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ONLINE VS. BLENDED LEARNING: DIFFERENCES IN INSTRUCTIONAL OUTCOMES
AND STUDENT SATISFACTION

By

GENOA OCCHIPINTI

A doctoral dissertation submitted to the
College of Education
in partial fulfillment of the requirements
for the degree Doctor of Education
in Organizational Leadership

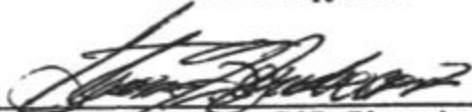
Southeastern University
August, 2017

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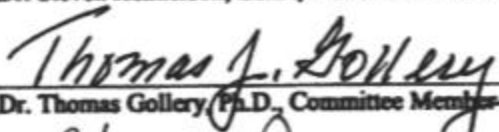
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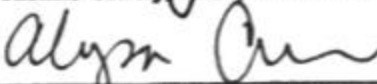
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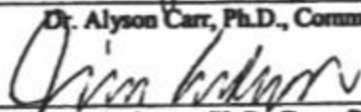
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Dr. Thomas Gollery, Ph.D., Committee Member



Dr. Alyson Carr, Ph.D., Committee Member



Dr. James Anderson, Ph.D., Dean, Doctor of Education

DEDICATION

Thank you, Heavenly Father, for guiding me to Southeastern University to be transformed and more deeply rooted in You. My prayer is to continue to serve You in all I do. My identity is in you Lord, and this degree will allow me to be a more effective leader wherever You lead me.

I dedicate this dissertation to my family and friends who have cheered me on throughout this long journey. I want to thank my husband Alex of five years who has stood by my professional ambitions and academic endeavors since our first year of marriage. Thank you for allowing me to put parts of our life on hold while I achieved new professional skills, learned about statistical research, and increased scholarly competencies. Thank you for your love, support, technical editing skills, advice, and for allowing me to take some time off work to finish this dissertation. We did this together. Thank you from the bottom of my heart.

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knowledge, and best practices with others. Thank you for always believing in my abilities and pushing me to do my best in all things. I made it this far because of how you taught me to be determined and to make dreams a reality. Because of your love, and faith, and incredible sacrifices I have been able to overcome academic obstacles and a few setbacks in life. Thank you for your continued prayers over me and faith in me. I am so blessed to call you Mom and Dad no matter how old I am. Like Jesus said “I can do all things through Christ who strengthens me” Philippians 4:13. Thank you Dad and Mom for our family tribe slogan, “Everything is possible.”

Luckily for me, you both are beautiful servants of Christ in your hearts and in your professional fields. Mom, I love that you are a pastor. You love people where they are in all walks of life. You have counseled people through joy, sorrow, triumph, and challenge. Your love of Jesus, relationship with the Lord, Masters of Divinity degree, and life experiences bring people to have a purposeful relationship with our Lord and Savior. You not only love Jesus and coffee, but you are a creative quilter, seamstress, and artist. You taught me how to love others where they are; counsel others, and be a creative problem solver and servant in all I do. You are an amazing person who makes this world a brighter place. I love you with all my heart Mom! And Dad I love that you followed in Jesus’ footsteps as a carpenter, family man, inventor, and truth seeker. Not only that, but throughout my childhood you taught me how to boat with mom. You taught me how to be determined in all things; how to fix cars and how to dream big. I love you Dad! Thank you both for being such great role models in my life. I love you both so very much!

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done. I love you my friend! Thank you to everyone who has been part of my graduate journey. Thank you for your questions, encouragement, advice, and friendship. It means more to me than you will ever know. I am ever so grateful and thankful for each of you in my life. Thank you.

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ABSTRACT

Satisfaction of delivery models between online and blended doctor of education courses were examined. Graduate students were generally satisfied in online and blended courses in relation to the instructor and the course, but the blended model was preferred and statistically significant compared to the fully online model. No relationship was found between cumulative grade point average and student satisfaction with the instructor, the course, and delivery models; however, cumulative grade point averages (CGPAs) were found to be high for both delivery models.

When overall student satisfaction and instructor ratings were compared from blended and online courses, significant differences were found in relation to the course, the instructor, and delivery models. There was a statistically significant difference between overall student satisfaction with the course for the blended model and no significant difference was found between the overall student satisfaction with the instructor. Together, these findings reveal that doctorate students are generally satisfied in online and blended courses which suggest both student satisfaction in the program as well as persistence and success.

Key Words: Education, online, blended, hybrid, delivery models, graduate, students, doctorate, transactional distance theory

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I. INTRODUCTION

The evolution of distance learning, also known as online education, has been in practice for many decades (Kentnor, 2015). In 1858, the University of London became the first higher education institution to provide distance education (University of London International Programmes, 2017). Prior to that time, education was limited to the elite, wealthy and influential, and most students were male (Guisepi, 2007). For example, in ancient Greece and ancient Rome boys attended school and learned to read, write, and count (Guisepi, 2007). At the age of 13, boys learned Latin, Greek, grammar and literature. At the end of a Greek education, teachers wanted their students to be well rounded citizens, and the Romans not only wanted their students to be well rounded individuals but confident members of society who could speak effectively for the Roman Senate (Guisepi, 2007). In contrast, most Athenian girls had primarily domestic education and learned how to be companions for men who could afford to maintain them. Spartan boys joined disciplined groups where they endured intense physical and mental training to become military cadets and to prepare for war (Guisepi, 2007). Females from Sparta, on the other hand, were given the opportunity to read and write, but they also learned how to run, jump, and wrestle as that was the Spartan way of life (Guisepi, 2007).

In the early Middle Ages, the Roman school system disappeared. During that time, the medieval church and clergy in the West prevailed and preserved what little learning had survived during the collapse of the Roman Empire. The clergy trained students to be clerks and “prepare men for life beyond the grave through the contemplation of God during their life on Earth” (Guisepi, 2007, p. 1). Students learned to read Latin, solve problems in mathematics, and sing for church services. Boys at the age of seven were treated like men and worked like men, and childhood was not recognized. The development stage of childhood was not recognized until the

18th century and it was not until the 20th century that childhood began to be understood (Guiseppi, 2007). At the end of the Middle Ages, universities began to appear, and in 1875 the first woman received a doctorate in law from the University of Zurich. There have been many positive steps in the right direction for education since more formal education has been implemented, and the University of London was the first institution to recognize that education should not be limited to only the wealthy and influential males of society. The University of London offered correspondence courses by mail that were convenient for the students and the professors as the courses could be accessed by men and women from various locations (University of London International Programmes, 2017).

As a result of ever changing institutional and student needs coupled with advancements over the past 150 years, online education and technology tools are now being used to close the physical and communication gap in online education between the instructor and the student by increasing student instructor dialogue and course structure. The quality of online programs, student satisfaction, and the student experience are being examined critically in higher education institutions today (Cheng, Taylor, Williams, & Tong, 2016). Middaugh (2010) remarked that the National Center for Statistics showed that 85% of students taking college classes in the U.S. university system were undergraduate students. However, most education research is predominately conducted for undergraduate students and programs (Hathaway, Nagda, & Gregerman, 2002). The limited studies related to graduate students focus on academic outcomes rather than both student experiences and academic outcomes (Golde, 2000).

Graduate education in the United States serves as a major source of research and innovation that supports economic development (Tzanakou, 2014). Such economic development leads to a knowledge-based economy that results in an enhanced quality of life (Tzanakou,

2014). Individuals with doctoral degrees have transferable skills such as problem-solving, critical reasoning, and critical thinking. They view situations from different perspectives in both academia and non-academia (Tzanakou, 2014). For instance, “Completing a [doctorate] degree is all about creating fresh knowledge, discovering new things and developing new skills” (Top Universities: Why a PhD is Worth it!, 2017). Furthermore, in non-academic workplaces those with doctorate degrees were not only set apart from their colleagues, but they made more of a difference in their role and added value to the organization (Tzanakou, 2014). “Areas with high demand for very specialized and high-level research skills demand [doctorate degrees]. In the current economy, these areas may be biotechnology, information systems, and medical and environmental engineering” (Top Universities: Why a PhD is Worth it!, 2017, p. 1). Therefore, in today's competitive educational market it is important for universities to consider doctoral student satisfaction and its complexities in determining the quality and viability of graduate online education programs (Yukselturk & Yildirim, 2008).

In response to bridging the online education gap in doctoral education, this study has been conducted to explore doctoral student satisfaction perceptions related to the course, and the instructors who taught either fully online courses or blended courses. Lastly, it is also important to understand the importance of student satisfaction in doctoral programs to sustain and maintain the programs.

Background of the Study

There has been an increase in the number of universities interested in and researching ways to increase student satisfaction and student success in online and blended environments (Tinto, 2006). These components are relevant to higher education academic administration and student development leaders to consider as new programs are created in order to ensure that the programs are successful. In Julian's (2014) most recent work, *God is my CEO*, he offered important insights about success and significance.

How we define success is important in shaping our lives. Success is generally defined in terms of achievement, fame, recognition, material possessions, and wealth. In a word: *outcome*. Significance, on the other hand, while less tangible, concerns the *process*.

Significance is importance, meaning, relevance, and value. Success drives us by a desire for tangible things; significance guides us by a desire for something greater than what is tangible (Julian, 2014, p. 65).

Although many people in higher education are concerned with tangible program outcomes, significance also matters because it guides the process of success. In academic programs, it is equally important to take into consideration the student experience and gauge student satisfaction perspectives. One way to learn about student satisfaction perspectives and academic outcomes, specifically in an online environment, is to assess student evaluation surveys through the Transactional Distance Theory lens framework.

The Transactional Distance Theory maintains that physical separation leads to a psychological and communication gap (Moore, 1996). The space creates the potential for misunderstandings between the instructor and the student (Moore, 1996). The term transactional distance is a continuous rather than discrete variable and is a relative term rather than an absolute

one. There is some transactional distance, even in face-to-face meetings, but the psychological and communication misunderstandings are increased in an online environment (Moore, 1996). In any educational program, transactional distance theory needs to be considered when creating educational programs for greatest student satisfaction and student success, as well as program significance (Moore, 1996).

Definition of Key Terms

Student Satisfaction

As online education is rapidly increasing and student satisfaction is being looked at critically, there are very few definitions of the term student satisfaction in relevant studies. For example, a research study called *Student Satisfaction with online learning Lessons from organizational behavior*, revealed that only six out of 34 studies defined the term student satisfaction and there is no universally accepted definition of student satisfaction (Sinclair, 2011). Below are a few definitions of student satisfaction for overall knowledge and understanding in terms of this research. O’Leary and Quinlan (2007) defined student satisfaction as “an emotional response that can be induced by actual product, service, or process quality or some combination of product and service quality” (p. 135). Thurmond, Wambach, Connors, and Frey (2002) defined student satisfaction as “a concept that reflects outcomes and reciprocity that occur between students and an instructor” (p. 176). Similarly, as cited by Janet Moore, The Sloan Consortium described student satisfaction as a learning experience and students were pleased with their student experience (Moore, 2009). Building upon that definition, cited by Professor Norazah Suki at University of Malaysia, Sweeney and Ingram (2001) added that student satisfaction has been conceptualized as “the perception of enjoyment and accomplishment in the learning environment” which moves practitioners beyond looking at

grade point averages and passing scores as academic success points (Suki, 2017, p. 280).

For the purposes of this study, student satisfaction described as a positive or pleasing student experience was categorized by matching questions related to the instructor and the course. The instructor variable was created by looking at student evaluation questions related to instructor communication, clear instructions, and timely grading. Similarly, the course variable was created by looking at student evaluation questions related to accurate exams and assessments and course organization. In the Doctor of Education program, blended and online delivery models were compared in relation to student satisfaction and the instructor and the course.

Student Success

The Christian university mission statement in this study defined student success as being committed to equipping the future leaders of tomorrow so students can serve in future careers and communities. In 2015, the U.S. Secretary of Education, Arne Duncan, defined student success as a “shift [in] focus toward creating an accountability and incentive structure that provides educational opportunity by ensuring that students are graduating on time with an affordable, meaningful degree or credential” (U.S. Department of Education, Fact Sheet: Focusing Higher Education on Student Success, 2015, p. 1). “Otherwise, the department of education will have to find better ways of paying for an unsustainable status quo” (U.S. Department of Education, Fact Sheet: Focusing Higher Education on Student Success, 2015, p. 1). In general, student success aligns with the university’s mission, values, and institutional goals, such as having online instruction as part of a long-term strategy.

Persistence

Bair and Haworth defined doctoral persistence as “the continuance of a student’s progress toward the completion of a doctoral degree” (Bair & Haworth, 1999, p. 8). Studies show that 40% to 60% of doctoral candidates who are most likely to thrive and be some of the most intelligent people are some of the least likely to complete their chosen academic endeavors due to personal and financial obstacles (Golde, 2000, p. 199). In a study conducted by Nettles and Millet (2006), they found that the doctor of education program was the lowest ranked in terms of publications (15% compared to 30%) and presentations (30% and 37%). Most of the doctor of education students work full time in administration capacities, serve on several committees, and have numerous responsibilities in their roles which prevents full-time status and degree completion (Nettles & Millet, 2006). Dropping out of a doctoral program and prolonged time to finish the degree can not only be costly to the university, but distressing and disheartening for the doctoral student. Failing to complete doctoral studies can result in negative consequences such as financial, personal, and professional loss. Further research needs to be conducted concerning the doctor of education student experience since not completing a doctorate program costs so much more than time and money (Spaulding & Rockson-Szapkiw, 2012).

Distance Education and Online Instruction

Distance education is increasing and there are many terms for distance learning or online education. Bebawi (N.D.) defined online education as the “creation and proliferation of the personal computer, the globalization of ideas and other human acts, and the use of technology in exchanging ideas and providing access to more people” (p. 1). According to California State University San Marcos’s academic affairs department, online instruction is defined as “any online, hybrid, or web-facilitated course, and outlines the student, faculty, and university

responsibilities with regard to online instruction” (Haynes, 2012, pg. 1). Additionally, the policy explains the different types of online delivery models for courses. For example, in online courses, all content is delivered online and has no face-to-face meetings; a blended course combines online and face-to-face delivery; a hybrid program of online instruction delivers most content online with very few face-to-face courses; and a web-facilitated course is a course that uses web-technology to guide a face-to-face course (Haynes, 2012). Distance education courses are advancing and technology is challenging older and more traditional models. Online education courses are demanding a broader and more global perspective to keep up with rapid technological progress.

Online Learning

In higher education, there are various definitions for the same term, and to bridge that gap, the North American Council for Online Learning (NACOL) published The Online Learning Definitions Project to bring some continuity to the online environment (NACOL, 2011). According to NACOL, online learning is defined as, “Education in which instruction and content are delivered over the Internet” (p. 7). Likewise, Moore (2013), an educational scholar and theorist, described distance education and online learning, as a psychological construct that depends on dialogue, structure, and autonomy which stems from the Transactional Distance Theory. Similarly, the former Sloan Consortium (Sloan-C) group in 1999, a professional online learning society devoted to e-Education in the community, rebranded to the Online Learning Consortium (Online Learning Consortium Our History, 2017). The professional society did so to better align its work with the mission of providing high quality e-Education access to people, institutions, professional societies and the corporate community (Online Learning Consortium Our History, 2017). Based on OLC’s commitment to education the professional group also

created online and distance education definitions for quality, clarity, and purpose.

Sener (2015) described online learning as a format that allows students to complete a course or an entire academic program from a distance, meaning that students never gather to meet in a physical place and see each other face-to-face. Institutions that offer fully online programs should be able to provide their students with support services such as registering for courses, advising, and technical help at a distance (Sener, 2015).

Blended Learning

Blended learning, is a combination of online and face-to-face meetings (Sener, 2015). Similarly, OLC suggests that blended learning includes up to 30 % of the course curriculum as face-to-face and the other 70% is completely done online (Online Learning Consortium Our History, 2017). Typically, blended courses and programs are set up for residencies, intensives, or lab requirements to minimize travel but maximize student and academic success (Sener, 2015).

Hybrid Learning

In a hybrid learning model, most programs are completed online and most course activities are done online, but there are some required face-to-face instructional activities. Those activities include lectures, discussions, or projects (Sener, 2015). In general, hybrid learning programs consist of more than fifty percent of course work online and face-to-face participation is required less than fifty percent of the time.

Online Instructor

A traditional learning model was instructor-centered, textbook reading and note-taking driven, and the teacher was the knowledgeable one sharing information with students (Tyack & Tobin, 1994; Diffily, 2002; Sungur & Tekkaya, 2006; Markham, 2011). According to Merriam-

Webster, the term instructor is defined as “a person who teaches a subject or skill: someone who instructs people” (Merriam-Webster collegiate dictionary, 2017, pg. 1). The instructor presents information in a concise, organized manner, and whether a student learns information is a result of the quality of the lesson as well as the student’s aptitude, prior knowledge, and motivation to learn (Ladewski, Krajcik, & Harvey, 1994). The online environment challenges instructors and the traditional learning environment. Some instructors and faculty members have had to transition from the traditional face-to-face classes to online or blended education environments (Shaw, 2015). The transition for some faculty has been uncomfortable (Shaw, 2015). For example, instructors transfer their experience from a lecture based model of teaching and interacting with students in person to a facilitator guide in an online environment (Shaw, 2015). Often this changeover has been referred to as moving from “the sage on the stage to the guide on the side” (Shaw, 2015, p. 1). For some instructors, it could create an identity crisis. And as instructors are moved to the online educational environment, they need ongoing faculty development and support from academic leaders to positively impact student satisfaction, student learning, and persistence to graduation (Shaw, 2015). Traditionally, the instructor is the person who shares information with the students, is considered the content expert, and manages student behaviors, tasks, and confirms completion of student work (Overholt, 2017).

Online Course

Higher education institutions provide courses for students at associate’s, bachelor’s, master’s, or doctorate levels. In broad terms, a course is what students study; however, course structures can vary between higher education providers, regulations, and programs (Youell, 2011). For the purposes of this study, a course is defined as a specific unit of teaching led by one or more instructors in a particular field of study (Merriam-Webster collegiate dictionary, 2017).

Specifically, this study examined blended and fully online courses related to student satisfaction with the instructor and the course.

Problem Statement

The purpose of this study was to examine doctor of education student satisfaction perceptions and the relationship between the instructor and the course in online and blended delivery models. As many scholars study learning theories and complex contributing factors relating to student satisfaction, there is no single theory that can identify and explain all the influential factors that contribute to students' experiences and satisfaction (Tinto & Pusser, 2006). Although it is a challenge to pinpoint influential relationships between graduate student satisfaction and online learning, it is important for universities to increase research through inquiry and evidence based practice because the quality and performance of academic institutions matter (Hardre & Hackett, 2015). Quinlan (2011) from the University of Oxford asserted,

As leaders in institutions and as educators, we must ensure that knowledge acquisition, together with personal growth and development, remain a central part of students' education - to create lifelong learners not only possessing higher level academic skills and discerning information literacy skills, but also excellent transferable skills and appropriate graduate attributes (Quinlan, 2011, Forward, p. 1).

Hendrickson, Lane, Harris, Dorman, and Ikenberry (2013) remarked that it is also important for academic leaders to be able to adapt to new environmental changes such as understanding the impacts of online education environments in the competitive higher education institutional market. They also emphasized the importance of colleges and universities to prepare for continual fluctuation, change, and reflection. It is important for academic leaders to

be more knowledgeable now more than ever (Henderickson et al., 2013). As cited by Henderickson et. al. in his book, *Academic Leadership and Governance in Higher Education*, Stanley Ikenberry stated that,

Colleges and universities touch more lives more profoundly than any social institution in society. The strength of America's democracy, economic competitiveness, and quality of life, and the health of our communities, our culture, and the arts—all of this and more—rests on the quality and performance of academic institutions. (Henderickson et al., 2013, Forward, p.3).

Overall, a focus on doctoral student satisfaction and persistence has the potential to influence decisions in higher education for graduate programs regardless of delivery models.

The one theoretical framework explored in this study was the Transactional Distance Theory related to online education and student satisfaction perceptions (Moore, 1996). The Transactional Distance Theory is described as a communication and psychological gap between the instructor and the student in the online environment (Moore, 1996). Understanding doctoral student satisfaction and the relationship between the online educational environment with the instructor and the course in a doctorate program may provide insights into what influences doctoral student satisfaction and what factors influence perceived graduate success and persistence in online and blended education models.

In sum, this study may lead universities and colleges of higher education to implement best practices that promote student satisfaction in online and blended learning environments to encourage doctoral persistence. This dissertation presents a descriptive study of student satisfaction as experienced by doctor of education students at one Christian university located in the Southeast region of the United States. This first chapter presents the background of the

study, its significance, and an overview of the methodology that was used.

Significance

Most research on graduate student experience has been academic, but academics only explain part of graduate student success and experience (Golde, 2000; Hardre & Hackett, 2015). Other factors to consider are motivation, personal and professional identity development, support services, and student satisfaction (Gansemer-Topf et al., 2004; Offstein et al., 2004; McFarland & Hamilton, 2005; Weidman, Twale, & Stein, 2001). Additionally, students quitting or withdrawing from a doctoral program is an increasing concern for institutions (Council of Graduate Schools, 2016). By examining factors that influence graduate student satisfaction in online and blended environments, universities may better support academic administration, student services, online designers, and instructors to help students enjoy their doctoral experience and persist to graduation.

Overview of Methodology

This study was descriptive in nature, nonexperimental by design, and specifically a survey research design method was used (Yates, 2017). The sample was a non-probability study and a convenience sample was used. The sample participants included students pursuing a Doctor of Education (Ed.D.) degree at the sample university who were enrolled in part-time or full-time hours between Summer 2014 through Fall 2016. The focus of the comparative study was blended versus online-only courses by looking at student satisfaction levels and the relationship between the instructor and the course on a five-point Likert scale. In the study, there were two dependent variables related to satisfaction and there were four independent variables. The two dependent variables were: satisfaction with the course and satisfaction with the instructor. The instructor variable consisted of three factors: instructor communication, clear

instructions, and timely grading. The course variable consisted of two factors: exams and assessments, and course organization. The four independent variables consisted of: two different delivery models, fully online and blended courses, learning outcomes consisted of CGPA, and the course and the instructor. An overall satisfaction score was obtained from each doctoral student who took the survey, as well as a subscale score on the instructor. Subscale scores from online courses were also obtained. The researcher of this study is a member of the doctoral program and knows most of the participants in this study. All information was kept confidential and the data was collected over a period of two years from the Institutional Effectiveness Department at the specified university.

Research Questions and Hypotheses

In order for the researcher to properly address the stated research problem, the following research questions and hypotheses were posed:

1. Is there a difference between blended and online courses in relation to student satisfaction with the instructor and the course?
2. What is the degree of relationship between CGPA and student satisfaction?
3. What is the degree of relationship between instructor ratings and overall student satisfaction for blended and online courses? And, is there a difference between delivery model type in relation to instructor ratings and overall student satisfaction for blended and online courses?

Null Hypothesis #1 ($H_0 1$)

There will be no statistically significant difference in the subscale scores for online and blended models in relation to student satisfaction with the instructor and the course.

Alternative Hypothesis #1 ($H_a 1$)

Blended student satisfaction with the instructor and the course are statistically significantly higher than online student satisfaction with the instructor and the course.

Null Hypothesis #2 ($H_0 2$)

There will be no statistically significant difference between CGPA and student satisfaction levels in relation to the instructor and the course in both delivery model types.

Alternative Hypothesis #2 ($H_a 2$)

There will be a statistically significant mathematical relationship between CGPA and student satisfaction levels by instructor and the course and delivery model.

Null Hypothesis #3 ($H_0 3$)

There will be no statistically significant correlation between the perceived level of student satisfaction levels in relation to the instructor ratings for both blended and online delivery models.

Alternative Hypothesis #3 ($H_a 3$)

Alternative Hypothesis #3 ($H_a 3$)-First Portion of Research Question #3

The relationship between instructional ratings and overall student satisfaction with instructor and course by delivery models will be found to be statistically significant for both delivery models.

Alternative Hypothesis #3 ($H_a 3$)-Second Portion of Research Question #3

The hypothesis is that overall blended student satisfaction levels will be higher and statistically significant compared to course satisfaction levels in relation to instructor ratings.

Analyses

An Evaluation Research methodology was used to analyze the effectiveness of the student evaluation instrument regarding its relationship to student satisfaction in the doctor of education program at a Christian liberal arts university using a well-established evaluative protocol. The study represented a summative evaluation for students enrolled in both traditional and on-line course venues. Specifically, the study is described as descriptive in nature for the purpose of identifying students in the College of Education program using a student evaluation to examine student satisfaction levels and the relationship between the instructor and the course. The primary research instrument contained both quantitative and qualitative measures; however, only quantitative measures were used for evaluative purposes in addressing the study's research questions and hypotheses.

To address the stated research questions and hypotheses of the study, a combination of descriptive and inferential statistical techniques were utilized. Specifically, measures of central tendency (mean scores) and variability (standard deviations) were used to evaluate the practical significance of study findings. Additionally, the magnitude of difference in mean scores was examined to gauge the magnitude of effect (effect size) using *Cohen's d*. Cohen's conventions for the qualitative interpretation of effect size values guided the reporting and interpretation of effect sizes in the study. The *Pearson Product-Moment Correlation Coefficient (r)* was utilized in instances in which the determination of mathematical relationship between study variables was appropriate.

Inferential analyses included the use of the *t-test of Independent Means* in instances whereby two independent sets of mean scores were compared for statistical significance. *Fisher's r to z Transformation Test Statistic* was employed in instances in which the statistical

significance of independent correlations scores was required. The alpha level of $p < .05$ represented the threshold for the statistical significance of finding in all instances of inferential analyses.

The following represents the manner in which each of the study's research questions and accompanying hypotheses were specifically addressed analytically:

To address the research questions, descriptive techniques were used for comparative purposes. For example, measures of central tendency and variability were used to evaluate the practical significance of difference in student satisfaction for two delivery models in relation to the instructor and the course. Additionally, the magnitude of difference in mean scores was examined to gauge the effect size which was assessed using Cohen's d .

Research Question 1

To analyze the statistical significance of difference between blended and online courses in relation to student satisfaction with the instructor and the course, a *t-test of Dependent Means* was conducted to assess the difference in respective means scores. The alpha level of .05 represented the threshold value for the assessment of statistical significance of finding in the comparison of mean scores in the first research question.

Research Question 2

To address the matter of mathematical relationship inherent in the second question of the study, correlation analyses were conducted. Correlational analyses are ideally suited to determine the degree of mathematical relationship between two different variables (Field, 2013). The *Pearson Product-Moment Correlation Coefficient* (r) was specifically utilized to address Research Question #2 in light of the level of measurement inherent in the respective independent and dependent variables associated with the second research question. The coefficient of

determination (r^2) was calculated to assess the amount of explained variability of data in the respective correlation comparison and also represented the basis to measure the effect size ($r^2/1-r^2$) of mathematical relationship. The statistical significance of the mathematical relationship between variables related to the second question also used the alpha of .05 as the threshold value.

Research Question 3

The focus of the third research question was to determine whether instructor ratings in relation to overall student satisfaction was statistically significant. The delivery models were compared using a *Fisher's r-to-z Transformation* correlation analysis. *Fisher's r-to-z Transformation Test* statistic was specifically utilized to compare the independent correlation scores, course satisfaction and instructor satisfaction. The *Fisher's r-to-z Transformation Test* statistic is ideally suited to assess the significance of the difference between two independent correlation coefficients. The third research question also used the alpha of .05 as the threshold value for statistical significance of finding.

Limitations

As with any research study, there are limitations even if studies intend to provide information to make a positive difference. In this project, one of the limitations is that, the dataset came from one small Christian university sample. Therefore, results cannot be generalizable to the entire university population. Additionally, the student evaluation dataset questions for the blended and online courses did not have the same questions; therefore, the student evaluations for each delivery model cannot be exactly aligned. For this dissertation, specific questions had to be explicitly chosen to align with broad concepts related to online and blended environments. As a result, the data do not provide robust enough information to explain complex issues that the researcher wanted to originally address. Although some qualitative data

was available, different qualitative questions were asked on the student evaluations about the instructor and the course. This data contained doctor of education evidence for two years, there were no graduates at the time of data collection periods and completion rates could not be tracked. A more detailed description of the limitations in this study is provided in Chapter V.

Summary of Introduction

Institutions are responsible for defining which program models (such as traditional, blended, hybrid, and fully online delivery models) will work for their programs to ensure student satisfaction, success, and persistence. This introduction chapter has explained the problem, the method, and design of the research. Review of the related theoretical and empirical literature is presented in chapter two. Additionally, research exploring the models of online education and its relationship to student satisfaction influences will be discussed.

II. REVIEW OF LITERATURE

Student satisfaction in higher education has been researched extensively at the undergraduate level leaving much research to be done at the master's and doctorate levels. Student satisfaction represents not only student success for universities, but it is considered to be an important aspect in determining the quality and viability of university distance education programs (Yukselturk & Yildirim, 2008). However, Cheng and colleagues, who researched student satisfaction and perceptions of quality for Ph.D. students found that student satisfaction is not necessarily perceived as an indicator of quality education (Cheng, 2016). Their researched-based explanation for student satisfaction was that it is complex and can be influenced by different reasons such as expectation, program of study, or set of beliefs about the value of the doctorate program. As a result, concern is raised that an overemphasis on student satisfaction may pose a threat to the quality of Ph.D. programs, making it challenging for institutions to retain the academic rigor and integrity that doctorate students need as part of their graduate experience (Cheng, 2016).

In contrast, Croxton (2014) examined the importance of looking at student satisfaction and other components of distance education learning through the social cognitive theory. Her research examined the relationship between people, behavior, environment, and the role the relationships have played in students' acquisition of skills and knowledge, satisfaction, and persistence. Her study revealed that interactivity is an important part of student satisfaction and persistence for distance education students, and students preferred different types of learning activities in blended and online environments (Croxton, 2014).

While Cheng (2016) and his colleagues provided a research based explanation about the concern for course and program integrity related to student satisfaction complexities, this study

examined the Transactional Distance Theory framework that looked at the complexities of the psychological and communication gap in online education related to student satisfaction.

Psychological distance refers to perceptions (subjective feelings) about the closeness or presence of another person when interacting with that person. In this case it is the physical presence or geographical distance between the student and instructor that influences student satisfaction in distance education. Communication refers to the exchanging of information or ideas.

Communication or lack thereof is a common problem in education that leads to student dissatisfaction. In Transactional Distance, the separation of the student and the instructor potentially increases miscommunication and misunderstanding between the instructor and the student. The development of Transactional Distance Theory spanned an 85-year period which focused on the evolution and refinement of terminology and how the theory relates to online education today. Dewey and Bentley created the foundation for Transactional Distance Theory in 1938 and Michael Moore refined the three constructs in 1972, and Anderson revised Moore's terminology in 2003 (Moore, 2003; Anderson, 2003). Overall, this research looked at student satisfaction and online education and the relationship between Transactional Distance Theory and the promotion of academic success, student success, and doctoral persistence.

Transactional Distance Theory History

Dewey and Bentley 1938

John Dewey (1859-1952) was known by many titles such as an American philosopher, psychologist, and educational reformer whose ideas changed the path of education (Giossos, Koutsouba, & Mavroidis, 2016). Dewey was a prolific author and challenged educational pedagogy (Giossos, Koutsouba, & Mavroidis, 2016). Arthur Bentley was an American social theorist and philosopher who influenced the field of political science from the 1930's through the

1950's. His interests included individualism, diversity, and postmodernism. Not much else was known about him personally, but he worked with John Dewey, one of the greatest educational reformers in the 20th century (Mathiowetz, 2014). What brought Dewey and Bentley together was their passion for knowledge, theory, and solutions to problems, specifically, Dewey's original work, from 1938, titled, *Logic: The Theory of Inquiry* (Mathiowetz, 2014; Johnston, 2017).

Since the early 1900's, Dewey challenged many fields and people including educators. For instance, he believed that students should be part of their education and learning process by interacting with the curriculum and content rather than being a passive learner (Dewey, 1902). Educators during this time saw students as individuals who were "immature" and "superficial" and needed to be "deepened" (Dewey, 1902, p. 8). Additionally, teachers saw the student's role as being "docile" in the learning process (Dewey, 1902, p. 9). Within this specific framework, Dewey argued that instead of students being passive in the learning process students should be engaged learners. Dewey asserted that "learning is active" and active learning was the best way to engage in the process of learning (Dewey, 1902, p. 9).

Many of Dewey's works illustrate how "organisms interact and maintain an integrated balance between themselves and their environment" (Deters, 2006, p. iii). In 1948, Dewey responded to his philosopher friend, Bentley, regarding questions found in a letter about Dewey's *Theory of Inquiry* (Dewey, 1949, pp. 329-342). Based on Bentley's questions, Dewey and Bentley collaborated and wrote a book together called, *Knowing and Known*. The book articulated philosophical and complex responses to questions that prompted additional academic questions about the idea of "transactional" knowing (Dewey, 1949).

Through Dewey's background in teaching, psychology, and philosophy, he continued to

create new pedagogies that relate to the theories and practice of teaching (Johnston, 2017). For example, Dewey noticed a dilemma in education where the new concept of student-centered pedagogy at the time allowed teachers to rely on students to take more responsibility for their learning. He argued that although the idea of being “student or child-centered” could be advantageous in the learning context, if not balanced, it could be detrimental to the educational process. In other words, if the educational process was not balanced, content as well as the role of the instructor was minimized. To decrease the content and teacher gap, Dewey promoted an educational structure that took into account the knowledge construction and information sharing between the instructor and the student to decrease misunderstandings. Therefore, Dewey considered the experiences of the instructor and the student. Again, he advocated for learner interaction through activity and promoted problem-based learning (Dewey, 1938; Dewey and Bentley, 1949).

The basic framework of Dewey’s transactional constructivist theory was developed through a main psychological objection. Dewey objected to the psychological stimulus-response model that assumed the existence of an isolated, passive organism that only reacted upon external stimulation (Vanderstraeten, 2002). “A stimulus is always a change in the environment which is connected with a change in activity. No stimulus is a stimulus to action as such but only to a change in the direction or intensity of action” (Boydston & Kurtz, 1984). Dewey concluded that stimulus and response must be understood as functioning factors within a “single concrete whole” which referred to the “process all the way around” in relation to interactions (Dewey, 1930, p. 224). The established concept birthed the idea of the transactional relationship between both the organism and the environment simultaneously (Dewey and Bentley, 1949, p. 139).

Dewey and Bentley described “transactional” knowing as an activity based educational concept composed of three different constructs: self-action, interaction, and transaction (Dewey & Bentley, 1949). These constructs can be paralleled to higher education and the relationship between distance learning and how each one relates to student satisfaction (Zhang, 2003).

According to Dewey and Bentley, self-action is a demonstration of autonomous “actors, souls, selves, and powers, taken as activating events” (Dewey & Bentley, 1948, p. 122). In other words, before modern science this concept viewed humans, animals, and things as possessing power over their own actions. Interaction is when objects operate “upon one another” (Dewey & Bentley, 1948, p. 122). That is to say that for every action there is an equal and opposite reaction much like Newton’s third law of motion. Transaction on the other hand, refers to the “full system,” including “actively necessary to inquiry at some stages, held in reserve at other stages, frequently requiring the breaking down of older verbal impactions of naming” (Dewey & Bentley, 1948, p. 122). Alternatively stated, transaction is a description of multiple systems and organizations and aspects of actions without any of them being in a final or ultimate state. In basic terms transaction actions or activities are constantly in flux and changing within systems. To help explain the three constructs, Dewey and Bentley used an electric current in relation to the environment:

It was found that an electric current was not present without a circuit, and that all that happened was not ‘inside’ the wire. Likewise, the path of a light ray, without including its environment, is an incomplete expression and has no operational meaning (Zhang, 2003, p. 21).

Thus, these original theoretical definitions maintained the importance of understanding the different relationships and how interactions and transactions worked together in any kind of

environment. This concept is important to understand because this transactional framework is parallel to the idea of how students and instructors engage in distance education and how students perceive their student satisfaction experience. The three transaction activity constructs presented in Dewey and Bentley's work launched Michael Moore's original Transactional Distance Theory in 1972.

Moore's Transactional Distance Theory 1972

Transactional Distance Theory was first developed by Michael Moore in 1972. The idea shed light on independent learning and learner autonomy, specifically, in distance education where the student and instructor were not sharing the physical classroom (Moore, 1972). Distance education first began as correspondence courses. Correspondence courses involved professors and students communicating academic and personal information by sending messages and post cards back and forth through the post office.

The first official correspondence school in the United States was the Society to Encourage Studies at Home, founded in 1873 (Caruth, & Caruth, 2013). In England, the People's University created by Charles Dickens provided access to higher education to students from less well-off upbringings. People's University was funded by Queen Victoria in 1858, making the University of London the first university to offer distance learning degrees to students (University of London International Programmes, 2009). Fast forward to 2016, according to the National Center for Education Statistics (2016), in the United States "there were over 5,750,000 students enrolled in any distance education courses at degree-granting postsecondary institutions" (p. 1). Moore's theory was one of the first models to look at various definitions to better understand the uncertainty about distance education (Gorsky and Caspi, 2005). Until Moore's first attempt to define Transactional Distance Theory in 1972,

correspondence courses had begun and no theories existed that directly addressed instructor and student distance education, let alone student satisfaction. After many years of working in different countries and teaching for Pennsylvania State University as a professor of Education in the department of Learning and Performance Systems, Moore further revised the 1972 term *distance education* in the early 1990s (Saba, 2014). He officially named the pedagogical theory in 1980 (Moore, 1983). Shortly after, in 1986, he established The American Center for Study of Distance Education where he developed the distance education theory (Saba, 2014).

Moore's pedagogical theory is about perceptions between the student and the instructor that might lead to a communication gap or a psychological space of potential misunderstandings in the learning environment (Mbvesa, 2014). Although there are many changing learning contexts of distance education (Chen, 2001a), there were three specific characteristics that Moore's work focused on: 1) behavioral models for the instructor and student, 2) the psychological and communication gap between them, and 3) the insufficient understanding between them. "It is the psychological and communications space that is the transactional distance" (Gossos, 2009, p.2). The transactional distance is a continuous, flexible and ever-changing variable that is not fixed (Moore, 1997). According to Moore, the psychological and communication spaces between the instructor and the student are not the same (Moore, 1997). As a result of Moore's career accomplishments in the field of education, researchers have used his theory as a distance education foundation between the instructor and the student (Saba, 2014).

According to Moore, there were three basic operational constructs as transactional distance theory related to distance education and learning (Gossos, 2009). Moore's first operational terms for constructs were defined as dialogue, autonomy, and structure. Each construct focused on the distance between student and instructor (Moore, 1997). Dialogue was

when each party was given “purposeful and constructive” feedback considered by each person (Moore, 1997, p. 24). In the group, each person was kind and engaged in listening, each sharing and building on the dialogue or discussion between student and student or student and instructor (Moore, 1997, p. 24). Autonomy was defined as the students’ independent ability to make decisions about their academic needs. “It is the learner rather than the teacher who determines the goals, the learning experiences, and the evaluation decision of the learning programme” (Moore, 1997, p. 26). Structure referred to the strictness or lack thereof in the program’s educational goals including instructional plans and assessment approaches. Moore’s structure was dependent on the university’s program, mission, and educational approach. Undoubtedly, structure has provided an educational platform where each learner’s requests or wants could be accommodated or responded to appropriately (Moore, 1997). As a result, Moore further redefined Dewey and Bentley’s three activity constructs and renamed them: self-action was renamed to autonomy, interaction was renamed to dialogue, and transaction was renamed to structure. Moore’s revised terminology can be seen in distance education. The student and instructor are not only separated, but all three constructs are inter-related in distance education. For instance, transactional distance and dialogue were viewed as inversely relative; as one decreased, the other increased. In detail, Moore wrote,

One of the major determinants of the extent to which transactional distance will be to overcome is whether dialogue between learners and instructors is possible, and the extent to which it is achieved (Moore, 1997, p. 26).

Transactional Distance is not determined by geography but by the relationship between the student-instructor dialogue and the course structure. According to the Educational Communications and Technology Association (2001), transactional distance is determined by the

amount of dialogue that occurs between the student and the instructor, and the amount of structure that exists in the design of the course. When the dialogue is minimal between the instructor and the student, and the course is not highly structured, transactional distance peaks, carrying increased psychological stress resulting from miscommunication, and misunderstandings between student and instructor. As dialogue increases between the instructor and the student, and the design of the course meets educational standards, transactional distance is decreased. The goal is to minimize psychological stress by increasing course structure and increasing communication between the instructor and the student, which will improve student satisfaction rates and persistence. Basically, when educational direction and guidance increases through educational design, communication between the learner and the instructor will most likely be decreased as well increasing the learner and instructor transactional distance.

Moore (1997) explains “when a program is highly structured and teacher-learner dialogue is non-existent, the transactional distance between learners and teachers is high” (p. 27). Furthermore, there is a direct relationship between learner autonomy and transactional distance (Moore, 1993). For example, if the teacher-learner dialogue was high, engaging and productive, low transactional distance would be created, and the learner would most likely obtain an ideal transactional understanding and outcome. Lastly, Moore wrote, “the greater the structure and the lower the dialogue in a programme the more autonomy the learner has to exercise” (Moore, 1997, p. 27). Therefore, if transactional distance decreased misunderstandings and increased learning through communication and positive interaction in an online environment, then student satisfaction would be high. In short, the three constructs, 1) dialogue, 2) autonomy, and 3) structure were an integral part of distance education between the instructor and the student which could also influence student satisfaction levels.

Case Study Transactional Distance Dialogue 2014

Ekwunife-Orakwue and Tian-Lih (2014) conducted research that focused on the impact of transactional distance dialogue type interactions related to student learning outcomes in online and blended environments. The study measured how student interactions using the Transactional Distance Theory dialogue in online and blended learning environments influenced student learning outcomes by looking at student satisfaction and grades (Moore, 1993). Dialogue was measured as student interactions with other students (student–student interaction), the instructor was measured by student interactions with the instructor (student–teacher interaction), and course content was measured by student interactions with content (student–content interaction).

Data were obtained from 342 online and blended students between 2010 and 2013 (Ekwunife-Orakwue & Tian-Lih, 2014). Findings indicated that student–content interaction had a larger effect on student learning outcomes than other forms of dialogue. Dialogue interactions contributed to student satisfaction levels, but not to grades; age did not contribute to either learning outcome (Ekwunife-Orakwue, & Tian-Lih, 2014).

The researchers also noted that many studies overlook the importance of learner-content and focus on learner-instructor and learner-learner interactions related to online and blended learning environments. The influence of learner-content interaction satisfaction type of dialogue (38 percent) compared to general satisfaction dialogue was almost twice the levels of other forms of dialogue. The research shed some light on the nature of the interactions in distance learning environments. Additionally, the low learner-learner and learner-instructor interactions, compared to learner-content interaction, in both online and blended environments raise questions about how to encourage learning outcomes resulting from distant separation. Ekwunife-Orakwue and Tian-Lih (2014) suggested that the practice of digitally recorded type of webinars

in online and blended courses with a couple of face-to-face sessions, might make up for the low learner-instructor and learner-learner interactions that might exist in the course. In summary, more research could be done to identify and understand how different predictors add to the body of knowledge in student satisfaction and online learning environments.

The findings by Ekwunife-Orakwue and Tian-Lih showed that while learner to learner interactions were emphasized more than learner-content interactions in online and blended courses, studies have shown strong correlations between learner-instructor interaction and student achievements in both face-to-face learning environments and online learning environments (Ekwunife-Orakwue, & Tian-Lih, 2014). However, the findings of Ekwunife-Orakwue and Tian-Lih study point out the presence of a gap in the research field which was to identify how several dialogue type interactions could add value to student learning outcomes. Ekwunife-Orakwue and Tian-Lih suggested additional research should be done to prepare distance learning administrators with empirically-based evidence in light of the fact that emphasis is often placed on learner-instructor interactions and the relationship between other important interactions influencing student satisfaction levels.

Transactional Distance Theory Interaction History

As the decades have passed and definitions have expanded and changed, so has the terminology used to describe distance education and learner experiences. What were once referred to as constructs are now known as interactions. Interactions have been studied and viewed as a vital part of learning experiences in online and blended education (Moore, 1989; Jung, Choi, Lim, & Leem, 2002; Woo & Reeves, 2007). Learners share and transfer information with instructors through interaction and as a result create new knowledge (Kang & Im, 2013). Interactions related to online and blended learning are important (Palloff & Pratt, 2013). Wagner

(1994) defined interactions as “reciprocal events that require at least two objects and two actions. Interactions occur when these objects and events mutually influence one another” (p. 8). Interaction has been regarded as important for processing information, for learner control, and for the creation of new knowledge and learning communities (Anderson, 2003).

Rhode (2009) asserts that interactions can lead to enriched learning but are also a main element of engaged learning experiences. Similarly, Khalil and Ebner (2013) state that the quality of interaction and quantity of interactions in distance education environments are important factors that influence student satisfaction and indirectly influence attrition rates. These new constructs developed by Moore (1997) can be paralleled to Anderson’s definitions of interactions. His research focused on the Interaction Equivalency Theorem (Anderson, 2003).

Anderson’s Interaction Equivalency Theorem 2003

The equivalency theorem developed by Anderson was established to clarify interactions in distance education. Interactions in distance education mean “different economies exist between independent-oriented and interactive-oriented learning strategies and activities” and that needs to “be taken into consideration when designing and delivering distance education that meets the diverse needs of learners in an effective and efficient way” (Miyazoe & Anderson, 2010, p. 94). Anderson took Moore's fundamental activity constructs and expanded them.

Anderson’s revision was developed into three different types of interactions: student-instructor, student-student, and student-content (Taylor, 2014). Student to instructor interaction and student to student interactions could be viewed as Moore's original dialogue construct. Student to content interaction better identifies the Internet platform that students use for their coursework most related to Moore's autonomy construct.

Student-Instructor Interaction

Learner and instructor separation can create psychological and communication gaps in online and blended environments which can negatively influence student satisfaction. However, if appropriate technologies are being used intentionally between the learner and the instructor the psychological and communication gaps can decrease. Technologies such as Skype, which provides a live face-to-face interaction, can improve the quality of interactions in an online environment (Saba, 2000; Shin & Chan, 2004; Woo & Reeves, 2007). For example, if student-interactions are high and effective between the instructor and student and student-student in an online environment, student satisfaction would likely rate more positively than having decreased interaction. According to Frederickson, Pickett, Pelz, Shea, and Swan (2000), in a distance education environment, interaction between the student and instructor was the most significant factor predicting the learner's perceived learning outcome. For example, Swan's 2002 study involving 1,406 university student participants, revealed significant positive correlations between students' interactions with the course instructor and satisfaction in distance education courses (Swan, 2002). In the same way, Battalio (2007) identified that learner-instructor interaction was important and significant to distance education learners. Hence, many interaction studies revealed that when student-instructor interaction is high, learners had higher satisfaction and perceived higher learning outcomes compared to their peers with lower levels of interactions which resulted in lower levels of satisfaction (Jung, Choi, Lim, & Leem, 2002; Eom & Wen, 2006; So, & Brush, 2008).

Comparable studies also revealed similar results outside of the United States. Khan and Iqbal (2016) conducted a descriptive correlational study exploring the relationship between student satisfaction and academic achievement of distance learners. A stratified random sample

of 351 students from various Master of Education program concentrations at Allama Iqbal Open University Islamabad participated using the Student Satisfaction Survey developed by Strachota (2006). Results showed that students were generally satisfied in distance education relating to learner-instructor interaction and also found that learner-instructor interactions were significant predictors of general satisfaction. In contrast, they found that learner-learner and learner-technology were not significant predictors of general student satisfaction. The researchers suggested that improving learner-instructor and learner-learner interactions could be developed and strengthened through workshops and orientations regarding distance education programs (Khan & Iqbal, 2016).

Student-Student Interaction

Student-student interactions is defined as interaction when multiple learners registered for the same distance education course are connecting and communicating. Usually, students interact and collaborate through asynchronous discussion boards, synchronous meetings, or communication through email (Strachota, 2003). According to Chang and Smith (2008) and Drouin (2008), a relationship exists between student satisfaction and student-student interaction. In the same way, Endres (2009) found that student-student interaction was an influential factor in student satisfaction. At a large-scale university, Swan (2002) conducted research where 1,406 students participated in his interaction study. He found positive correlations between student-student interactions and student satisfaction.

In contrast, Khan and Iqbal's study found that learner-learner and learner-technology were not significant predictors of general student satisfaction. However, a study conducted by Resnick (2005) looked at peer interactions through discussion boards. The study found many positive correlations between a positive and satisfying environment which included receiving

feedback from peers, participating in debates, and receiving advice on how to research and analyze dilemmas. These activities encouraged learning and higher levels of student satisfaction. While there are mixed results for student-student interaction, it is still valuable to understand how it relates to student satisfaction in distance education learning environments.

Student-Content Interaction

Student-content interaction refers to the “non-human interaction” that happens between the student and the information being studied, including interaction with “course content, lessons, learning activities, learning objects, videos, assignments, websites and projects” (Strachota, 2006, p.3). MacDonald and Thompson’s graduate education online case study showed that learners placed increased value on the quality of course content (MacDonald & Thompson, 2005). Oklahoma State University (OSU) at the Institute for Teaching and Learning Excellence (Developing Online Course Content, 2006) described the most prominent form of course content as an “online course is usually in the form of text and images. This type of content provides the foundation and structuring the course materials, and guides the learner through completion of each module or instructional sequence.” The Institute for Teaching and Learning Excellence (Developing Online Course Content, 2006) further explained that face to face material needed to be converted into an online course. For example, it was important to simplify online course material such as choosing a very readable font as well as choosing different contrasts between background and content to provide visual clarity (Developing Online Course Content, 2006). Students in MacDonald and Thompson’s study also acknowledged the role in creating course content in their interactions with course material, each other, and the professor. Students emphasized the importance of relevant information pertaining to the course objectives and assignments, including the depth and breadth the learners should be acquiring to

analyze and synthesize information (MacDonald & Thompson, 2005). Additionally, it was recommended that course content should be supported by visuals and multimedia to enhance the online learning experience. According to Clark (2002) and Zen (2008) emphasizing sharing consistent clear information and using multiple resources in an organized model promotes online learning. Although blended learning has more face-to-face elements than online elements, course design, clarity, visuals and multimedia are important factors for both distance education formats to consider regarding student satisfaction and learning outcomes. Lastly, Chang and Smith (2008) and Dennen, Darabi, and Smith (2007) identified a positive relationship between student-content interaction as an important factor related to student satisfaction.

Student Satisfaction Surveys

Noel-Levitz developed several different types of student satisfaction surveys for universities to better identify strengths, weaknesses, and gaps to improve the overall student experience and university effectiveness (Middagh, 2010). Colleges and universities already use student satisfaction surveys such as the Noel-Levitz (2016) surveys or can create their own to glean student experience insights. The surveys assess different types of student satisfaction areas such as academic advising, mentorship, and university environments related to the student experience (Middagh, 2010). The Noel-Levitz student satisfaction scale is important to universities because it was designed to assess different types of student satisfaction that can inform leadership decision making. Other types of Noel-Levitz student satisfaction scales are the Effectiveness of Academic Advising, Climate, Student Support Services, Concern for the Student as an Individual, Instructional Effectiveness, and Student Centeredness: all of which emphasize attitudes toward students (Middaugh, 2010). A main advantage of the Noel-Levitz (2016) Student Satisfaction Inventory scale contains summarized pieces of information that

identifies university assets and areas for improvement. Universities can also set goals in specific areas to see improvement. Additionally, the Noel-Levitz reports also compares institutional satisfaction scores to the national scores for participating universities so that a university can see where it stands on a bigger scale. More importantly, universities can identify where to improve and meet student needs using a standard comparative context used by other colleges (Middaugh, 2010). Although the Student Satisfaction Inventory scale was not used in this research, a student evaluation survey was created that identified important areas for programs to consider to meet student needs related to the student experience in the doctor of education program.

Online courses, including blended courses, should be comparable to traditional face-to-face classes in as many ways as possible (Christopher, Thomas, & Tallent-Runnels, 2004). In general, some studies have shown that online courses were no less effective than face-to-face courses based on the learning outcomes, and students generally reported satisfaction with those online education experiences (Babb, Stewart, & Johnson, 2010). For example, an empirical analysis done by Negash, Emerson, and Vandegrieff (2009) found no significant differences between student satisfaction in face to face, online, and blended learning environments in which 165 students from eight disciplines participated in the study. Similarly, Kingma and Keefe (2006) asserted that online education is equally comparable to a traditional face-to-face setting including instruction; however, issues such as physical distance that online students experience are different than those in the face-to-face classes (Kingma & Keefe, 2006). In contrast, other studies have shown that many students are unsuccessful in online-only courses (Chen & Jang, 2010; Rochester & Pradel, 2008). Other studies showed that blended courses have better student satisfaction and student learning outcomes than online-only courses (Griffith, 2014). Griffith's results revealed that self-reported satisfaction was higher for blended students compared to

online-only students, and perceived student-to-student interaction was higher for blended students than for online only students (Griffith, 2014). Similarly, Gibson's study found that the accounting students enrolled in the blended classes scored higher in their final scores compared to those students in the online only classes. Based on his research, the difference in students' scores based on delivery modality was found in almost every student demographic (Gibson, 2014). Since there are mixed literature review results for online only and blended courses, it is important to continue to study student satisfaction and the relationships between the distance education growing community (Kupczynski, Mundy, & Jones, 2011).

Student Satisfaction Factors in Distance Education

There is a tremendous amount of research devoted to program quality and student satisfaction in distance education. Through surveying students at multiple institutions, the Babson Survey Research Group found the numbers of students were increasing who wanted to take online courses. In 2014, the Babson Group reported that 7.1 million students took at least one online course in the fall 2012, but according to the Integrated Postsecondary Education Data System (IPEDS) data, the actual number was about 5.5 million -- roughly one-quarter of the total enrollment in the nation (Blair, 2014). Both groups agreed that at least 5.5 million students were taking online courses in fall 2012 and distance education online enrollment is increasing (Straumsheim, 2014).

Among those 5.5 million students, about 2.6 million were enrolled in fully online programs. The remaining students took some traditional courses and some online courses (also known as blended or hybrid classes). Those numbers also highlighted a split between undergraduate and graduate students. For example, the share of graduate students enrolled in fully online programs was twice as high as the share of undergraduates -- 22 to 11 percent.

Undergraduates, however, were almost twice as likely as graduate students to take a combination of face-to-face and online courses -- 14.2 to 7.8 percent.

The Babson Research Group conducted a study about the increase of online education in 2016. The survey reported that although online learning has increased, support from higher education institutions have decreased. Only 29.1 percent of chief academic officers surveyed reported that faculty perceived and valued the validity of online education. Furthermore, the number of academic leaders who regarded online learning as important to their long-term strategies dropped 7.5 percentage points from 70.8 percent in 2015 to 63.3 percent 2016 (EcampusNews, 2016).

Approximately 900,000 students enrolled at private, four-year for-profit institutions made up the single largest category of distance education enrollment, followed by 675,000 students taking all courses online from public two-year colleges (Straumsheim, 2014). Furthermore, when research was conducted in relation to graduate students most research focused on academic outcomes (Golde, 2000); rather than the student experience and academic results. Very few research projects have compared and contrasted fully online graduate courses to blended courses within the same group of students (Griffith, 2014).

Online Vs Blended Learning: Differences in Instructional Learning Outcomes and Student Satisfaction Factors

Student satisfaction was evaluated in the doctor of education program. The main research independent variables of this study were the instructor and the course. Instructor satisfaction took into account instructor communication, clear instructions, and timely grading. Course satisfaction took into account exam assessment and course organization. Cumulative GPA was evaluated in relation to student satisfaction to see if there were differences between

online or blended models. Below is a brief literature review of each factor and the relationship between student satisfaction and online and blended models.

Instructor Communication Factor

In their research, Innovative Learning Institute (2014), found that online courses with high levels of instructor-to-student interaction had a positive impact on student satisfaction and learning. Students that perceived more interaction with the instructor indicated they had higher levels of satisfaction and reported higher levels of learning in distance education (Kupczynski, Mundy, & Jones, 2011). In the same way, Shea, Li, and Pickett (2006) and Elkins (2015) claim that instructor presence and connectivity should be demonstrated for increased student satisfaction. They assert that an active and present instructor, who guides and coordinates the distance education course, relates positively to students' sense of connectedness and learning. For example, when instructors gave feedback and encouraged students either in discussion forums or email they felt encouraged to put forth more effort (Shea, Li, & Pickett, 2006). Similarly, as Shea (2006) described, if instructors are intentional about creating an environment for learning and having them feel connected in the learning community then students demonstrate having higher levels of satisfaction. In contrast, studies also showed that a few students take over the discussion much like a face-to-face classroom environment (Orlando, 2017). Although dominate discussion is likely in an online environment, evidence showed that shy students are drawn out of their shells when enrolled in online classes (Orlando, 2017). In an online learning environment where students may feel lonely or disconnected, social interaction through online discussion supported online students to feel connected with other peers (So & Brush, 2008; Swan & Shih, 2005).

Glisan and Trainin (2006) asserted that there can be a negative correlation between lack

of teaching, support services, or social presence in distance education courses and the relationship between student satisfaction and fulfillment. In a study conducted by Cho and Tobias (2016) titled “Should Instructors Require Discussion in Online Courses?,” the research revealed that open communication and group cohesion were statistically higher in discussion groups with a non-active instructor (Condition 2) and discussion groups with an active instructor (Condition 3) when compared to student experiences with no discussion groups (Condition 1). Affective presence was statistically higher in Condition 3 than in Conditions 1 and 2. Their results indicated that active instructor participation in the discussion enhanced students’ social presence. The outcomes were consistent with the findings from previous studies suggesting that online social interaction with instructors is important to feel socially connected to others (Andresen, 2009; Kehrwald, 2008; So & Brush, 2008). Specifically, interaction with the instructor seemed to be important in an online learning environment (Cho & Tobias, 2016).

Stein, Wanstreet, Calvin, Overtom, and Wheaton (2005) affirmed that the lack of interaction among peers and instructors will hinder learning and satisfaction within distance education courses. In the same way, Griffith’s quasi-experimental research results indicated that self-reported student satisfaction was 1.57 points higher out of a 5-point Likert scale for students enrolled in blended courses compared to those enrolled in fully-only online courses (Griffith, 2014). Student satisfaction was measured by the response to questions 1 through 5 on the survey instrument using a 5-point Likert scale with an attribute range of 5 to 1, (5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, 1 = strongly disagree). For that study, a bivariate analysis looked for correlation between demographics and student satisfaction. Gibson’s results confirmed Griffith’s research findings that suggested blended course delivery models should be explored further to demonstrate that instructor and student interaction is effective.

To address the diverse learning needs of students and decrease transactional distance for students taking blended learning courses has emerged as a potential solution (Lloyd-Smith, 2010). Xu and Jaggars (2011) found that students were more likely to complete their class when enrolled in blended courses that were similar to face-to-face courses. Typically, students do as well in face-to-face classes as in blended courses (Crawford, Barker, & Seyam, 2014). The blended model allows for social connections to enhance communication, resulting in student success and retention (Hijazi, Crowley, Smith, & Shaffer, 2006). Cruz-Johnson (2012) also noted that the blended model may support students with multiple learning styles more than the traditional face-to-face environment. Students have to display more independence and autonomy in a blended learning environment than a face-to-face environment, but also do not lose total connection between the instructor and other students which could happen in a total online environment (McGee & Reis, 2012) and self-regulated learning in order to be successful. Yen and Liu (2009) investigated the relationships between autonomy (exhibiting intentional behavior in learning activities) and final grades in community college online courses. They found that autonomy was a predictor of student success and final grades. They recommend that more blended courses should be created to support learner autonomy. Students who take blended learning courses should be more of an independent learner; however, institutions should offer services that support students who are less academically or technically prepared to ensure student success and student satisfaction.

Chickering and Gamson (1987) identified communication as one of the most important elements in the book called *Seven Principles of Good Practice in Undergraduate Education*. Communication whether it is undergraduate education or graduate education is important in blended learning courses. Through Chickering and Gamson's interviews, they found that when

students perceived little to no communication there were negative consequences (Chickering & Gamson, 1987). For example, if students did not understand expectations and if they did not understand they needed to manage their time then they did not feel responsible for their own learning. Additionally, if students did not particularly like the subject, then the student may perceive communication as impersonal or be less likely to communicate in the blended learning model in general. Two best practices recommended to enhance the student experience and increase communication were: “sharing the philosophy and process for the blended learning courses and establishing an atmosphere of mutual feedback” (deNoyelles, Futch, Howard, & Thompson, 2016, pg. 149). Sharing the process and philosophy of the course is important to the student because there is no single universal definition of blended learning (Moskal, Dziuban, & Hartman, 2013). It is important for each instructor and institution to explain his or her approach to blended learning in each course which includes basic information such as the course schedule, syllabus information, and structure so that students have clarity on how to be successful in a blended model course. A clear schedule is recommended to help communicate how often students meet with the instructor and others students. It is recommended that the instructor explain the relationship between the two modalities to set the students up for future success juggling online and face-to-face courses and how they are intertwined (deNoyelles et. al., 2016). The benefit of having blended courses is that students get an idea of content and context online via discussions and readings and then everything is reinforced during a face-to-face class. Blended courses are especially important in courses such as statistics or where lots of group work and discussion is involved for a prolonged period of time. Paying attention for the instructor and the student is critical because that is how the two parts online and face-to-face work together as a blended course (deNoyelles et. al., 2016).

An instructor's communication in online and in blended courses are a vital part of a students' perception of satisfaction and their perceived learning outcome. The importance of communication was illustrated by a cross-sectional research study conducted by Lee. In Lee's (2014) cross-sectional study, 82 graduate students (master's students who majored in math and science education) participated from across the United States with one student from Korea. Students took a 24-question survey on a six-point Likert scale ranging from 1=strongly agree to 6=strongly disagree and included four open-ended questions to measure human and design factors associated with student satisfaction in online learning. Human factors involved professor and instructional associates or graduate assistants and the design factors included course structure and technical aspects. Results revealed that satisfaction levels were associated with an instructor and that more than 95% of the participants strongly agreed or agreed that the online instructor was more satisfying if he or she had the following traits: knowledge of course, prompt reply, constructive and timely feedback on student assignments. Participants also strongly agreed that the professor's knowledge of course materials was important to make their online learning more satisfactory (Lee, 2014).

The study showed that instructor responsiveness, knowledge of material, and delivery of information were related to student satisfaction (Lee, 2014). Students needed responsiveness from their instructors and instructor accessibility for their online experience to be more satisfactory (Lee, 2014). For example, one student stated "I want an instructor who responds in a timely fashion and is helpful." Another student commented "I think that a quality that the [professor] should possess is accessibility. This person needs to be able to be reached at all times and expect that he/she will be contacted at any moment." Another student response was "Quick appropriate feedback and answers to questions" (Lee, 2014). This qualitative study revealed that

graduate students prefer instructor accessibility, feedback, and prompt responses in different forms of instructor communication which influenced student satisfaction. In short, instructor communication is vital and the better the communication for graduate online students the higher their satisfaction level of the instructor and their learning environment.

In *Dissertations at a Distance: Students' Perceptions of Online Mentoring in a Doctoral Program*, Kumar, Johnson, and Hardemon (2013) identified communication interaction online mentoring strategies to mentor doctoral students through their dissertation process. Students wanted early and consistent communication with their mentor who ultimately helped them continue in their dissertation or helped them solve problems. Students also commented that they wanted mentors to use multiple modes of communication. Seven of the nine found that a combination of various technologies, including both asynchronous or synchronous communication worked well. The researchers also found that the different modes of communication were valuable, whether by e-mail, the phone, or face-to-face meetings. The study revealed that all nine students emphasized the importance of open and regular communication with dissertation mentors using different strategies.

Similarly, a study conducted by Digiovanni and Leeds (2012) found that the student feedback provided by the in-student evaluations showed substantial support for the use of communication tools such as text messages, emails, and discussion boards. Additionally, Kuo et al. found that learner and instructor interaction communication was the strongest predictor that significantly contributed to student satisfaction (Kuo, 2013). In contrast, Palmer et al. from Indiana University found that the majority of students in the graduate course study perceived the amount of interaction with the instructor is about the same for a blended course as compared to a face-to-face course (Palmer, 2014). Likewise, Martínez-Caro, and Campuzano-Bolarín (2011)

found that having immediate access to the instructor is perceived as an important factor in students' satisfaction with blended learning; this was similar to Lee's (2014) previously discussed findings. Graduate students preferred instructor accessibility and prompt feedback and responses. In sum, instructor communication via multiple communication tools may increase student engagement and student satisfaction.

Clear Instruction Factor

Telling students exactly what is needed on assignments is considered good teaching (Dutton, 2016). If professors are unable to communicate what they want from students, then professors cannot expect specific assignment outcomes. Professor clarity is important in distance education courses since there could be perceived communication misunderstanding in this type of environment. Pascarella and Terenzini (2005) highlighted the relationship between teacher clarity and student learning and achievement. Studies have identified a relationship between teaching clarity and student comprehension of material (Chesebro & McCroskey, 2001; Myers & Knox, 2001) and greater satisfaction including achievement (Hativa, 1998). Hativa's (1998) research found that when an instructor did not clearly communicate assignment directions students lacked understanding of the course material. In contrast, a 2005 study conducted by Ortiz-Rodriguez and colleagues, found that regular communication, responsive instructor feedback, friendly course design, and student support contributed to student satisfaction (Ortiz-Rodriguez, Telg, Irani, Roberts, & Rhoades, 2005). Lee's (2014) research also reported the importance of clear guidelines and instructions. For example, qualitative results revealed that satisfaction levels were influenced by online graduate students who wanted clarity of assignment details, due dates, and graded rubrics. Students also indicated that they wanted very clear and concise expectations of the course including descriptions of the assignments to achieve the

highest marks (Lee, 2014). Similarly, Palmer and Holt's (2009) multivariate linear regression questionnaire study from Deakin's University revealed that students needed to have a clear understanding of what was required of them to succeed in the online course. Another study conducted by Ausburn (2004) showed that adult students in blended learning environments valued features such as announcements, reminders, the syllabus, and assignment instructions in the course. Clarity of information and instructions on what and how to do something via a rubric in the online and blended environment were important to student experience and student satisfaction.

Wyss, Freedman, & Siebert (2014) conducted a study related to instructor clarity and student satisfaction levels. The mixed methods study demonstrated the effectiveness of rubric expectations and the relationship between discussion guidance. The study looked at the efficacy of the rubric in student comfort with the expectations for the course and the quality of the discussions. The researchers collected information on formal evaluations and feedback and student grades. Students were asked to rate their courses from one to five with five being the highest and one being the lowest score. They discovered three items that related to the student experience and course objectives which included guidelines on grades. The first was that the instructor provided clear course objectives; second was that the course had clear objectives, and third was the grading system for the course was clear. For example, before the new rubric was implemented, the mean rating in the spring and summer student evaluations on the items above were scored from 3.5 to 4.3. After the new rubric was implemented the ratings increased. For instance, "The instructor provided clear course objective" statement was rated as a 3.7 using the old rubric in Spring 2011 and in Spring 2012 using the new rubric the same statement was rated as a 4.3. All three statements mean scores related to discussions increased from Spring 2011 to

Spring 2012 (Wyss, Freedman, & Siebert, 2014).

The increase in evaluation scores for the items reported for the study and the student statements indicated a decrease in student confusion on course objectives and an increase in student satisfaction with the online graduate course. The study also revealed that students felt more confident about their grades, emailed less about rubric and instruction on course clarity, and had a better understanding of the discussion requirements. The author remarked:

Providing guidelines for the expectations of scholarly online discussions at the graduate level can substantially improve the quality of the student contributions. While variations in student understanding were not measured in this study, the instructor observed more complete responses that demonstrated thought beyond personal experience on a more regular basis in the discussions (Wyss, Freedman, & Siebert, 2014, p. 106).

The efficacy of rubrics and clarity of instructions for distance education discussion and course quality improved the student experience and student satisfaction. The study demonstrated that clear instructions and rubrics had a positive impact on student satisfaction levels.

Mohammed Rhalmi (2010) wrote about practical teaching tips for giving instructions. A few main points focus on failing to get instructions through to students. Failure to understand directions from instructor can result in unwanted behavior such as: failure to do tasks, students will feel frustrated which hinders the learning process, students feel upset because they feel helpless, and lastly, instructors become frustrated if students fail to complete assigned research projects or assignments. Rhalmi (2010) suggests a few practical instructional tips to increase student understanding of activity instructions: First, instructions should be short and easy to understand. Second, instructions should be given before students start to work, and next, instructors should establish routines by giving instructions in a consistent way that students can

expect in any type of course setting. Being clear with expectations and instructions will reduce frustration and increase student satisfaction and completion of coursework Rhalmi (2010).

Timely Grading Factor

The purpose of timely grading is to keep the students informed and to alert the professor of issues that need attention related to assignments, projects, and discussions (Reis, 2005; King, 2014). They asked graduate students enrolled in six online courses to complete a questionnaire related to different types of engagement such as interaction, performance, studying, and relevant academic material. Using a Likert scale, students were asked to indicate the importance of various online features such as online discussion, online course management design, and online engagement in the course. Only 29% of the students completed the questionnaire. The results revealed that course management system features were very important and that instructor feedback on assignments and assessments were rated extremely important. Additionally, at Duke graduate faculty are expected to evaluate student progress and performance in a timely, regular, and constructive fashion (Duke Graduate School, 2017). Lee's (2014) study revealed that grading was important and that it would make distance learning more satisfactory. Qualitative data showed that graduate students wanted professors to "provide valuable feedback on assignments" (p. 117). Students also wanted timely grading done as one of their highest priorities in relation to student satisfaction. Timely grading was important for one student who said "I want to learn what I can improve and what I am doing well on" (p. 117). Another student made a similar comment about the instructor "Be on time with grading and stick to deadlines" (p. 117). These studies revealed that instructor timely grading was important to students so that students could improve academic work. Students also perceived instructor timeliness in terms of valuing students' time.

Sopina and McNeill's (2015) cross-sectional research investigated whether or not the model and delivery of feedback have an impact on quality. The research was conducted in one semester and involved surveying 335 students enrolled in a first-year Population Health course from the University of Auckland (Sopina & McNeill, 2015). The five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) questionnaire was developed based on three areas of interest; however, timeliness of feedback was the most important related to this research (Sopina & McNeill, 2015). Multilinear regressions were performed to predict overall student satisfaction with feedback quality and timeliness of feedback in each assignment (Sopina & McNeill, 2015). The results revealed that students who found the first assignment returned conveniently on time were more likely to be satisfied with overall instructor feedback. However, results also revealed that a large number of students felt that the assignments could have been returned faster, as they would have preferred, to refer to the feedback for future assignments (Sopina & McNeill, 2015). Although timeliness was important to students it was not a top priority based on their research results (Sopina & McNeill, 2015).

Walvoord and Anderson from Vanderbilt University studied multiple roles of grades (Grading Student Work, 2010). Grades evaluate student work, are a way of giving feedback to students, inform graduate schools and future employers about student performance, and are a source of motivation to students for continued improvement and learning (Walvoord & Anderson, 1998). Additionally, the authors maintain that grading consistency in multi-section courses should be considered and the relationship between grades, expectation related to the instructor, the student and course policies and standards. They assert that expectations should be stated clearly on the syllabus for assignments, rubrics, grades, policies, and timeliness to minimize student complaints about grading (Walvoord & Anderson, 2010). Timely grading is

important for student performance, progress, and evaluation. Moreover, timely grading is also important to be conveyed in the syllabus and communicated effectively so that student complaints are minimized and overall student satisfaction is positive.

Students benefit from and value edifying and helpful feedback from instructors (Nandi, Hamilton, & Harland, 2012). By providing timely grades and quality feedback, highlighting what was done well and what can be done to improve student work is important to a students' success. Timely grading and constructive feedback on submitted assignments helps students to progress and build upon their earlier learning. Some grading best-practices are as follows:

a) Evaluate student work based on rubrics b) Provide personalized feedback about strengths and opportunities for improvement c) Keep gradebook current (Adjunct Teaching & Learning Guide, 2017). These suggested best practices such as timeliness and constructive feedback in online and blended distance education classes benefit student learning. When instructors value students' education and time as a best practice then students are more likely to be a satisfied student.

Grade Point Average (GPA) Factor

Learning outcomes are measured by the Collegiate Learning Assessment Group as an assessment of “abilities to think critically, reason analytically, solve problems and communicate clearly and cogently” (Olds, 2012). The University of Illinois at Urbana-Champaign, *Tips on Writing Learning Outcomes* (2015), measures learning outcomes based on objective statements that students will learn in a course. Bloom's taxonomy describes student learning outcomes in five different levels from the lowest to the highest cognitive skills: knowledge, comprehension, application, analysis, evaluation, and synthesis (Tips on Writing Learning Outcomes, 2015). When students meet learning objectives, students are considered successful. Noel and Levitz (1989) claims that student success is when students find meaning or purpose in their college

experience. For instance, when students gain relevant connections between what they are learning and their own personal or professional goals, they find meaning and purpose while achieving learning outcomes. Learning outcomes for many institutions not only view grades as meeting course objectives, but include persistence to graduation (Hurtado & Guillermo-Wann, 2013). In addition to learning outcomes, the Online Student Satisfaction Survey developed by Noel-Levitz is an assessment tool to help improve the quality of online programs by identifying needs, expectations, and priorities differently than traditional students (Noel-Levitz, 2009). Noel-Levitz conducted an extensive study on student satisfaction and re-enrollment where 65 Carnegie Institutions had over 27,000 students participate between the years 2005 through 2008. The results showed that the most predictive factors of re-enrolling were the campus climate and instructional effectiveness and responsiveness (Schreiner, 2009). Therefore, when students are satisfied in the online environment and blended campus environment, students will respond positively towards being satisfied in the course, will recommend the course to others, and will re-enroll and persist in their educational endeavors (Schreiner, 2009).

Grades are one of the many different variables that influence student satisfaction in graduate programs. British Columbia College and Institute Student Outcomes studied student satisfaction in post-secondary education (Understanding Student Satisfaction, 2003). The purpose of the study was to identify former student aspects of the educational experience related to students' overall expressions of student satisfaction (Carmel & Gold, 2007). The researchers wanted to determine which features of the student experience were closely related to satisfaction that may provide information about actions to maintain high levels of satisfaction and improve student learning (Carmel & Gold, 2007). "Students who reported higher levels of satisfaction tended to have higher grades and were more likely to have completed their program than

students who were less satisfied” (Gold & Carmel, 2007, p. 3). Another study conducted by Florida International University (FIU) in 2014 examined the effect of student satisfaction, grades, and retention using the Quality Matters instrument (Miner, 2014). The Quality Matters instrument is a set of set standards and expectations for delivering online learning (Course Design Rubric Standards, 2014). The General Standards and Specific Review Standards in each rubric are intended to “guide you through the development, evaluation, and improvement of your online and blended courses” (Course Design Rubric Standards, 2014, p. 1). Meeting the expectation of 85% level or higher was key to certifying the quality of online or blended courses. The Community of Inquiry questionnaire data, final grades, and retention information were used to evaluate the effect of Quality Matters certification of online courses (Miner, 2014). The questionnaire was given to students enrolled in 12 before and after Quality Matters certified online courses at Florida International University (Miner, 2014). Before the Quality Matters Rubric was implemented, 23 more online courses were analyzed to determine if there were differences between grades and retention after the Quality Matters Rubric was applied in the study. The results showed that there were no significant differences in student satisfaction, grades, or retention before or after using the Quality Matters Rubric certifying online courses (Miner, 2014). For FIU, these results indicated that the online courses analyzed were equally as effective as those courses developed using the Quality Matters Rubric and the relationship between student satisfaction, grades and retention.

Cummings, Chaffin, and Cockerham (2015) compared the educational outcomes of the University of Tennessee College of Social Work’s online and face-to-face Master of Social Work (MSW) program involving 345 student who participated in the study looking at three different tracks: full-time, part-time, and advanced tracks. Their research indicated that

significant differences were found in online versus face-to-face student GPA. The researchers also found a significant interaction indicating that the GPA scores for face-to-face advanced-standing students was significantly greater than those of the online counterparts. However, no differences were found in face-to-face GPA scores and online full-time or advanced track students (Cummings, Chaffin, & Cockerhan, 2015). Similarly, while dialogue and discussion contributed to student satisfaction in a transactional distance study, grades did not (Ekwunife-Orakwue & Tian-Lih, 2014). Another study conducted by Hoey, Pettitt, and Brawner (1998) found no significant differences in final course grades between web-based sections and classroom sections. Thus, in some cases, student satisfaction was influenced by grades, but not in others. Therefore, it is important to measure student grades to see if grades would be a predictive factor in student satisfaction.

Exam and Assessment Factor

There is very little literature related to self-assessment, measuring the overall graduate satisfaction experience and the relationship between student satisfaction; however, there is one study that conducted an analysis of student self-assessment of online, blended, and face-to-face learning environments. In the study, there were 4,038 assessment summaries taken between the years of 2009 and 2010 (Castle & McGuire, 2010). The individual courses averaged 25 to 30 students per course. The students participated in a 30-question student assessment survey containing a five-point Likert scale, and were clustered in four categories: student self-assessment of learning; assessment of teaching; assessment of course content; and assessment of web-based technology (Castle & McGuire, 2010). The results suggest that student self-evaluation was higher for face-to-face classes, than blended courses, and fully online offerings. Graduate students preferred online to blended courses, whereas, undergraduate students preferred

blended to online courses. There were two areas that were statistically significant in the study. The areas were “face-to-face” onsite and the online delivery model. Both learning models were found to be statistically significant with a synchronous communication component which was also statistically significant. Moreover, the fully online courses reported the highest level of student assessment of learning and overall student satisfaction (Castle & McGuire, 2010). Furthermore, online courses that employed technologies that mimicked face-to-face interactions, such as video conference or audio feed tended to show higher levels of student satisfaction than on entirely asynchronous online delivery (Castle & McGuire, 2010). Thus, online delivery and the quality of exam assessment should be an important factor when considering the overall advantages in distance education to meet learning outcomes, student success and satisfaction, and sustainability of university goals.

Eom and Ashill (2016) studied students perceived learning outcomes and satisfaction by examining several factors including course design and structure. One research question explored student components such as assignments, projects, and exams. The results revealed that assignments and exams were strong predictors of student satisfaction and student learning outcomes (Eom & Ashill, 2016). Therefore, course exams and assessments related to student satisfaction are important when developing any type of online quality program.

Course Organization Factor

Online course organization and design of the online environment is important to the student experience and student satisfaction. Course design is “concerned with the planning and design of the course structure and with the process, engagement, interaction, and evaluation aspects of the course” (Eom & Ashill, 2016, p. 196). The course design standard follows a rubric created by the Quality Matters establishment. The Quality Matters organization

represents, shares, and collaborates with other businesses, institutions, and scholars to better understand and create best practices for desired online course quality (Eom & Ashill, 2016). The course design rubric standards consist of 43 standards grouped into eight different categories. The rubric is designed to improve and confirm the plan and organization of online and blended courses. For instance, the first four categories include: course overview and introduction, learning objectives, some type of assessment and measurement, and must have instructional materials that contribute to the learning objectives and student success (Eom & Ashill, 2016). These first four categories lay the ground work for instructional and student success. The second four categories are: learner interaction, course technology, learner support, and accessibility and usability (Eom & Ashill, 2016). These second categories lay the foundation for student technology success specifically in the online environment. Furthermore, course design and organization of the course can impact the learning process and student satisfaction (Swan, 2011). When the course material and information is organized in a coherent and logical order with multiple elements that stimulate learning, students are more likely to have a positive online student experience (Eom & Ashill, 2016).

Martin, Krieger, and Apicerno (2015) examined the effectiveness of hybrid classroom testing in a medical terminology course. The study was designed to compare the perceptions of face-to-face classroom students with blended classroom students to assess their experiences with the learning process and identify factors that influenced their ability to meet the course objectives (Martin, Krieger, & Apicerno, 2015). A survey was designed to collect data. A forced ranked scale was used to assess the perceived values from one to six, with one being the most agreeable and six being the least agreeable in educational and study factors in meeting course objectives. Approximately 206 students from four different sections were emailed to volunteer in the study.

Only 79 students completed the survey in the Medical Terminology course at the four-year university. Only 41 students were face-to-face respondents and 38 were blended respondents. The results revealed that the six 5-point Likert-scale questions designed to evaluate student perceived effectiveness of medical terminology instructional methods and the associated learning process had no significant differences between groups in relation to perceived value of in-class instruction. Both groups perceptions revealed that the medical terminology course could be taught effectively in a face-to-face or blended model.

Eom and Ashill (2016) studied many factors related to students' perceived learning outcomes and satisfaction in online education. A total of 372 responses from students who completed at least one online course at a U.S. midwestern university were examined using the structural critical success factor model based on the constructivist learning theory. Eom and Ashill's (2016) study used indicators of well-defined course design such as looking at course objectives and procedures, structure of the modules and the organization of components. Their findings suggested that the instructor-student dialogue, student-student dialogue, instructor, and course design significantly affected students' satisfaction and learning outcomes; the course design, the instructor, and dialogue were the strongest predictors of student satisfaction and learning outcomes (Eom & Ashill, 2016). The researchers found that the course design had a strong positive significant relationship to student satisfaction and learning outcomes (Eom & Ashill, 2016).

Student Evaluations

Student evaluations typically measure teaching effectiveness (Flaherty, 2014). They are the most common way to evaluate teaching (Cashin, 1999; Clayson, 2009; Davis, 2009; Seldin, 1999). Student evaluations also measure student satisfaction. End-of-course surveys

administered to online students could give evaluators valuable student satisfaction information that could be used to improve the course or program (Wode & Keiser, 2011). Distance education courses present different sets of challenges to instructors and students (Bolliger & Martindale, 2004). Online education students may never visit a physical campus and may have difficulty establishing relationships with instructors and other students in class (Bolliger & Martindale, 2004). Researchers who study distance education learners should understand and account for transactional distance and challenges when investigating student satisfaction (Bolliger & Martindale, 2004). Student evaluations are widely used because numeric measurement is easy and filling out a class evaluation takes little class or faculty time (Stark & Freshtat, 2014). Averaging instructor and course ratings is objective and takes little time (Stark & Freshtat, 2014). However, questions about using student evaluation scores as the only source of evidence for gauging teaching or student satisfaction for merit or promotion, and the usefulness of evaluation questions and methods of interpretation continue to be assessed (Stark & Freshtat, 2014).

Denson, Loveday, and Dalton (2010) studied predictors of student satisfaction. One of the main goals of student evaluations was to obtain student feedback regarding courses and teaching for improvement purposes. One of the most weighted statements on student evaluations was “Overall, I was satisfied with the quality of this course” (Denson, Loveday, & Dalton, 2010, p. 339). But little to no attention had been given to examining the predictors of students being satisfied with the overall quality of this course. The study attempted to address that gap by utilizing 60, 860 student evaluations representing 2,697 courses administered at one university over two semesters. A series of least squares regression analyses were conducted to predict student satisfaction with the course (Denson, Loveday, & Dalton, 2010, p. 339). The dependent

variable was overall student satisfaction and various independent variables such as student characteristics and student reasons for taking the course. Using a four-point Likert scale ranging from 1=strongly disagree to 4=strongly agree revealed the mean results for overall course satisfaction (Denson, Loveday, & Dalton, 2010). Additional questions on the student evaluation form were also rated fairly high ranging from 2.92 to 3.17 out of four. Students revealed they were given helpful feedback, and 89% of students thought that course objectives and aims of the course were clear (Denson, Loveday, & Dalton, 2010). Student characteristics were also examined by the relationship between the course and student satisfaction. Part-time students rated satisfaction with the quality of the course lower than full-time students and male students rated the quality of the course lower compared to female. Two-optional student evaluation statements were “the course was challenging and interesting” followed by “the assessment methods and tasks in this course were appropriate given the course aims” (Denson, Loveday, & Dalton, 2010, p. 348). The student evaluation questions were significant positive predictors of the course and appeared to be the greatest extrapolative power of all the variables in expecting overall satisfaction with quality of the course. The multivariate findings showed that the student characteristics, reason for enrolling in the course, and course evaluation items were predictive factors of overall student satisfaction with quality of the course (Denson, Loveday, & Dalton, 2010). These factors explained approximately three-fourths of the variation in course satisfaction (Denson, Loveday, & Dalton, 2010). Course and student satisfaction evaluations are used to provide performance indicators, compliance and accountability by governing bodies, and university audits (Denson, Loveday, & Dalton, 2010). Layzell (1999) and Woodhouse (2008) asserted the importance of when choosing performance indicators, rankings should be based on what is relevant to student learning and student satisfaction not necessarily what can easily be

measured.

Satisfaction and Instructor Ratings

In contrast, amongst some faculty, student evaluations are a source of frustration and anxiety, or fulfilment. Universities use student evaluations to make high-stakes decisions including tenure, salary increase, and promotion (Stark & Freshtat, 2014). Some faculty believe it is a popularity contest and believe that good teachers get bad ratings and vice versa encouraging faculty to water down course content (Stark & Freshtat, 2014). While other people like Dr. David Perlmutter, Professor and Dean at Texas Tech University use student evaluations to look at trends and patterns in faculty members' portfolios (Perlmutter, 2011). In his experience as a dean he has found that some teaching methods improved because instructors were able to resolve common criticisms raised by students about wording on test questions (Perlmutter, 2011). With that said, student evaluations should not be the only tool used to measure faculty member performance. Few institutions look beyond those silos, which are not particularly effective to gauge teaching, learning, or student satisfaction (Perlmutter, 2011).

Philip Stark, Dean, Professor, and Department Chair of Statistics, at the University of California, Berkley, and Professor Richard Freshtat, Center for Teaching and Learning, at the University of California, Berkley set out to find the truth about student evaluations by conducting multiple statistical analyses (Stark & Freshtat, 2014). In their study, Stark, Boring, and his colleagues performed innovative statistical analyses over a period of five years' worth of data to which Boring had access. Approximately 23,000 evaluations of 379 instructors and 4,423 students in six mandated first-year courses at a French university were analyzed (Boring, Ottoboni, & Stark, 2016). Stark, Boring, and colleagues also applied the tests to other evaluations for four sections of an online course in a randomized, controlled, blind experiment

on gender bias in student teaching evaluations at a United States university (Flaherty, 2016).

The idea for the new study was to examine whether student evaluations of teaching primarily measure teaching effectiveness or biases using a higher level of statistical rigor than had previously been applied to the data sets (MacNell, Driscoll, & Hunt, 2014). Their method used nonparametric permutation tests, statistical tests of significance for hypotheses such as “any given student would rate two instructors the same if the instructors are identical except for their apparent gender” (Flaherty, 2016, p. 2). The suggestion between evaluations and perceived instructor gender in both the U.S. and French data sets was largely statistically significant. Instructors whom students believed were male received significantly higher average ratings than female instructors (Boring, et al., 2016). In the French data, male students tended to rate male instructors higher than they rated female instructors, but little difference was observed among female students (Boring, et al., 2016). In contrast, in the United States data, female students rated male instructors higher than female instructors with little difference in ratings by male students (Boring et. al, 2016). In both cases, however, the bias still positively impacted male instructors and disadvantaged female instructors (Boring et. al, 2016). Stark and his colleagues said that “Our analysis would support an argument that the use of student evaluation of teaching or [any evaluation form] has adverse impact on female instructors” (Flaherty, 2016, p. 4). And suggested replication of the study to enhance the validity and reliability of the findings should be conducted (Flaherty, 2016).

Stark and Freshtat (2014) also assert that students are in a position to evaluate some aspects of instructors and the course but do not believe that students are able to fully evaluate instructors on teaching effectiveness because defining and measuring teaching effectiveness can be problematic (Stark & Freshtat, 2014). They believe that there are other ways of evaluating

instructors and courses. For instance, numeric data should be combined with student comments, and separate observation evaluations should take place to produce more consistency and meaningful composite scores (Stark & Freshtat, 2014). Moreover, comments from student evaluations can promote general discussions about what is working in the curriculum and what is not working (Perlmutter, 2011). For example, if comments such as “there is too much material; we are too rushed; we don’t have time to learn fully one thing before we are off to the next” are repeated numerous times, then it might be necessary to rethink how the course is sequenced and organized (Perlmutter, 2011). Likewise, dissatisfied students might rely on student evaluations to retaliate against an instructor if he/she received a low score on a final exam. Such comments need to be considered when interpreting student evaluations (Perlmutter, 2015). Student evaluations can be useful for interpreting instructor and course performance but:

Administrators should never conclude that high scores automatically designate a great teacher and low scores a bad one. Instead, they should look at other variables: What were the grades in the course? Were they much higher -- or lower -- than usual for that class and in that department? Were peer evaluations done, and, if so, what did they reveal? (Perlmutter, 2015, p. 3).

Faculty should be reviewed holistically rather than at a numerical level only (Perlmutter, 2015). One of the most important things administrators can do is increase rigor in evaluating the evaluation process by asking questions like “What does a “4” mean versus a “3” and “what does a “5” mean versus a “6”?” And, “how many students spoke up about a certain issue?” Such questions and issues need to be discussed between administrators and faculty members (Stark & Freshtat, 2014; Perlmutter, 2015). Student evaluations provide administrators with an easy metric and administrators need a variety of ways to measure it quantitatively and qualitatively

(Perlmutter, 2015, p.4).

Rebecca Schuman, a scholar and visiting professor of German at Ohio State University claimed that “Student evaluations of professors aren’t just biased and absurd—they don’t even work” (Schuman, 2014, p. 1). She asserted that evaluations promote sucking up to students. For example, a comprehensive study showed that professors who get good evaluations are entertaining and teach to the test (Schuman, 2014). She emphasized that the worse the evaluations were from her students the better her teaching reflected. “The students were way better at German walking out than they were walking in” (Schuman, 2014, p. 2). Other studies revealed the same results. For example, the Stark, Boring and colleagues (2016) revealed gender bias, but they also shared from an email interview that the difference leading to the same outcome was the most surprising finding of the study “At one university, he said, male students rate male instructors higher, although they apparently learn less from male instructors. In the other, female students rate male instructors higher” (Boring et al., 2016). This suggested that the higher the instructor score the less the student learned and vice versa. Additionally, evaluations can impact career trajectories, so the approach only using evaluations to evaluate instructor performance should be modified if that is how institutions operate.

The halo effect, a cognition bias, should also be considered when instructor ratings are being reviewed. There is the tendency for an impression created in one area to influence opinion in another area. The halo effect is a cognitive bias in which the overall impression of a person influences how people think and feel about another person’s character (Cherry, 2017). For example, if someone thinks a professor is nice, she/he must also be smart. Thus, the halo effect is something to reflect on as a bias because feelings generally overcome cognitions when appraising others (Standing, 2004).

A new study called, *Meta-analysis of faculty's teaching effectiveness: Student evaluation of teaching ratings and student learning are not related* by Uttl, White, and Gonzalez (2017) adds to the body of evidence that student reviews of professors have limited validity. The researchers re-analyzed previously published meta-analyses of multi-section studies and found that the findings were an artifact of small sample sized studies and publication bias (Uttl, White, & Gonzalez, 2017). The results suggested that students do not learn more from professors with higher student evaluation ratings (Uttl, White, & Gonzalez, 2017). Using student evaluations assists administrators to collect data and insights to make help make decisions, nonetheless, gender and cognitive biases should be considered. Furthermore, evaluations should not be the only measurement to assess student satisfaction or instructor member performance (Perlmutter, 2015).

Summary of Literature Review

Per the Sloan Consortium, students are satisfied when they are pleased with their learning and their educational experience (Moore, 2009). Sorden and Munene (2013) conceptualized student satisfaction in terms of how the student perceives the value of an educational experience from four potential learning environments: traditional, fully online, blended, or hybrid models. The traditional model is 100% brick and mortar; in a classroom where all learning activities and communication between the student and instructor take place. Next, the fully online model is where 100% of learning activities and communication between the student and the instructor are via the internet to access information, read excerpted materials, discussions are held, and it is where students submit assignments. The blended model is a combination of classroom and online activities where more activities take place in the classroom, but online activities and communication do take place that reinforce classroom learning. Lastly, the hybrid model shows

that more than 50% of activities are done online and the remainder of the time is spent in class. These different models allow students to control their learning while maintaining work and family obligations.

This specific study was investigated because of the gap in knowledge and gap in the literature concerning student satisfaction and doctor of education courses. Almost no studies of doctor of education student satisfaction compare blended to fully online delivery models. Most research compares online-only and face-to-face delivery models, but not blended and online-only delivery models cited by Griffith (2014). While there are many studies about undergraduate students and their programs, graduate program research appears to be limited to business, nursing, and pharmacy (Chickering & Gamson, 1987; Alston, 2014). This 2017 research was conducted concerning doctoral of education student satisfaction and the relationship between the course and the instructor in the two different delivery models of online and blended courses using the Transactional Distance Theory framework.

Communication or lack thereof is a common problem in education that leads to student dissatisfaction. One way to assess student satisfaction surveys is through the Transactional Distance Theory lens framework. The Transactional Distance Theory framework focuses on the complexities of the psychological and communication gap related to student satisfaction (Moore, 1972). Psychological distance refers to perceptions (subjective feelings) about the closeness or presence of another person when interacting with that person (Berge, 2013). In this case it is the distance between the student and instructor that influences student satisfaction in distance education. Communication refers to the exchanging of information or ideas (Berge, 2013). Basically, Transactional Distance is the separation of the student and the instructor which potentially increases miscommunication and misunderstanding between the instructor and the

student (Moore, 1997). The development of Transactional Distance Theory spanned an 85-year period during which time the theory was advanced and refined. Transactional Distance is not determined by geography but by the relationship between the student-instructor dialogue and the course structure (Moore, 1997). Per Huang, Chandra, DePaolo, and Simmons (2015), transactional distance is determined by the amount of dialogue that occurs between the student and the instructor, and the amount of structure that exists in the design of the course. When the dialogue is minimal between the instructor and the student, it means that the course is not highly structured, therefore increasing transactional distance and increasing psychological stress from potential miscommunication or misunderstandings between the student and the instructor. As dialogue increases between the instructor and the student, and the design of the course meets educational standards, transactional distance is decreased (Burgess, 2006). The goal is to minimize psychological stress by increasing course structure and increasing communication between the instructor and the student, which will improve student satisfaction rates and persistence. Additionally, instructor ratings and cognitive biases should be considered when using student evaluations. Moreover, student evaluations should not be the only assessment tool used to measure faculty performance. In this brief review, it demonstrates that more research should be conducted regarding fully online and blended doctorate courses. Research, knowledge, and application of appropriate evidence will continue to contribute to overall best practices, student satisfaction, and learning outcomes.

III. METHODOLOGY

Methodology Type

An Evaluation Research methodology was used to analyze the effectiveness of the student evaluation instrument regarding its relationship to student satisfaction in the doctor of education program at a Christian liberal arts university using a well-established evaluative protocol. The study represented a summative evaluation for students enrolled in both blended and online course venues. Specifically, the study is described as descriptive in nature for the purpose of identifying students in the College of Education program using a student evaluation to examine student satisfaction levels and the relationship between the instructor and the course. The primary research instrument contained both quantitative and qualitative measures; however, only quantitative measures were used for evaluative purposes in addressing the study's research questions and hypotheses.

Context

The context of the study was the setting of the College of Education doctor of education program where student satisfaction level perceptions were evaluated in relation to blended and online courses. Approximately 43% of students who applied to the university were accepted and about 4,500 undergraduates, graduates, and doctoral students attend the private liberal arts university (College Navigator, 2017). The leadership structure is a traditional hierarchy where the president of the university is at the top of the organization and other leaders below him follow his agenda. The majority of students are Caucasian. Traditional students are undergraduates and non-traditional full or part-time working students are graduates. Most of the students are from the United States. Many of the professors hold doctorate degrees in the fields that they teach and those in administration hold Bachelor degrees, Master degrees, and or

Doctorate degrees in their supporting roles at the university. All College of Education doctoral faculty members hold a doctorate degree related to the field.

Procedures

Sample/Sample Selection

The sample of students included in the study attended a small-sized, Christian Liberal Arts university located contiguously to a metropolitan area in the southeast United States. More than half of the graduate student population consisted of majority groups with representation as follows: White (70%), African Americans (16%), Hispanics (10%), Asian (1%), ethnicity unknown (1%), and nonresident alien (1%). The study's sample of students was chosen for doctor of education research convenience, and access purposes.

In addition to participant ethnicity, the gender of study participants was identified as an essential independent demographic variable. Female participants represented 69% of the study's sample with the remaining 31% identified as male. The majority of students were non-traditional aged, 25 or older, and white females. Most students worked full or part-time taking care of families while attending school. The sample consisted of 96 total students. Students completed student evaluation surveys online at the end of each class during the Summer 2014 to Fall 2016.

Research Instrumentation

The College of Education student evaluation survey was used with permission of the Institutional Review Board (IRB). Subsequent data (Archival) obtained through the survey process was used to determine student level satisfaction related to the instructor and the course. Two different student evaluations were used to collect data for the two different delivery models. The online student evaluation consisted of 35 questions whereas the blended or traditional student survey consisted of 21 questions. In light of the fact that student evaluations reflected

different sets of questions for each survey, the research questions were shaped by aligning blended and online student evaluation questions with the instructor and the course. The instructor variable was created by assessing student survey questions related to instructor communication, clear instructions, and timely grading. Similarly, the course variable was created by assessing student evaluation questions related to accurate exams and assessments and course organization. The student satisfaction variable was derived from the statement “I would recommend this instructor to a fellow student” making the assumption that if the student was satisfied in general the student would recommend the instructor. Overall student satisfaction and the relationship between the instructor and the courses was evaluated by comparing blended and online delivery models. Students were e-mailed a student evaluation survey nearing the completion of each course by the Institutional Effectiveness Department. Demographics, course level, delivery type, and course grades were captured using third party data collection used in this research analysis.

Instrument Reliability and Validity

Reliability and validity of data produced by research instruments are essential elements in evaluating the credibility of research findings. Validity refers to the accuracy or appropriateness of study data, whereas reliability reflects the consistency of study data. “If scores are not reliable, they are not valid; scores need to be stable and consistent first before they can be meaningful” (Creswell, 2005, p. 159). A goal of good research is to have measures that are reliable for the information to provide credible value (Creswell, 2005).

Reliability

Reliability refers to the “repeatability of findings” (McLeod, 2013). That is if the study was conducted multiple times over a period of time results obtained would be the same. If the

results are the same then the data are reliable (Creswell, 2005). While the student evaluation instrument had been used at the private university for quite a few years and was initially created for a dissertation, there were no formal reliability or validity tests. However, the researcher identified that the group of people who developed the student evaluation survey and confirmed that the Dean of Institutional Research and Retention had administrators at the university take steps to control for potential unreliability factors. Faculty members collaborated and constructed the survey based on a thorough literature background and review. Furthermore, university administrators have used the student evaluation for undergraduate and graduate students for many years (Yates, 2011). In Yates' (2011) original analysis involving computation of Cronbach's alpha, the student evaluation in the pilot study revealed a 0.96 finding suggesting the student evaluation survey had excellent internal reliability. The student evaluation consisted of a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The coefficient alpha according to Creswell (2005) is used in determining the internal consistency of Likert scale surveys suggesting the student evaluation Likert scale was reliable for this research study.

Validity

Validity refers to the "credibility or believability of the research" (Reliability and Validity - UC Davis, Psychology, 2017). Are the findings of the research authentic and do they make sense? Creswell (2005) asserts that "validity is the degree to which all the evidence points to the intended interpretation of test scores for the proposed purpose" (Creswell, 2005, p. 159). There are two aspects of validity: internal validity and external validity. Internal validity refers to whether or not the instrument measures what it was supposed to measure and external validity refers to the generalizability of the results. A valid result should also apply to people beyond the sample in the study (Creswell, 2005). Content validity is established in the judgment phase of

test construction. The process generally involves a panel of subject matter experts (SME's). The panel of SME's determine the test items that are essential for assessment purposes and which items are not essential to the instrument. Regarding the research instrument utilized in the current investigation, the SME panel consisted of institutional effectiveness experts employed at the university.

Data Collection

Study data were collected from the completed (archived) surveys and were compiled initially in an Excel spreadsheet. Study data were then imported into IBM SPSS (Version 24) for the analysis purposes.

Data Analyses

To address the stated research questions and hypotheses of the study, a combination of descriptive and inferential statistical techniques were utilized. Specifically, measures of central tendency (mean scores) and variability (standard deviations) were used to evaluate the practical significance of study findings. Additionally, the magnitude of difference in mean scores was examined to gauge the magnitude of effect (effect size) using *Cohen's d*. Cohen's conventions for the qualitative interpretation of effect size values guided the reporting and interpretation of effect sizes in the study. The *Pearson Product-Moment Correlation Coefficient (r)* was utilized in instances in which the determination of mathematical relationship between study variables was appropriate.

Inferential analyses included the use of the *t-test of Independent Means* in instances whereby two independent sets of mean scores were compared for statistical significance. *Fisher's r to z Transformation Test Statistic* was employed in instances in which the statistical significance of independent correlations scores was required. The alpha level of $p < .05$

represented the threshold for the statistical significance of finding in all instances of inferential analyses.

The following represents the manner in which each of the study's research questions and accompanying hypotheses were specifically addressed analytically:

Research Question 1

To analyze the statistical significance of difference between blended and online courses in relation to student satisfaction with the instructor and the course, a *t-test of Independent Means* was conducted to assess the difference in respective means scores. The alpha level of .05 represented the threshold value for the assessment of statistical significance of finding in the comparison of mean scores in the first research question.

Research Question 2

To address the matter of mathematical relationship inherent in the second question of the study, correlation analyses were conducted. Correlational analyses are ideally suited to determine the degree of mathematical relationship between two different variables (Field, 2013). The *Pearson Product-Moment Correlation Coefficient* (r) was specifically utilized to address Research Question #2 in light of the level of measurement inherent in the respective independent and dependent variables associated with the second research question. The coefficient of determination (r^2) was calculated to assess the amount of explained variability of data in the respective correlation comparison and also represented the basis to measure the effect size ($r^2/1 - r^2$) of mathematical relationship. The statistical significance of the mathematical relationship between variables related to the second question also used the alpha of .05 as the threshold value.

Research Question 3

The focus of the third research question was to determine whether instructor ratings in relation to overall student satisfaction was statistically significant. The delivery models were compared using a Fisher's r-to-z Transformation correlation analysis. Fisher's r-to-z Transformation Test statistic was specifically utilized to compare the independent correlation scores, course satisfaction and instructor satisfaction. The Fisher's r-to-z Transformation Test statistic is ideally suited to assess the significance of the difference between two independent correlation coefficients. The third research question also used the alpha of .05 as the threshold value for statistical significance of finding.

Anticipated Outcomes

The researcher expected that student satisfaction levels would be statistically significant for both delivery models, but yield higher results for blended in each proxy variable created. Further, the analysis of students' responses from the survey in chapter 4 represent a better picture of the students' perceptions of the instructor and the course for both online only and blended courses, and is discussed in chapter 5. As a result, the data analysis and recommendations are in the Discussion of Results section of chapter 5.

Summary of Methodology

Chapter III contains the methods and procedures used to specifically address the study's stated research problem. Sample participants, research instrumentation, study procedures, and subsequent data collection and analysis procedures were also addressed in in chapter. Chapter IV contains the results of analyses relevant to research questions and hypotheses posed in Chapter I of the study.

IV. RESULTS

Introduction of Results

An evaluation of the differences between blended and online courses and the relationship between student satisfaction with the instructor and the course represented the focus of research efforts the current investigation. Three distinct research questions and accompanying hypotheses were formally posed to address the stated research problem.

Prior to addressing the research questions and hypotheses, preliminary analyses were conducted with respect to the study's data set. Specifically, missing data, the normality of essential data arrays, and the internal consistency (reliability) of student ratings were assessed.

Preliminary Analyses

Missing Data

The study's data set was found to be completely intact. Therefore, imputation of missing data procedures was not considered necessary.

Normality of Data Distributions

In anticipation of the assumption of normality requirement inherent in the comparisons set forth in Research Question #1, data arrays were evaluated for normality using the *Shapiro-Wilk Test Statistic*. All four data arrays were found to be statistically significantly different from a normal distribution ($p < .001$).

Table 1 contains a summary of analysis with respect to normality of data:

Table 1

Category	<i>Shapiro-Wilk Statistic</i>	<i>p</i>
Online Course	.854	.000***
Blended Course	.650	.000***
Online Instructor	.867	.000***
Blended Instructor	.526	.000***

*** $p < .001$

Internal Reliability

Internal consistency (reliability) of satisfaction ratings by delivery model, the *Cronbach Alpha (a)* levels for both models is considered “Very High” and at a statistically significant level ($p < .001$). Table 2 contains a summary of finding with regard to the internal reliability values by models of delivery:

Table 2

Internal Reliability of Satisfaction Ratings by Delivery Model

Delivery Model	<i>a</i>
Online	.80***
Blended	.87***

*** $p < .001$

Research Question 1

Is there a difference between blended and online courses in relation to student satisfaction with the instructor and the course?

In light of the non-normal distribution of data in the arrays central to the comparison in Research Question #1, the *Mann-Whitney U Test Statistic*, the non-parametric alternative the *t-test of Independent Means* was employed to assess the statistical significance of finding in the comparisons. In both comparisons, course and instructor satisfaction, the “Blended” delivery model manifested a statistically significant difference of advantage when compared to the “Online” delivery model.

Table 3 contains a summary of finding for Research Question #1:

Table 3

Comparison of Satisfaction by Delivery Model and Course/Instructor					
Delivery Model and Satisfaction	Mean Ranks	n	<i>u</i>	<i>z</i>	<i>p</i>
Online Satisfaction Course	86.13	96	3612.50	2.64	.008**
Blended Satisfaction Course	106.87	96			
Online Satisfaction Instructor	82.55	96	3269.00	3.66	.000***
Blended Satisfaction Instructor	110.45	96			

p* < .01 *p* < .001

Alternative Hypothesis #1 (H_{a1})

Blended student satisfaction with the instructor and the course are statistically significantly higher than online student satisfaction with the instructor and the course.

In light of the statistically significant finding for instructor and course satisfaction favoring the “Blended” Delivery Models, the Alternative Hypothesis (H_{a1}) for Research Question #1 is retained.

Research Question 2

What is the degree of relationship between CGPA and student satisfaction?

To determine the degree of relationship between CGPA and student satisfaction levels, correlation analyses using the *Pearson Product-Moment Correlation Test Statistic* (r) were conducted. First, the relationship between CGPA and blended student satisfaction with the instructor ratings was conducted. The results indicated that the correlation was considered positive and “weak” ($r = .09$), and non-statistically significant, ($p = .40$). Second, the relationship between CGPA and online student satisfaction with the instructor ratings was analyzed. The results indicated that the mathematical relationship was considered negative or “inverse” and “weak” ($r = -.16$), and non-statistically significant ($p = .12$). Next, the relationship between CGPA and blended student satisfaction with the course was evaluated. The results indicated that the mathematical relationship was considered positive and “weak” ($r = .08$), and non-statistically significant ($p = .42$). Finally, the relationship between CGPA and online student satisfaction and the course was assessed, indicating that the mathematical relationship was considered positive and “weak” ($r = .13$), and non-statistically significant ($p = .20$).

Table 4 contains a summary of correlation comparisons with regard to independent variables and CGPA:

Table 4

Relationship between Independent Variables and CGPA

Independent	<i>r</i>	<i>p</i>
Online Satisfaction with Course	.13	.20
Blended Satisfaction with Course	.08	.42
Online Satisfaction with Instructor	-.16	.12
Blended Satisfaction with Instructor	-.09	.40

Alternative Hypothesis #2 (H_{a2})

There will be a statistically significant mathematical relationship between CGPA and student satisfaction levels by instructor and the course and delivery model.

Overall, the relationship between CGPA and student satisfaction by instructor and the course for both online and blended delivery models were weak and not statistically significant. Therefore, the Alternative Hypothesis (H_{a2}) for Research Question #2 is rejected.

Research Question 3

What is the degree of relationship between instructor ratings and overall student satisfaction for blended and online courses? And, is there a difference between delivery model type in relation to instructor ratings and overall student satisfaction for blended and online courses?

A correlation analysis using the *Pearson Product-Moment Test Statistic* (r) was conducted to determine the degree of mathematical relationship that exists with course and instructor satisfaction by respective delivery model that was noted in the first portion of Research Question #3. The mathematical relationship between blended instructor ratings and overall blended student satisfaction in the course was considered direct and “strong” ($r = .91$) and statistically significant ($p < .001$). Similarly, the relationship between online instructor ratings and overall online student satisfaction in the course was considered direct and “strong” ($r = .75$), and statistically significant ($p < .001$). Additionally, the relationship between blended satisfaction with the instructor and the blended instructor score rating was considered direct and “strong” ($r = .78$), and statistically significant ($p < .001$). Lastly, results for the relationship between online satisfaction with the instructor and the online instructor score rating was considered direct and “strong” ($r = .76$) and statistically significant ($p < .001$).

Table 5 contains a summary of correlation comparisons with regard to overall student satisfaction and instructor ratings:

Table 5

Overall Student Satisfaction Correlation Comparisons with Instructor Ratings

Delivery Model	Course Satisfaction	Instructor Satisfaction
Online	.75***	.76***
Blended	.91***	.78***

*** $p < .001$

Alternative Hypothesis #3 (H_{a3})-First Portion of Research Question #3

The relationship between instructional ratings and overall student satisfaction with instructor and course by delivery models will be found to be statistically significant for both delivery models.

In light of statistically significant findings for instructor and course satisfaction across both delivery models, the Alternative Hypothesis (H_{a3}) for the first portion of Research Question #3 is retained.

To address the second portion of Research Question #3, a *Fisher's r-to-z Transformation Test* was conducted to compare the delivery model independent correlation scores, course satisfaction and instructor satisfaction for statistical significance of independent correlations. The results for the correlation scores of the blended and online course satisfaction levels and instructor ratings were compared. The z-score was $z=3.96$ and two-tailed p -value was $p < .001$, statistically significant. Therefore, the null hypothesis was rejected because there was a difference between the blended and online delivery model correlation scores related to overall

student satisfaction and the relationship between course satisfaction and instructor ratings. The results for the blended and online instructor satisfaction levels and instructor ratings were compared. The z-score was $z=0.31$ and the two-tailed p -value was $=0.76$, non-statistically significant. Therefore, the null hypothesis was retained because there was no difference between the blended and online delivery model correlation scores related to overall student satisfaction and the relationship between instructor satisfaction and instructor ratings. Table 6 contains a summary of correlation comparisons with regard to overall comparison of instructor ratings by delivery model:

Table 6

Overall Comparison of Instructor Ratings by Delivery Models

Delivery Model	Course Satisfaction	Instructor Satisfaction
Online	.75	.76
Blended	.91	.78
z	3.96***	0.31
*** $p < .001$		

The z-scores were computed for raw comparative analysis related to overall student satisfaction and the delivery models. The z-score and p -value results for overall course satisfaction indicated that there was a significance difference between online and blended delivery models and the blended model was significantly higher than online. This suggests that students were more satisfied with the blended course than the online course. The z-score and p -value results for overall instructor satisfaction indicated there was not a significant difference between the delivery models. This suggests that the students were equally satisfied with the

instructor in both delivery models.

Alternative Hypothesis #3 (H_{a3})-Second Portion of Research Question #3

The hypothesis is that overall blended student satisfaction levels will be higher and statistically significant compared to course satisfaction levels in relation to instructor ratings.

In light of the statistically significant *Fisher r to z Transformation* analysis favoring the blended delivery model, the Alternative Hypothesis (H_{a3}) for the second portion of Research Question #3 is retained.

Additional Exploratory Analysis

Additionally, correlation analyses were conducted to assess the relationship between student satisfaction and GPA. Table 7 contains a summary of the relationship between student satisfaction and GPA with respect to delivery models:

Table 7

Relationship between Student Satisfaction and GPA with Respect to Delivery Models

Delivery Model/Satisfaction	<i>r</i>	<i>p</i>
Online Satisfaction Instructor	.16	.12
Blended Satisfaction Instructor	.09	.40
Online Satisfaction Course	.13	.20
Blended Satisfaction Course	.08	.42

Summary of Results

The purpose of the study was to compare doctoral students' student satisfaction in relation to the instructor and the course delivery models at a small Christian Liberal Arts University. Three specific research questions were formally posed along with three accompanying hypotheses in order to address the stated research problem.

The study's data set were found to be intact. Internal reliability levels for both delivery models were "very high" and statistically significant. Assessment of normality of essential data arrays resulted in all arrays considered statistically significantly different from relative normality of distribution. The finding prompted the use of a non-parametric alternative statistical alternative to the *t-test of Independent Means* for comparative, inferential purposes in addressing Research Question #1. In both comparisons, course and instructor satisfaction, the "Blended" delivery model manifested a statistically significant difference of advantage when compared to the online delivery model. Therefore, in light of the statistically significant finding for instructor and course satisfaction favoring the blended delivery models, the Alternative Hypothesis ($H_a 1$) for Research Question #1 is retained.

To determine the degree of relationship between CGPA and student satisfaction levels, correlation analyses using the *Pearson Product-Moment Correlation Test Statistic* (r) were conducted in addressing Research Question #2. Overall, the relationship between CGPA and student satisfaction by instructor and the course for both online and blended delivery models were weak and not statistically significant. Therefore, the Alternative Hypothesis ($H_a 2$) for Research Question #2 is rejected.

A correlation analysis using the *Pearson Product-Moment Test Statistic* (r) was conducted to determine the degree of mathematical relationship that exists with course and

instructor satisfaction by respective delivery model that was noted in the first portion of Research Question #3. In light of statistically significant findings for instructor and course satisfaction across both delivery models, the Alternative Hypothesis (H_{a3}) for the first portion of Research Question #3 is retained.

To address the second portion of Research Question #3, a *Fisher's r-to-z Transformation Test* was conducted to compare the delivery model independent correlation scores, course satisfaction and instructor satisfaction for statistical significance of independent correlations. The z-scores were computed for raw comparative analysis related to overall student satisfaction and the delivery models. The z-score and *p*-value results for overall course satisfaction indicated that there was a significance difference between online and blended delivery models and the blended model was significantly higher than online. This suggests that students were more satisfied with the blended course than the online course. The z-score and *p*-value results for overall instructor satisfaction indicated there was not a significant difference between the delivery models. This suggests that the students were equally satisfied with the instructor in both delivery models. In light of the statistically significant *Fisher r to z Transformation* analysis favoring the blended delivery model, the Alternative Hypothesis (H_{a3}) for the second portion of Research Question #3 is retained.

V. DISCUSSION

Introduction of Discussion

In 2010, I was given the chance to become an online academic advisor helping students achieve academic success. I shared information designed to help students navigate online platforms and develop student success skills so they could achieve academic and career goals. I was able to counsel them and keep them on track when instructors were tough or courses were challenging. I was their personal academic coach supporting their future academic endeavors. Moreover, I also became the point person they depended on if, for any reason, they had concerns or wanted to make changes to their enrollment status. My philosophy was that they should consult with me directly before they left the university. I created positive relationships with my students and wanted to know how I could help them with the hurdles they were experiencing that made them consider withdrawing or decide to quit.

I have a gift for creating educational strategies and best practices for students to thrive academically. I believe, that with a plan of action, I could retain students, increase their student satisfaction, and help them solve concerns by being their advocate. Although I did my best to lead them with confidence, resources, friendship and a servant's heart, some students still left for various reasons and I soon found a pattern of dissatisfaction. During my time working with online undergraduate and graduate students, two common themes for departure kept coming up: dissatisfaction with the instructor or with the course.

I wanted to know through the analysis of data, what predicted graduate student satisfaction in relationship to the instructor and the course in online education. I was dedicated to determining if students in this new doctorate program in which I attended but was not employed were satisfied or not satisfied and what type of delivery model these professional

graduate students preferred since research says that online attrition rates are so high. I wanted to know what predictors correlated the highest with such high performing students so that I could inform leadership about the quality and sustainability of their new program.

As previously mentioned, this study was conducted to explore the relationship between online and blended course student satisfaction with the instructor and the course between Summer 2014 and Fall 2016. The final chapter of the dissertation restates the research problem and reviews the major methods used in this study. The major sections of this chapter summarize the results and discuss their implications.

Most student satisfaction literature focuses on undergraduate programs and most of the graduate studies appear to be limited to business, nursing, and pharmacy (Chickering & Gamson, 1987; Alston, 2014). Furthermore, most research focuses on online only or face-to-face delivery models and not blended delivery models (Palmer & Holt, 2009).

Statement of the Problem

The purpose of this study was to examine doctor of education student satisfaction perceptions and the relationship between the instructor and the course in online and blended delivery models. A gap exists in the literature as it relates to doctor of education programs and student satisfaction. Even though student satisfaction is more complex now more than ever in higher education, student satisfaction in doctorate programs is not well documented and needs further research (Bolliger & Halupa, 2012). Furthermore, blended and online student satisfaction factors in doctorate programs need additional research (Elkins, 2015). This research study hoped to close some of the doctorate student satisfaction gap in online and blended environments using a student evaluation survey at a private Christian liberal arts university.

Review of the Methodology

An evaluation research methodology, a well-established evaluative protocol, was used in this study for the purpose of identifying student satisfaction levels in relation to the instructor and the course in the Doctor of Education program in the College of Education program as reported by students using the student evaluation survey. The university in this study was located in the southeast United States in a small town just outside of a metropolitan area. More than half of the graduate population consisted of majority groups, with representation as follows: White (70%), African Americans (16%), Hispanics (10%), Asian (1%), ethnicity unknown (1%), and nonresident alien (1%). Specifically, this sample of students was chosen for Doctor of Education research and convenience of access purposes. Women represented 69% in the Doctor of Education program while men represented 31%. The majority of students were non-traditional aged (over the age of 25), female, and Caucasian. Most were full-time students who worked full or part-time taking while caring for families and attending school. The sample consisted of 96 Doctor of Education students.

The College of Education Student Evaluation Survey was used after the Institutional Review Board (IRB) gave permission to the researcher to obtain raw data. This data was used so the researcher of this study could determine the student level of satisfaction related to the instructor and the course. The instrument consisted of two different student evaluations. One survey was used for the online courses and the other survey was for the blended courses in the hybrid program. The two different surveys had different sets of question. For the purposes of this study, student satisfaction was created by matching questions in relation to the instructor and the course. The instructor variable was developed by looking at student evaluation questions related to instructor communication, clear instructions, and timely grading. Similarly, the course

variable was created by looking at student evaluation questions related to accurate exams and assessments and course organization. Students were e-mailed the student evaluation survey nearing the completion of each course by the Institutional Effectiveness Department. Directions for the specific survey(s) were provided to complete the survey which would not take more than five to ten minutes. With IRB approval, demographics, course level, delivery type, and course grades were captured using third party data collection used in this analysis.

Study data were then imported into IBM SPSS (Version 24) for the analysis purposes. The *Mann-Whitney U Test Statistic*, the non-parametric alternative to the t-test of Independent Means was employed to assess the statistical significance of findings in the comparisons in relation to student level of satisfaction with online and blended learning. Responses from the seven-item survey instrument were used to measure student satisfaction focusing on two dependent variables (satisfaction with the instructor and satisfaction with the course) and four independent variables (instructor rating, course satisfaction, grade point average, and delivery model). Learning outcomes only included CGPA. Delivery method was defined as online only or a blended model. Responses to the questions asking what contributed to the respondents' satisfaction or dissatisfaction with online learning were tabulated.

The *Mann-Whitney U Test Statistic* was conducted to assess the difference in scores to analyze the first question regarding the statistical significance of difference between blended and online courses and the relationship between student satisfaction with the instructor and the course. The alpha level of 0.05 was used as the threshold value for the assessment of statistical significance.

A correlation analysis was conducted using the *Pearson Product-Moment Correlation Test Statistic* (r) to address the second question and determine whether or not there was a

relationship between CGPA and student satisfaction levels. Correlational analyses are useful in finding relationships between two different variables (Field, 2013). The Pearson Correlation Coefficient (r) was used. The coefficient of determination (r^2) was calculated to assess the amount of explained variability of data in the respective correlation comparison and also used to measure the effect size ($r^2/1 - r^2$). The statistical significance of the mathematical relationship between variables related to the second question also used the alpha of 0.05 as the threshold value to measure statistical significance.

The focus of the third research question was to determine whether or not overall student satisfaction student levels were statistically significant and to compare delivery models. For this, a correlation analysis was conducted using the *Pearson Product-Moment Test Statistic* (r) to determine the degree of mathematical relationship that exists with course and instructor satisfaction by respective delivery model. A Fisher's r -to- z Transformation Test was conducted to compare the independent correlation scores, course satisfaction, and instructor satisfaction. The test was used to assess the significance of the difference between two correlation coefficients found in the two independent samples. Correlation r and n for course satisfaction in relation to online and blended delivery models were compared. The third question also used the alpha of 0.05 as the threshold value to measure statistical significance.

Summary of the Results

Not surprisingly, study participants, overall, were satisfied with the instructor and with the course in the Doctor of Education program in both online and blended delivery models. However, results for the first question revealed when student satisfaction and the instructor and the course were assessed in online and blended models, blended scores for the instructor and the course were statistically significant and higher in terms of student satisfaction. When CGPA and

student satisfaction correlation analysis were conducted to address the second question, no relationship was found between CGPA and student satisfaction levels for the instructor, the course, the online model, and the blended model. However, in terms of the third question part one, when overall student satisfaction and instructor ratings compared both delivery models, significant differences were found. All p -values were statistically significant in relation to instructor ratings and overall student satisfaction with the course and the instructor.

Furthermore, when instructor ratings and the delivery models were compared in relation to the course and the instructor, there was a statistically significant difference between overall student satisfaction with the course for the blended model and the blended model was superior compared to the fully online model and the relationship between the instructor and the course. Lastly, a Fisher's r -to- z Transformation Test was conducted to compare the delivery model independent correlation scores, course satisfaction and instructor satisfaction for statistical significance of independent correlations. The results for the correlation scores of the blended and online course satisfaction levels and instructor ratings were compared. The z -score was a 3.96 and two-tailed p -value was statistically significant. Therefore, the null hypothesis was rejected because there was a difference between the blended and online delivery model correlation scores related to overall student satisfaction and the relationship between course satisfaction and instructor ratings. The results for the blended and online instructor satisfaction levels and instructor ratings were also compared. The z -score was a .31 and the two-tailed p -value was a .76, non-statistically significant. Therefore, the null hypothesis was retained because there was no difference between the blended and online delivery model correlation scores related to overall student satisfaction in relation to instructor satisfaction and instructor ratings. The Alternative Hypothesis #3 ($H_a 3$) for Part II of Research Question #3 is that overall blended student

satisfaction levels will be higher and statistically significant compared to course satisfaction levels and the relationship between instructor ratings. In light of the statistically significant Fisher r to z Transformation analysis favoring the blended delivery model, the Alternative Hypothesis (H_a 3) for the second part of Research Question #3 is retained.

Interpretation of the Findings

The purpose of this study was to examine the doctor of education student satisfaction perceptions at the specified university and the relationship between the instructor and the course in online and blended delivery models. This type of study was chosen to evaluate doctor of education student satisfaction at my university because I have a vested interest in graduate student perceptions and graduate programs as an academic administrator. Additionally, this type of research has never been done at this university and the results of this study provide evidence that students are satisfied with the instructors and the courses in both blended and online delivery models, but the blended model is preferred more highly than fully online courses. These results indicate that if students are satisfied in terms of both delivery models with their educational experience, students will persist to enroll in future courses, persist throughout the program, graduate, and ultimately give back to the university as pleased alumni.

Research Question 1: Is there a difference between blended and online courses in relation to student satisfaction with the instructor and the course?

My study revealed meaningful findings when the analyses uncovered differences between the two delivery models. The primary differences are first, students were satisfied with the course and the instructor in both delivery formats; however, students were more satisfied with the course and instructor in the blended delivery model, compared to online only. Both delivery

models have benefits including flexible scheduling and little to no travel expense. Both delivery models have different sets of challenges such as learning new technology and time management. However, the blended delivery model has more advantages over the fully online delivery format. Second, and more importantly, in the blended delivery model transactional distance between the instructor and the student decreases because of the face-to-face interaction included in blended courses, but not in the fully online environment. Another benefit of the blended model is the immediate feedback during face-to-face classes. In online courses, there is little to no immediate feedback, which makes the psychological and communication gap between the student and the instructor constant.

In summary, the null hypothesis was rejected for the first question because students in the blended delivery model for the instructor and the course was not only statistically significant but exhibited higher student satisfaction scores than the fully online delivery model. Because the Doctor of Education program was a hybrid model where the majority of courses were online it was important for fully online courses to be successful, however, it is not surprising that students preferred the blended courses compared to the fully online courses. My research results align with the majority of the literature. What is important to take away from these positive results is that students who are successful in general are more likely to be satisfied with their educational experience and graduate.

The faculty members and staff of the program encourage instructor communication, high student to student and student to professor engagement, and promote organized clear communication lines through advising and course design. For example, the typical size of online and blended classes was less than 30 students. The small class sizes allowed time for students and professors to engage in quality conversations and build rapport from the very beginning of

the program. Having students and professors engage in conversation and interact with one another increases the likelihood of student satisfaction and success. The professors were also engaged in discussion forums to decrease the psychological and communication gaps in online education and blended courses. When communication increases between the student and the instructor transactional distance decreases tremendously because students and the instructor are able to engage face-to-face and receive immediate feedback. However, for the majority of classes which were online, professors organized information that can lead students to academic success. Although there can be confusion in online education due to the communication and psychology transactional distance gap, the program and several professors promoted student success and satisfaction by being available, responding to student concerns, responding to emails, and returning phone calls. Some professors even used technology to “meet” face-to-face to close the communication gap even further. Overall, the faculty’s presence, knowledge, and supportive activities have promoted not only blended and online student success but overall student satisfaction in a rigorous doctoral program.

Research Question 2: Is there a relationship between CGPA and student satisfaction?

When CGPA and student satisfaction correlation analysis was conducted at the subject university, no relationship was found between CGPA and student satisfaction levels for the instructor, the course, or between the online and blended delivery models. Specifically, the results rejected the alternative hypothesis that CGPA would influence student satisfaction perceptions. Reasons for this finding might be because graduate students are academically driven, more self-regulated, and less likely to procrastinate (Artino & Stephens, 2009). Furthermore, although CGPA is extremely important to graduate students, they are motivated differently than undergraduates and face different challenges. At the doctoral level, students

have more to lose if they do not maintain a B average or higher in class. The majority of these graduate students worked full time, took care of families, and were juggling multiple roles as leaders, parents, and students. Lovitts (2001) stated that doctoral students are intelligent and hardworking and if they do not complete the program it has the potential to ruin their lives; saddled with student debt without the potential to repay. It is important to continue to do research and close the gap in understanding the relationship between factors and perceptions about what motivates doctoral students to be academically successful and what types of factors influence student satisfaction.

This doctor of education program employed not only expert faculty in their field, but faculty who care about their students holistically such as student experience and student success. Even when students run into challenges with instructors or the courses, the administration and faculty members provide support in various ways such as developmental advising, counseling, and other support demands: academic, social, emotional, and spiritual. This student-centered, holistic approach promotes continued high-performance from already high performing students. At this level, student perception about grades is important but not significant. It seems that personal and professional motivations may carry students to be successful even when facing challenges, and it is important to note that while grades are important at this level grades do not influence student satisfaction.

Research Question 3: Is there a relationship between instructor ratings and overall student satisfaction in blended and online courses? The sub question is: Is there a difference between delivery model type in relation to instructor ratings and overall student satisfaction in blended and online courses?

Significant differences were found when overall student satisfaction and instructor ratings

were compared. All p -values were statistically significant in relation to instructor ratings and overall student satisfaction with the course and the instructor for both delivery models. Online delivery model in relation to course satisfaction and instructor ratings was ($0.75; p < .001$). The online delivery model in relation to instructor satisfaction and instructor ratings was ($0.76; p < .001$). The blended delivery model in relation to course satisfaction and instructor ratings was ($0.91; p < .001$). The blended delivery model in relation to instructor satisfaction and instructor ratings was ($0.78; p < .001$). The findings suggest that instructor ratings are highly correlated in terms of communication, timely grading, instructor clarity, and exam assessment and course organization. Similarly, the findings also suggest that the student evaluation scores and enjoyment of both delivery models were highly correlated for all independent variables. When instructor ratings and the delivery models were compared in relation to course satisfaction and the instructor satisfaction, overall student satisfaction with the blended course was higher than the online course; there was no significant difference between overall student satisfaction and the instructor. The results reveal that student satisfaction and the relationship between the instructor ratings and the blended course delivery model was more enjoyable by the students, but the results also indicate that removing the face-to-face component from a course did not negatively influence evaluations. The evidence suggests that the group of high-performing students were satisfied in the hybrid program at the selected school and would continue to do well in online and blended courses.

Bowling (2008) found an interesting finding that revealed when the perception of courses were considered easy, favorable ratings were associated in course evaluation in low-ranked schools, while positive correlation was relatively lower for high-ranked schools. He went on to say that in both schools, different grade levels were observed and the correlation was the same.

In other words, the easier the course, the more favorable the ratings were. Bowling (2008) attributed the difference to the fact that students attending high-ranked schools are more motivated to learn and therefore easiness was not a significant criterion for instructor or course evaluation. This assumption could be made true for doctor of education students because these students are performing at a high level. Usually, at the graduate level, students want to get value out of their education and apply their knowledge to the real world. Overall, these results suggest that students were satisfied in the hybrid program, with the instructor, and the course indicating that instructor communication, timely grading, and instructor clarity and exam and assessment and course organization met student expectations.

Implications

A review of the literature revealed that students were more satisfied with the blended model regarding the course format and the interaction with the instructor. A suggested reason for increased student satisfaction in blended courses might be because the communication and psychological gap was decreased between the student and the instructor. Additionally, results showed that students were satisfied in both delivery models in relation to the course and the instructor indicating that the instructors and the courses met student expectations therefore creating a positive student experience. According to the article, *Student-to-Student Interaction Online* (2014) at the Innovative Learning Institute, research showed that distance education courses with high levels of instructor-to-student interaction had a positive impact on student satisfaction and learning. Results indicated that students and instructors had high levels of communication and connection. The connection was demonstrated in distance education courses through discussion boards and instructors being responsive to student concerns, inquiries, and questions. Student connection and engagement was implemented during the annual two-week

summer intensives to decrease the psychological and communication gap between students and the instructors.

Although the blended courses were preferred over fully online courses, results indicated that students were satisfied in both online and blended courses. Therefore, if the program shortened face-to-face courses or removed face-to-face classes altogether, results demonstrate that students would still be satisfied in the relationship between the course and the instructor based on how the instructors communicate, grade, and provide clear instructions to support academic learning in the online environment. The evidence from the analyses from this study aligns with some of the literature. Online courses which were taught completely online reported the highest level of student assessment of learning and overall student satisfaction (Castle & McGuire, 2010). However, some online courses that employed technologies that mimicked face-to-face interactions, such as video conference or audio feed, tended to show higher levels of student satisfaction than entirely asynchronous online delivery models without video conferencing and audio feeds (Castle & McGuire, 2010). Thus, how distance education delivery is conducted and shared in blended and online environments is an important factor to consider when thinking about the overall advantages to distance education in meeting sustainability goals. Based on student satisfaction in the hybrid program, which is more than 60% online, other small universities could benefit from best practices used to create an enjoyable student experience in doctorate programs.

The literature also revealed that grade point average most often does not influence student satisfaction. Cummings, Chaffin, and Cockerham (2015) research, comparing the educational outcomes of 345 students enrolled in the University of Tennessee College of Social Work's online and face-to-face Master of Social Work (MSW) program in a full-time, part-time,

or advanced track, indicated that no differences were found in GPA scores of the face-to-face and online full-time or advanced track students (Cummings, Chaffin, & Cockerhan, 2015). However, significant differences were found in online versus face-to-face students' grade point averages (GPA's). They also found a significant interaction indicating that the GPA scores for face-to-face advanced-standing students were significantly greater than that of the online counterparts (Cummings, Chaffin, & Cockerham, 2015). Additionally, evidence shows that grades may or may not influence student satisfaction and level and courses may need to be considered when grades are reviewed in relation to student satisfaction. For example, undergraduate grade point averages may influence student satisfaction more than graduate students because of intention, motivation, and goals. Although my results indicated there were no significant differences between CGPA and student satisfaction, it is important to measure student grades to see if grades would be a predictive factor in student satisfaction.

The literature also revealed that instructor ratings would rate higher if courses were easy compared to difficult courses (Wode & Keiser, 2011). However, based on the level of this Doctor of Education program and student CGPA, these results indicate that because these are high-performing students, they were satisfied with both delivery models in relation to the instructor and the course, but preferred the blended delivery format compared to the fully online model. These high performing students have a vested interest in their education. At this level, there might be more educational value placed on doctorate courses because the program is taught by experts in the field, and students are challenged to develop professionally and personally regardless of instructor topic, course, or gender. These ideas bring into question the psychological concept of the halo effect. The halo effect is the tendency for an impression created in one area to influence opinion in another area (Cherry, 2017). The halo effect is a

cognitive bias in which our overall impression of a person influences how we feel and think about his or her character (Cherry, 2017). For example, if I think a professor is nice he must also be smart. Thus, something to keep in mind is the halo effect bias because feelings generally overcome cognitions when we appraise others (Standing, 2004). Furthermore, at the doctoral level, if students do not maintain a B average or higher in class, they may not be allowed to continue. Doctoral students are challenged differently and they are invested in their education differently than undergraduate students. These results indicate that regardless of course, the instructor, or delivery model doctor of education students will excel. However, it is important to note that doctor of education students prefer blended course models compared to fully online course models. Based on my results and doctor of education student obligations in terms of family, work, convenience and student satisfaction, I think doctor of education students would choose in order of the four different delivery model formats as follows: 1) blended, 2) hybrid, 3) fully online, and 4) traditional. In this specific order of delivery models, transactional distance ranges from medium distance implementing the blended model to the highest distance implementing the online model, and then the lowest in terms of inconvenience implementing the traditional model. In this setup, students are set up for success, and transactional distance is minimal to medium between the student and the instructor. Lastly, students are able to manage their time and have academic flexibility in the learning process.

For my research questions one and three, results were statistically significant. Findings were consistent with the current literature regarding grade point average for graduate students, and instructor and course satisfaction in relation to blended and online delivery models. Furthermore, the doctor of education students was more satisfied in blended courses. Transactional distance and psychological stress were decreased because students received

immediate feedback in blended courses, student had more clarity regarding assignments and projects, and the collaborative blended classroom increased student engagement. Students preferred the blended model compared to the fully online model, however, students excelled in both delivery models and were satisfied with the instructors and the courses.

Limitations

Student evaluations are one way to measure student satisfaction. There are different types of student evaluations to capture student satisfaction data ranging from instructor and course satisfaction to teaching effectiveness to student services quality. For the purposes of this study, student satisfaction was developed by aligning questions with the instructor and the course.

One of the limitations of this study was the mismatched number of questions on the student evaluations which meant that specific questions could not be analyzed for both delivery models. Proxy variables were created for the instructor and the course for the research to be conducted. The instructor variable was created by looking at student evaluation questions related to instructor communication, clear instructions, and timely grading. The course variable was created by looking at student evaluation questions related to accurate exams and assessments, and course organization. However, the student satisfaction variable came from the statement “I would recommend this instructor to a fellow student” making the assumption that if the student was satisfied in general the student would recommend the instructor.

In general, creating the independent variables was a challenge in this study because the student evaluations for the blended and online models were not aligned. For example, the blended student evaluation which was predominately used for traditional student evaluation for face-to-face courses had 21 questions while the online student evaluation had 35 questions. This

created a discrepancy in asking any online and technology questions related to the blended environment. Additionally, statements such as “Overall, I was satisfied with this course” was not asked on the blended survey, but only for the online course. Another statement was “MyFire made it easy for me to access my course materials, communicate with the instructor and other students, and submit my assignments” was part of the online survey but not on the blended survey. “I was able to easily access help with MyFire and other technology when I needed it during the course” was only asked in online course surveys but not for blended surveys. These statements applied to both the online and blended courses because many of the assignments, homework, and technology components of the class were related to both education environments.

Another limitation was how the raw data was presented initially. There were no identification numbers to identify the same students who took certain student evaluations in specific courses. The information initially was also split into separate instructor and course related categories. I had to request not only student numbers but that the same student evaluations be on the same line for however many courses the students took so that average scores could be calculated to conduct correlational statistics.

Recommendations for Future Research

Age and gender were not part of the current study, but it would be interesting to see any gender or age differences and the relationship between instructor ratings and student satisfaction. Further, there is a large body of literature that suggest female instructor ratings are significantly lower than male counterparts. Looking at different ways to control for bias and develop a stronger research design specifically for gender bias and the relationship between student satisfaction and teaching effectiveness would be exciting. Researchers might also add a

qualitative component to such a study to explore by means of open-ended interviews student or instructor perceptions toward interaction in online courses related to student satisfaction. Such a study might yield information that would help instructors understand student expectations and needs more in depth related to improved satisfaction. By looking at themes about the depth, quality of interactions, and student satisfaction within the online environment qualitative interviews would add substance to the study.

Other future research could be conducted on student satisfaction and the relationship between student-interface interaction, also known as technology which was not looked at in this study. Hillman and Gunawardena (1994) suggested that a fourth interaction should be added to Moore and Anderson's revised Transactional Distance Theory. Student-interface interaction is the student interaction with online technology (Featuro, 2012). "Learner technology interaction constitutes the non-human interaction students have with course technology in an online environment" (Featuro, 2012, p.54).

According to Strachota (2006), student-interface interaction may be affected by student skill and comfort level in using the course technology. In the same way, Frankola (2001) claimed that students may drop out of online courses due to problems with technology. Likewise, an exploratory study of two online MBA programs were compared looking at student perceptions of learning and satisfaction (Arbaugh & Duray, 2002). The researchers looked at technological and structural characteristics relating to student learning and student satisfaction. Results revealed that larger class sizes were negatively associated with learning and course satisfaction while the perceived flexibility of the delivery medium was significantly associated with perceived learning and satisfaction. Additional results also showed that the more experience students had online the higher levels of satisfaction with their course delivery

medium. Endres et al. (2009) asserted learner-technology interaction influences student satisfaction in online learning environments and learner-technology interaction is a predictor of students' likelihood to recommend the university.

Another study conducted by Bernard, Borokhovski, Schmid, Tamim, Rana, Abrami, and Borokhovski (2014) discussed the effectiveness of blended learning in higher education. The study used a meta-analysis approach of a sub-collection of comparative studies of blended learning and face-to-face instruction from a larger organized review of technology integration (Bernard, et al., 2014). The results indicated that, in terms of learning outcomes, the blended learning conditions exceeded face-to-face instruction conditions by about one-third using computer support such as cognitive support versus content and presentational support, and the presence of one or more interaction treatments such as the student–student–teacher–content interaction. These interactions were used to enhance student learning outcomes. Results from the study suggested that blended learning from the student-centered interaction model developed by Dr. Terry Anderson (2003) was modestly better than that of face-to-face. This comparison of blended versus online course interaction revealed that both learning environments were effective, but the blended environment which included face to face interaction demonstrated higher learning outcomes (Bernard, et al., 2014).

Future research could also be conducted to determine the efficacy of the student evaluations over a longer period of time and the relationship between student satisfaction, retention, and graduate rates since this is a brand-new Doctor of Education program. Students should also be reminded about the importance of taking and submitting student evaluations because they are taken seriously and are looked at for possible promotion and tenure decisions. It would also make sense to remind students to submit qualitative feedback that is constructive

and useful for the next course for future students. Additionally, the selected university was a private Christian college and the students who participated in the study attended a strong religious affiliated institution that might have influenced overall student satisfaction. Other possible studies could compare similar types of religious universities to compare benchmarks in relation to each other as well as compare scores to national benchmarks. Lastly, if leadership wanted to make the program a fully online program, I would recommend professional development for faculty regarding technology to decrease their personal anxiety, and help them learn how to implement technology to increase student satisfaction, engagement, and student retention.

Conclusion

The doctor of education student survey evaluation assessment showed that respondents were satisfied overall with their online and blended learning experiences, but graduate students were more satisfied with blended courses in relation to the instructor and the course and grades did not influence student satisfaction. These findings were consistent with the overall literature review. Additionally, when institutions use student evaluations to make leadership and faculty decisions, leadership management should carefully consider how choices are determined. If higher education institutions are going to use student evaluations to assess student satisfaction and quality of programs, then stronger research designs and bias need to be taken into consideration when using as a tool for salary increase, promotion, or tenure. Student evaluations should be part of a portfolio for those important choices to be made and student assessments should not be the only measurement used to capture student satisfaction. For example, instructors can increase student satisfaction and instructor ratings by communicating effectively in online and blended environments, sharing clear rubrics, sharing course expectations, and

making sure that grades are posted in a timely manner. Course satisfaction can also be increased by creating and providing fair exams and assessments based on class material and rubrics. Course organization can be increased when the course design is focused on structure, engagement, and interaction. It is the responsibility of instructors is to learn how to provide student support and create a quality course regardless of the learning environment. When this occurs, educational institutions benefit and doctoral students have positive, satisfying learning experiences.

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APPENDICES

Appendix A

Voluntary Consent for Online Survey

Dear Genoa,

You are being asked to complete an online course evaluation for your Summer Session B or Doctoral courses. By clicking on the link below, you will be directed to a secure page, where you will be asked to enter your SEU username and password. Logging into the site will display a list of courses for which you have evaluations to complete. Click on the title of the course to access the evaluation. Each course evaluation should take no longer than 5 minutes to complete and will be available until X/X/2016.

The link to the site is: <https://seu.campuslabs.com/courseeval/>

Please note that if you are an online student you must verify your evaluation through your Week 7 folder in MyFire (Week 11 for Doctoral Students).

Your ratings will be helpful to the instructor and institution if you answer thoughtfully and honestly. Your responses are confidential, and will be collected by the Office of Institutional Effectiveness via a third-party provider, Campus Labs. All student responses will be summarized and reported to your faculty after the term is over and grades are posted.

Thank you for your participation. If you have any questions, you may reach either of us via phone or e-mail.

Sincerely,

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Appendix B
Survey Instrument

Traditional or Blended Evaluation

Page 1

Q1 - 1.1 The course is:

- (a) a requirement for my major [Alternate Code = 1]
- (b) a requirement for my minor [Alternate Code = 2]
- (c) my choice for a general elective [Alternate Code = 3]
- (d) my choice for a general elective in my major [Alternate Code = 4]
- (e) simply a course in which I was interested but was not required in any way [Alternate Code = 5]
- (f) a graduate course [Alternate Code = 6]

Q2 - 1.2 Rate the amount of work you did:

- (a) less than what was assigned [Alternate Code = 1]
- (b) what was assigned [Alternate Code = 2]
- (c) more than just what was assigned [Alternate Code = 3]

Q3 - 1.3 Rate the level of your involvement in the activities of this course:

- (a) very uninvolved [Alternate Code = 1]
- (b) somewhat involved [Alternate Code = 2]
- (c) enthusiastically involved [Alternate Code = 3]

Q4 - 1.4 How much knowledge have you gained from this course?

- (a) none [Alternate Code = 1]
- (b) some knowledge [Alternate Code = 2]
- (c) a great deal [Alternate Code = 3]

Rate the following statements from 1 = strongly disagree to 5 = strongly agree.

Q5 - 2.1 The instructor effectively communicated the subject matter.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q6 - 2.2 The instructor seemed genuinely interested in what he/she was teaching.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3] Agree

[Alternate Code = 4] [Numeric Value = 4] Strongly Agree

[Alternate Code = 5] [Numeric Value = 5]

Q7 - 2.3 The instructor clearly specified course assignments.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q8 - 2.4 The instructor was well prepared for each class.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q9 - 2.5 The instructor used class time well.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q10 - 2.6 The instructor returned written work and/or posted test grades within a reasonable amount of time.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q11 - 2.7 The instructor treats the students with respect.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q12 - 2.8 The instructor is helpful and responsive to students.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q13 - 2.9 The instructor effectively integrated faith and learning in the class.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q14 - 2.10 I would recommend this instructor to a fellow student.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Page 3 - Section 3. Course

Rate the following statements from 1 = strongly disagree to 5 = strongly agree.

Q15 - 3.1 The assigned reading/assignments were helpful in acquiring a better understanding of the course.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q16 - 3.2 Course assessments and grades were fair and reflected the course material.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q17 - 3.3 This course was well organized.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q18 - 3.4 What method of instruction was most effective (i.e. Lectures, Class Discussions, Exams, etc.)?

(a) Lectures [Alternate Code = 1]

(b) Class Discussions [Alternate Code = 2]

(c) Exams [Alternate Code = 3]

(d) Other, specify. [Alternate Code = 4]

Q19 - 4.1 What did you find most helpful about this course or what did you like best about this course?

[Alternate Code = 1] [Textbox] Required answers: 0

Q20 - 4.2 What suggestions, if any, do you have about how the course might be improved?

[Alternate Code = 1] [Textbox] Required answers: 0

Q21 - 4.3 Do you have any other comments that you would like to make about this course and/or the instructor?

[Alternate Code = 1] [Textbox] Required answers: 0

Appendix C
Survey Instrument

Online Only Survey Evaluation

Page 1

Q1 - 1.1 The course is:

- (a) a requirement for my major [Alternate Code = 1]
- (b) a requirement for my minor [Alternate Code = 2]
- (c) my choice for a general elective [Alternate Code = 3]
- (d) my choice for a general elective in my major [Alternate Code = 4]
- (e) simply a course in which I was interested but was not required in any way [Alternate Code = 5]
- (f) a graduate course [Alternate Code = 6]

Q2 - 1.2 Rate the amount of work you did:

- (a) less than what was assigned [Alternate Code = 1]
- (b) what was assigned [Alternate Code = 2]
- (c) more than just what was assigned [Alternate Code = 3]

Q3 - 1.3 Rate the level of your involvement in the activities of this course:

- (a) very uninvolved [Alternate Code = 1]
- (b) somewhat involved [Alternate Code = 2]
- (c) enthusiastically involved [Alternate Code = 3]

Q4 - 1.4 How much knowledge have you gained from this course?

- (a) none [Alternate Code = 1]
- (b) some knowledge [Alternate Code = 2]

(c) a great deal [Alternate Code = 3]

Page 2 - Section 2. Instructor

Rate the following statements from 1 = strongly disagree to 5 = strongly agree.

Q5 - 2.1 The instructor effectively communicated the subject matter.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q6 - 2.2 The instructor demonstrated a thorough knowledge of the subject.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q7 - 2.3 The instructor provided clear instructions and examples in the course.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q8 - 2.4 The instructor facilitated discussion in the course and made the content engaging.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q9 - 2.5 The instructor adequately answered questions raised by students.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q10 - 2.6 The instructor assessed my work fairly, used grading rubrics and provided corrective feedback I could use in the next assignment.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q11 - 2.7 The instructor provided timely feedback to my questions (within 24 hours).

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q12 - 2.8 The instructor returned graded assignments and/or posted test grades within a reasonable amount of time.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q13 - 2.9 The instructor effectively used MyFire and incorporated appropriate technology in the course.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q14 - 2.10 The instructor effectively integrated faith and learning in this online course.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q15 - 2.11 I would recommend this instructor to the other online students.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Page 3 - Section 3. Course

Rate the following statements from 1 = strongly disagree to 5 = strongly agree.

Q16 - 3.1 This online course covered the information listed in the Course Catalog.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q17 - 3.2 The Course Syllabus and Course Chart explained what I was expected to do in this online course, when assignments were due, and how my grade would be calculated.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q18 - 3.3 The assigned readings, assignments, and discussions helped me acquire a better understanding of the subject.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q19 - 3.4 The exams and other course assessments reflected what was taught in the course material.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q20 - 3.5 I believe the time required to complete the work in this online course was appropriate for the topic and intended learning outcomes.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q21 - 3.6 I believe I learned things in this online course that I will be able to use in other courses and beyond.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q22 - 3.7 This online course was well-organized and easy to navigate.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q23 - 3.8 I enjoyed the discussion and teamwork in this online course.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q24 - 3.9 MyFire made it easy for me to access my course materials, communicate with the instructor and other students, and submit my assignments.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q25 - 3.10 I was able to easily access help with MyFire and other technology when I needed it during the course.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q26 - 3.11 Overall, I was satisfied with this online course.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q27 - 3.12 I would consider taking another SEU Online course.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q28 - 3.13 I would recommend this online course to other students.

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q29 - Did you use the SEU IT Help Desk during your course (Password resets only)

Yes [Alternate Code = 1] No [Alternate Code = 2]

Q30 - Did you use the 24/7 Help Center during your course - 1 (800) 985-9781 -
(MyFire/technology support)

Yes [Alternate Code = 1] No [Alternate Code = 2] Required answers:

Page 4

Q31 - I was satisfied with the service I received from the SEU IT Help Desk (Support related to password resets)

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Q32 - I was satisfied with the service I received from the 24/7 Help Center - 1 (800) 985-9781 -
(For technical support for MyFire - not including password resets)

Strongly Disagree [Alternate Code = 1] [Numeric Value = 1]

Disagree [Alternate Code = 2] [Numeric Value = 2]

Neutral [Alternate Code = 3] [Numeric Value = 3]

Agree [Alternate Code = 4] [Numeric Value = 4]

Strongly Agree [Alternate Code = 5] [Numeric Value = 5]

Page 5 - Section 4. Comments

Q33 - 4.1 What did you find most helpful about this course or what did you like best about this course?

[Alternate Code = 1] [Textbox]

Q34 - 4.2 What suggestions, if any, do you have about how the course might be improved?

[Alternate Code = 1] [Textbox]

Q35 - 4.3 Do you have any other comments that you would like to make about this course and/or instructor?

[Alternate Code = 1] [Textbox]