyond registration and financial aid, such as online orientation, advising, tutoring, technical support, and remote access library and research services, may have to be implemented intentionally to offer comparable service for online students and students on campus (Britto & Rush, 2013; Stevenson, 2013; Stewart, Goodson, Miertschin, Norwood, & Ezell, 2013). Having services available for online students is a first step but is not sufficient if students are not aware of those services. Even among graduate students, it is "important to avoid assuming graduate students either know about, or understand, university and program resources, procedures, or protocols" (Casstevens, Waites, & Outlaw, 2012 p. 267). University faculty often are able to identify what services a student may need based on the student's difficulties, and for that reason, should be trained in available resources and ways to make appropriate referrals (Crawley & Fetzner, 2013; Russo-Gleicher, 2013).

There is one university service that may set online students on a path for persistence before they begin regular coursework. A required orientation to online learning and the learning management system may afford some students the familiarity needed to have confidence and competence to persist in regular online coursework (Kelso, 2011). The university has an introduction course that includes information on academic writing and formatting, university history, library services, and research

strategies. While this course takes place in the online learning environment, there is not specific content or time devoted to exploring the learning management system and discussing online learning itself. A small online orientation module has been used as a supplement to the introduction course, but it is not mandatory. Currently, this orientation has not been available at all for several months as it is in the process of being rewritten (dean of daily operations for adult and graduate studies, personal communication, January 15, 2015). Kelso (2011) suggested the use of a preassessment to determine varying levels of orientation assistance to provide students a more individualized tutorial course, and this could potentially improve significantly the likelihood of persistence.

The Human Connection

Faculty and staff, particularly those in student affairs or student services roles, provide more than academic support for online students. They also help to provide a relational connection to the institution (Taylor & Holley, 2009). These social relationships may be especially helpful in supporting students through challenges to the completion of their degree and, therefore, merit consideration in program planning and further research (Stevenson, 2013). Personal connection is a highly valued part of the culture at the university. The human interaction with available, attentive faculty has been shown to contribute to student satisfaction (Joohi, 2014). While there is anecdotal evidence that the university faculty are strong in developing relationships with students, there has not yet been a formal collection of data on this topic from the student perspective. This study addressed this lack of data by asking students to rate the importance of faculty connection and students' satisfaction with faculty engagement.

While these individual relationships were important between the student and the institution, efforts to incorporate online students into the social aspect of the campus were not as valued by the students in one study (Taylor & Holley, 2009). These online students used academic support services to manage their course load and plan their program of study but generally did not take advantage of community involvement efforts provided by the institution. The participants expressed that their motivations for seeking a degree were primarily professional. Because they were balancing multiple roles personally, professionally, and academically, they took an almost utilitarian approach to being a student. The social aspect was not a priority as it often is for students on campus. As one participant stated, "I've got too much else to worry about" (Taylor & Holley, 2009, p. 96). This example of a failed attempt at connecting online students with social aspects of campus life emphasizes the need to let the online student determine service priorities rather than the institution pushing services assumed to be important to the student. This understanding drove the study development and the examination of service importance from the university online students' perspective instead of institutional intuition. This information is critical in directing the university student-focused support improvement and development.

Limits in the Literature

Taylor and Holley (2009) identified weakness in the academic literature available regarding support services in online education. While there is a wealth of research focused on academic rigor, equivalency to traditional on campus courses, and student learning in online programs, the role of student support and academic services in the

online student experience has not been well examined. Martinez-Arguelles, Castan, and Juan (2009) echoed this need for additional research on online education quality. There is literature on perceived service quality in higher education, though it barely exists for online higher education. The study of institution quality must be holistic, including both academic and support service evaluation (Martinez-Arguelles et al., 2009). Though this study focused on online adult students at the university, it was also important to consider that further development of online support services may also better serve the millennial students who make up the current residential student population and future adult student population. These students prefer convenience and flexibility of access through current technology (Pullan, 2009). While the adult students at the university were the subject of this study, the findings and subsequent anticipated service development may have benefit to the total university population.

While most of the research data in the literature were collected from active online students, Fetzner (2013) chose to examine the perspective of students who did not successfully complete their online course. Her findings indicated the unsuccessful students most often cited falling behind in the course as their primary reason for being unable to finish with a passing grade. Though collecting data from these students poses some challenges, it is an important area for further study.

Inadequate Support Services

Writing center. One service area in particular stood out as lagging behind what the literature suggests is standard for universities. The university does not currently have a writing center for online or residential students. When reviewing recent literature from

the last 5 years, I could not find articles with the primary purpose of arguing writing center value or justification. In fact, in 1984, Olson wrote that writing centers were "indispensable to many college and university writing programs" and that "writing center operation is about to enter adulthood" (p. 6). This seems to ring true in that recent research is no longer focused on answering the question of whether or not there should be a writing center, but rather how that service can be strengthened, refined, and expanded to fully serve today's students.

The Conference on College Composition and Communication Committee on Best Practice in Online Writing Instruction (OWI) asserted that the committee passes over engaging about whether or not colleges and universities should be using OWI. Instead, the group accepts that colleges and universities are already employing OWI and focuses their attention on how to establish best practices (as cited in Hewett et al., 2011). This standard in the field is in stark contrast to practice at the university given that the institution does not even offer this service on campus for residential students. Given this finding from the academic literature, the connection between tutoring and student retention and current staff's interest in service development, I gave this area additional attention in the data collection tool to gain additional insight from the university students.

Recent research has revealed that the conversation on writing centers has deepened. Rather than scratching the surface by thinking that only some groups of students will need writing support, attention is now being given to the need for all students to have access to support for the development of research writing skills (Brent, 2013). In addition to the convenience of working online versus face-to-face on campus

for writing support, the documentation of the exchange is another advantage of the approach. Because there is a written record of the writing staff's feedback, students have the advantage of being able to refer back to it whenever needed (Severino, Swenson, & Zhu, 2009). In this way, the writing center support becomes part of a larger strategy of student academic support rather than an isolated fix for a single paper. The incorporation of technology also has the potential to take writing center support from coursework correction to meaningful instruction. Students and writing staff can now converse in real time, work to identify specific problems, and use conversation and screen sharing capabilities to allow the student to maintain control of the writing (Wolfe & Griffin, 2012).

This service seems to be particularly timely for the university as several faculty members, including the director of graduate programs, have noted poor writing and plagiarism as a growing problem for adult students even at the graduate level (dean of the school of business and graduate programs, personal communication, February 24, 2015). Ojokheta (2011) found that support services, tutoring in particular, along with faculty feedback, significantly influenced student persistence. The pattern or way that faculty delivered feedback seemed to greatly influence the students' perception of their progress and understanding of the online learning environment. Specifically, the tutors were trained to avoid presenting negative statements in their feedback. Tutor and faculty feedback training is an area where additional research may result in improved service models for students. It is important for the university to examine these academic support

services, in particular, because of the link between tutoring and faculty feedback to persistence (Ojokheta, 2011).

Social media and technology. Just as the literature demonstrates that writing centers are increasingly employing interactive technologies, there is also indication that a variety of student outreach services are engaging students through social media. One of the primary reasons for this is that students are already spontaneously using resources like Facebook to coordinate and communicate with other students because they are active and familiar on the platform (Ellison, 2010). In general, students access Facebook more frequently and are proficient in the operation of functions in ways they may not be with the institution's learning management system (Fontana, 2010). Rather than attempting to get students to engage in university systems, some academic advising teams are establishing Facebook pages to promote relationship building and available support services (Jenness, 2011).

At the university, social media is used in a very limited way and posting is restricted to the public relations team. However, as Junco (2014) pointed out, students may be creating their own groups, discussing, and sharing course related information on social media without institution oversight. While it can be a challenge to have a consistent presence and maintain institutional boundaries in social media, there are few spaces where today's student can be reached with such efficiency. It is important to note that the literature has addressed how some institutions are using social media to connect with students, but there is very little research-based guidance on best practices and outcomes with regard to student support and social media (Wankel & Wankel, 2011).

Conclusion

A lack of regular service assessment from the student perspective is part of the problem that I addressed with this study. Examining what services students value as part of this study was the first step in encouraging more organized and consistent internal evaluation. While understanding the perspectives of the university's students is crucial, it is also important that a self-study include comparison of practice and findings to national standards and context outside of local practice (Dean, 2013). Analysis of data collected for this study included comparison to similar national data. By comparing the findings from the university students to national findings, the university stakeholders have the opportunity to identify any areas, such as with writing center services, where the university may need to consider service development. The intention is that this study will be a first step in a cycle of evaluation and service development and improvement toward the goal of increased institutional quality (Dursun, Oskaybas, & Gokmen, 2014).

Implications

I used several themes and findings from the literature to inform and shape this study. This study contributes to local change in several ways. The findings of this study will be used to push the university to begin a cycle of ongoing evaluation of online student satisfaction with support services and using the data to improve and develop academic and support services. This not only addresses the deficit of self-evaluation of current services, but also addresses gaps in services. This study serves as an example of self-evaluation that could be expanded to include evaluation of on campus student satisfaction at the university as well. It is possible that these students could have different

priorities with regard to what services are most important and how satisfied these students are with student services. As the literature indicated, it is atypical for a university in this day not to have formal writing center support for students. The university does not have a writing center for on campus or online students, which is an assumed service in the field (Hewett et al., 2011). Because of this, I added items related to writing support and tutoring to the data collection survey to better assess how important these services are to the university's online students.

Adequate and appropriate student services contribute to student satisfaction with student services. Because adequate support services contribute to retention and student success, this is an area of concern for all institutions as student retention directly affects the bottom line (Lukosius, Pennington, & Olorunniwo, 2013; Nichols, 2010; Varner, 2013). The study findings are important for the stakeholders at the university but also contribute to the literature in the field. When compared to the literature on academic rigor and online course development, there is little research specific to academic and student services and even less research related specifically to support services for online students (Martinez-Arguelles, Castan, & Juan 2009; Taylor & Holley, 2009). This study contributes to the literature of the field in a needed area.

In order to pursue positive social change from this literature review and subsequent research study, I created an oral/visual presentation and white paper. The ideal opportunity for presentation would be the regularly scheduled university Adult and Graduate Studies department biannual meeting, which staff, academic deans, the provost, and the university president attend. Shared findings include those student services that

are highly important with a high rate of satisfaction, as well as services that are very important to students but have low rates of satisfaction. These services are the most important for development and improvement. In addition to recommendations for academic and support service modification, improvement, and/or development, the study serves as an example of valuable evaluation. The white paper and presentation contain a plan of on-going self-examination recommending regular collection and analysis of data from the students' perspective, as well as recommendations for service development.

Summary

A thorough review of the academic literature revealed the need for additional study to address gaps in practice at the university and gaps in research related to support services in the larger educational context. I gave the areas of online writing support and connection through social media special attention given that the literature indicates that the university is behind the standard of practice in these areas (Hewett et al., 2011; Jenness, 2011). While researchers have given much attention to academic standards for online education, fewer studies have been related to the specific service needs of online students (Taylor & Holley, 2009). This is consistent with practices at the university in which course design and evaluation are given much attention, but there is no systematic process of evaluation and improvement for support and academic services. Because there is a connection between adequate student support services and student retention and success, the university and institutions offering online degree programs must examine student support services and best practice as part of comprehensive self-evaluation (Lukosius, Pennington, & Olorunniwo, 2013; Nichols, 2010; Varner, 2013). In this

study, I addressed the gaps in the university student services and in the literature on online student services.

Section 2: The Methodology

Introduction

The purpose of this is quantitative survey study was to investigate online students' reported level of importance of enrollment, academic, and student support services and level of satisfaction with these services. I conducted this study at a small, Christian liberal arts university in the Midwest with online students in the Adult and Graduate Studies department. These adult online students were pursuing associate, bachelor, and master degrees. I designed the research methodology to address the research questions and hypotheses regarding the university's online students reported level of importance and satisfaction with student services. I identified areas of service challenge in the study project with recommendations for possible service modification and/or creation.

Analysis included comparison of university student responses to national data and analysis of possible differences in importance and satisfaction reported by students of different class levels, educational goals, and varying previous online experience.

Research Design and Approach

This study was a quantitative analysis of online students' responses about the level of importance and their level of satisfaction with student services at the university. The literature indicating the importance of student-driven drove this approach, rather than institution-driven, support service development (Taylor & Holley, 2009). I used a published commercially available survey to collect student feedback and descriptive quantitative statistics to analyze the data. I compared the data from the university student responses to the responses of online students across the nation to address the first

research question. I used the mean importance scores and mean satisfaction scores to identify challenge areas. These challenge areas are services rated with high levels of importance but low levels of satisfaction. Finally, I used ANOVA tests to determine if there was significant variation in reported levels of satisfaction based on the number of online courses the students had previously completed. Significant variation based on previous online education experience could indicate a need for differentiated student services based on students' experience with online courses. Because student retention is an important consideration in the financial management of an institution, adequate support services are an institutional concern as well as a student concern (Rumble, 2012).

Setting and Sample

The university is a small, liberal arts Christian higher education institution in the Midwest. The university has a campus that serves 400 to 500 residential students in traditional undergraduate degree programs. These students were not included as part of this study. There are approximately 934 students enrolled in the Adult and Graduate Studies division of the university. These are adult students seeking associate, bachelor, and master degrees in evening programs on campus or online. There are approximately 475 students currently enrolled in the university undergraduate and graduate programs online. Adult students seeking associate, bachelor, and master degrees online with the university were the target population for this study. All currently enrolled online students served as the study sample.

In this study, I examined the online students' level of satisfaction with student support and academic services at the university. The survey and analysis also identified

how important specific services and supports are to them. The registrar retrieved a report of current online enrollment prior to data collection so that all eligible students had the opportunity to complete the survey and participate in the study. There was no selection process as the total population of online students at the university had the opportunity to participate in the study. I chose this sample type due to the small size of the institution. It was important not to reduce the sample size with other criteria and create greater limitations of scope and generalization for the study. The final return included all of the online students who voluntarily chose to complete the survey as part of the study.

Instrumentation and Materials

The Priorities Survey for Online Learners (PSOL), located in Appendix B, developed by Noel-Levitz, LLC, was the data collection instrument. The electronic survey is a series of 36 statements about institutional perceptions, enrollment, academic, instructional, and student service. In this study, I focused on the enrollment services, academic services, and student services scales, in particular. The enrollment services scale "assesses the processes and services related to enrolling students in the online program, including financial aid, registration, and payment procedures" (Noel Levitz, Inc., 2013, p. 3). The academic services scale examines services needed for students to be able to achieve educational goals, such as "advising, course offerings, technical assistance, online library resources, and tutoring services." (Noel Levitz, Inc., 2013, p.3). While the first two scales measured processes and available services, the student services

scale evaluated quality. This includes "responses to student requests, online career services, and the bookstore." (Noel Levitz, Inc., 2013, p. 3).

Students were asked to rate the importance of each service using a Likert scale of 1 (*not important at all*) to 7 (*very important*). They also indicated their level of satisfaction with each service using a Likert scale of 1 (*not satisfied at all*) to 7 (*very satisfied*; Ruffalo Noel Levitz, LLC, 2015). I was able to customize ten statements in the assessment. These items provided supplemental assessment of the importance and level of satisfaction with 21st century services. The 21st century services included items such as online writing center support, online tutoring services, and connecting with students through social media online. Because the literature indicated that the university has a significant gap in terms of 21st century services, I used the customized statements to gather data specific to those services regarding service importance and level of satisfaction. A service associate at Noel Levitz, Inc. provided guidance on the construction and format of these statements to ensure that they were consistent and appropriate for the instrument. The survey also included some basic demographic information and summary questions standard in the survey format.

Noel Levitz, Inc. has established the reliability and validity of the Priorities Survey for Online Learners. Cronbach's Alpha tests were used to assess agreement between survey statements. This analysis revealed that the PSOL scales had a coefficient of 0.77 meeting the standard test of reliability of being above 0.70 (Noel Levitz, Inc., 2013, p. 3).

A prior study on the validity of the Student Satisfaction Inventory (SSI) demonstrated convergent validity by correlating satisfaction scores from the SSI with satisfaction scores from the College Student Satisfaction Questionnaire (CSSQ), another statistically reliable satisfaction instrument. The Pearson correlation between these two instruments (r = .71; p < .00001) is high enough to indicate that the SSI's satisfaction scores measure the same satisfaction construct as the CSSQ's scores, and yet the correlation is low enough to indicate that there are distinct differences between the two instruments. Like its sibling inventories, the PSOL demonstrates significant statistical reliability. (Noel Levitz, Inc., 2013, p. 3)

Scores for each item were calculated to deliver the mean importance Likert scale result. I reported the mean satisfaction score for each item, along with the standard deviation. A gap score was calculated by subtracting the mean satisfaction score from the mean importance score (e.g., I-S = G). This gap score is essential to the research as it indicated services that are or are not meeting student expectations (Noel Levitz, Inc. 2014). For example, a service that was low on importance (1) and high on satisfaction (5) the gap score would be -4. Scores in the upper half of importance and the upper quartile of satisfaction represent a service area strength. By contrast, a service indicated with high importance (5) and low satisfaction (1) would be a 3, indicating a moderate gap in service that may be indicated as a challenge if the importance score is the in upper half but the satisfaction score is in the lower quartile (Noel Levitz, Inc. 2014).

I compared the data from the university results to data from National Online Learner survey results. The mean satisfaction scores for each item from the National Online Learner (S-NOL) results were subtracted from the mean satisfaction scores from the university (S-U) student results (e.g., S-U - S-NOL). For example, if the S-U is low at a 1 and the S-NOL is a high of 4.30, then the difference would be -3.3, meaning that the university students are much less satisfied than the NOL. I reported difference scores that were statistically significant at the p < .05 level. These are service areas that the university should consider improving in order to compete nationally for online students.

Data Collection and Analysis

After the study proposal received Institutional Review Board (IRB) approval for data collection, the Registrar provided a report of all current adult students seeking associate, bachelor, and master degrees online. I distributed a link to the survey though the students' university email. The survey was available to all 477 adult online students at the university. I monitored the number of responses, but there was no indication of which students did or did not participate. Based on the recommendation from staff at Noel Levitz, Inc., the survey was available for 2 weeks. I sent three survey reminder emails periodically while the survey was open to students who had not completed the survey. Fifty-six students completed the survey, representing 12% of the total online population at the university.

Once the survey was closed, data were analyzed. Noel-Levitz, Inc. generated a report and submitted it to me. I analyzed and interpreted the descriptive statistics. The report contained data comparison from the study sample and National Online Learners

data. The report also indicated services identified as challenge areas. I reported the results and all statistically significant findings. I used Google Sheets along with the XLMiner Analysis Toolpak add-on to assess possible satisfaction variation between students with varying previous online education experience. I grouped the raw satisfaction score data according to the number of online courses the participants reported completing. For each of the four scales, I used an ANOVA test to analyze possible variation in scale satisfaction scores. All raw data are being stored securely on my password-protected personal computer and are available to Walden University by request. Upon full completion of this study and degree conferral, I will transfer all study information and data to an external hard drive and store it in my bank safe deposit box for a minimum of 5 years.

I addressed three central questions in this research project. First, how satisfied are online students at the university with current services and support compared to national data? Second, what services and support are important to online students at the university but are areas of challenge in regards to satisfaction? Finally, how does the level of satisfaction with student services vary for students according to previous online education experience? These questions emerged from observation of the university's offerings of support services, conversation with administrative faculty at the university, and research into the growing world of adult online education. Within these questions are the research null hypotheses and alternate hypotheses.

Hypotheses for Satisfaction Comparison

The first three hypotheses are related to the first research question. They are designed for the comparison of the university's online students' level of satisfaction with academic and support services to the level of satisfaction reported from the National Online Learner data.

1. $H1_0$: There is no statistically significant mean difference at the p < .05 level between the university satisfaction scores and the national satisfaction scores for the Enrollment Services scale.

 $H1_a$: There is a statistically significant mean difference at the p < .05 level between the university satisfaction scores and the national satisfaction scores for the Enrollment Services scale.

2. $H2_0$: There is no statistically significant mean difference at the p < .05 level between the university satisfaction scores and the national satisfaction scores for the Academic Services scale.

 $H2_a$: There is a statistically significant mean difference at the p < .05 level between the university satisfaction scores and the national satisfaction scores for the Academic Services scale.

3. $H3_0$: There is no statistically significant mean difference at the p < .05 level between the university satisfaction scores and the national satisfaction scores for the Student Services scale.

 $H3_a$: There is a statistically significant mean difference at the p < .05 level between the university satisfaction scores and the national satisfaction scores for the Student Services scale

I used all satisfaction scores on the survey Likert scale of 1 to 7 to calculate mean satisfaction scores for each service scale. The mean satisfaction score from the national student data were subtracted from the mean satisfaction score from the university students. The difference was analyzed for statistical significance. I reported all significant findings descriptively. Recommendations for additional inquiry or service development are included in the study project presentation and white paper.

Service Area Challenges

Items identified as challenge areas represent an important opportunity for service improvement or development. A challenge area indicates a high level of reported importance with a corresponding relatively low level of reported satisfaction. I identified service challenge items in two ways statistically to address the second research question. I identified an item as a challenge if the score was in the top half of importance but in the lower quartile of satisfaction. The mean importance score minus the mean satisfaction score rendered the gap score for each scale and custom institutional items. I identified an item as a challenge area if it was in the upper quartile of performance gap. I reported the mean importance and satisfaction scores, standard deviation, and gap score for each item. I reported service challenge areas descriptively. Possible opportunities for service development were also included in the study project presentation and white paper.

Hypotheses for Satisfaction According to Previous Online Education Experience

The final four hypotheses addressed the final research question. The number of online courses that students reported completing determined the previous online education experience. I performed statistical analysis to determine if previous online education experience resulted in significant satisfaction variation.

4. $H4_0$: There is no statistically significant mean difference at the p < .05 level between satisfaction scores for students with varying previous online education experience for the Enrollment Services scale.

 $H4_a$: There is a statistically significant mean difference at the p < .05 level between satisfaction scores for students with varying previous online education experience for the Enrollment Services scale.

5. $H5_0$: There is no statistically significant mean difference at the p < .05 level between satisfaction scores for students with varying previous online education experience for the Academic Services scale.

 $H5_a$: There is a statistically significant mean difference at the p < .05 level between satisfaction scores for students with varying previous online education experience for the Academic Services scale.

6. $H6_0$: There is no statistically significant mean difference at the p < .05 level between satisfaction scores for students with varying previous online education experience for the Student Services scale.

 $H6_a$: There is a statistically significant mean difference at the p < .05 level between satisfaction scores for students with varying previous online education experience for the Student Services scale.

7. $H7_0$: There is no statistically significant mean difference at the p < .05 level between satisfaction scores for students with varying previous online education experience for the 21^{st} century services scale.

 $H7_a$: There is a statistically significant mean difference at the p < .05 level between satisfaction scores for students with varying previous online education experience for the 21^{st} century services scale.

In addition to the analysis report that was provided by Noel Levitz, Inc., I grouped and analyzed the raw data with ANOVA tests to assess possible satisfaction variation reported by students with different previous experience with online courses. Previous online educational experience categories represent the number of online courses the students reported taking before completing the survey. The survey includes seven options for indicating the number of online courses previously taken ranging from no classes to more than 15. I inspected the raw data to determine if collapsed ranges of courses completed would yield more significant and useful results. For example, the ranges of 4 to 6 and 13 to 15 online courses completed had only five and four respondents, respectively. Groups of this size represent a challenge for assessing variation of satisfaction reliably.

I collapsed the previous online education experience data into three categories to provide more accurate and more powerful representation of the data. The most novice

group completed 0 to 3 online courses and represented the satisfaction scores of 24 students. The intermediate group of 17 students completed 4 to 12 online courses, and 15 experienced online students completed more than 13 courses. Statistically significant variation may indicate the need for targeted support service development for students with different online course experience. After data collection, I conducted analysis of the academic literature to inform the development of the study project. I incorporated findings and recommendations into the project presentation and white paper to be presented to university leadership.

Summary

I found that the university has no process of evaluation in place for assessing Adult and Graduate Studies online students' preferences and satisfaction related to support services. In addition to the lack of evaluation, there was also a lack of direction for support service development. Because the university is expanding online learning programs for adults, the need for assessment and guidance in this area is critical to ensure that students have a positive experience and persist. Not only was this a gap in practice at the university, a deficit in the academic research was found. Most research related to online learning focused on academic standards in the classroom, rather than the adaption of support services for students in online programs.

The research indicated the need for a study specifically focused on online student support services in order to address the local problem as well as contribute to the larger body of academic literature. The research questions identified provided the university with valuable information regarding how satisfied students were with current services

and what services were most important. It was my intention that the project study would help the university leadership identify areas of service strength and areas of potential development driven by the priorities of the students. The findings also contributed to the academic literature. The results may be particularly useful for other small, liberal arts institutions expanding online programs.

Assumptions, Limitations, Scope, and Delimitations

The integrity of the study and accuracy of the findings were dependent on some assumptions and had limited potential impact. I assumed that the participants would complete the student report survey purposefully and honestly. While the study included the responses of all voluntary participants, it logically follows that the results do not represent students who did not participate. I sent students reminder emails and designed the survey window of availability to maximize participation, but all nonparticipating students' perspectives were unknown in the study. This limitation was unavoidable given that full participation was not likely and was not achieved. The size and characteristics of the university as an institution affected the scope of this study. Because the university is a small, private institution, the findings of this study could not be widely generalized. The results had the most potential for local change in practice and lesser potential for influence on the larger body of literature. Because the survey was commercially developed, the study had the delimitation of not being able to customize all survey items specifically to the institution.

Protection of Participants' Rights

I selected several aspects of the study design to protect the rights and privacy of the participants. Participation in the study posed no physical, psychological, or personal risk to students. The data collection tool was a commercially available survey managed by a professional higher education consultation company. Students completed it anonymously. This allowed students to participate and respond honestly without concern that they would experience any personal or academic consequences. This structure also helped to ensure student privacy by securing student email addresses with a professional consultation company to minimize the risk of the loss of confidential information.

I worked with the university leadership to ensure that informed consent and institution permission was in place prior to data collection. I obtained a letter of cooperation from the university chair of the IRB and dean of online learning allowing me to collect data from the university students as study participants. I also completed the IRB approval process with Walden University and was granted permission to proceed with data collection with approval number 10-08-15-0069659. I worked with the university registrar to ensure that all of the online student email addresses were provided to me through the secure university network. After data collection approval, I sent a preliminary email to all the university's online students with full explanation of the study, survey details, the date that students could expect the survey to be sent, how study results were to be used, and when study results would be available. I repeated this information with a statement that survey completion constituted study participation agreement and

acknowledgement of informed consent. These details and informed consent statement were included in the initial survey opening and in subsequent reminder emails.

Once surveys were completed, Noel Levitz, Inc. collected and securely stored all data. After Noel Levitz, Inc., analyzed the data and generated the statistics report, a representative sent the data to me via my Walden University password-protected email address. I stored all study data on a password-protected personal computer for the duration of analysis and study completion. Upon conclusion of the study and graduation, I will remove study data from my personal computer and transfer the study and all data to an external hard drive to be stored in a personal bank safe deposit box for a minimum of 5 years as required by Walden University.

Data Analysis Results

Satisfaction Comparison to National Data

I developed three hypotheses to address the first research question of the study: how satisfied are online students at the university with current services and support compared to national data? The items on the Priorities Survey for Online Learners were grouped into several scales, including Enrollment Services, Academic Services, and Student Services scales. The mean satisfaction scores of students from the national data compiled by Noel Levitz, Inc. were subtracted from the mean satisfaction scores of the university students. The resulting mean differences were assessed for statistical significance in order to address the first research question. If the university students were significantly less satisfied with services compared to the students from the national data set, this would have indicated a need to improve or develop services in order to be

competitive in online education. The first three hypotheses are below with corresponding tables of satisfaction data from the university online students and the national satisfaction data.

1. $H1_0$: There is no statistically significant mean difference at the p < .05 level between the university satisfaction scores and the national satisfaction scores for the Enrollment Services scale.

 $H1_a$: There is a statistically significant mean difference at the p < .05 level between the university satisfaction scores and the national satisfaction scores for the Enrollment Services scale.

Table 1 shows the university and national satisfaction mean data for the Enrollment Services scale.

Table 1

Enrollment Services Satisfaction

Enrollment services	University satisfaction	National satisfaction	Mean difference
Item 9	5.81	5.83	-0.02
Item 14	5.61	5.82	-0.21
Item 18	6.17	6.38	-0.21
Item 23	6.12	6.19	-0.07
Scale composite	5.93	6.06	-0.13

In regards to the Enrollment Services scale, I found no statistically significant difference between the level of satisfaction of the university students and the national data. I did not reject the first null hypothesis. This indicated that enrollment services at the university were meeting students' expectations at rates comparable to rates of online

students nationally. This finding may be especially important for the staff and leadership in the admissions, financial aid, and student accounts departments.

2. $H2_0$: There is no statistically significant mean difference at the p < .05 level between the university satisfaction scores and the national satisfaction scores for the Academic Services scale.

 $H2_a$: There is a statistically significant mean difference at the p < .05 level between the university satisfaction scores and the national satisfaction scores for the Academic Services scale.

Table 2 has the university and national satisfaction mean data for the Academic Services scale.

Table 2

Academic Services Satisfaction

Academic services	University satisfaction	National satisfaction	Mean difference
Item 2	6.09	6.07	0.02
Item 5	5.15	5.63	-0.48*
Item 7	5.89	5.95	-0.06
Item 12	6.08	5.94	0.14
Item 16	5.87	6.07	-0.20
Item 21	6.00	6.09	-0.09
Item 24	4.51	5.65	-1.14***
Scale composite	5.71	5.93	-0.22

Note. *Mean difference statistically significant at the p < .05 level ***Mean difference statistically significant at the p < .001 level

The difference statistically significant at the p < .001 level

I also did not reject the second null hypothesis based on the composite analysis for the Academic Services scale. In total, the mean scores for the university's students were not statistically significantly different from the national data mean satisfaction scores. Item specific analysis for the scale, however, revealed two items that deviated

from the scale composite finding. The results from item 5 and 24 indicated that the level of satisfaction for the university's students was significantly lower than the level of satisfaction from the national data.

On item 5 of the survey, students rated the level of importance and their level of satisfaction with their advisor's support in helping them reach career goals. Because the university students were less satisfied with this area of service than their counterparts were in the national data, a need for career service development was indicated. At the time of this study, the university did not have an office or department dedicated to career services. Academic advisors were not specifically equipped or trained to offer detailed career goal support. Because this service was not available, it was included in the project with recommendations for additional analysis and development.

On item 24 of the survey, students responded about the level of importance and their level of satisfaction with tutoring services for online courses. When this study was completed, tutoring services were not available for online students through the university. Some students had turned to outside vendors for tutoring support, but these services came at additional expense to the student (student, personal communication, July 16, 2015). The significant difference in satisfaction for item 24 was of concern because it indicated that the university students' expectations were not being met. This was also of particular concern because tutoring services or lack thereof, have a direct impact on student's ability to achieve academically. This finding was included in the project as it was particularly important for the academic leadership team to review. Creative solutions for

service delivery may benefit the university and students in regards to retention and improved academic performance.

3. $H3_0$: There is no statistically significant mean difference at the p < .05 level between the university satisfaction scores and the national satisfaction scores for the Student Services scale.

 $H3_a$: There is a statistically significant mean difference at the p < .05 level between the university satisfaction scores and the national satisfaction scores for the Student Services scale.

Table 3 includes the university and national satisfaction mean data for the Student Services scale.

Table 3
Student Services Satisfaction

Student services	University satisfaction	National satisfaction	Mean difference
Item 10	6.13	6.00	0.13
Item 15	5.10	5.57	-0.47*
Item 19	4.98	5.72	-0.74**
Item 22	5.72	5.97	-0.25
Item 26	5.59	6.07	-0.48*
Scale composite	5.54	5.88	-0.34*

Note. *Mean difference statistically significant at the p < .05 level

Collectively, the mean satisfaction scores for the Student Services scale of the university's students were statistically significantly lower than the mean satisfaction scores from the national data. I rejected the null hypothesis for this scale. This scale represented an opportunity to evaluate, improve, and develop services to meet the needs and expectations of the online student population more effectively.

^{**}Mean difference statistically significant at the p < .01 level

The results for item 19 confirmed the previous finding in this study that satisfaction with career support services was lower than satisfaction results from the national data. This item related specifically to career services available online. Again, this was an indication of the need to examine student needs further and possibly develop new student service options at the university. Item 15 was related to available channels for timely responses for student complaints. Because this item had lower mean satisfaction for university students versus the national data, it was important to recommend evaluation the process for reviewing student complaints. If any updates or changes were made, it would be important to ensure that the process is clear and accessible for the students. The final item that had statistically significantly lower mean satisfaction for the university students was about the timeliness of bookstore services. The online students at the university were responsible for ordering their own texts for their courses. They could order through the online bookstore in Blackboard or use the information to order from their preferred vendor. It was not clear which part of the process resulted in reduced satisfaction. Additional inquiry was needed to determine how to serve students better.

Service Area Challenge Results: Gap Scores

Students completing the Priorities Survey for Online Learners rated the level of importance for each item in addition to their level of satisfaction. An individual item was indicated as service area challenge if it received a high importance mean with a low satisfaction mean score. Statistically, an importance mean score in the top half (data above the mean) with a satisfaction mean in lower quartile (data below half the mean)

resulted in the notation of a challenge area. The gap score resulted from subtracting the satisfaction mean from the importance mean. If a service had a rating with low importance and high satisfaction, the gap score would indicate that there was not a deficit in the provision of that service for the university students. If a service had a high importance mean score, but had a low satisfaction mean score, the resulting gap score indicated a gap in service delivery. For example, if a student felt that speaking to a person was very important (6.7 for example), but every time she stopped in no one was available, she may not be satisfied (4.1 for example). There would be a gap score between what she felt was important and how satisfied she was with what she got (2.6 for example). An item with a gap score in the upper quartile also indicated a challenge area. That is, an item was more challenging if the gap score, out of all the gap scores possible, was in the upper quartile of the data. This would indicate it had a very high gap score between what students thought was important and how satisfied they were with the service they received. The following tables note items that I identified as challenge areas statistically. Table 4 includes the importance and satisfaction data for the Enrollment Services scale.

Table 4

Enrollment Services Scale Challenges

Enrollment se	rvices Importance mean	Satisfaction mean	Standard deviation	Gap
Item 9	6.22	5.81	1.69	0.41
Item 14	6.37	5.61	1.80	0.76
Item 18	6.49	6.17	1.24	0.32
Item 23	6.50	6.12	1.50	0.38

No items in the Enrollment Services scale met the statistical criteria of a service challenge area. No gap scores were statistically significant. Table 5 has the importance and satisfaction data that indicated challenge areas for the Academic Services scale.

Table 5

Academic Services Scale Challenges

Academic services	Importance mean	Satisfaction mean	Standard deviation	Gap
Item 2	6.43	6.09	1.23	0.34
Item 5	5.77	5.15	1.52	0.62
Item 7*	6.66	5.89	1.26	0.77
Item 12	6.59	6.08	1.04	0.51
Item 16	6.55	5.87	1.41	0.68
Item 21	6.58	6.00	1.35	0.58
Item 24	5.23	4.51	1.82	0.72

Note. *Indicates service area challenge item

Item 7 pertains to the clarity and reasonableness of program requirements. As indicated above, this was highly important for the university's online students. In order to be successful, students must understand what is required of them. These requirements must also be reasonable given that the online programs at the university serve adult students, many of whom have full-time jobs and families.

At the time of this study, the university offered ten associate, bachelor's, and master's degree options online. It was important to determine if this was an issue across all programs, a few, or just certain programs. Additional inquiry was needed to determine if this was a challenge with lacking clarity or with unreasonable expectations. These findings and additional questions were important to include in the project for the academic deans and operations team to review since they were responsible for the

^{*}Item 7: Program requirements are clear and reasonable.

academic requirements for all degree plans. Table 6 shows the data that indicated a challenge area in the Student Services scale

Table 6
Student Services Scale Challenges

Student services	Importance mean	Satisfaction mean	Standard deviation	Gap
Item 10	6.50	6.13	1.05	0.37
Item 15	6.34	5.10	1.96	1.24
Item 19	5.45	4.98	1.62	0.47
Item 22*	6.53	5.72	1.51	0.81
Item 26	5.57	5.59	1.44	-0.02

Note. *Indicates service area challenge item

I identified Item 22 as a service challenge area because the gap score was in the upper quartile of gap scores indicating that students were very dissatisfied with something they thought was very important. When students have questions, it is very important that they know whom to contact for support. Online students do not have the advantage of face-to-face contact with staff or faculty on campus. This item echoed the previous finding about the satisfaction scores for item 15 compared to the national data regarding the handling of student complaints. Student communication is a primary responsibility of student services. These results demonstrated a need to review the communication channels that were in place and the means for ensuring that the students understood how to access them. Table 7 has the importance and satisfaction data for the 21st century services scale that indicated a service challenge area.

^{*}Item 22: I am aware of whom to contact for questions about programs and services.

Table 7

21st Century Services Challenges

21 st century serv.	Importance mean	Satisfaction mean	Standard deviation	Gap
Item 27	6.05	5.45	1.51	0.60
Item 28	5.69	5.40	1.57	0.29
Item 29	6.38	6.25	1.09	0.13
Item 30	6.21	5.80	1.24	0.41
Item 31	4.90	5.60	1.40	-0.70
Item 32	5.11	4.39	1.78	0.72
Item 33*	6.58	5.82	1.48	0.76
Item 34	6.44	6.09	1.22	0.35
Item 35	5.57	5.50	1.40	0.07
Item 36	6.36	5.54	1.41	0.82

Note. *Indicates service area challenge item

The 21st century service scale was comprised of the items created for the survey based on the review of the literature on student services. Item 33 was included to assess the extent to which students felt prepared for navigating the online classroom as they began their program. At the time of this study, the university did not have a mandatory orientation for Blackboard. Because of how the enrollment process and classroom access was structured, some students did not have any time to practice with the online classroom before their course started. This notation as a challenge area was of particular concern because online classroom orientation was one of the few things directly connected to persistence and retention (Kelso, 2011). Equipped with this information in the project, the online team in partnership with the enrollment team would have the opportunity to modify some access practices and create a strategy to get new students more information

^{*}Item 33: I had enough information to feel comfortable in Blackboard when I started my online program.

sooner. Increased comfort with the learning management system may lead to greater satisfaction and increased likelihood of continuing successfully.

Item 31 had the lowest importance mean score of all the items in the survey. Students were asked about the institution's use of social media to connect with them. This item was included because of the literature review that showed that some students want to be able to connect with their university via social media because they are already accessing these platforms regularly (Ellison, 2010). Although this indicated that the use of social media was not a high priority for the survey respondents in this study, this is an area to reassess over time. It is possible this could change as the demographics of the online student population change.

Previous Online Education Experience Results

When assessing satisfaction with services, I was interested in the possibility that students with varying experience with online courses might respond differently. It was important to determine if new online students were more or less satisfied than their more experienced counterparts were. Previous online education experience was defined by the number of online courses that the students reported completing. The respondents were sorted into three groups collapsed down from the seven possible survey responses ranging from zero online courses to more than 15 completed. If I analyzed each of the possible response options separately, several of the course ranges would have only four or five students represented. Such small numbers represent a challenge for the reliability of the findings. I employed the collapsed grouping strategy to enhance the accuracy of the findings by creating three groups with 15 to 24 respondents each.

The first group represented the most novice online students with 0 to 3 online courses previously taken. The second group reported completing 4 to 12 online courses. The final group was the most experienced with online education with 13 to 15 or more online courses completed. I selected this grouping to contrast novice online students with moderately and very experienced online students. For example, a grouping that only included the responses from students with 4 to 6 online courses completed would have only represented five respondents. The selected groupings get to the heart of what the final research question was intended to assess with numbers that help to generate data that are more valid. I then evaluated the selected groups' satisfaction scores with ANOVA tests for each survey scale to determine if there was significant variation between them.

4. $H4_0$: There is no statistically significant mean difference at the p < .05 level between satisfaction scores for students with varying previous online education experience for the Enrollment Services scale.

 $H4_a$: There is a statistically significant mean difference at the p < .05 level between satisfaction scores for students with varying previous online education experience for the Enrollment Services scale.

Table 8 includes the satisfaction means for each group sorted by the number of online courses completed for the Enrollment Services scale along with ANOVA analysis results.

Table 8

Enrollment Services Scale Scores by Previous Online Education Experience (POEE)

POEE	Satisfaction mean	F score	<i>p</i> -value	F crit
0-3 classes	6.01	1.14	0.32	3.04
4-12 classes	6.05			
13-15+ classes	5.65			

Note. *p < .05 is statistically significant

The satisfaction scores for the enrollment scale were not statistically significantly varied between the three groups of students with different levels of online education experience. I did not reject the fourth null hypothesis of the study. This did not indicate a pressing need to develop enrollment services differently for new online students versus students with more extensive online education experience.

5. $H5_0$: There is no statistically significant mean difference at the p < .05 level between satisfaction scores for students with varying previous online education experience for the Academic Services scale.

 $H5_a$: There is a statistically significant mean difference at the p < .05 level between satisfaction scores for students with varying previous online education experience for the Academic Services scale.

Table 9 includes the satisfaction means for each group sorted by the number of online courses completed for the Academic Services scale along with ANOVA analysis results.

Table 9

Academic Services Scale Scores by Previous Online Education Experience (POEE)

POEE	Satisfaction mean	F score	<i>p</i> -value	F crit
0-3 classes	5.98	5.73	0.004*	3.02
4-12 classes	5.59			
13-15+ classes	5.36			

Note. *p < .05 is statistically significant

The *p*-value score showed a statistically significant variation between the satisfaction scores of the three groups for the Academic Services scale. I rejected the null hypothesis for this scale. When comparing the satisfaction means for this scale, it appeared that the more experienced online students were less satisfied with the services in this scale. This scale included advising, tutoring, and career services. A possible explanation for this variation could be that students who have completed more online courses may have been in advanced courses and may have been closer to the conclusion of their degree. As students progress further into their programs, courses may be more challenging highlighting the deficiencies of tutoring services at the university. Students nearing the end of their degree may also be looking toward new career opportunities. These students may have been particularly aware of the minimal career service resources because they were preparing for new opportunities that their degree may have afforded them. These possible explanations of variance and others should be explored in detail to determine how the university can better support students with extensive experience in online classes. It was important to recommend additional inquiry to determine if differentiated services were warranted. It may be that experienced online students need

advising, tutoring, and career services tailored for students moving into advanced courses or nearing degree completion.

6. $H6_0$: There is no statistically significant mean difference at the p < .05 level between satisfaction scores for students with varying previous online education experience for the Student Services scale.

 $H6_a$: There is a statistically significant mean difference at the p < .05 level between satisfaction scores for students with varying previous online education experience for the Student Services scale.

Table 10 includes the satisfaction means for each group sorted by the number of online courses completed for the Student Services scale along with ANOVA analysis results.

Table 10
Student Services Scale Scores by Previous Online Education Experience (POEE)

POEE	Satisfaction mean	F score	<i>p</i> -value	F crit
0-3 classes	5.70	2.99	0.05*	3.03
4-12 classes	5.70			
13-15+ classes	5.14			

Note. *p < .05 is statistically significant

The Student Services scale had significant satisfaction variation between groups with different levels of previous online experience. Because the *p*-value indicated statistical significance, I rejected the null hypothesis. Though the variation of mean satisfaction in this scale met the criteria of statistical significance at exactly the .05 level, the variation was clearly due to the lower mean satisfaction score for the group with the most online courses completed. As with the previous scale, the students with the most

experience in online courses were the least satisfied group with services in this scale.

The Student Services scale also included an item about career services as well as items about bookstore services and institutional communication clarity and timeliness. I explored possible explanation for why experienced online students were less satisfied with current career services. It was not clear why the most experienced online students were less satisfied with the timeliness of bookstore services or institutional communication. Additional examination was needed to understand this variation in order to guide service improvement.

7. $H7_0$: There is no statistically significant mean difference at the p < .05 level between satisfaction scores for students with varying previous online education experience for the 21^{st} century services scale.

 $H7_a$: There is a statistically significant mean difference at the p < .05 level between satisfaction scores for students with varying previous online education experience for the 21^{st} century services scale.

Table 11 includes the satisfaction means for each group sorted by the number of online courses completed for the 21st century services scale along with ANOVA analysis results.

Table 11

21st Century Services Scale Scores by Previous Online Education Experience (POEE)

POEE	Satisfaction mean	F score	<i>p</i> -value	F crit
0-3 classes	5.84	4.66	0.01*	3.01
4-12 classes	5.64			
13-15+ classes	5.35			

Note. *p < .05 is statistically significant

The ANOVA test indicated that there was a statistically significant level of variation between the satisfaction scores for the 21st century services scale based on previous online education experience. I rejected the final null hypothesis. The 21st century services scale included items about advising, tutoring, social media, library services, and writing support. A review of the satisfaction means confirmed a pattern consistent with the Academic Services and Student Services scales. The group with the most previous online education experience was the least satisfied with services in this scale. The group with the least experience had the highest mean satisfaction score.

In three of the four scales, the more experienced online students were less satisfied with university services than their counterparts were with fewer completed online courses. This pattern could have indicated that services should be differentiated for students depending on their previous experience with online courses. Another possibility was that students did not have a high need for some of these services until they were deeper into their program or nearing degree completion. It could be that experienced online students had a higher need for these services, and felt greater dissatisfaction when the available offerings failed to meet their expectations. It was important to understand this variation with greater specificity to determine if services targeted directly for more experienced online students should be developed.

Writing Service Results

One of the service areas that was most interesting for me to examine was writing and APA support. The literature review indicated that writing centers were standard practice at most institutions of higher education. The current research was focused on

writing center and tutoring best practices rather than justification for why such services were needed (Hewett et al., 2011). Unfortunately, the university did not have a writing center for residential, evening, or online students at the time of this study. Since this service was not available, I expected the items 28 and 30 related to writing and APA support to receive low satisfaction ratings. The other possibility was an abundance of scores that did not register on the 1 to 7 Likert scale because students selected not available/not used.

Examination of the raw data showed that only seven entries out of the 112 responses between the two items were marked as not available/not used. The survey results indicated that there was not a significant gap between the level of importance and level of satisfaction. I did not identify either item as a service challenge area. These results led me to question how students could be satisfied with a service that does not exist. One possible explanation was that students were not receiving grades and feedback that indicated deficiencies in their writing. If students were receiving acceptable grades, they would not have a pressing need for additional writing support and may not have noticed the inadequacy of services.

Conclusion

I designed this study to assess online students' priorities and satisfaction with academic and student support services at the university. At present, the institution does not have a system in place for evaluating academic and student services. A review of the literature also revealed that the university lacks several services, which are considered standard at other institutions, namely writing center and tutoring support and the use of

social media to connect with students. The research points to these services as being important, but investigation into the university student perception was needed before student data-driven recommendations for service modification or development could be presented to the university leadership. Two primary questions emerged to ascertain the university online students' priorities in relation to support services. What academic and support services are most important, and how satisfied are the university online students with those services?

I used a commercial survey to collect data from the university's online students for this quantitative study. The survey assessed the level of importance that students rated several academic and student support services, as well as their level of satisfaction with those services on a Likert scale. I collected the data from the target population of the university's adult online undergraduate and graduate students that served as the study sample and used descriptive statistics for analysis. I compared the university data to national data to identify deficits in the university students' satisfaction with student services. I analyzed the satisfaction and importance mean scores to identify service challenge areas. Finally, I completed an ANOVA test for each service scale to identify satisfaction variance between students with varying previous online education experience.

The data pointed to the need for a project that could result in significant social change at the local level. I examined the academic literature to determine the best means for communicating the results and inspiring action, and created an oral/visual presentation and white paper. Ideally, I will present this to the academic deans, provost,

and university president at the Adult and Graduate Studies Town Hall Meeting. This paper and presentation include study findings and specific recommendations for academic and students support service modification, development, and on-going self-evaluation with action steps toward change.

This section outlined the quantitative study methodology. I collected data from the university online students to address the lack of evaluation of academic, student support services, and potential gaps in service. The data from the Noel Levitz, Inc. Priorities Survey for Online Learners were analyzed with descriptive statistics to identify areas of strength and challenge in the university support services. I used the data to create a project study to promote local change in student service evaluation and practice at the university. A presentation of findings to the university leadership would be a first step in providing direction and recommendations for service development. The following section will detail the study project and implications.

Section 3: The Project

Introduction

After collecting valuable quantitative data from the university's online students related to student service importance and satisfaction, I needed a purposeful project to translate the information into an opportunity for change. This section details the development of my doctoral study project. I established specific, realistic goals in order to develop and evaluate an effective project. I conducted a review of academic literature that led to the creation of a presentation and white paper project. I identified specific challenges and potential support for project implementation at the university. I created a plan for project evaluation and explored possible project implications for local and field social change. All materials for the project are located in Appendix A including the Prezi presentation, the white paper, and the evaluation sheet.

Description and Goals

The primary components of the study project are an oral/visual presentation to university leadership and white paper on the findings for enrollment, student, academic, and 21st century services. I will present the report to university leadership at the biannual Adult and Graduate Studies department Town Hall Meeting. I will share the white paper in hard copy and electronic form for reference and greater dissemination. This meeting includes all Adult and Graduate Studies staff, academic deans, as well as the university provost and president. The composition of attendees is critical to the effectiveness of the project because substantial change in evaluation and practice of online student services would not be possible without staff and leadership initiative.

The problem identified is two-fold. First, the university does not regularly evaluate the service priorities and satisfaction of online students in a process of improvement. Because of the lack of data, it was possible that services were inadequate in meeting the students' needs. The collection of data from online students, as part of the study, was the first step in addressing the problem. I designed the project presentation and white paper to outline the problem, share study findings, and propose steps for meaningful change in evaluation and practice. First, the presentation details the problem of failing to evaluate online student services and implement a cycle of improvement. The presentation and white paper also offer specific service areas that I identified as being in need of improvement or development. The findings are important, but without action to follow up, change will not be possible. For this reason, the presentation and white paper also submit recommendations for further inquiry and ask faculty and staff to identify practical ways that they can contribute to service development action moving forward.

Rationale

I selected a detailed oral/visual presentation and white paper as the study project components because they are typical means of sharing information within the university's culture. The academic literature also highlighted the need to translate data into easily understood forms. This project allowed me to share the study findings and recommendations in ways that will appeal to academic leadership as well as staff. The oral/visual presentation allows me the opportunity to report findings and subsequent recommendations succinctly in a way that is friendly to the end user. The white paper allows me to share the quantitative study findings in both a formal, academic manner and

visually so that individuals with varying statistical literacy will understand. The oral/visual nature of this project is an important match for the quantitative, statistical data generated by the study. In order for the project to result in real change, the audience must be able to grasp the problem, understand the study results, and identify areas where improvement and development can begin.

This project gets to the core of the problem at the university in two ways. First, because the university did not have a cyclical process of student service evaluation in place, the data collection and report of findings serves as an example of how the university might assess student perspective in the future. The project also moves directly from a report of findings to recommendations for service change. The importance of student-driven data and connection to action is at the heart of the project. The second way that the project addresses the problem is in the report of specific services that I identified as areas in need of improvement or development. Some of these service areas are standard offerings at most institutions but are not available at the university. The resulting project is a first step solution in that it identifies the problem but also offers an example of evaluation, report, and call to action that the university can use moving forward. It is the intention that additional inquiry and research into service improvement will begin because of the project presentation and white paper.

Review of the Literature

At the heart of this study is an intent to move from the identification of a local program to a project proposing steps to meaningful change. In order to create an effective project, I conducted a review of academic literature on institutional change and

moving data points to action steps. I used the findings to inform the structure and strategy of the project. It was determined that a presentation and white paper would be developed to bring institutional awareness of the problem and recommendations for data-driven action toward change. I gave attention to connecting the narrative of the findings and recommendations in ways that are meaningful to both the staff and the academic leadership at the university.

Institutional Change

When considering how to bring about change to a local setting, it is important to analyze the cultural factors of the institution that may contribute to the problem and when developing solutions. Bourke and McGee (2012) compared the results of three educational innovation projects using a cultural historical activity theory (CHAT) analysis. The CHAT analysis provides a framework for assessing internal and external pressures and relationships affecting cultural change in an organization. The theory originally posited by Vygotsky and refined over time emphasizes the integration understanding individual motivation, emotion, and identity as it connects to and intersects with social activity (Roth & Lee, 2007). When comparing the educational projects, three components emerged as being important for successful implementation: "a clearly recognized purpose, widening individual and group involvement, and creating flexibility to build a strong platform to support the innovation" (Bourke & McGee, 2012, p. 217). The project presentation will provide some direction as to the purpose of service change while starting the process of identifying individuals and groups that will become involved in creating change. When communicating with potential change agents within the

organization, individual motivations and identity influence social activity. Pressures inside and outside the group also affect the effectiveness of the project. Conducting a CHAT analysis may help to identify these dynamics and plan for optimal innovation in student services.

In addition to considering the institutional culture, it is important that the innovator establish realistic expectations for the ambition and scope of the changes. When change was aimed at solving pressing problems by manageable means for users, substantial change was more likely (Towndrow, Silver, & Albright, 2010). The organization must balance this need for manageable action for users and ambitious change for the innovator. It also highlights the need to communicate the problem in terms that are meaningful for the users. If the problem is not seen as immediate by the staff and relevant faculty at the university, substantial change will be less likely. Faculty and staff must prevail over situational limitations of time, bias toward resistance, and physical resources to implement change (Henderson & Dancy, 2011).

Effective change at the university requires buy in from the staff who would have to implement services, but it also requires buy in from administrative leadership who would have to approve changes and authorize funds. The project must inform and engage both the staff and administrative leadership, since both groups must be involved in service innovation. A plan that addresses both of these groups has support in the literature. The most effective change projects establish a joint goal for staff and administration with strong administrative support. Some projects create a two-part plan to address both groups in order to enhance effectiveness (Finelli, Daly, & Richardson,

2014; Graham, 2012). Giving faculty the opportunity to collaborate with other faculty to develop change may overcome the status quo bias that plagues some institutions, making change more likely (Tagg, 2012).

I selected the setting for implementation of the study project because both staff and administrative leadership participate in the Town Hall meeting. It is an opportunity to address both groups and establish common purpose. The follow up to the presentation and dissemination of the white paper will include collecting feedback, input, and cooperation from each group. This approach attempting to create common purpose with staff and administration combined with CHAT analysis in the follow up may increase the likelihood of meaningful change. If a two-part plan addresses staff and administrative change, individual practice and organizational culture, the project is more likely to be successful (Henderson, Beach, & Finkelstein, 2011).

Visual Processing

When considering how to communicate data to a group of colleagues and university administration, it is important first to consider how all people process information. Humans have been representing information symbolically for thousands of years in the form of cave paintings, hieroglyphics, graphs, charts, and illustrations. A large portion of the human brain is connected to processing visual information (Smiciklas, 2012). With this highly visual brain, humans are able to process graphic information and derive meaning quickly. The presentation and white paper will include some written report of the findings but will also have visual components to aid in understanding.

Reporting Data Effectively

When developing a plan to share data and recommendations, it is important to consider methods and means that are most effective. Several themes emerged from the literature. First, it is important to communicate the meaning of the data. This is not just an interpretation of technical, statistical information but also a connection of why the information is important to the listener and how it connects to why they do what they do in the institution. Connecting staff and leadership to the why can increase willingness to collaborate (Knight-Wallace, 2014). The presentation and white paper will not only detail the study findings but will establish why the findings on services are meaningful.

Storytelling emerged as a second theme for moving data to action. This is a somewhat surprising contrast to the typical account of dry, statistical information usually associated with study reports. Storytelling connects significantly to the idea of creating meaning and connecting users to the why. Narrative techniques can be employed to communicate scientific findings to aid in understanding (Should scientists tell stories?, 2013). The narrative can help to shift the presentation to a conversation. Rather than performing, the speaker seeks to engage the audience and may increase the effectiveness of the communication (Aruffo, 2015). If the speaker piques the interest of the audience with a story that is meaningful and connects them to the information personally, they may be able to engage and understand even complicated data (Mastrangeli, 2014). An added benefit is that this presentation technique may also alleviate some of the presenter's anxiety (Aruffo, 2015; Mastrangeli, 2014). Part of the structure of the project's presentation will be telling the story of what could be if the staff and administrative

leadership of the university embraced student service development. By connecting these services to a student's story of success or failure, I will be able to tap into why the staff and faculty do what they do: to help student achieve their goals. The narrative technique will help to infuse interest as well as meaning into the reporting of the data.

While it is important to ensure understanding and create meaning, it is also important to correctly report and describe statistical data in study reports (Drummond & Tom, 2012). Visual aids such as graphs and charts can be used to support understanding for those who may not be as proficient with statistical interpretation (Drummond & Tom, 2012; Pupovac & Petrovecki, 2011). Charts and graphs are important communication tools, but they must be paired with a full description of data, including data outside the hypothesis (Weissgerber, Milic, Winham, & Garovic, 2015). In order to communicate effectively with staff and academic leadership, the presentation and white paper will include a variety of statistical reporting, visual information, and narrative description to include the key techniques identified in the literature. There will also be discussion of study findings that were outside the expected results.

Effective Modern Presentations

While PowerPoint has been a standard presentation aid for years, Prezi is a new tool is available to aid in telling the story of the information and engaging the audience's attention visually (Yee & Hargis, 2010). This offers the ability to represent a network of arguments in a connected, nonlinear way like common pedagogical metaphors such as a wheel or web (Harris, 2011). The relatively new software is free and looks impressive but has a high value and is user-friendly (Mandernach & Taylor, 2011). In order to

engage the audience's attention and connect the data to recommended action steps, I will use Prezi for the presentation to the staff and administrative leadership at the biannual Town Hall meeting. Not only does the software lend itself to a storytelling model of presentation, audiences tend to find it more engaging than traditional PowerPoint (Brock & Brodahl, 2013). An added benefit is that the presentation can be easily shared with others on the Internet for information dissemination and collaboration (Tam & Eastwood, 2012). The presentation will include detailed text to encourage sharing. The intention is that a viewer could follow the findings and recommendations even if they do not have the benefit of my oral commentary.

In addition to the oral/visual presentation, I will also share findings in a white paper, which includes visual representations of data in addition to statistical tables and description. Infographics are a way to communicate data concisely because the use of minimal strategically placed text with visual images allows the viewer to derive meaning easily (Turck, Silva, Tremblay, & Sachse, 2014). The viewer is able to see the connections and relationships between the data strategically presented (Abilock & Williams, 2014). As technology changes, communication preferences evolve, in this case from written language to visuals (Kmalvand, 2014). The white paper section of the project includes a shareable, understandable visual display of data. Both Prezi and infographics will help to communicate the meaning of the data in an engaging and interesting way for the staff and administration representing a wide range of statistical literacy. Figure 1 shows the graphic that represents the findings of satisfaction variation according to previous online education experience for the Academic Services scale.



Figure 1. Previous online education academic scale graphic. With minimal text and without complicated statistical reports, this graphic visually represents the finding that as online experience increased mean satisfaction for the academic scale tended to decrease.

Follow Up Activity

The presentation and white paper will be the components of the study project, but it is not likely that these pieces alone will bring about ongoing change. The presentation and white paper will serve to articulate the problem, report study findings, and offer recommendations for action. Because institutional change does not typically result from one-off events, a plan for continued evaluation is needed (Hill, 2013). Additional dissemination of information, follow up, and action from staff and administration will be necessary to change student services at the university. Development of a process for collecting student data and establishing best practices for university research will be an important step for ongoing evaluation of student services (Harrison, 2012).

Implementation

Upon completion of the project, I plan to offer a sample of the presentation and white paper to the dean of daily operations and request permission to present the full project at the next Town Hall meeting. All staff who work with the adult online undergraduate and graduate students at the university attend the Adult and Graduate Studies Town Hall. The academic deans, as well as the university provost and president also regularly attend the meeting. I would also request that the director of library services also attend. In the context of the university's culture, staff and directors will need approval from university leadership to move forward toward change. For example, approval would be required for the formation of a task force or committee. For this reason, the Town Hall is an ideal opportunity to address all levels of staff and faculty needed to affect change.

Part of the project evaluation will include an evaluation of the presentation. In this evaluation, staff and faculty have the opportunity to give feedback and identify ways that they may be willing to contribute to next steps of service improvement or development. I will distribute the white paper in print and electronically. I will ask faculty and staff to pass this information forward to those who may be interested and have additional perspective to contribute. After this implementation, I will likely have the opportunity to continue to lead certain aspects of future inquiry and service execution, but I will no longer be the only invested party. It is my intention to use the presentation evaluation to identify other staff and faculty who may become champions of one service area or another. This is where the study comes alive and becomes something larger than

my own vision and is able to move forward to meaningful change ultimately resulting in improved student experience.

Potential Resources and Existing Supports

The greatest resource and support in my setting will be my colleagues. Many are aware of my study and interest in significantly modifying student services for the adult students. There is a great deal of camaraderie and encouragement for all of those pursuing doctorate degrees. Even before submitting a formal request, I have confidence that I will be able to present my study at the next Town Hall meeting and implement the project as planned.

In the course of my inquiry, I have identified several individuals in various spheres of influence who also recognize deficiencies in the student services for the adult online students. I plan to engage these leaders in follow up conversations and use our combined influence to help drive action forward. Because they have varied experience at different institutions, we will be able to discuss, research, and offer several possible models of service delivery. Our combined voice will give weight to the issue.

The university has a Student Academic Services department for the traditional, residential students. It is possible that some of the existing resources in that department could be modified and expanded to serve the online adult student population. Because of the university structure, however, faculty and staff in that department may not be willing or able to serve online students. Even if they are not able to expand their reach, there may be opportunities to work synergistically to improve service offerings across the entire institution.

Potential Barriers

While I have confidence in my ability to implement my project in my setting, there are challenges to affecting change because of the project. There are several potential barriers connected to the foundational barrier to change at many higher education institutions: money. In general, increased service offerings will come with expenses attached. In order to bring support services to a higher standard, the university might need to commit funds to the purchase of technology or updated programs. At a time when many at the institution already feel stretched thin, additional staffing will be required to implement services. There are potential creative solutions, but there will be costs involved. The challenge will be to make the case that improved services and more positive student experiences will be a benefit to the institution over time. There is a case to be made that these costs are an investment that may pay for itself over time, but any expense or additional drain on staff is a potential barrier.

The other barrier I see may be even more challenging to overcome than cost. The institution has operated with weak student services for many years. In order for the project to be able to affect change, leadership must first be convinced of the need for significant change. Part of the challenge for the project will be to establish for the university leadership that the problem identified in this study is indeed a problem worthy of attention and a solution. If they are not convinced that the problem requires additional research and resources, it will diminish the opportunity for a change in practice.

Proposal for Implementation and Timetable

The next Town Hall is scheduled for May of 2016. After completion of this project, I will apply to be on the presentation agenda for that meeting. Immediately following the presentation, I will collect an evaluation. I will record which individuals express interest in additional inquiry and implementation of service improvement. After having conversation with these colleagues, I will request that the provost officially create a student services task force or ad hoc committee for student services. Ideally, this group will bring detailed proposals of service improvement and/or development to the university cabinet for consideration. If the provost agrees to the appointment of the group, research and collaboration on specific plans could begin as early as the summer of 2016. The timeline of proposal development and possible service implementation would vary greatly depending on how much modification is proposed for a given service area.

Roles and Responsibilities of Student and Others

It will be my responsibility to request the opportunity to present my completed project. Much of what follows in the implementation phase will depend on the approval of those in leadership positions at the university. As I indicated previously, I have confidence that the dean of daily operations will approve the presentation of my project at the Town Hall. It will then be my responsibility to communicate the problem, findings, and recommendations through the project presentation and white paper.

After the implementation of my project presentation, it will be my responsibility to follow up with interested, invested colleagues to capitalize on support. I will also propose the formal formation of a team, committee, or task force to create concrete

proposals for specific service improvement. It will be the university provost's responsibility to approve or deny the formation of the committee. How far and how fast any resulting recommendations for change actually result in practice change will depend on the cooperation of my fellow staff and key faculty. I may have the opportunity to continue in a leadership role to keep these concerns at the forefront.

Project Evaluation

I will offer all presentation attendees an evaluation. A full sample of this evaluation is in Appendix D. Evaluation questions include the following: One thing I learned..., one thing I already knew..., one thing that surprised me..., I think the next step should be..., I would be willing to (serve on a committee, share personal/professional experience, do research on how other similar institutions provide services, etc.,) to support student service improvement. The evaluation form also includes my contact information to allow for follow up questions. Recipients of the electronic version of the white paper will receive the same evaluation items via a link to a Survey Monkey survey. This would allow the option to submit feedback anonymously.

The goal of this evaluation is to determine if the presentation and white paper were effective in communicating the problem and key findings of the study. The evaluation also has a call to action as a key component. If some faculty and staff indicate that they are willing to become participants in additional inquiry and service development, the intended outcome of the study will be realized. This would be an indication that practical change was beginning in the local setting.

I will also complete a reflective evaluation of project progress at regular intervals. After the project presentation to the staff and university leadership, I will review and reflect on three questions. First, what action has been taken for additional inquiry and service development? Second, what barriers are there to action and change? Finally, what are the next steps to encourage online student service change? I will review these questions one month, three months, and six months after the project presentation. This evaluation will serve to determine if appropriate action has been taken and what next steps are needed to bring about significant change.

Implications Including Social Change

Local Community

The greatest opportunity for social change because of my study is at the local level. The project presents service area challenges from the adult online students' perspective. As demonstrated in the review of the academic literature, current practice at the university is lagging in self-evaluation and in support service offerings. If the intention of the project is realized, the result will be improved student services that meet the needs and expectations of the university's students. It will also be a jumping off point for cyclical self-evaluation to ensure that the university meets student needs over time.

When adult students commit to earning an undergraduate or graduate degree, their experience affects many others. The impact of this study is important for students and their families. Some students are not able to persist successfully without adequate support services. Failure to provide those services has significant consequences for the student who is not able to succeed academically. When students are not adequately

supported from the institution, faculty have limited options when a student begins to struggle. Administrators must reconcile retention, probation, suspension, and graduation rates for accrediting bodies. Insufficient student support services can affect all of these. This study and project is important for bringing greater attention to student services for the benefit of all these invested parties.

Far-Reaching

Because of the size and particular characteristics of the university, the specific findings cannot be widely generalized. The student services focus of this study connects the importance to the larger educational context. Examination of the academic literature revealed a significant gap in research. This study will contribute research focused specifically on online student support. It is a very important distinction because the majority of online education research found focused on academic rigor and delivery rather than support services. Additional research is needed to give attention to the adequacy and efficacy of support services for online students.

Conclusion

This section reviewed the project portion of the study. I developed a project for the opportunity to bring the data of this study from statistics on a page to meaningful change. I created a presentation and white paper for the staff, faculty, and university leadership with a report of the findings and recommendations for service improvement. The data collection was a first step in addressing the problem of the lack of self-evaluation of services at the university. The project is the next step in addressing the problem of insufficient student services. Potential for change is most promising at the

local setting with the opportunity to improve and develop new services. The study also contributes to the larger body of academic literature lacking in research on online student support services. The following section is a final analysis of project strengths and weakness, as well as reflections on my personal development as a researcher-practitioner.

Section 4: Reflections and Conclusions

Introduction

The purpose of this study and project was to provide an example of service evaluation with student data and recommendations for student service improvement and development. The evaluation and subsequent presentation and white paper represent an opportunity for significant change at the local level while contributing to the larger body of academic literature on online student services. The process of the study and project development also resulted in significant growth in myself as a researcher-practitioner and leader. While this study has been significant personally and for the local setting, there are additional opportunities for further inquiry to continue the process of improving practice based on student-driven data.

Project Strengths

The presentation and white paper project has several strengths that address the problem identified in the study. The first strength is that the reported data come from university student responses about student services. Student-driven data are a critical missing link to focused service improvement and development in the local setting. By surveying the university's online students, I was able to provide direction and recommendations based on data from the users instead of faculty and staff impressions or intuition about student services. The project offers a cyclical model of identifying a problem through observation, student data collection, analysis, service modification, and reassessment to address the need for ongoing evaluation. Figure 2 is a graphic representation of a model of cyclical evaluation.

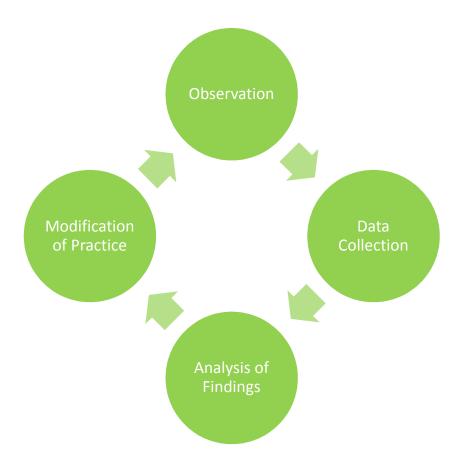


Figure 2. A model of cyclical evaluation. This figure represents an ongoing process of identifying a problem and addressing it with data-driven analysis, change in practice, and observation and assessment of the results.

In addition to the problem of insufficient student service evaluation, the presentation and white paper project also addresses gaps in practice in the local setting in two key ways. First, I identified specific, data-driven service improvement recommendations. Second, the project and evaluation call for commitments to action. This is a key strength in addressing the problem because cooperative action will be necessary to bring about real change in practice at the university. The presentation, white

paper, and evaluation invite invested parties to understand the problem and then pinpoint how they can contribute to additional inquiry and improved online student services.

The project delivery design is a strength because it ensures that the necessary parties at the university have access to the study information. I plan to present the project at the Adult and Graduate Studies department biannual Town Hall Meeting. All staff who work with the university online associate, bachelor's, and master's degree seeking students attend this meeting. The academic deans, provost, and president also attend the meeting. This composition ensures that frontline staff as well as university leadership will have the opportunity to understand the problem and hear recommendations for evaluation and student service improvement. They will also have the opportunity to commit to action to bring about the intended change in local practice. The presentation is shareable online, and the white paper can be distributed in print or electronically to any interested stakeholders not able to attend the Town Hall Meeting. This delivery format supports the dissemination of information to all parties needed to bring about significant change.

Recommendations for Remediation of Limitations

As with any study, there are limitations associated with the project. First, the scope of the study is small. The survey response rate was sufficient for the study at 12% of the online student population at the university, but there are many student perspectives not represented in the data. Second, the project only addresses the findings from the data collected with the Priorities Survey for Online Learners. The student responses are limited to the Likert scale ratings of importance and satisfaction. The project does not

include any student commentary or explanation of reported levels of importance or satisfaction. Finally, the presentation and white paper communicate the problem and offer recommendations for change in practice but cannot create student service improvement without the investment and work of others at the university.

There are options and opportunities for remediating these limitations moving forward. Future inquiry could collect additional student data from a larger portion of the sample. If surveys yield a low rate of return, focus groups, interviews, or student service feedback as part of a course could serve as means for data collection. These approaches may yield more data, including detailed qualitative data, which could fill in the narrative gaps inherent to quantitative data tied to a specific survey. The combination of quantitative and qualitative data and ongoing evaluation would also serve to keep the problem in front of university staff and leadership. Recognition of the problem is a necessary first step to begin the process of student service improvement. Including other leaders in future inquiry and continuing to present new findings will help to encourage their active participation in practice change.

There are other possible means for addressing the problem of insufficient student service evaluation and gaps in practice. One option for evaluating student services could be to collect data from faculty. They may see deficiencies concerning student resources and student academic performance at the university. Their perspective of student needs may be different from the student point of view but may indicate significant gaps in service delivery. Another potential source of data on the subject of student services could be the department staff who currently provide student services. Because they field

faculty referrals and student inquiries for support services, they may have special insight into service needs.

Data could be collected from these alternative groups in several ways. Surveys could be distributed to these stakeholders through university email. Interested student services staff could participate in a focus group discussion of student needs. Faculty could submit anecdotal records of deficient student performance and the outcome of how student services at the university did or did not support the student to success. This information on student services could also be evaluated in light of data on the number of students put on academic probation or suspension as well as the general student retention figures. In this case, the small size of the institution is an advantage because volume would allow individual student case examination. Current data could be compared to future data to determine if improved student services contribute to improved academic performance and student retention.

Scholarship

The course of this study has taught me a great deal about scholarship. From the identification of the problem to the conclusion of the project, the need for research-based practice was reinforced. The development of this study has enhanced my awareness of the need to employ rigorous academic inquiry to all aspects of educational practice. At the local setting, intuition or individual leaders' previous experience has driven a great deal of practice. The emphasis on academic study has not only helped me to recognize this tendency but has also helped me identify ways that I can contribute to improved standards of data-driven practice. As I have developed a greater appreciation for the

application of academic study, I have also experienced the increased influence that high academic achievement can afford. Even before degree completion, I have had more opportunities to contribute ideas and encourage service improvement.

Project Development and Evaluation

Projects can be powerful tools to bring about institutional change. The creation of a data collection study and accompanying project was an important lesson in the importance of asking, "So what?" Academic study can be conducted in wonderful detail, but if it is not paired with a plan for action, "So what?" Shelved data will not bring about scholarly practice, but shared data has the potential to drive change. A project aligned with the data can help to bridge the gap from information to action by identifying practical next steps for the audience. Critical evaluation of the project can promote this bias toward action by ascertaining what the audience learned and how they are willing to participate in plans for additional inquiry or change in practice.

Leadership and Change

While I have had greater opportunities to lead and contribute to change, the project development process has emphasized the fact that significant change only happens in the context of community. A leader is only leading if others are following, and institutional change does not occur on the back of one individual. In order to bring about change, a leader must inspire others to join them. A community of individuals committed to the goal of high quality student services is an ideal project outcome. A community of committed individuals may bring about the synergistic energy needed to engage in the challenging work of self-evaluation and student service development at the

university. The credibility of scholarly achievement and expertise in this area of student services will help to support my opportunity to lead beyond project presentation to practical change.

Analysis of Self as Scholar

I have had the opportunity to learn a great deal about myself as a scholar through the process of this study and project development. I have discovered that I enjoy the process of data collection and analysis. The opportunity to learn new information is inspiring and invigorating, particularly when connecting findings to practical application. I found that it was challenging to complete thorough literature reviews because the appeal of new information specific to my setting held my attention. Although my preference is to look forward rather than back, the disciplined exercise of evaluating the academic literature was very valuable in providing research-based direction to the design and content of the study and project.

Analysis of Self as Practitioner

Through the course of this study, I have found that I am a practitioner with more questions. Self-reflection has become a greater part of my practice as I question and evaluate my assumptions and habits. I have found that I am more likely to question others rather than allow a position of authority to result in assumed agreement. I am less willing to accept declarative statements of why a practice must be one way or another. Instead, I have become bolder in asking for the evidence attached to such statements. I do not ask antagonistically, but rather out of curiosity and the desire to encourage a culture that values research-based practice over intuitive or individually biased practice.

In short, I have become a researcher-practitioner increasingly filled with questions and a desire to address those questions with rigorous academic inquiry.

Analysis of Self as Project Developer

The creative process of designing a study and project to address a specific educational problem was a welcome pairing with the academic process of research. I found that the project development provided the opportunity to explore new skills such as visual information design and the use of new software such as Prezi. In addition to these practical skills, the project gave me the opportunity to employ my ability to develop a cohesive product that strategically connected to the problem, data, and intended change in practice. This has greatly increased my confidence in my ability to see a project from inception to completion.

The Project's Potential Impact on Social Change

While the scope of the study and the small size of the university is a weakness in regards to the generalization of the findings, these highly individualized characteristics contribute to the opportunity for local change. Because the study was confined to the students and services of the institution, they are highly applicable to the setting. The study findings and project recommendations represent a significant opportunity for change in the student service offerings at the university. If university staff and leadership understand the problem and invest resources in student service development, the result could be enhanced student experience, improved academic performance, and increased student retention.

Through the course of reviewing the academic literature, I identified a gap in regards to studies on online student services. Most literature on online education focused on academic rigor and content delivery rather than student services specifically developed for online learners. While the specific findings of this study cannot be widely generalized to other institutions, the study does contribute to the lacking field of online student services research. The study and project emphasize the importance of critically evaluating services from the online students' perspective and defining service delivery best practices.

Implications, Applications, and Directions for Future Research

The specific study findings and project recommendations have significant implications for the local setting and point to next steps for action and inquiry. The presentation and white paper project clearly define opportunities for improvement in local online student service practice. These improvements could contribute to better student retention and improved academic performance. Additional inquiry would provide more insight into student needs and opportunities to serve the online population better. For example, qualitative data could be collected from students to gain greater insight into their thoughts about certain services such as university use of social media or writing services. Future research could also include data collection of student service needs from the faculty perspective. For example, students indicate that the university is providing adequate writing services, but do faculty indicate that students are writing at appropriate academic levels? Do faculty think that students are in need of improved

writing services? These examples demonstrate that there are opportunities to refine the knowledge gained through this study by additional research.

This study and project serve as a model for other institutions in need of online student service evaluation. The cyclical structure of observing a problem, collecting student data, analyzing findings, modifying practice based on the research, and reassessing has application potential in many settings, though the findings will vary by institution. This cyclical model not only applies to the evaluation of student services. The model also applies to creating data-driven change across many educational practices.

As the literature review indicated, there is a need for additional research in the area of online student services. The field needs research-based best practices for online student services. Additional research could collect data from student and faculty perspectives. Assessment of the connections between student services and student retention would make the results particularly compelling for the administration of universities as retention contributes to the financial health of an institution.

Conclusion

I developed this study and project to address the problem of insufficient student service evaluation and gaps in student services for online students. The project offers the university staff and leadership recommendations for online student service improvement along with a model of ongoing evaluation. The process of creating this study and project has afforded me the opportunity to grow in scholarship and leadership as well as the opportunity to practice the discipline of research and reflection. The project has the potential to bring about significant change in practice locally. This study will contribute

to the academic literature on online student services. This project represents a starting point for additional inquiry and service development at the university as well as a call for additional research on online student services across the field.

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 Including applications in student affairs, enrollment management, alumni

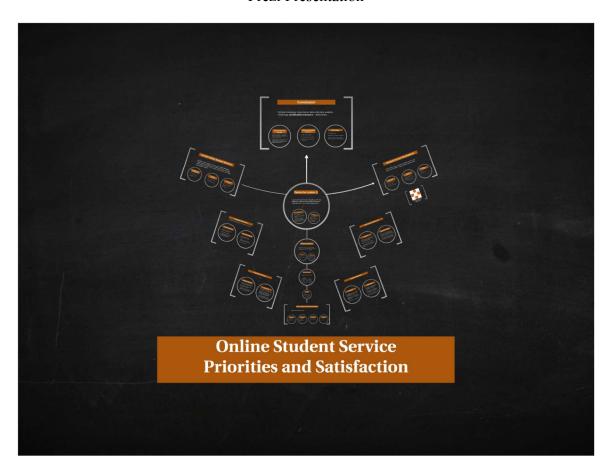
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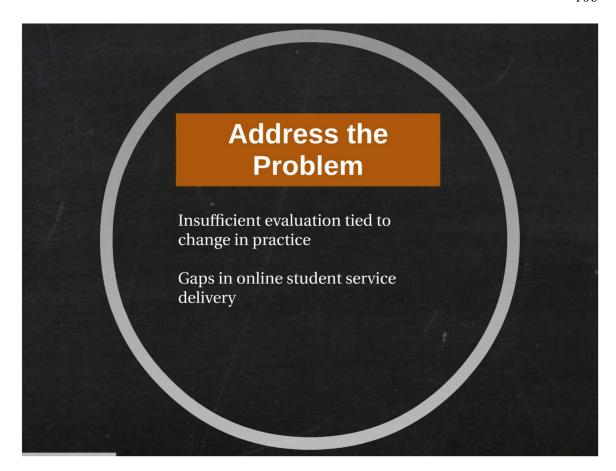
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Appendix A: Project Presentation

Prezi Presentation





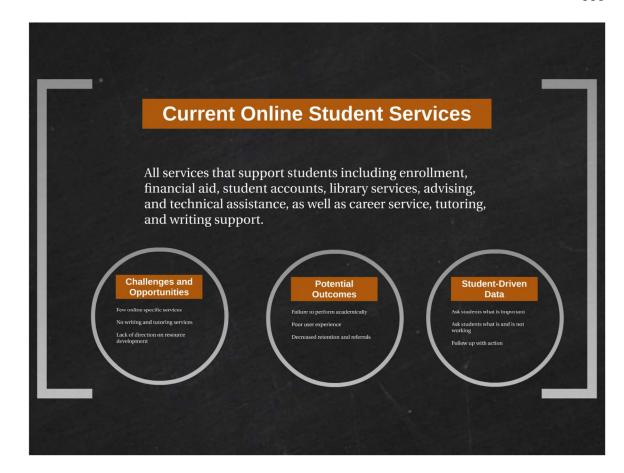


Answer Research Questions What student services are most inportant to online students? How satisfied are current online students with student services?

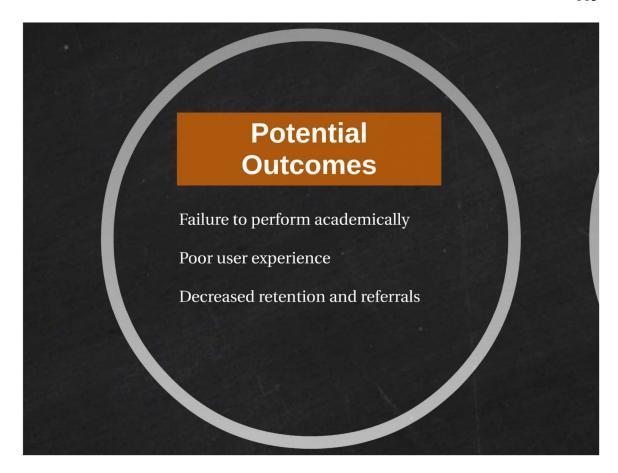


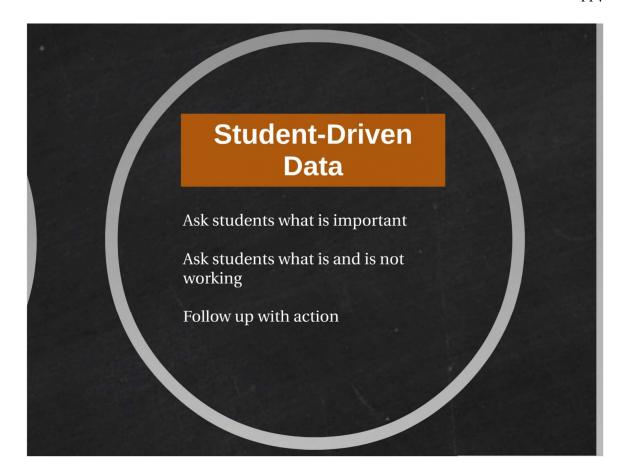


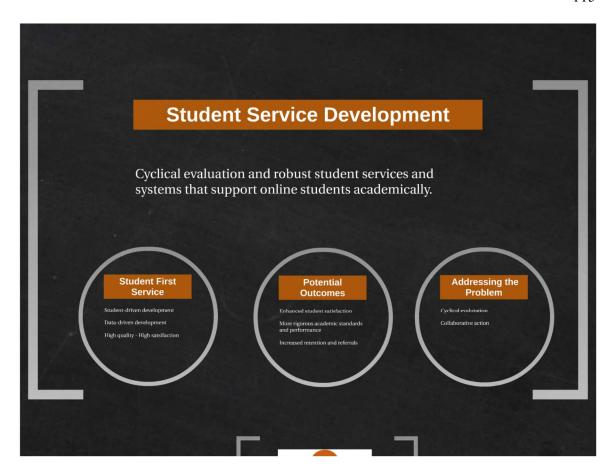


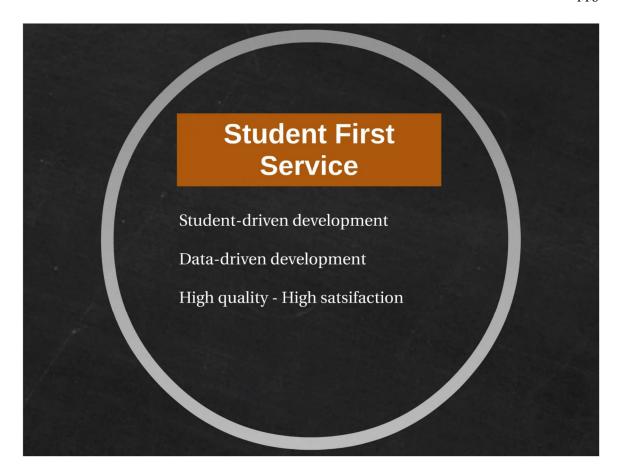


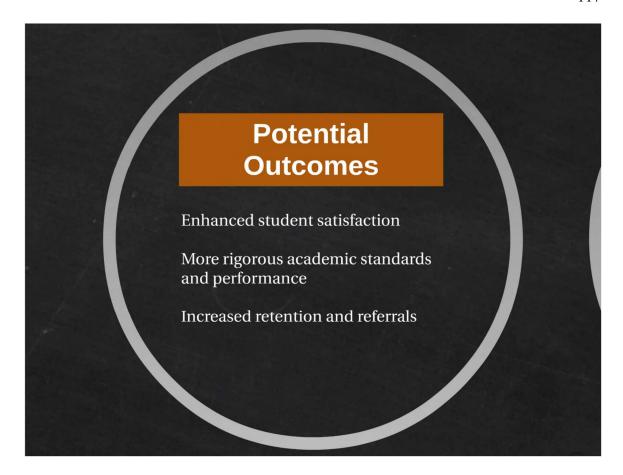


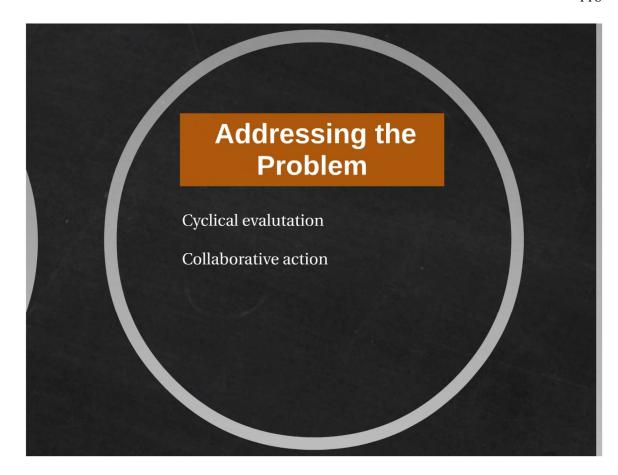


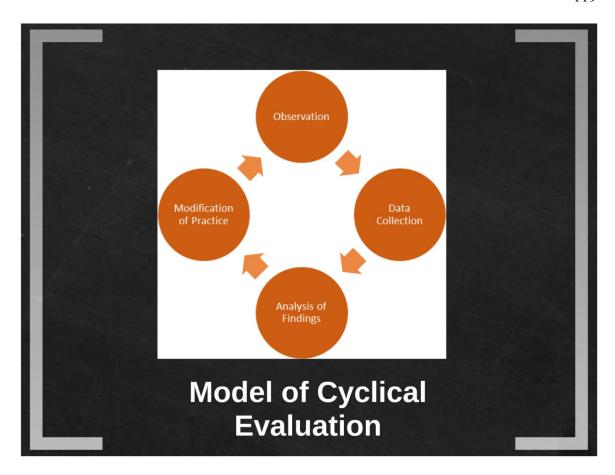




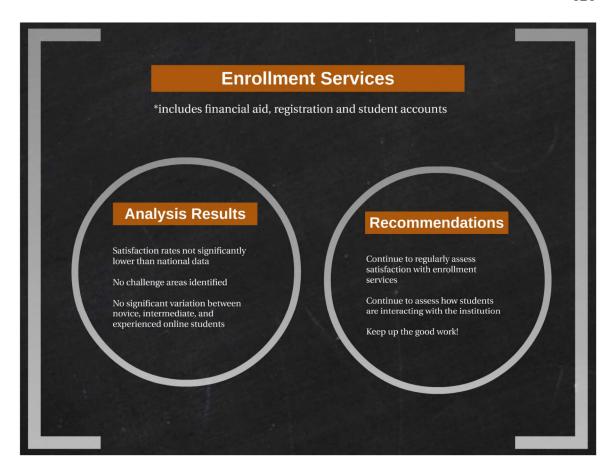












Satisfaction rates not significantly lower than national data No challenge areas identified No significant variation between novice, intermediate, and experienced online students





Analysis Results

Career service and tutoring satisfaction significantly below the national data

Challenge area: Program requirements are clear and reasonable.

Previous Online Education Experience (POEE): The most experienced online students were the least satisfied

Questions

How can we better meet online students' needs for career and tutoring services?

Are the most experienced students least satisfied because they are in more challenging courses and nearing the transition of degree completion?

Are program requirements unclear, unreasonable, or both? Is this challenge specific to one program or school?



Analysis

Low satisfaction: career services, timely handling of student complaints, and timeliness of bookstore services

Challenge area: I am aware of who to contact with questions about programs and services.

Most experienced = least satisfied

Reflection

Career services are again rated with significantly lower satisfaction than national online student data.

Communication and timeliness are important to students and represent and opportunity to improve service.

Why does satisfaction decrease with more online education experience?



Analysis

Challenge area: I had enough information to feel comfortable in Blackboard when I started my online program.

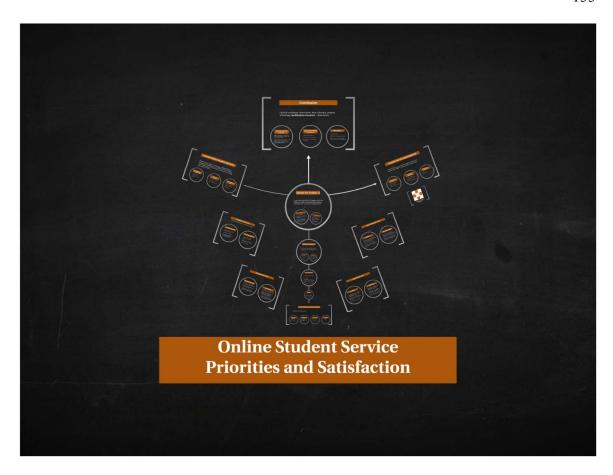
Highest POEE = lowest satisfaction

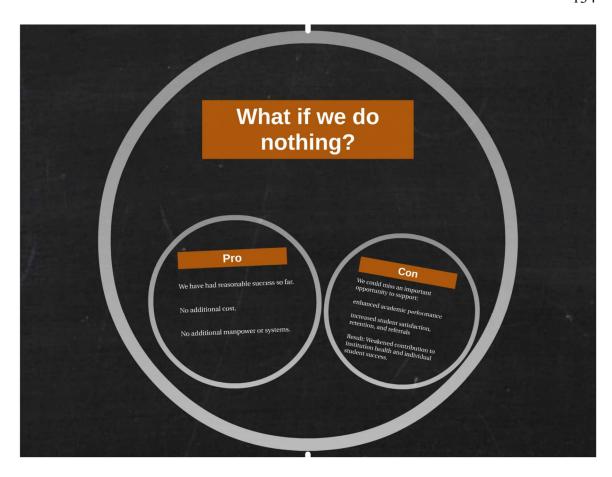
Scale includes: advising, tutoring, social media, library services, and writing support

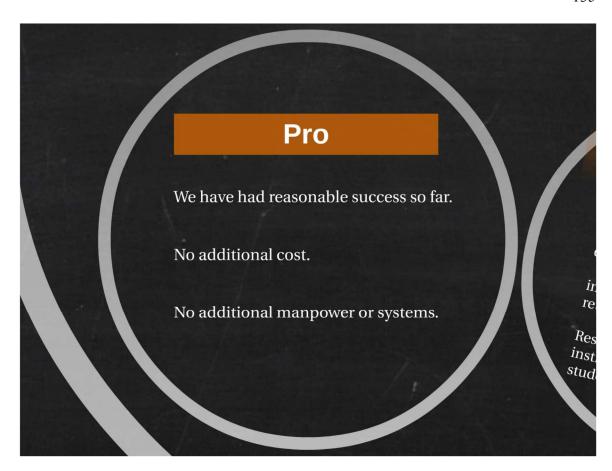
Important Notes

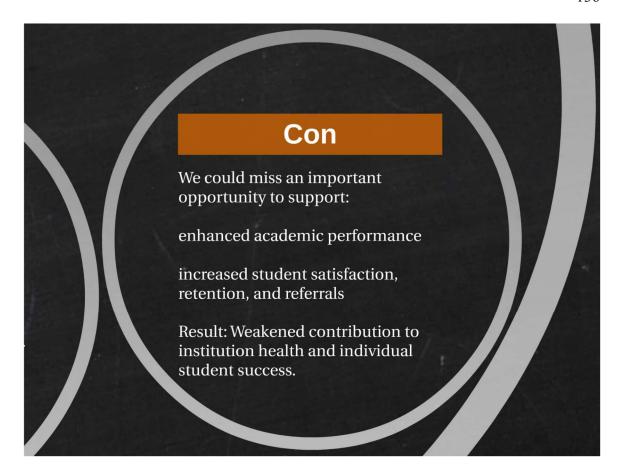
Online orientation is one of the few services that was directly linnked in the literature to student persistence. This is a critical service for online student retention.

Students did not report low satisfaction with writing and APA support, though these services are not available. Why?

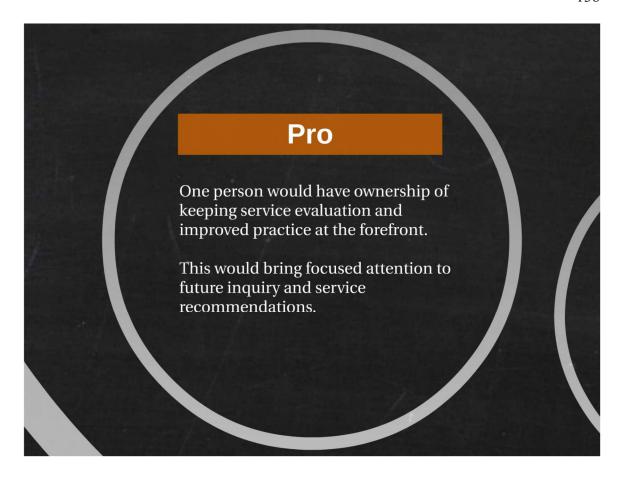




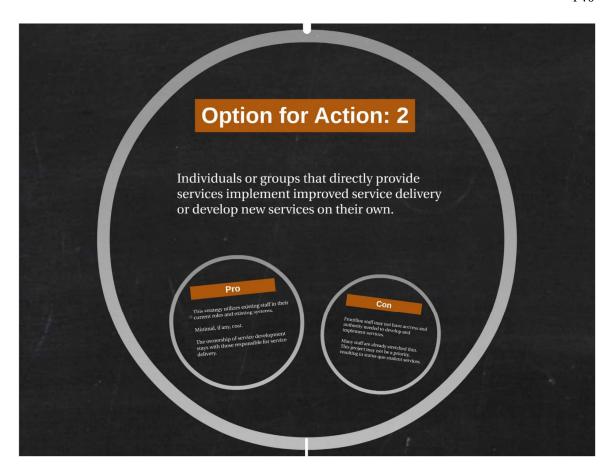




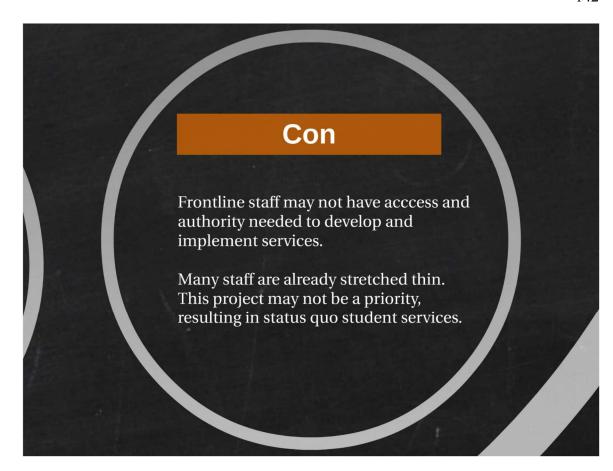








Pro This strategy utilizes existing staff in their current roles and existing systems. Minimal, if any, cost. The ownership of service development stays with those responsible for service delivery.





Pro

A task force can bring direction and authority to the project.

Additional inquiry can provide databased answers to questions that remain from this study.

This strategy assigns ownership to a group able to move forward with existing resources and the ability to present requests for additional support to university leadership.

Con

Some staff and faculty may be suffering from "task force fatigue."

Findings may point to the need for the investment of additional human and financial resources during a time of tight budgets.

(on the other hand, analysis may determine that the ROI of service improvement justifies the cost.)



Joint Action for Change

Collaboration results in a shared load and greater likelihood of implementation of service improvements.

It may be found that resource investment is needed, but this can be carefully weighed against the potential gains of enhances student services.

Improved Student Services Greater student satisfaction Improved academic achievement Possible increased retention and referral rates

Next Steps Complete evaluation Send follow up questions and feedback Commit to practical support of future inquiry and student service development



Appendix A Continued: Project White Paper

A Quantitative Evaluation of Service Priorities and Satisfaction of Online University Students: Results and Recommendations

by

Danielle Elizabeth Valle

MA, Concordia University St. Paul, 2007 BS, Howard Payne University, 2003

Doctoral Study Project White Paper Submitted in

Partial Fulfillment of the Requirements for the

Degree of Doctor of Education

Walden University

February 2016

Introduction

In an effort to create a plan for student service improvement based on university student data, I sent a survey to our online Adult and Graduate Studies students. The Priorities Survey for Online Students (PSOL) was sent to all 477 online undergraduate and graduate students enrolled in online courses for the summer 2015 term. The survey is commercially available from the higher education consultation company Noel Levitz, Inc., and includes basic statistical analysis (Noel Levitz, Inc., 2013). Twelve percent of the total population completed the PSOL. Students were asked to rate the level of importance and their level of satisfaction with a number of student and academic services. After collecting data, descriptive statistics were utilized to analyze the results. Findings and recommendations for next steps are included here in an effort to translate the data to action. The intention is that the changes in practice that result from this project will create improved student experience leading to increased retention and referrals.

Research Questions

How satisfied are online students at the university with current services and support compared to national data?

What services and support are important to online students at the university, but are areas of challenge in regard to satisfaction?

How does the level of satisfaction with student services vary for students according to previous online education experience?

National Data Satisfaction Rate Comparison

The PSOL is administered nationally and comparison of the national data to the university sample data is included in the statistical analysis (Noel Levitz, Inc., 2013). The first research question resulted in the first three study hypotheses.

1. H_{10} : There is no statistically significant mean difference at the p < .05 level between the university satisfaction scores and the national satisfaction scores for the Enrollment Services scale.

 $H1_a$: There is a statistically significant mean difference at the p < .05 level between the university satisfaction scores and the national satisfaction scores for the Enrollment Services scale.

Table 1

Enrollment Services Satisfaction

Enrollment services	University satisfaction	National satisfaction	Mean difference
Item 9	5.81	5.83	-0.02
Item 14	5.61	5.82	-0.21
Item 18	6.17	6.38	-0.21
Item 23	6.12	6.19	-0.07
Scale composite	5.93	6.06	-0.13

In regards to the Enrollment Services Scale, no statistically significant difference was found between the level of satisfaction of the university students and the national data. The first null hypothesis is accepted. This indicates that enrollment services at the university are meeting students' expectations at rates that are comparable to online students nationally.

2. $H2_0$: There is no statistically significant mean difference at the p < .05 level between the university satisfaction scores and the national satisfaction scores for the Academic Services scale.

 $H2_a$: There is a statistically significant mean difference at the p < .05 level between the university satisfaction scores and the national satisfaction scores for the Academic Services scale.

Table 2

Academic Services Satisfaction

Academic services	University satisfaction	National satisfaction	Mean difference
Item 2	6.09	6.07	0.02
Item 5	5.15	5.63	-0.48*
Item 7	5.89	5.95	-0.06
Item 12	6.08	5.94	0.14
Item 16	5.87	6.07	-0.20
Item 21	6.00	6.09	-0.09
Item 24	4.51	5.65	-1.14***
Scale composite	5.71	5.93	-0.22

Note. *Mean difference statistically significant at the p < .05 level

In total, the mean scores for the university's students are not statistically significantly different than the national data mean satisfaction scores indicating acceptance of the null hypothesis. Two items deviate from the scale composite finding. Item five and 24 indicate that the level of satisfaction for the university's students is significantly lower than the satisfaction means of the national data for career and tutoring services. This areas of service need additional exploration and potential development.

^{***}Mean difference statistically significant at the p < .001 level

3. $H3_0$: There is no statistically significant mean difference at the p < .05 level between the university satisfaction scores and the national satisfaction scores for the Student Services scale.

 $H3_a$: There is a statistically significant mean difference at the p < .05 level between the university satisfaction scores and the national satisfaction scores for the Student Services scale.

Table 3
Student Services Satisfaction

Student services	University satisfaction	National satisfaction	Mean difference
Item 10	6.13	6.00	0.13
Item 15	5.10	5.57	-0.47*
Item 19	4.98	5.72	-0.74**
Item 22	5.72	5.97	-0.25
Item 26	5.59	6.07	-0.48*
Scale composite	5.54	5.88	-0.34*

Note. *Mean difference statistically significant at the p < .05 level

The null hypothesis for the Student Services Scale is rejected because the mean satisfaction scores for our students are significantly lower than the satisfaction scores from the national data. This scale represents an opportunity to evaluate and improve practice for career services, communication, and the timeliness of handling of student complaints and bookstore services.

Service Challenge Areas

Items were identified as service challenge areas two ways statistically. These are service items that were rated as highly important, but had corresponding low satisfaction

^{**}Mean difference statistically significant at the p < .01 level

rates reported. The Satisfaction mean is subtracted from the Importance mean to yield the Gap score (I-S=G). An item with a Gap score in the upper quartile also indicates a challenge area. Also, an Importance mean score in the top half with a Satisfaction mean in lower quartile results in the identification of a challenge area.

The following items were identified as service challenge areas:

- I had enough information to feel comfortable in Blackboard when I started my online program.
- Program requirements are clear and reasonable.
- I am aware of whom to contact for questions about programs and services.

The challenge area regarding comfort with Blackboard is particularly important because online orientation has been connected to online student persistence (Kelso, 2011). It also seems that clarity and clearer communication is needed in regards to program information and services.

Previous Online Education Experience

For each service scale, an ANOVA test was run to assess possible variation in levels of satisfaction depending on previous online education experience (POEE). Online education experience was assessed by the number of online classes that the students reported completing. Three groups with various online education experience were assessed. The first had completed zero to three online courses, the second group reported four to 12 courses completed, and the final group has completed 13 or more online courses. Satisfaction variation between students with different levels of POEE was detected for three of the four service scales.

Table 4

Enrollment Services Scale Scores by Previous Online Education Experience (POEE)

POEE	Satisfaction mean	F score	<i>p</i> -value	F crit
0-3 classes	6.01	1.14	0.32	3.04
4-12 classes	6.05			
13-15+ classes	5.65			

Note. *p < .05 is statistically significant

Table 5

Academic Services Scale Scores by Previous Online Education Experience (POEE)

POEE	Satisfaction mean	F score	<i>p</i> -value	F crit
0-3 classes	5.98	5.73	0.004*	3.02
4-12 classes	5.59			
13-15+ classes	5.36			

Note. *p < .05 is statistically significant

Table 6
Student Services Scale Scores by Previous Online Education Experience (POEE)

POEE	Satisfaction mean	F score	<i>p</i> -value	F crit
0-3 classes	5.70	2.99	0.05*	3.03
4-12 classes	5.70			
13-15+ classes	5.14			

Note. *p < .05 is statistically significant

Table 7

21st Century Services Scale Scores by Previous Online Education Experience (POEE)

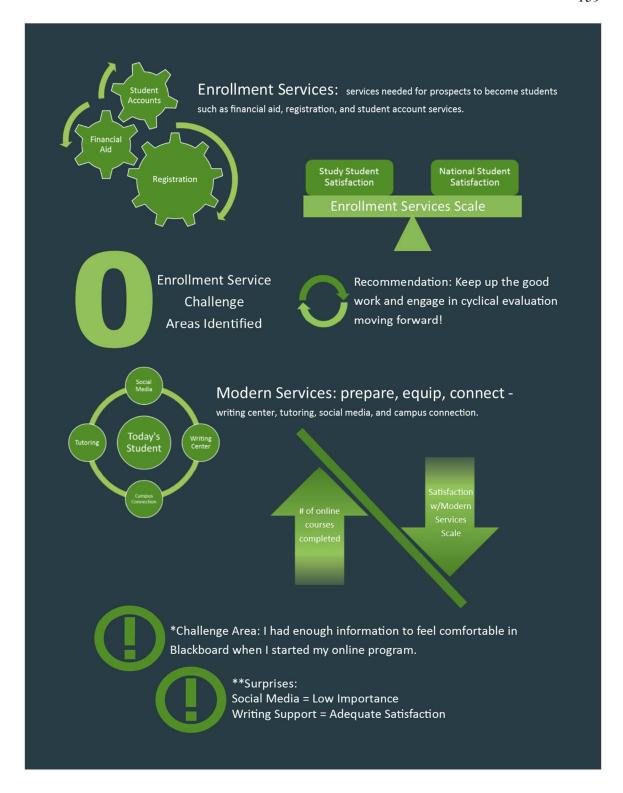
POEE	Satisfaction mean	F score	<i>p</i> -value	F crit
0-3 classes	5.84	4.66	0.01*	3.01
4-12 classes	5.64			
13-15+ classes	5.35			

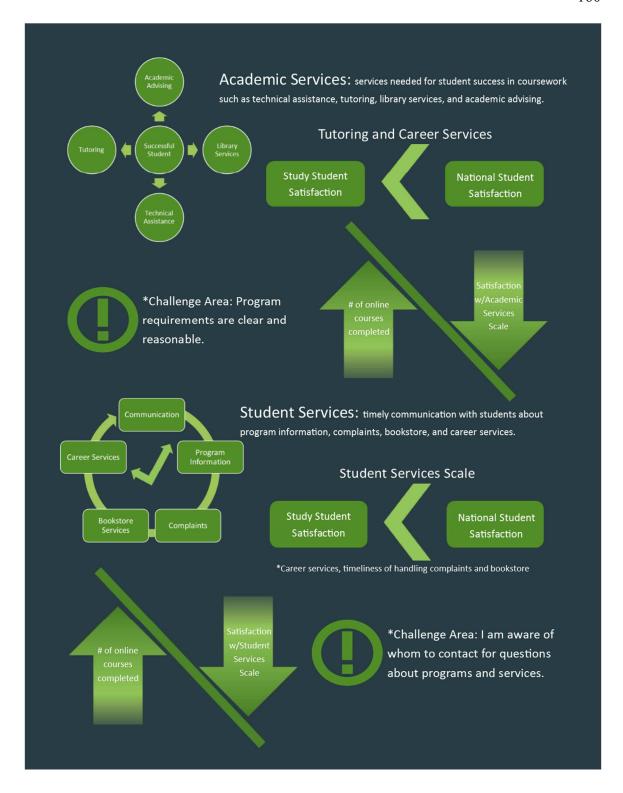
Note. *p < .05 is statistically significant

The key theme for these three scales is the fact that the most experienced students reported the lowest levels of satisfaction with the support services. Additional inquiry is needed to determine why this is and what changes in practice would result in improved satisfaction for our most experience online students. Could it be that these students are not as satisfied with services because they are in advanced courses requiring additional tutoring support or career services as the approach degree completion?

Next Steps

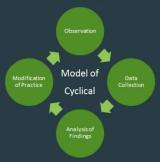
While these findings are important and interesting, practical change in service delivery is required to improve student experience. It is my recommendation that these findings are shared with all parties that provide online student services at the university. Individuals or groups that are willing to engage in ongoing evaluation and service improvement can provide leadership moving forward to ensure that the data is used to create change. While this report is a summary of findings, all data and statistical analysis is available upon request.





Recommendations for Next Steps

Engage in an ongoing process of assessment, analysis, and delivery improvement to enhance student experience for the purpose of increasing student retention and referrals.



This cyclical model is proposed to avoid the pitfalls of collecting data, but failing to translate the information into direction for practical action.

Prioritize Blackboard orientation for all online students because it is linked to online student persistence (Kelso, 2011).

Commit to evaluation and action on all challenge areas, particularly tutoring and career services.

Assess current communication and complaint processes to determine a course for increasing clarity and speed of response.

Conduct additional research on surprise findings related to the use of social media and writing services.

Research indicates that some students are using social media to connect with fellow students and are proficient and present on multiple platforms (Ellison, 2010; Fontana, 2010). Some advising teams are engaging students via social media to build relationships and reach students (Jenness, 2011).

It was interesting to note that writing services were not low in satisfaction compared to national data or identified as a challenge area even though the university does not have a writing center. Serious inquiry and reflection is needed to better understand the possible disconnect between students' writing performance and their perceptions of needing writing support. Do they believe that writing services are adequate because their grades indicate their writing level is adequate? What do faculty say about students' writing proficiency and need of writing services?

Identify individuals or groups that will take ownership and provide oversight for the ongoing evaluation and development of student services.

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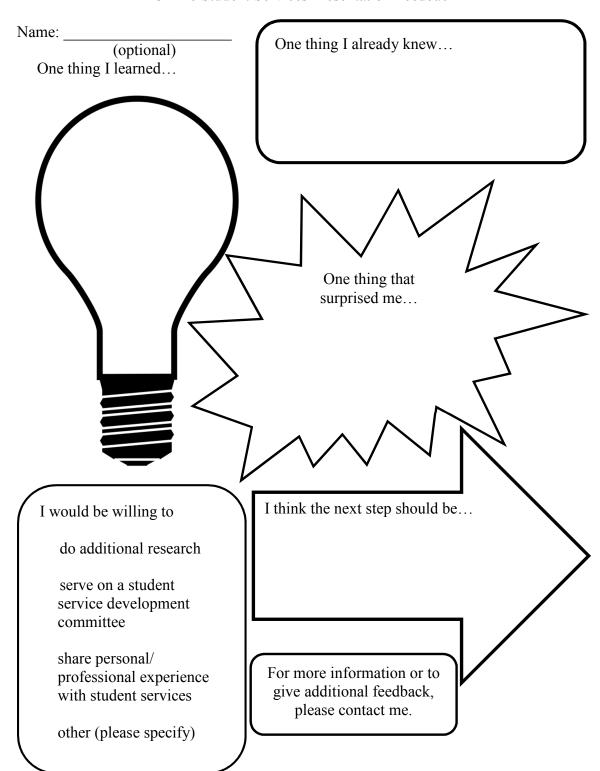
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Appendix A Continued: Project Evaluation Sample

Online Student Services Presentation Feedback



Appendix B: Priorities Survey for Online Learners



Mobile Version

Priorities Survey for Online Learners™

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Dear

Student:

Your thoughtful and candid responses to this survey are very important to your institution. Your responses will give your campus leadership insights about the aspects of this program that are important to you as well as how satisfied you are with them.

Thank you for your participation.

INSTRUCTIONS:

- Indicate your responses to each item as requested
- At the end of each section, click on "next page" to continue
- Be sure to complete the survey in one sitting (if you exit and return to the survey, your original responses will be lost)

Please note:

You will need approximately 10-15 minutes to complete the survey. To see as much of the survey as possible, you may want to maximize your browser window.

Continue

Ruffalo Noel Levitz is committed to complying with ADA standards. To accommodate those with disabilities, an ADA compliant version of the survey can be found here.



Each item below describes an expectation about your experiences with this program. On the *left*, tell us how <u>important</u> it is for your institution to meet this expectation. On the *right*, tell us how <u>satisfied</u> you are that your institution has met this expectation.

2 - r 3 - s	ot in ot ve ome neutr	ery ir what	npor	tant				5 - somewhat important 6 - important 7 - very important N/A - does not apply	1 - not satisfied at all 2 - not very satisfied 3 - somewhat dissatisfied 4 - neutral	6 - s 7 - v	atisf	what ied satisf t ava	ied		t use	d	
1	2	3	4	5	6	7	N/A			1	2	3	4	5	6	7	N/A
0	0	0	0	0	0	0	0	1. This institution has a good rep	outation.	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	2. My program advisor is access	ible by telephone and e-mail.	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	3. Instructional materials are ap	propriate for program content.	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	4. Faculty provide timely feedba	ck about student progress.	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	5. My program advisor helps me	work toward career goals.	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	6. Tuition paid is a worthwhile in	nvestment.	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	7. Program requirements are cle	ear and reasonable.	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	8. Student-to-student collaborat	tions are valuable to me.	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	9. Adequate financial aid is avail	able.	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	10. This institution responds quid	ckly when I request information.	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	11. Student assignments are clea	rly defined in the syllabus.	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	12. There are sufficient offerings	within my program of study.	0	0	0	0	0	0	0	0
1	2	3	4	5	6	7	N/A			1	2	3	4	5	6	7	N/A

Next



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lm	por	tanc	e to	me								Му	evel	of s	atis	acti	on
2 - n 3 - s	ot v	mpor ery i ewha	mpo	rtan	t	nt		5 - somewhat important 6 - important 7 - very important N/A - does not apply	1 - not satisfied at all 2 - not very satisfied 3 - somewhat dissatisfied 4 - neutral	5 -sor 6 - sar 7 - ve N/A -	isfie ry sa	d itisfie	ed		used		
1	2	3	4	5	6	7	N/A			1	2	3	4	5	6	7	N/A
0	0	0	0	0	0	0	0	13. The frequency of student an	d instructor interactions is adequate.	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0		14. I receive timely information	on the availability of financial aid.	0	0	0	0	0	0		•
0	0	0	0	0	0	0	•	15. Channels are available for procomplaints.	oviding timely responses to student	0	0	0	0	0	0	0	•
0	0	0	0	0	0	0	0	16. Appropriate technical assista	ance is readily available.	0	0	0	0	0	0	0	•
0	0	0	0	0	0	0	0	17. Assessment and evaluation p	procedures are clear and reasonable.	0	0	0	0	0	0	0	•
0	0	0	0	0	0	0	0	18. Registration for online cours	es is convenient.	0	0	0	0	0	0	0	•
0	0	0	0	0	0	0	0	19. Online career services are av	ailable.	0	0	0	0	0	0	0	•
0	0	0	0	0	0	0	0	20. The quality of online instruct	tion is excellent.	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	21. Adequate online library reso	urces are provided.	0	0	0	0	0	0	0	•
0	0	0	0	0	0	0	•	22. I am aware of whom to cont services.	act for questions about programs and	0	0	0	0	0	0	0	•
0	0	0	0	0	0	0	0	23. Billing and payment procedu	res are convenient for me.	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	24. Tutoring services are readily	available for online courses.	0	0	0	0	0	0	0	•
1	2	3	4	5	6	7	N/A			1	2	3	4	5	6	7	N/A

Previous

Next



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1 - no 2 - no 3 - so 4 - ne	ot ve	ery in wha	mpo	rtan													_
1		2				nt		6 - important 7 - very important	2 - not very satisfied 6 3 - somewhat dissatisfied 7	-son - sat - vei I/A -	isfied ry sat	tisfie	d		used	ı	
	~	3	4	5	6	7	N/A			1	2	3	4	5	6	7	N/A
0	0	0	0	0	0	0	0	25. Faculty are responsive to student nee	eds.	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	26. The bookstore provides timely service	e to students.	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	•	27. I have one assigned academic advisor entire program.	r to work with me through my	0	0	0	0	0	0	0	•
0	0	0	0	0	0	0	0	28. Adequate writing support is available	to me.	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	•	29. The institution communicates with m (phone, email, text, social media).	e via my preferred method	0	0	0	0	0	0	0	•
0	0	0	0	0	0	0	0	30. Adequate APA instruction and suppor	rt is available to me.	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	•	31. The institution connects with me on r platforms.	my preferred social media	0	0	0	0	0	0	0	•
0	0	0	0	0	0	0	0	32. Course specific tutoring is available to	o me when I need it.	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	•	33. I had enough information to feel com started my online program.	fortable in Blackboard when I	0	0	0	0	0	0	0	•
0	0	0	0	0	0	0	0	34. I have access to the library resources	that I need.	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	35. I feel connected to the institut	tion and campus.	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	•	36. I have adequate instruction and supp research.	ort for conducting academic	0	0	0	0	0	0	0	•
1	2	3	4	5	6	7	N/A			1	2	3	4	5	6	7	N/A

Previous



Each item below describes an expectation about your experiences with this program. On the *left*, tell us how <u>important</u> it is for your institution to meet this expectation.

lmp	orta	nce t	o me					
2 - no 3 - so	ot ver	y imp	nt at a ortan nimpo			7	5 - imp 7 - ven	newhat important oortant y important does not apply
1	2	3	4	5	6	7	N/A	
On th	ie left	t, tell	us ho	w imp	ortan	t eac	h of th	ne following sources of information were in your decision to enroll in this program.
0	0	0	0	0	0	0	0	37. Catalog and brochures (printed)
0	0	0	0	0	0	0	0	38. Catalog (online)
0	0	0	0	0	0	0	•	39. College representatives
0	0	0	0	0	0	0	0	40. Web site
0	0	0	0	0	0	0	0	41. Advertisements
0	0	0	0	0	0	0	0	42. Recommendation from instructor or program advisor
0	0	0	0	0	0	0	0	43. Contact with current students and / or recent graduates of the program
On th	e left	t, tell	us ho	w imp	ortan	t eac	h of th	ne following factors were in your decision to enroll in this program.
0	0	0	0	0	0	0	0	44. Ability to transfer credits
0	0	0	0	0	0	0	0	45. Cost
0	0	0	0	0	0	0	0	46. Financial assistance available
0	0	0	0	0	0	0	0	47. Future employment opportunities
0	0	0	0	0	0	0	0	48. Reputation of institution
1	2	3	4	5	6	7	N/A	
			_					
P	revio	ous	0					Next

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Each item below describes an expectation about your experiences with this program. On the *left*, tell us how <u>important</u> it is for your institution to meet this expectation.

l - not 2 - not	importa very im newhat i	portant	l		5 - some 6 - impo 7 - very	ortant	nportan	t
l - neu 1	tral 2	3	4	5	N/A - do	oes not a	n/A	
_	_		-					l rs were in your decision to enroll in this program.
0	0	0	0	0	0	0	•	49. Work schedule
0	0	0	0	0	0	0	•	50. Flexible pacing for completing a program
0	0	0	0	0	0	0	0	51. Convenience
0	0	0	0	0	0	0	•	52. Distance from campus
0	0	0	0	0	0	0	0	53. Program requirements
0	0	0	0	0	0	0	0	54. Recommendations from employer
1	2	3	4	5	6	7	N/A	

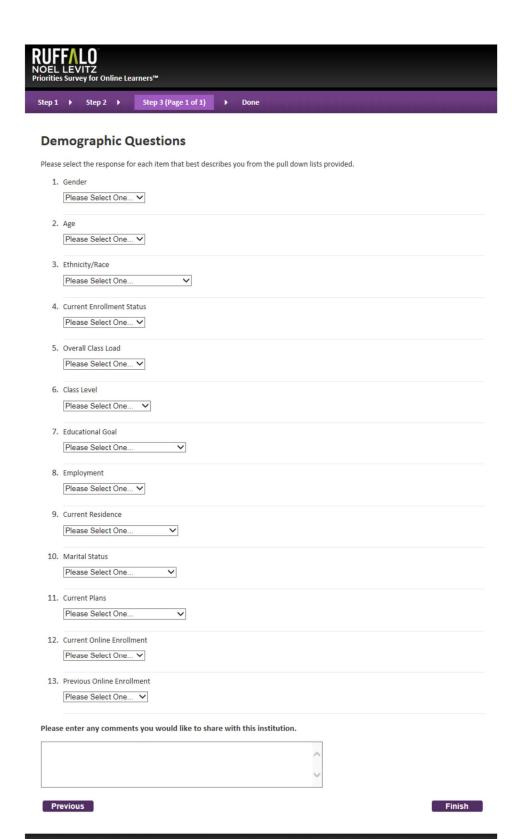
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Summary Questions

Choose the one response that best applies to you for each of the questions below.

	Please Select One
2.	Rate your overall satisfaction with your online experience thus far. Please Select One
3.	If you had to do it over, would you enroll in this program again? Please Select One





MEMO

DATE: February 10, 2016
TO: Danielle Valle
FROM: Julie Bryant
RE: Permission

You have our permission to include the complete PDF of the Ruffalo Noel Levitz Priorities Survey for Online Learners (PSOL) sample survey document in your dissertation.