

THE DIFFERENCE IN SATISFACTION AMONG ACADEMIC ADVISING FORMATS FOR
ONLINE COLLEGE STUDENTS

by

Caleb Samuel Gordon

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

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ABSTRACT

Online education is growing so quickly that colleges are finding it difficult to provide enough online programs to meet student demands, and they are still finding their way in terms of the best academic advising format. To better understand the best way to support online students, the researcher studied student satisfaction within centralized advising offices with general academic advisors, department academic advisors, and individually assigned academic advisors. The researcher utilized developmental academic advising because it provided an excellent theoretical framework for academic advising's purpose and its best practices. The instrument Advising Scale was used to measure student satisfaction. Advising Scale was the best fit because it was developed using developmental academic advising theory, and it was one of the only statistically validated instruments that measured academic advising satisfaction and performance. The researcher conducted a causal comparative study using a one-way ANOVA for statistical analysis. The sample was from an online undergraduate and graduate student population that attended college online. Three groups of students from distance learning programs were selected. The groups were students with a general advisor, individual advisor, or department advisor. The researcher found that there was a statistically significant difference in student satisfaction between students that had either an individual advisor, general advisor, or department advisor. Students in the individual advisor group had the highest level of student satisfaction, department advising scored second highest, and the general advisor group had the lowest student satisfaction scores. Recommendations for future research include having colleges send the survey directly to students instead of the researcher, using a qualitative approach, sampling different online colleges, and researching different advising structures.

Keywords: Online students, distance learning, student satisfaction, individual advisor

Dedication

I would like to thank my wife Kelsey Lynne Gordon for encouraging me to finish this doctorate. Thank you for motivating me to be disciplined, and for watching our children while I hid away to work on it. Another thank you to my children Damon, Briella, and Heath for being patient with me while I worked on it. I also want to dedicate this dissertation to God for blessing me with the opportunity and the funding to finish this doctorate program. May this degree enable me to glorify God even more.

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List of Abbreviations

National Center for Education Statistics (NCES)

Individual academic advisor (IA)

Internal Review Board (IRB)

National Academic Advising Association (NACADA)

Teasley and Buchanan's Advising Scale (AS)

CHAPTER ONE: INTRODUCTION

Overview

Although online modular education is experiencing explosive growth, there is little literature available regarding the best practices for centralized academic advising operational structures for online students (Cross, 2018). This is concerning since online students have a higher dropout rate than traditional students, and most online students perceive low levels of involvement and personalization with their academic advisor interactions (Gravel, 2012). In most colleges that offer distance learning programs, there are designated academic advising offices that handle the general enrollment and guidance for online students, which is known as a centralized format. Some of these centralized academic advising offices have a general advisor to advise students, others have an assigned individual advisor (IA) with a caseload of students, and others have a department specific team of academic advisors serving each major (Stermer, 2018). Using developmental advising as a conceptual framework, this quantitative study will measure student satisfaction between online students that have a general advisor, an assigned individual academic advisor, and a department specific academic advisor.

Background

The migration of colleges to distance learning took place between 2002 and 2010 where there was a 20% online enrollment growth each year (Allen & Seaman, 2017). Now most colleges offer some form of online education, and competition among a finite number of students is intense (Allen & Seaman, 2017). Consider that in 2015, 63% of college administrators believed that distance education programs were necessary for long term sustainability.

Furthermore, the National Center for Education Statistics (NCES) reported that there were 6.3

million students enrolled in online courses in 2016, which is a 5.5% growth from the previous year of 5.9 million back in 2015 (NCES, 2018).

Distance education is growing so quickly that it is displacing traditional college education formats. Hoffman and Lance (2018) explain that “with the recent shift over the last decade to offer online course options to students, higher education institutions cannot roll them out fast enough” (p. 120). According to Christensen (2017) online modular education is becoming the new normal way for students to attend college through disruptive innovation. Disruption innovation theory explains that there are two trajectories of technology. The first type or trajectory is called sustained innovation with the incumbent that already has and uses the successful technology in place. Any improvements to the existing technology or its processes is called sustaining innovation (Christensen, 2017). Examples of sustaining innovation were companies creating higher resolution televisions. The second type of innovation is disruptive innovation. Disruptive innovation occurs when someone creates a new product entirely that does not initially compete with the original technology’s market share (Christensen, 2017). Disruptive innovation technology is at first inferior. After a while, the disruptive technology gains momentum by extending benefits to individuals that are not able to use the original product, so they are considered non-consumers (Christensen, 2017). These disruptive innovations often are more affordable and simpler than existing products, which allows them to:

Take root in simple, undemanding applications within a new market or arena of competition. Little by little, the disruption predictably improves. New companies introduce products that for them are sustaining innovations along their trajectory. And at some point, disruptive innovations become good enough to handle more complicated

problems and take over, and the once-leading companies with old-line products go out of business. (Christensen & Horn, 2008, p. 14)

Just as Christensen explains, colleges offering online programs were not initially competing with the traditional, on-campus experience, but now they have gained so much momentum that they are supplanting traditional college attendance with online modular education (Christensen & Horn, 2008). Current researchers now recognize that distance learning is a necessary piece of higher education around the world, and it is “the primary source of enrollment growth in higher education” (Kumi-Yeboah, 2018, p. 181). In as little as a decade, researchers believe that the most common way students will pursue higher education will be through distance learning programs. Online modular education is more efficient, accessible, and cost effective (Kumi-Yeboah, 2018).

Conversely, running a traditional campus format has high costs, and many schools need to offer tuition discounts to increase enrollment. Some researchers predict that over half of the smaller private colleges will be facing closures in the next few years (Eddie, 2018). Moody Research Group estimates that that over 25% of private colleges are running a deficit. To get out of unsustainable financial operations, colleges will need to create an online education segment to be more sustainable and competitive (Christensen, 2017).

With an increasing segment of students attending classes at a distance, colleges are finding creative ways to offer academic advising support (Steele, 2016). Some schools have specific staff that support online students, some share academic advisors, and others have the same setup as their on-campus operation with a faculty academic advisor. Notwithstanding each school’s strategy, it is important to note that there are three primary overall operational infrastructures, which are decentralized, centralized, and blended formats (Barker, 2014).

Decentralized is when the faculty handle all the advising functions at the academic department level. Centralized advising is when there is an academic advising office that handles all academic advising, and they are separate from faculty. Shared infrastructures are when advising services are shared between central offices and academic faculty (Stermer, 2018).

Many schools now engage in blended or centralized advising (Hutson, 2013). The benefits of blended format are that professors can advise and mentor students within their program. However, the faculty in a blended format are under pressure to teach classes and publish research, so adding academic advising responsibilities can stretch them too thin. Centralized offices of academic advising have several benefits. First, they are specifically trained to be academic advisors. Second, centralized offices can focus more on their students because their primary job is to engage in advising (Hutson, 2013).

Despite sharp jumps in distance learning programs, there has been little research done on the appropriate academic advising format to support online students. There have been studies done on several traditional advising programs wherein students attend classes and advising sessions in person, but there is a gap in research in what the best practices are for online students. There is also a more acute gap in research regarding which centralized academic advising format leads to higher student satisfaction (Cross, 2017; Stermer, 2018).

Theoretical Framework

The researcher will lean on three theoretical frameworks that are the basis for academic advising practice, which are developmental advising, life-career theory, and adult learning theory. Developmental advising theory explains that a student's total development should be considered in academic advising, which means academic advisors should apply developmental psychological principles to their practice. The advisor should also approach interactions as a

teacher (Crookston, 2009). Life-Career Theory explains that students operate in several different identity roles within their respective theatres or environments (Habley, 1994). Adult learning theory explains that adult learners do not learn the same as traditional young adult college students (Knowles, Holton, & Swanson, 2005).

Developmental advising. The researcher gleaned heavily from Crookston's developmental advising theoretical framework. The earliest form of developmental advising theory was created by Burns Crookston in 1972. At its core, this theoretical framework links academic advising to student development and frames academic advising as a form of teaching (Crookston, 2009).

Crookston (2009) identified two tenets of developmental advising. First, higher education provides students with the opportunity to develop and achieve fulfillment. Second, Crookston explained that academic advisors should consider teaching as part of academic advising. Crookston further explained that the art of teaching is any measurable experience that contributes to a student's development. Crookston also distinguished traditional or prescriptive advising from developmental advising. Traditional advising concept is the relationship between academic advisors being the authoritative knowledge bearers for students. Within traditional form of advising, students approach their advisors with questions, objections, and problems and the advisor then provides resolutions. Within developmental advising, on the other hand, the advising and student relationship is considered essential to accomplish long and short-term goals (Crookston, 2009). In development advising, the advisor uses "environmental and interpersonal interactions, behavioral awareness, problem solving, and evaluation skills" (Frost, 2000, p.13).

Like Crookston, Terry O'Banion helped contribute to the overall structure for academic advising that was founded on developmental advising theory. O'Banion explained that academic

advising practices should be structured around five tenets, which are the “exploration of life goals, (2) exploration of vocational goals, (3) program choice, (4) course choice, and (5) scheduling courses” (O’Banion, 2009, p. 83). Within these goals, O’Banion explains that the advisor should engage in developmental advising and act as the teacher by counseling students and judiciously use traditional prescriptive advising strategies (Himes & Schulenburg, 2015, p. 10).

Life-career theory. Donald Super developed life-career theory in 1976. Super created a rainbow scheme that was based on the total development of students instead of focusing on a single job or career. Within life-career theory, individuals can assume an identity or a character during certain points of life. These characters then have a life-career theatre to act or play out their part. It is important to note that character roles and theatres are interrelating continuously. It is possible for a student to assume several roles at the same time in different theatres. At work, for example, being a professional is the primary role, but at home being a parent is the primary role. Different life events and paths change individual roles as well, such as getting married or moving to a new area (Habley, 1994).

Within the context of academic advising, Super’s life-career theory explains that advisors should be conscious of the different roles and theatres that students continuously interrelate in (Habley, 1994). The academic advisor should be an active participant in the career and life planning process. Inasmuch, “not only should advisors be aware of the complexities of human development and various roles and theatres which the student must function, but also the advisor must assist the student in utilizing the variety of institutional options that can meet the challenges provided by the roles” (Habley, 1994, p. 151).

Adult learning theory. Most colleges focus their academic advising efforts on the traditional student attending on campus, but there are many online students that do not fit the mold of traditional students. Students that are either over the age of 24, have children, work fulltime, or are married are considered to be non-traditional students. It is interesting to note that the majority of online students, especially graduate students, are considered non-traditional students, which is not a surprise when considering that most online students tend to be older. Hoffman and Lance (2018) explain that for students attending online “many are non-traditional and work full time to subsidize their family income, so leaving a job to return to school is not an option for the majority of these students” (p.133). With such a high ratio of adult learners attending online programs, adult learning theory is considered relevant to online academic advising. Colleges find that “adult learner advising experiences have been positively correlated with retention, persistence, and alumni donations” (Schroeder & Terras, 2015, p. 43).

Adult learning theory established that adults learn differently than adolescents or young adult college students (Knowles, Holton, & Swanson, 2005). Adult learning theory is based on five assumptions. The first assumption is that adults have a more established self-concept and so they are more self-directed. The second assumption is that adult learners have more experience than young learners that can be and is often used during their academic journey. The third assumption is that adults are more willing to learn since it is for a specific task or objective. The fourth assumption is that adult orientation towards learning is practically or problem centered. Lastly, adult learners are internally motivated to persist instead of externally motivated. For example, an adult learner is motivated to master the material and graduate to get a better job instead of doing well just to please his or her parents (Knowles, Holton, & Swanson, 2005).

Problem Statement

Enrollment in online education experienced explosive growth and then leveled out, but now there is intense competition between colleges offering online programs (Allen & Seaman, 2017; Halupa, 2016). Despite online education's growth and hyper competitive environment, there is little research done on effective academic advising formats for online students. This is particularly problematic since 70.8% of college leaders believe that integrating an online segment of higher education is critical to their school's long-term strategy (Allen & Seaman, 2017). The years of the most substantial growth were between 2003 and 2010 wherein online student enrollment growth increased at an average of 20% per year (Allen & Seaman, 2017). Between 2011 to 2014, however, online education enrollment leveled off at an average growth of 5% per year (Allen & Seaman, 2017). This could mean that most institutions were transitioning their programs into an online format, and during the transition period is where the sharpest growth took place (Allen & Seaman, 2017). Allen and Seaman (2017) found that most colleges now offer online options. Out of all active, degree granting institutions that are open to the public, 70.7% have some distance offerings (Allen & Seaman, 2017). It is also worth noting that there is a strong positive correlation between the number of students enrolled at a college and distance program availability (Allen & Seaman, 2017). Over 95% of institutions with 5,000 or more total students reported distance offerings, and this number swells to 99.9% for colleges with 20,000 or more students (Allen & Seaman, 2017). Furthermore, 83.6% of colleges with 1,000 to 4,999 have online programs availability, and 47.5% of colleges with 1,000 or less students offer a distance learning program (Allen & Seaman, 2017).

Renzulli (2015) further found that students that are unprepared to study independently and lack guidance are at a much higher risk for dropping out. About \$400 billion is spent on

higher education each year within the US, so these dropout rates have the potential for substantial financial waste (Renzulli, 2015). Despite large jumps in online enrollment, most literature is centered on traditional advising formats (Cross, 2018). Whereas enrollment management techniques for online colleges can be like residential programs, the student interaction experience is different (Gravel, 2012). The face-to-face interaction between students and advisors occurs far less in an online format than a traditional format. That is not to say that the research advancements about traditional education are no longer relevant. On the contrary, the same principles of developmental advising, advisor as the teacher, life-career theory, and adult learning theory are all relevant to online students (Cross, 2018). The challenge is to identify the most effective ways to deliver developmental advising to students. In one study, for instance, online students indicated that they preferred development advising interactions, but admitted that they had few opportunities to interact with their advisors in that way (Gravel, 2012).

There are several traditional college advising practices that are all relevant to online student advising, but much of the relevant literature lacks a statistically validated instrument to gauge advisor effectiveness (Teasley & Buchanan, 2013a). Although there are several well-known studies for academic advising, these publications do not show the statistical properties of the instruments. Popular instruments such as Academic Advising Inventory, Faculty Advisor Inventory, and the many institutionally generated instruments are “not tested for analytic fit, reliability, or validity” (Teasley & Buchanan, 2013, p. 4). Therefore, there is a need for researching academic advising formats with a statistically validated instrument.

The research done with online student and academic advisor formats has much wider gaps in literature (Cross, 2018). Students that attend online are often supported within a

centralized academic advising office with three different formats (Lynch, 2004). First, online students can be advised by a general advisor, which is any advisor available first when they call in, email, or visit. Second, online students can also be served through a specialized team of advisors that work with a specific academic department. Department advisors would exclusively work with their academic department's students, such as the school of business students. Third, online students can also be supported through an assigned individual advisor (IA) that personally has oversight over the student's entire academic experience (Cross, 2018). Individually assigned advisors stay with students from matriculation through graduation. With any of these types, research is needed to identify which advising format helps online students experience developmental advising benefits the most since there are gaps in literature about what advising formats produce higher overall student satisfaction. Therefore, the problem is that nearly all colleges incorporate an online segment to their operation, but there is a gap in research with a validated instrument concerning the best academic advising formats specifically for distance education students (Himes & Schulenburg, 2015).

Purpose Statement

The purpose of this quantitative, causal comparative study is to investigate *student satisfaction* (dependent variable) among different *advisor formats* (independent variable). *Student satisfaction* is defined as the amount students like and approve of their advisor's prescriptive functions (advising on course selection), developmental functions (helping develop career), and advisor personality (advisor likability) (Teasley & Buchanan, 2013a). The *advisor format* refers to the different group types of academic advisors, which are department advisors, general advisors, and individual advisors. An individual advisor is an academic advisor that is assigned to serve a student caseload from matriculation to graduation (Barker, 2014). General

academic advisors work in advising centers, are available to assist with general questions and concerns of students without needing to make an appointment, and they have transactional interactions with students (Propp & Rhodes, 2006). A department academic advisor works alongside other advisors to serve students in the same academic major only (Lynch, 2004). The population being sampled from will be students attending college online at any degree level, and they have an academic advisor that is either an individual advisor, general advisor, or department advisor.

Significance of the Study

This research will add to the existing body of literature concerning academic advising infrastructure best practices in online environments. There is literature written about academic advising practice, and there is even literature about advising online students, but there is little to no literature that investigates the different formats of centralized academic advising offices that serve online student populations. Academic advising offices can be either centralized, decentralized, or a hybrid. Each format has its own inherent benefits and drawbacks. For example, researchers have pointed out the benefits of decentralized faculty lead to advisors building relationships. These relationships increased student persistence (Wighting, Liu, & Rovai, 2008), but the drawback is that professors have other obligations that distract them from engaging in academic advising or they may rush sessions (Hutson, 2013). Another study with centralized professional advisors found that advisors that intentionally mentored students engendered higher levels of perceived connectedness and sense of community with the university (Stermer, 2018). To advance knowledge built off of these previous studies, this study will survey online students that interact with different centralized academic advising formats to see if there are differences in student satisfaction.

Furthermore, looking at these differing advising formats will add further literature to the work that Crookston and O'Banion started with developmental advising (2009). According to Roufs (2015), developmental academic advisors have practical and developmental functions. In addition to helping students register for classes, for example, developmental advisors need to help students “evaluate personal values and implement plans to lead satisfying, gratifying, and productive lives...advising could not be divorced from teaching (Roufs, 2015, p. 68).

Although there are some studies on best academic advising practices for online students, there are little to no studies done with a statistically validated instrument, which was recently demonstrated in Cross's 2018 study wherein she had to create her own instrument, which was not validated. This study will use Advising Scale to measure online student satisfaction between different centralized academic advising offices. This will add to the existing research on developmental advising as a whole and provide quantitative data for effective centralized academic advising formats for online students (Teasley & Buchanan, 2013a).

Research Question

RQ1: Is there a difference among *student satisfaction scores* of online college students who have a *general academic advisor*, a *department academic advisor*, or an *individual academic advisor*?

Definitions

1. *Academic Advising*—An academic advisor is a university representative that can inform, suggest, counsel, coach, mentor, and teach students. An academic advisor can be a faculty member, a professional advisor in a general service queue, or a professional advisor assigned to a student (Stermer, 2018).

2. *At Risk Students*—Students that have qualities or certain factors, such as working fulltime or being a single parent, that make them high risk to not persist to graduation (Cate & Miller, 2015, p. 95).
3. *Developmental Advising*—A conceptual framework founded by Crookston and O’Banion that bases advice on student needs. It is a systematic process based on advisor and student relationships intended to aid students in accomplishing their “educational, career, and personal goals through the utilization of the full range of institutional and community resources” (Cate & Miller, 2015, p. 97).
4. *Department Academic Advisor* —A department academic advisor works alongside other advisors to serve students in the same academic major only (Lynch, 2004).
5. *Disruptive Innovation*—Innovation that creates a new and inferior product that does not initially compete against mainstream consumption. Through gradual improvements made through growing numbers of users, the new technology becomes superior to the mainstream original technology (Christensen, 2017).
6. *General Advisor*—General academic advisors work in advising centers, are available to assist with general questions and concerns of students without needing to make an appointment, and they have transactional interactions with students (Propp & Rhodes, 2006).
7. *Individual Academic Advisor*—An individual academic advisor is assigned to serve a student caseload from matriculation to graduation (Barker, 2014).
8. *Prescriptive Advising*—An authoritative approach where the academic advisor answers specific questions and prescribes student enrollment plans. Prescriptive advising assumes

that the advisor knows which academic decisions are best for students (Cate & Miller, 2015).

9. *Sustaining Innovation*—Improvements made to existing technology. Improvements are minor and do not change the technology (Christensen, 2017).

CHAPTER TWO: LITERATURE REVIEW

Overview

This section reviews the relevant theoretical frameworks and related literature regarding online academic advising models. The theoretical frameworks unpacked include developmental academic advising theory, career advising theory, and adult learning theory. These frameworks provide a solid foundation for online academic advising practices. Related literature includes subjects such as academic advising models, student perceptions, non-traditional students, retention, online advising practices, and other similar subjects. Through this review, the researcher identified gaps in literature regarding ideal online academic advising formats.

Theoretical Framework

The researcher drew from several theories, but the primary ones that this study was based on were developmental academic advising, career advising, and adult learning theory. Each of these theories provided a working structure for identifying best formats in online academic advising.

Developmental Academic Advising

The founding fathers of developmental advising were Crookston and O'Banion through their initial research back in 1972. It is said that Crookston provided the theoretical framework and O'Banion provided a practical structure for the modern academic advising model (Winston, Miller, Ender, & Grites, 1984). For example, Crookston believed that academic advising should incorporate a developmental perspective wherein growth would be an outcome. Crookston also proposed that the advising process was like teaching because students underwent a learning process during their advising sessions. O'Banion came up with a structured advising model based on Crookston's theoretical assertions. Ten years later, Winston, Ender, Miller, and

Grites (1984) articulated and established the term developmental advising based on Crookston's and O'Banion's work:

Developmental academic advising is defined a systematic process based on a close student-advisor relationship intended to aid students in achieving educational, career, and personal goals through the utilization of the full range of institutional and community resources. It both stimulates and supports students in their quest for an enriched quality of life. Developmental advising relationships focus on identifying and accomplishing life goals, acquiring skills and attitudes that promote intellectual personal growth, and sharing concerns for each and for the academic community. Developmental academic advising reflects the institution's mission of total student development and it is most likely to be realized when the academic affairs and student affairs divisions collaborate in its implementation. (Winston et al., 1984, p. 19)

This comprehensive definition captures Crookston's, O'Banion's, and other researchers' discoveries, and currently serves as the foundational understanding of developmental advising today (Grites, 2013). Based on this definition, advisors should encourage students to develop and achieve fulfillment during their college experience. Crookston further explained that developmental advising includes a progression towards goals within the context of campus, social, and academic environments (Roufs, 2015, p. 68). According to Grites (2013), developmental advising continues to be the most comprehensive approach to academic advising. This is because academic advisors take a holistic perspective to help students achieve academic, personal, and career goals. When effectively utilized, academic advisors can help students achieve each of these three goals simultaneously through guidance and teaching (Grites, 2013, p. 45).

Goals. Developmental academic advising theory explains that advisors help students achieve their personal, career, and academic goals (Grites, 2013). Advisors help students achieve their personal goals through identity development, encouraging relationship building, encouraging integrity, and providing emotional support. Career goals are based on Super's life-career theory, which explains that students can occupy different character roles during different locations (such as at home or work) and check points in their life (student or professional), or the roles simultaneously, such as a parent and a spouse (Grites, 2013). Career goals also focus on synthesizing university educational opportunities, such as advising students to pursue a degree that is in high demand in the labor market (Gordon, 2006). Educational goals include helping students decide which major to choose and which courses to register for. Educational goals focus on student success within their educational environment (Grites, 2013).

Academic advising model. Part of the developmental advising framework includes a general model for academic advising. O'Banion explained that academic advising practices should be structured around five tenets, which are the "(1) exploration of life goals, (2) exploration of vocational goals, (3) program choice, (4) course choice, and (5) scheduling courses" (O'Banion, 2009, p. 83). Within these goals, O'Banion explains that the advisor should engage in developmental advising and act as the teacher instead of the traditional prescriptive advising (Himes & Schulenburg, 2015, p. 10). Through continued support within the academic advising model, students develop a sense of trust and accountability with advisors. Terry O'Banion explained that developmental advising must include shared responsibility between the academic advisor and the student. This includes choices about life goals, career goals, program selection, and class schedule. Using developmental theories, advisors can guide students through values and goals that they can commit to (Roufs, 2015).

Career Advising Theory

Career advising considers both the internal and external environments within the context of a student's career advising experience. Internal environments include information about the university, such as programs, policies, student services, offices, rules, and so on. External information refers to workforce information, such as job demand, the economy, internships, and job opportunities. Career advising synthesizes these details into coherent advice based on internal university offerings with external workforce opportunities (Nelson, 2015, p. 143). Two influential models to career advising are life-career theory and 3-I model.

Life-career theory. One of the initial founders of career advising was Donald Super who developed Life-Career theory in 1976. Super created a scheme based on the development span of a student's life. Within Life-Career Theory, individuals can assume an identity or a character during certain points of life (Habley, 1994). These characters then have a life-career theatre to act or play out their part. It is important to note that character roles and theatres are interrelating continuously. It is possible, for example, for a student to assume several roles at the same time in different theatres. At work, for example, being a parent is not the primary role, but at home being a parent is the primary role. Roles can interchange in dominance or be simultaneous (Habley, 1994).

Within the context of academic advising, Super's Life-Career Theory explains that advisors should be conscious of the many different roles and theatres that students continuously interrelate in (Habley, 1994). The academic advisor should be an active participant in the career and life planning process. Insomuch, "not only should advisors be aware of the complexities of human development and various roles and theatres which the student must function, but also the

advisor must assist the student in utilizing the variety of institutional options that can meet the challenges provided by the roles” (Habley, 1994, p. 151).

3-I model. A more recent addition to career advising is Gordon’s 3-I model developed in 2006. 3-I model explains that effective career advisors understand student needs through three stages, which are inquire, inform, and integrate (Gordon, 2006). The inquire stage is when advisors get information about student needs through interactions. Information can include finances, personal, and academic goals. Advisors use this information to help their students understand optimal academic path selection. In the inform phase, advisors encourage students to become self-aware of which careers align with their interests (Gordon, 2006). Although students can independently investigate career opportunities, research has shown that they interpret information better while working with an academic advisor (Reinarz & Ehrlich, 2002). This is because advisors have tools like personality assessments or aptitude tests to help students discover their interests and strengths. Advisors then use these personality profiles, along with synthesized knowledge of external and internal information, to recommend realistic degree and career options. The third and last phase is integration, and it occurs when the advisor and student both agree on a career path and correlating major. Once the decision is made, advisors hold students accountable to persist to their goals (Roufs, 2015).

Academic advisors are also helpful when students decide to change majors (McKenzie, Tan, Fletcher, & Jackson-Williams, 2017). Advisors provide consultative advice for prospective career options, credit transfers, graduation requirements, curriculum insight, and other general advice. Selecting a major is important since it has a long-lasting impact on career availability, socioeconomic status, and student psychological development (Soria & Stebleton, 2013).

Adult Learning Theory

Malcom Knowles is the founder of adult learning theory, which focuses on educating adults instead of adolescent or young adult students (Knowles, 1973). Knowles was the expert on adult education and training, founded the Adult Education association, and taught classes on adult education. Knowles popularized the term Andragogy, which is Greek for man-leading, because he wanted the theory to be different than normal pedagogy, which translates to child-leading (Knowles, Holton, & Swanson, 2005). His adult learning theory explained that adults do not learn the same as young adults or adolescents because adults have additional responsibilities and are further developed than young students (Knowles, 1973). Pennsylvania's World Campus academic advisors, for example, use the assumptions and principles found in adult learning theory, and have been able to increase student retention (Coder, 2016).

Five assumptions. Adult learning theory, or andragogy, explains that adults learn differently based on five assumption. First, adults have a more established self-concept and can thereby be self-directed. Second, adult learners have more experience than young learners and can be used in learning new content. Third, adults are more willing to learn since it is for a specific task or objective, such as learning to be an accountant or programmer. Fourth, adult orientation towards learning is practically or problem centered. In other words, curriculum is approached to solve a problem instead of learning it just for the sake of knowing the knowledge. Adults want to learn specific content because it will solve the problem of learning a new trade, such as accounting or programming. Fifth and lastly, adult learners are internally motivated to persist and learn instead of externally. Whereas young students could be motivated from external pressures like parental approval, adult learners are motivated to learn because they want to learn necessary curriculum for their specific objectives (Knowles et al., 2005).

Four principles. Knowles further suggested that adult learning there were four principles to applying the assumptions of andragogy. These principles mirror closely to the five assumptions. First, adults learn more effectively if they understand why they are learning content. Second, adult experience is foundational to future learning. Third, adults want to learn about things that are directly related to their career or life. Fourth, adult learning is objective driven instead of curriculum driven (Knowles et al., 2005).

Related Literature

This section will review literature that is relevant to best academic advising practices in general. Topics discussed are relevant in online education and therefore important to academic advising in online education environments. Related literature includes subjects such as academic advising models, student perceptions, non-traditional students, retention, online advising practices, and other similar subjects.

History of Academic Advising

To better understand the profession's growth, it is beneficial to briefly go over the development of academic advising during its early days. Early on in American history, for example, college students experienced academic advising in several ways. According to Cate and Miller (2015), there were four distinct historical periods of academic advising development.

First era. The first stage was between 1636 and 1870. This is an early start considering that Harvard, the first college in America, opened just sixteen years after the pilgrims arrived at Plymouth Rock in 1620. Fifty years later, William and Mary opened in Virginia in 1693, and then Yale was established shortly after that in 1701. By the time the US signed the Declaration of Independence in 1776, there were 13 colleges in America. The initial objectives of these early colleges were to create educated citizens and produce educated clergy members. During this

time, students did not have a choice in either curriculum or course selection. Students and faculty lived within the residential communities of the college. Faculty had complete control over student studies, personal lives, and even religious activities (Gordon, Wesley, & Habley, 2000). The student mind was viewed as a tool, and it needed to be sharpened with required curriculum. Students that needed help asked their professors for advice or found a book about it (Cate & Miller, 2015).

Second era. The second era of academic advising was between 1870 and 1971. By this time, colleges had shed much of their religious affiliations in favor of curriculum that focused on career preparation and liberal arts subjects. There was also different curriculum and course choices for students. It is during this time that professors really started to focus on research and looked to the German University as an operational role model. Even though the professor was the source of academic advising, there was a large gap in communication, power, and interest between students and professors (Frost, 2000). In 1889, Johns Hopkins University coined the term advisor and introduced a formalized practice of academic advising wherein the faculty advised students on areas of study, course selection, and degree completion. Academic advising was more formalized in 1930, but professors remained the primary help for students with enrollment (Frost, 2000).

In the late 1930s, Syracuse University professors surveyed students about adjusting to college life. The study found that students that performed better academically were also successful in transitioning to the demands and life of a college. The study further found that students with parents micromanaging their affairs at home also found it difficult to be self-directed at college. With these findings in hand, professors serving as academic advisors began providing help with college life adjustment (Frost, 2000, p. 10).

Third era. The third era of academic advising was between 1972 and 2002. This advancement in colleges in general was fueled by the explosive growth of the 1950s due to GI Bill implementation. Between 1950 and 1999, college institutions increased from 1,800 to more than 3,600 nationwide. Enrollment increased from 2 million students to over 14 million. Federal support for research went from \$100 million to \$12 billion. Furthermore, minority student enrollment increased 14 times higher than traditional Caucasian students and made up over 25% of college student population (Gordon et al., 2000). There was explosive diversity and enrollment growth during this timeframe, which put a strain on the professors conducting the academic advising because most were Caucasian males. Furthermore, professors were more concerned with research than with advising students (Gordon et al., 2000). In 1984, for example, research indicated that academic advising as “One of the weakest components of the undergraduate academic experience” (Gordon et al., 2000, p. 11).

To respond to the growing demands of academic advising, the National Academic Advising Association (NACADA) formed to improve practice, research, and publish literature (Himes & Schelenburg, 2016). Academic advising at the time was by and large unevaluated. Research efforts revealed that there were substantial changes needed in academic advising practices across colleges and universities in the US. Administrators and researchers agreed that they needed to begin basing academic advising practice on theoretical frameworks. Some of the emerging theories included developmental theories, career coaching theories, and teaching theories (Frost, 2000, p. 13). With these emerging theories, the professional academic advisor that was separate from faculty began to gain popularity. The “increased number of academic advisors whose practice was informed by perspectives and skill sets that differed markedly from their faculty advisor peers created a divide” (Himes & Schelenburg, 2016, p. 10). Professional

academic advisors were more interested in student lives and applied emerging theories to their practice, which produced more effective engagement and advice (Himes & Schulenburg, 2016).

Fourth era. Between 2003 and present day is known as the fourth era of advising development. Within this timeframe, US college enrollments increased, distance education programs emerged, there was a focus on retention and degree completion, and the role of an academic advisor was clearly identified. Through the growth of NACADA, advisor competencies were identified with an emphasis on teaching and learning. Academic advising is an established profession that is often occupied by a non-faculty member, but there are a great number of faculty members that still serve as academic advisors as part of their role as a professor (Himes & Schulenburg, 2016).

Advisor Formats

Academic advising has become an entrenched part of college operations within the US. In 2003, about 73% of colleges had advising centers (Chiteng, 2014). There are three primary formats of academic advising, which are centralized, decentralized, and shared. Centralized advising offices are self-contained, and they handle all academic advising services for students from registration to general support. Students can make appointments or just call or show up for service. Decentralized advising environments have faculty members serving in an academic advising role for students within their respective departments. Students need to make appointments with their professor advisors. Shared advising occurs when students have an assigned professor to be an advisor, but there is a general student support office available as well (Miller, 2016).

Centralized Academic Advising

Centralized advising offices and offer a one-stop-shop for student concerns (Chiteng, 2014). Students can make appointments to come meet with an academic advisor or just show up and wait for one to become available. Many online schools are centralizing their academic advising offices. In 2004, 73% of schools operated an academic advising center for centralized service (Chiteng, 2014). Centralized advising offices are staffed with professional advisors to assist students. The benefit of professional advisors are they are more available, have academic advising as a primary purpose, are more knowledgeable about available programs, know more about student developmental theories, are more proactive, and can personalize career advice more custom for students (Lynch, 2004). However, professional advisor departments are more expensive for colleges to sustain, are less knowledgeable about the content in academic programs, and have lower credibility with colleges (Lynch, 2004). Centralized academic advising can be in the form of individual academic advisor (IA), a general academic advisor, or a specialized team of department academic advisors.

Individual academic advisor. Individual academic advisor (IA) is a professional advisor in a centralized advising office. Individual advisors have a unique opportunity to develop relationships with their students, which “makes a difference in students’ overall college experience and satisfaction, especially when advisors develop personalized relationships and have frequent contact with students; provide them with support and guidance; and are accessible, helpful, and caring” (Barker, 2014, p. 433). There are a few colleges and universities that use an IA format. Ohio University is one of them. The role of an IA is to be assigned to a student upon the start of his/her program and work with that student until graduation. IAs works one-on-one

with students to “create an educational plan to meet academic, professional and personal goals...also assist you in preparing an appropriate schedule of classes” (Ohio U., 2019).

General academic advisor. General academic advisors work in advising centers, and they are available to assist with general questions and concerns of students without needing to make an appointment. A general advisor “typically has been posited as a generalized relationship (i.e., an informing construct),” and have a transactional relationship with students (Propp & Rhodes, 2006, p. 58). The University of Rochester explains that general academic advisors are professional advisors that are available every day on a walk-in basis or by appointments, and that they can help plan courses, explore study opportunities, and coordinate academic resources for students (Rochester U., 2019).

Department advisor. Some institutions have specialized teams of academic advisors that assist students within their respective academic schools. Lynch (2004) explains that a department academic “advisors serve as advisors only to students enrolled in their specific academic departments” (p. 64). These advisors share student caseloads among other department academic advisors. For example, there can be a team of academic advisors within the school of education that help education major students. Regent University describes their team of academic advisors as students being assigned an academic advising team to assist with course selection, degree planning, registration, and university resources (Regent U., 2019).

Decentralized Advising

Decentralized academic advising refers to when faculty members are the primary source for academic advising. Lynch (2004) explains that faculty advisors central “responsibilities are teaching and research but who also serve as academic advisors to varying numbers

of advisees within their academic disciplines” (p. 64). The benefit of faculty advisors is that they are experts in their academic disciplines. Professors are knowledgeable about industry standards, course content and content, and have higher credibility with students and the college. However, students believe that they are a low priority to their faculty academic advisors. Professors also may not have as much knowledge in student development theories (Lynch, 2004).

In most situations, students are assigned a faculty advisor later in their major. Barker (2014) explains that “students typically switch advisors from professional to faculty advisors or from centralized to decentralized advising at some predetermined point, after they have reached a certain number of credits or possibly declared a major” (p. 434). Changing academic advisors after developing a relationship can be stressful for students. Students that prepare themselves psychologically before transitioning to faculty advisors experience less stress, and academic advising office models that allow for faculty and professional advisors to work together have even more positive experiences (Barker, 2014).

Shared Academic Advising

Shared advising is when a portion of advising is done by a professional advisor and another portion is done by a faculty member. Barker (2014) explains that “shared models of advisement should allow students to meet with both faculty advisors and professional advisors whenever possible. At some institutions, a dual model is employed in which students are simultaneously assigned both a professional advisor and a faculty advisor” (p. 443). Shared models offer the benefits of immediate assistance for general questions and tasks from the professional advising team, but also allows for students to be mentored by their faculty advisor. The downside is that many schools find shared advising models impractical to implement.

Furthermore, some students could develop preference for their faculty advisor or professional advisor (Barker, 2014).

Student Perceptions

Student experience with their academic advisors can vary across schools, delivery models, and advisor types (Miller, 2016). For example, Cross (2018) measured online student satisfaction with either a faculty academic advisor or a professional advisor and found that satisfaction is based on several variables. Satisfaction could be based on communication timeliness, advisor knowledge of support services, and academic advisor behavior (Cross, 2018, p. 72). Cross found that overall experiences between students and advisor were generally positive but found that experiences with professional advisors scored significantly higher and had consistently more positive levels for communication, support, and behavior with students than faculty academic advisors (Cross, 2018, 76). Although faculty have clear advantages and benefits for serving as an advisor. Hutson (2013) explains that faculty advisors also have other obligations that puts strain on their availability and attention. Faculty are pressured to publish, teach, and continuously learn, and academic advising duties pull them away from those expectations (Hutson, 2013).

Student preferences also vary with surrounding culture, demographical information, and more. Students in China, for example, were looking for career advice more than anything. They also expected their academic advisors to guide them through course options (Cheung, Siu, & Shek, 2017).

Academic Advising and Student Retention

Studies have shown that there is a link between academic advising interactions and student retention (Hutson, 2013). Researchers have found that interactions outside the classroom

have an impact. Student interactions with “faculty, staff and administrators beyond the classroom ... impacts their commitment to learning, sense of belonging and interdependence, and ability to overcome obstacles, factors... determine their satisfaction with and success in higher education settings” (Hutson, 2013, p. 5). First year students especially need assistance with acclimating into a college environment, with navigating enrollment, utilizing resources, and guidance through formal university processes. Walker, Zelin, Behrman, and Strnad (2017) found that first-year students drop out higher than any other student population. Furthermore, first-year students that are also the first generation to attend college or from lower socioeconomic statuses have even higher dropout rates (Walker et al., 2017).

For these reasons, academic advisor interactions have been linked to student retention. One study on academic advisor impact on retention reviewed interactions from over 52,000 students at over 200 diverse colleges and universities. This study found a positive correlation between the number of advisor interactions with students and their overall performance and retention. Interactions were in the form of in-person visits or phone calls. Students that met with their academic advisor at least 3-6 times a year compared to students that met 0-2 times a year had a 13% lift in course and degree persistence (Fosnacht, McCormick, Nailos, & Ribera, 2017). In another study, both students and faculty rated that academic advising support was very important to student persistence (Gayton, 2015, p. 61). Other research showed that service quality and long-term interpersonal relationships between students and advisors are important, and that advisors should foster increased relationship between the college and the student (Viandan & Barlow, 2015, p. 16).

Other research points to feeling connected to a college increases retention, such as Bean’s Causal Model (Ames, Berman, & Casteel, 2018). Inasmuch, Bean’s Causal Model explains that

colleges can improve student retention through social and academic integration. Using Bean's model in a recent study, Ames, Berman, and Casteel (2018) showed that "there is a relationship between student retention and institutional commitment and student satisfaction with the institution...feelings of validation are important to students, and when students have a connection with the organization, it reduces their sense of isolation" (Ames et al., 2018, p. 80).

Career and Degree Advice

Academic advisors are also helpful when students decide to change majors (McKenzie, Tan, Fletcher, & Jackson-Williams, 2017). Advisors provide consultative advice for prospective career options, credit transfers, graduation requirements, curriculum insight, and other general advice. Selecting a major is important since it has a long-lasting impact on career availability, socioeconomic status, and student psychological development (Soria & Stebleton, 2013).

McKenzie et al. (2017) found that students select a major based on their interests, strengths, and career opportunities. Fluctuations in any of these perceptions or prospects often lead students to change their major. This is important because students that change majors are at even more risk for dropping out (McKenzie et al., 2017). Supporting students while they decide to change majors is therefore important. This is supported by McKenzie et al. (2017) who found that "academic advising designed to help students transition from one major to another contributes to students' academic progression, persistence with re-selected majors, and retention" (p. 15).

Furthermore, students that received support from academic advising in a centralized office experienced increased GPAs during more semesters (McKenzie et al., 2017).

Academic Advising Approaches

There were several different styles and strategies that NACADA published concerning advisor and student interaction. Many of these approaches were developed out of the

developmental advising theoretical framework, such as advising as teaching, appreciative advising, strengths-based advising, prescriptive advising, and proactive advising. These approaches are also found within various NACADA publications (Miller, 2016).

Advising as teaching. Advising as teaching strategy was first introduced by Crookston as part of his developmental academic advising theory (Roufs, 2015). Crookston reasoned that advisors disseminate and mentor students in advising sessions, and the outcome of these sessions is student learning and growth (Roufs, 2015). Building on developmental advising strategies and Crookston's work, advising researchers suggested that academic advisors could utilize a syllabus as an education tool for their advisees. Trabant (2006) suggested that syllabi would include a general definition of what academic advising is, the contact details of the office or advisor, parameters for student and advisor relationships, and general responsibilities of the both the academic advisor and the student. The syllabus sets clear expectations for advisor and student responsibilities (Trabant, 2006).

Strengths-based advising. Strengths based advising approach was first popularized by Schreiner and Anderson (2005). According to this approach, advisors should look to assess student strengths instead of taking inventory of weaknesses. Whereas focusing on weaknesses could identify areas for improvement, focusing on strengths provided more opportunity for optimal career and academic advice. Strengths-based advising frames student growth from a positive perspective approach. Strengths based approaches explain that students are most successful when they utilize their natural strengths, talents, and interests. Academic advisors can help channel a student's educational journey, skills, and personal knowledge into strengths by building self-confidence and motivation to achieve levels of excellence (Drake, 2015).

Appreciative advising. Appreciative advising focuses on using the appreciative inquiry approach to purposefully search for the best in students. Bloom and Martin (2002) introduced the appreciative advising strategy as a customizable approach for individual development. The four steps of appreciative individual development include discovery, dream, design, and destiny. The discovery process involves interviewing students with positive, affirmative questions. According to Bloom and Martin (2002), the dream process builds upon strengths, interests, and goals identified in interview answers. The design involves skill development and long and short-term goal strategies. Finally, destiny involves a process where a student accomplishes goals while the advisor provides moral support and guidance (Drake, 2015).

Proactive advising. Proactive advising was formerly called intrusive advising because it involved taking the initiative to contact the student. Proactive advising practice puts the onus of student contact on the academic advisor (Drake, 2015). In other words, academic advisors are held responsible for making and maintaining interaction with their caseloads. Increased involvement with student interaction engenders a sense of connectedness and increases relationship building opportunities. Proactive assistance ensures that students are not left without help or advice as well, which makes it particularly effective with at-risk students, such as first-generation college students, non-traditional students, and freshman students (Drake, 2015).

Prescriptive advising. Prescriptive advising occurs when an academic advisor makes assertive recommendations to students. Recommendations are based on degree policy, course fit, and any other requirements needed for graduation. Prescriptive advising is needed within developmental advising. This is congruent with a recent study done on the expectations that graduate online students had for their advisors who reported that they “overall expect and appreciate academic advisors who offer prompt responses, know about programs and policies,

assist in student progress in programs of study, and demonstrate positive behaviors” (Cross, 2018).

Non-Traditional Students

As the term implies, non-traditional students are learners that are outside what is considered the standard student in higher education. Non-traditional students are learners that are at least 24 years old, have a family to support of some kind, or work to support themselves. These students also have increased financial stress since they are financially independent and often supporting others (Hoffman & Lance, 2018). What is interesting now is that non-traditional student growth is exploding due to online education. Back in 2010, non-traditional student comprised 40% of all college enrollment, and their market growth has been increasing at a rate of 8% (Jacobs & Hundley, 2010).

Non-traditional students also have different motivations than traditional students. Many find that family support is necessary to motivate them to finish their degree. Others are pursuing career advancement or trying to enter a new career field. In a recent qualitative study, seven out of nine participants consistently selected career advancement for a primary motivator to finish their degree. Female college students considered family and spousal support as significantly important to degree completion. For female students, husbands that could provide financial support, help with childcare, and maintain household chores were very important to degree persistence. Other support system members also included extended family, parents, employers, and in-laws (Park & Choi, 2009).

Online Education Growth

Online education is quickly growing into the most popular form of college attendance. With declining residential enrollment, 70% of colleges believe that distance education programs

are necessary for long term sustainability (Glazier, 2016). Furthermore, the National Center for Education Statistics (NCES) reported that there were 6.3 million students enrolled in online courses in 2016, which is a 5.5% growth from the previous year of 5.9 million back in 2015. In 2016, 33% of all graduate students were attending classes online (Cross, 2018).

Online student enrollment has interesting patterns. Around 50% of all students enrolled in college online are in the same 47 institutions, which is just 1% of the colleges that offer online programs in the country (Seaman, Allen, & Seaman, 2018). Furthermore, 56% of students enrolled in online education attend colleges that are in their same state (Seaman et al, 2018). Similarly, there are few students within the US that enroll in international programs with just 0.7% of students enrolling in foreign university (Seaman et al, 2018). For profit online colleges have the highest enrollment concentration, non-profit online colleges of the next, and traditional state colleges have the least enrolled in their online programs (Seaman et al., 2018). Nevertheless, growth at public institutions has been tremendous when compared to the marginal gains by non-profit private groups, and for-profit colleges have seen negative growth between 2012 and 2016 for every year (Seaman et al., 2018).

One of the main reasons for online education growth is its widespread access. The technology revolution opened availability for attendance anywhere in the world. Online classes offer several conveniences to students concerning accessibility, location, and flexibility. In fact, distance education is growing so quickly that it is displacing traditional college education formats. In as little as a decade, Christensen (2017) predicts that the most common way students pursue higher education will be online.

Distance Education Format

Distance education programs can be synchronous or asynchronous. Asynchronous refers to education happening at different times that are not scheduled. Most online college classes are set up asynchronous. There are pre-recorded videos, reading material, assignments assessments, and discussion board forums. Students log into an online modular classroom, such as Blackboard or Canvas, and complete their assignments and then upload them for the professor and classmates to review. Modular platforms like Blackboard and Canvas are also where course content such as lectures and assignment instructions are located (Olt, 2018). The main problem with asynchronous classrooms is that students feel disconnected and have little opportunity for interaction. Just as described, students, complete their assignments and watch lectures independently whenever they have an opportunity. Even discussion board forums can be seen more of a chore than a socializing event (Acosto-Tello, 2015).

Unlike asynchronous environments, synchronous online formats have live learning sessions, lectures, and interaction. One way to do this is through video and voice conferencing over the internet during a scheduled time. Whereas synchronous is only a slightly more flexible format than traditional residential formats, it substantially increases perceived feelings of accountability, interaction, and connectedness (Acosto-Tello, 2015). Wdowik (2014) observed students and professors using Blackboard Collaborate, which is a live and interactive learning platform, noticed that there was a noticeable improvement in student engagements. Professors were also more interactive, accessible, and guided students more effectively (Wdowik, 2014).

Distance Education Persistence

Research shows that online students have significantly lower graduation rates and grades when compared to residential students (Lee & Choi, 2011). Online students are also more likely to withdraw from classes than residential students. In one study, the rate of students earning Ds,

Fs, or withdrawing from a class was 43% among online students compared to 30% for residential students and classes (Glazier, 2016, p. 438).

Online student age averages are higher than traditional college student ages, which means that online students are non-traditional students (Glazier, 2016). Because non-traditional students are older than traditional students, they are “more likely to have work and family obligations and to experience life events that can disrupt coursework, like the birth of a child or the death of a parent” (Glazier, 2016, p. 438). Glazier’s research shows that many non-traditional students attend college online because of its flexibility. These students frequently balance their career, education, and family responsibilities. Having additional responsibilities and relationships means that online students often cope with time constraints and complex personal lives (Glazier, 2016). With so many students being non-traditional students, some researchers have seen the benefits of applying adult learning approaches to students and engagement. Allen (2016), for example, found that engaging non-traditional students with interactive sessions and more experience-based assignments increased student learning and engagement.

As non-traditional students, online students choose to stop attending classes for various reasons (Sorenson & Donovan, 2017). It is interesting to note that online schools that are for profit have drastically lower retention rates than online programs housed within traditional colleges. Online programs within for-profit colleges have a retention rate of just 46%, but traditional college online programs have a retention rate of 72% (Sorenson & Donovan, 2017). One study showed that the most common reasons for online student drop-outs are “personal or family emergencies, needing a break from school, financial burdens from needing to retake course, changes in personal financial situation, and lack of internet access” (Sorenson and

Donovan, 2017, p. 207). Other common reasons contributing to student attrition are linked to a lack of support, not being prepared to start college online, and early poor performance. Online students often like the idea of attending classes on their own schedule, but they underestimate the rigor and demands of online coursework. Once they start classes, they begin to feel overwhelmed, unsupported, and embarrassed, which is when they give up. Some students call to drop out while others just cease attendance through class inactivity (Sorenson & Donavan, 2017).

There are also certain traits that students have that can increase the likelihood of either dropping out or persisting in their program. In a 10-year study, Lee and Choi (2011) found that there were over 70 factors that interrelate with one another that contributed to persistence. Factors were then broken into three primary overarching categories, which were student factors, coursework and program factors, and environment factors. Student factors included student academic background, skills, and psychological attributes. Course and program factors included course design, student support infrastructures like academic advising, and student peer interactions. Environment factors included work commitment and supportive or non-supportive environments (Lee and Choi, 2011).

Online students at the doctorate level have a special spot in research and literature because of being more independent in an already self-driven format (Grady, 2016). Doctoral students are usually older than undergraduate and graduate students. Doctorate students also have an independent journey through their dissertation process as well. It is an unfortunate reality that many doctorate students finish coursework but phase out during the dissertation process (Grady, 2016). To help online doctoral students persist to graduation, academic advisors can invite the student to an in-person meeting and to visit campus because “once students make

the first trip to campus, they are typically convinced of the value of the experience in their quest to complete a doctoral program” (Grady, 2016, p. 52). Similarly, advisors should encourage online doctoral students to continue to invest in themselves through the dissertation process so that they see the personal value of persisting to graduation (Grady, 2016). Academic advisors should also try to engage their doctorate students so that they feel connected to the university. Feeling connected to the university is especially important for doctorate students since dissertation is done on their own (Bireda, 2019).

First Year Online Students

In most school environments, the first year is the highest risk for dropping out, and online college students are particularly vulnerable to being overwhelmed in their first year working in an online environment (Folk, 2019). Adult learners with larger gaps in time between formal education experiences are at high risk for dropping out early, and the risk is compounded when the students have additional responsibilities, such as family, work, health problems, and so on (Folk, 2019). Colleges that implemented first year experience teams have seen improvements in student persistence and retention in residential settings (Glazer & Murphy, 2015). However, online students that were assigned the same first year experience interventions did not see a statistically significant improvement in grades or persistence (Folk, 2019).

Online Student Connectedness

One way to mitigate the risk of student attrition is through perceived feelings of connectedness (Bireda, 2019). Connectedness is considered the degree that students feel personally accepted by the university and generally fit in (Bireda, 2019). Scholars often interchange the connectedness with belonging because it is directly related to students being a part of their academic environment and feeling a sense of belonging. Connectedness also refers

to “students’ psychological sense of identification and affiliation with the campus community... and the creation of bonding relationships, which is characterized by feelings of safety and trust” (Bindera, 2019, p. 17).

Students that do not feel connected often experience a sense of isolation, which increases the risk of dropping out (Bindera, 2019). The primary catalyst for developing feelings of isolation is a lack of communication between student to student, faculty to student, and support staff to student (Bindera, 2019). Students that are not socially supported also experience feelings of isolation, which is particularly challenging to do from a distance. In her study on online student connectedness, Bindera (2019) found that “students’ perceptions or feelings of spirit of community, timeliness of feedback, adequacy of support, regularity of communication and encouragement to ask question were below average” (p. 23). One way to overcome the lack of social support is through interactive zones and events just for online students. Foley and Marr (2019) found that interactive zones dedicated for online students to ask questions virtually or in person, attend a virtual or in person lecture, and other interactive opportunities have increased student connectedness.

Wighting, Liu, and Rovai (2008) explain that online students are at a high risk of having low perceived feelings of connectedness to their school. Glazier (2016) explains that online education is physically isolating, so it is difficult to facilitate building rapport at a distance. Faculty and advisors can make intentional efforts to connect with distance students to increase their feelings of rapport. One study showed that increased rapport improved grades and retention (Glazier, 2016). Hoffman and Lance (2018) found that developing relationships with online students increases their perceived feelings of community as well, which is a deterrent to attrition.

Increasing student connectedness is challenging not only due to isolating nature of online learning, but also due to the inherent design and objectives of a distance learning program. Many colleges prominently advertise that classes can be done on the student's time and therefore completed at any time (Toro, Alexander, & Frutos-Perez, 2019). With so much emphasis put on online program flexibility, online students are becoming more objective driven. Students want to get in and get out of the programs as efficiently as possible, so building connections falls to the wayside in favor of assignment completion (Toro et al., 2019). Despite convenience and objective driven adult learner desires to expediently finish the coursework, online colleges can still structure courses in way that guide students into building connections with their peers, their professors, and ultimately their college (Stone & Springer, 2019). Stone & Springer (2019) found that one way to do this is to require more professor interaction with students, and that courses designed to force students to interact with each other increased student connectedness. For example, Stone and Springer (2019) found that "Through the combination of regular and prompt communication between teacher and students, along with interactive and engaging course design, online students can be more effectively engaged, supported and encouraged to persist within the online learning environment" (p. 165).

Communication Preferences

Depending on demographical information, students are likely to have certain communication preferences. Yuan, Hussain, Hales, and Cotton (2016), found that older adults prefer in-person communication above any other type of communication. Being in person ensures that their presence is acknowledged, and their concerns understood. Older adults prefer telephone communication the most, then email second, and instant messaging last (Yuan et al., 2016). On the other hand, younger to middle aged students have often embraced virtual communication (Severt, Fjelstul, & Breiter, 2013). Generation Y, also known as Millennials or the Internet Generation, are

very technologically literate (Severt et al., 2013). These students prefer to use technology to communicate instead of in-person meetings and will use chat or email if it is an effective alternative to phone calls. During group work collaboration, Generation Y students prefer to use online meeting platforms like Zoom or GoToMeeting (Severt, et al., 2013).

Colleges are now also integrating virtual communication technology, which allows them to have virtual offices for students (Lei & Pitts, 2009). Colleges use Skype instant messaging for interoffice communication, professors are creating their own Wiki knowledge bases for their class sections, and students can chat or email faculty and advisors during virtual office hours. Having virtual communication available is now expected since at least 83% of online students either work full or part-time, and coming to campus can be far away for an online learner (Lei & Pitts, 2009). In one study, for example, 66% of students said that it would be difficult to communicate with their college staff and faculty if it were not for email, chat, or virtual meetings (Lei & Pitts, 2009).

Contact Centers

Communicating with an increasing number of online students is a large part of offering online degrees. To support these students, colleges are creating contact centers for their online programs (*Successful Registrar*, 2011). The University of North Carolina (UNC), for example, has a contact center that houses staff from academic advising, the registrar's office, student accounts, and financial aid. Centralizing these offices within the contact center enables UNC to handle large volume of inbound calls, emails, and messages. In addition to inbound volume, contact centers allow colleges to execute outbound initiatives proactively and effectively, such as contacting inactive students (*Successful Registrar*, 2011). Contact centers also provide efficiency measurement for colleges. For example, the "University of North Carolina at Charlotte uses a phone system that allows offices to track the number of calls they receive each day, month and year. Every office needs to have at least a 90 percent answer rate" (*Successful Registrar*, 2011, p.6).

Contact centers have many efficiencies, but they shine brightest when used to help augment enrollment management (Kennedy & Moore, 2008). College contact centers can be used as a centralized information and resource hub, direct students to other available resources, standardize information and student experiences, handle large volumes of registrations, and field large amounts of inbound calls and emails (Kennedy & Moore, 2008). Marketing is enhanced through contact centers because of the centralization of efforts and information. For example, advisors can “quickly assess what information has been sent to students and where they are in the decision-making process as it relates to attending classes” (Kennedy & Moore, 2008, p. 64). The reason why students were contacted last, the contact methods preferred, credit hours needed, academic standing, and more are all centralized for academic advisors within the contact center, which helps advisors maintain customer relationship management with their students (Kennedy & Moore, 2008).

Despite their efficiencies, contact centers are challenging to maintain staff turnover (Childs & Donovan, 2012). Call centers have an annual attrition rate of 30%. Staff attrition leads to higher costs because of productivity losses, training needs, and lower quality. Each new call center agent costs \$4,000 to become fully productive (Childs & Donovan, 2012). Call centers are typically staffed by younger employees from Generation Y, and the call center is often their first real job. Generation Y staff are very technologically competent, have a drive to succeed and prove themselves, are fast learners, and quick to quit their job if they do not like their job (Childs & Donovan, 2012).

Distance Teaching Obstacles

Professors teaching online courses are challenged with engaging students without the benefit of being in person (Kirk, 2019). Professors upkeep the same professional standards as in-person lectures, and some are interacting with students in real-time synchronous lectures through video conferencing programs (Kirk, 2019). However, not all teachers have the option for live classroom experiences, and therefore must depend on email, phone calls, and assignment feedback, which is

referred to as Asynchronous format (Villarruel, Rivera, & Lima, 2019). In either a synchronous or asynchronous format, professors are better equipped to teach at a distance if their software and information systems are high quality and are user friendly (Villarruel, Rivera, & Lima, 2019).

Online professors sometimes struggle with accurately expressing their meaning to students (Blackmon, 2015). Text from emails or assignment can be misinterpreted negatively when the professor could be neutral. The unintended byproduct is that students often get offended thinking that their online professor emails were negative when they were simply providing guidance or feedback (Blackmon, 2015).

Online Professor Satisfaction

Online professors experience satisfaction and dissatisfaction while teaching their distance courses (Luongo, 2018). Flexibility is the largest benefit that adjunct professors appreciate. However, many feel that they do not have as much professional development opportunities as residential professors (Luongo, 2018). Adjunct professors believe that they do not get to know their students as well since they lack face-to-face encounters in their virtual classrooms (Luongo, 2018). Professors also believed that their workload for teaching online was more than on campus, and that they did not get compensated adequately for teaching online courses (Luongo, 2018).

Students as Customers

Modern students grew up in an age of convenience, technology, and fast service, so it is little wonder to see that online students are behaving more like customers than traditional college students (Propp & Rhodes, 2006). Furthermore, Meir (2018) explains that:

Students can be best seen as customers of academic advising as they pay tuition and expect certain services in return from the university. Many colleges are attempting to adjust their advising departments to meet student needs like by offering web-based advising, extended

hours, and drop-in/walk-in advising to make advising a convenient service. Students expect polite and expedient service. (p. 26).

Insomuch, students want a one stop shopping experience for academic processes, such as financial aid, student's accounts, and enrollment management. If their needs are unmet in any way, students are also willing to take their tuition money to another college that can give them what they want. This means that students are looking for more quality within their academic advising experiences (Propp & Rhodes, 2006).

Although modern online students are more customer experience oriented, researchers associated the connection over two decades ago. Spicuzza (1992), for example, found that "if you treat them right, they will come back" (p. 49). Students are paying a large sum of money for the commodity of a solid education. Insomuch, students are likely to return if their needs are met in a courteous way. Spicuzza (1992) further found that students that received outstanding customer experiences were likely to "express satisfaction with advising that emphasizes individual needs and is accessible, timely, and accurate. They are satisfied customers, and satisfied customers are the best recruiters (p. 56). Treating students as valued customers benefits both the university and its students. Students that experienced exceptional service and support are more likely to finish their program, and the students in turn give recommendations to their friends and family about their positive experience (Spicuzza, 1992).

Online Student Readiness

Attending college online is more accessible, but many students underestimate the demands of online coursework (Bailey & Brown, 2016). Some students initially do not understand how to use the programs required in online courses, such as the online library, modular classroom platforms like Blackboard or Canvas, or even Microsoft Office Suite. Lema and Agrusa (2019) explain that there are several emerging technologies that new online students may not be familiar with. In another

study, researchers found that “age of the participants correlated negatively with the comfort level they had when using technology”(Rath, Olmstead, Zhang, & Beach, 2019, para 22). Online institutions and academic advising offices are augmenting their platforms with emerging technologies, mobile technology, and cloud technology. It is thereby important for academic advisors to understand and investigate “student personal characteristics and levels of readiness to learn on a self-directed basis may help advisors determine the level of facilitation required to support advisees, understand their needs, and appreciate their needs as they apply to the advising process” (Lema & Agrusa, 2019, p. 22).

Student Support Offices

Online students often reach out to their academic advisors as the first line of support, which is why advisors should have access to other support offices (Bailey & Brown, 2016). Academic advisors should point students to valuable resources to help them adjust to online education. Available resources include the IT Helpdesk, a writing center, student services, the online library, and more (Bailey & Brown, 2016). Partnering with other support offices has helped academic advisors retain students. Pennsylvania State University’s World Campus segment explains that “there are several student-facing departments at World Campus that academic advisers will partner with to ensure students receive necessary resources and time-sensitive communication” (Coder, 2016, para 4). At PSU’s World Campus, academic advisors are trained to be the best point of contact for all concerns because they know which offices to refer students to. Many of the referrals are warm transfers wherein the advisor explains the student’s need during the handoff. When emailing faculty or other departments, advisors are often copied in on the message to help support the student with the inquiry’s outcome afterwards (Coder, 2016).

Online Academic Advising

With increasing programs being offered fully online, there are also advisors that are designated for online students (Bailey & Brown, 2016). Having support is particularly important for online students because they are more at risk to disappear silently if they feel lost, stuck, or unsupported (Bailey & Brown, 2016). Online academic advisors are expected to make frequent proactive contact attempts to students. This is important because providing the same services offered to residential students is a requirement of college accreditation. Frequent contact attempts also help students have increased sense of connectedness (Bailey & Brown, 2016). Although there are clear benefits for contacting online students, many colleges are limited by the normal operational hours. To effectively reach students, colleges need to have academic advisors working outside of traditional business hours (Bailey & Brown, 2016).

Most online schools use a centralized academic advising format, but some schools have decentralized or shared models (Stermer, 2018). Centralized formats are increasing in popularity since larger schools can have more robust online program offerings and there is a need to streamline student support. Centralized academic advising offices resemble contact centers that help students with concerns about policy, enrollment, disputes, and more (Stermer, 2018). Within these centralized offices, some schools offer an IA format for each online student from admissions to graduation (WGU, 2019). Other schools have a department advisor assisting their online students based on their major (Regent, 2019).

Online advising practice has both similarities and differences from traditional and on-campus academic advising. First, advisors generally work remotely from students. Many online academic advising offices allow students to make appointments, but most of the interactions are from phone calls (Cross, 2018). Second, online advisors strive to always be available while

within business hours (Stermer, 2018). Since students call as the primary form of interaction, advisors have their phone sit in a ready state to field inbound calls. The second most common form of communication is through email, and most online advisors answer email threads while awaiting calls (Cross, 2018). Third, advisors have several forms of social media and technology tools to interact with students (Pellegrin, 2015). Social media is becoming more and more important in academic advising. One study shows that customers using Facebook can have experience an enhanced form of value and connectedness with the brand (Marbach, Lages, & Nunan, 2016). Students that want a more personalized academic advising session and relationship can use video conferences and Skype to enhance communication. Other advisors take to Twitter and Facebook to get in touch with students, but this is usually parceled out to a specific set of advisors that are assigned social media responsibilities (Pellegrin, 2015).

It is also clear that online students have support needs both alike and different than traditional college students attending on campus. In their study of online student academic advising, Britto and Rush (2013) found that online students at community colleges or big four-year institutions prefer the same level of support as traditional students on campus. However, Bailey and Brown (2016) found that online students need more flexible hours and contact methods since many of them work, have families, or other responsibilities. Having academic advisor goals centered around student persistence and retention has shown to help motivate advisors to make frequent contact attempts. At PSU's World Campus, online academic advisors have student retention as part of their job description and is also a key performance indicator (Coder, 2016).

Student Expectations for Advisors

When interacting with academic advisors, students have expectations for how advisors should act. Meir (2018) explains that online students frequently expect their advisors to have a warm personality, have a flexible schedule, be available when they call in, act professionally, to be caring, have needed information, and be capable of solving their problems quickly. Students also expect advisors to help develop them academically. Advisors need to be well versed in their respective university's policies, class offerings, schedules, important dates and deadlines, and be able to mentor students (Meir, 2018). Having so many expectations for academic advisors can be difficult to live up to, especially if the advisor does not have frequent contact with their students (Meir, 2018).

Challenges to Online Advising

Online academic advising shares many of the challenges traditional on campus academic advisors face, but there are some new challenges that are specific to online advising offices (Miller, Greer, Cozier, Whitener, Patton, & Koffarnus, 2019). One of the main obstacles to overcome is how to deliver developmental advising from a distance. Developmental advising involves sustained and consistent contact between student and advisor, and online advisors do not have as much immediate interaction with their students (Miller et al., 2019). Another hurdle to overcome is how to effectively engage online students on probation. One study implemented an outreach program that was like the residential student outreach program, and the outcome produced statistically significant improvements, but it was challenging to get the online students engaged, especially if there was a long lapse in student enrollment (Miller et al., 2019).

Summary

This chapter first unpacked relevant theories that lay the foundation for excellent academic advising practice. Developmental advising explained that academic advisors need to take a holistic approach to mentoring students (Winston et al., 1984). Advisors should use developmental theories to help students achieve their academic, personal, and career goals. These three goals are collectively the outcome goal for developmental advising (Grites, 2013). There were also several academic advising approaches that were from developmental advising, such as advising as teaching, appreciative advising, strengths based advising, prescriptive advising, and proactive advising (Miller, 2016). Career advising theory explained that advisors should help students balance external factors of the workforce demands with the internal factors of college degree offerings (Nelson, 2015). Adult learning theory explained that adults do not learn the same as younger learners, and their motivations and preferences are different as well (Knowles et al, 2005).

In the related literature section, the researcher reviewed what was relevant to best academic advising practices in general. This section also went over topics that were relevant in online education and therefore to academic advising. Related literature included subjects such as academic advising models, student perceptions, non-traditional students, retention, online advising practices, and other similar subjects. The researcher discussed several models of academic advising, but the most prevalent form in online education was a centralized office of academic advisors. The most common setup for centralized environments were general academic advisors, department specific teams of academic advisors, and individual academic advisors (Stermer, 2018). Interactions between academic advisors and students vary based on engagement preferences. Literature indicated that student communication and perceptions were

impacted by age and demographical details (Miller, 2016). Students also preferred quick response times from their academic advisor, and some personalities of academic advisors and students impacted perceptions as well (Cross, 2018). Interactions between students and academic advisors were important because research pointed out that there is a link between academic advising interactions and student retention (Hutson, 2013). Academic advisors were also helpful when students decide to change majors (McKenzie, et al., 2017). Non-traditional students make up most of the student population attending online classes, and are at least 24 years old, have a family to support of some kinds, or work to support themselves (Hoffman & Lance, 2018). Research shows that online students had significantly lower graduation rates and grades when compared to residential students, which could be because most of them were at higher risk since they are non-traditional students (Lee & Choi, 2011). One way to mitigate the risk of online student attrition was through perceived feelings of connectedness. (Wighting et al., 2008). Most researchers considered online academic advising as simply the customer service of students (Propp & Rhodes, 2006; Kennedy & Moore, 2008). Academic advising offices were often housed in contact centers to capture efficiencies and to centralize efforts (Kennedy & Moore, 2008). Within centralized academic advising offices, there are general academic advisors, department academic advisors, and IAs (Chiteng, 2014; Lynch, 2004).

After reviewing the literature, it was clear that subject of online academic advisors was researched very little. There were a few articles that reviewed different modes of communication between advisors and students, and other literature simply designated online academic as the first point of contact for student concerns without going into more detail. There was little to no research done on the benefits of an assigned individual, department specific academic advisor, or general academic advisor for online students. Based on this, the researcher

identified the need to research online academic advising within centralized academic advising office formats.

CHAPTER THREE: METHODS

Overview

This chapter will unpack the research approach that was used to complete the study. This causal comparative study explored whether IA, department specific, or general advisor strategies differ with respect to student satisfaction. A stratified convenience sample drawn from a population of online students was analyzed using the one-way ANOVA technique. The methods section further unpacked how these procedures were executed.

Design

The researcher used a causal comparative design to examine differences between groups. Experimental designs have the researcher introduce independent variables and manipulate conditions to study different outcomes (Gall, Gall, & Borg, 2007). In causal comparative designs, the researcher observes interactions or phenomena occurring already without his or her intervention (Gall, Gall, & Borg, 2007). Gall, Gall, and Borg (2007) explain that causal-comparative designs are most appropriate when researching cause and effect relationships of the independent variables and the dependent variable. Furthermore, when the research is observational instead of experimental, then causal comparative is a good fit (Gall, Gall, and Borg, 2007). Causal-comparative observational studies have been effective in other academic advising studies that measure student engagement and satisfaction (Stermer, 2018; Cross, 2018; Gayton, 2015).

This research examined the data for a cause and effect relationships between *student satisfaction* (dependent variable) and *advising format* (independent variable). The academic advising formats in this study were from institutions with a centralized academic advising office for online students, and the three groups were general academic advisors, department academic

advisor, and individual advisor. General academic advisors work in advising centers, are available to assist with general questions and concerns of students without needing to make an appointment, and have transactional interactions with students (Propp & Rhodes, 2006). A department academic advisor serves as an “advisor only to students enrolled in their specific academic department” (Lynch, 2004, p. 64). An individual advisor is an academic advisor that is assigned to serve a student caseload from matriculation to graduation (Barker, 2014).

Research Question

RQ1: Is there a difference among student *satisfaction scores* of online college students who have a *general academic advisor*, a *department academic advisor*, or an *individual academic advisor*?

Hypothesis

H₀1: There is no significant difference in *student satisfaction scores* of online college students, as measured by the Advising Scale, between college students who have a *general academic advisor*, a *department academic advisor* or an *individual academic advisor*.

Participants and Setting

The population for this study was students attending undergraduate and graduate degrees in an online program that were based in the United States. The population was students from any college or university that served their online segment in a centralized academic advising office, and the centralized academic advising office had either a general advisor, department advisor, or individual advisor.

The sampling strategy was a stratified convenience procedure carried out after the Fall semester of the 2019-2020 academic school year. Sampling was done by the researcher through social media outlets LinkedIn and Facebook. In a Facebook and LinkedIn posting, the researcher

advertised the need for online student volunteers and clarified the necessary criteria for participation. The researcher also solicited participants in a mass Facebook and LinkedIn message communicating the specific criteria needed for the study. Students volunteered to participate by responding to the hyperlink embedded in the invitation post or mass message. In both the social media post and in the mass message, the researcher communicated that participation was optional, and that all data collected would remain both anonymous and confidential. The invitation will also prevent duplicate submissions by blocking additional submissions from the same IP address.

The sample size was 150, which exceeded the required minimum for a medium effect size. According to Gall et al. (2007), a minimum of 126 participants is needed for an ANOVA with three groups to attain a medium effect size with statistical power of 0.7 at the 0.05 alpha level. The sample came from online undergraduate and graduate students and were grouped into the three categories: The general advisor group, the department advisor group, and the individual advisor group. Since ANOVA is sensitive to uneven group sizes, the researcher placed 50 participants in each of the three groups. There was a total of 172 responses to the survey, but the researcher drew 50 responses at random within each group. In the study sample of 150 used, there were 49 males, 100 females, 1 undisclosed gender, 1 freshman, 12 sophomores, 21 juniors, 35 seniors, and 81 graduate students. The age groups counts were 5 (18-20), 12 (21-23), 33 (24-28), 34 (29-35), 39 (36-45), and 27 (46 or older).

Instrumentation

The instrument that the researcher used was the Advising Scale developed by Marilee Teasley with assistance from Erin Buchanan in 2013. The purpose of this instrument was to evaluate student satisfaction within academic advising environments. The researcher gained

permission from both Marilee Teasley and Erin Buchanan for this study and obtained permission to post the instrument in this study (Appendix A). Before Teasley's academic advising scale was developed, there were few statistically validated instruments that measured student satisfaction with their academic advising experience. Although there have been a significant amount of studies about academic advising published, the instruments used were either developed specifically for a one-time study or were developed as an internal measurement tool relative to the respective organization, but they were not statistically validated. Based on this deficit, Teasley and Buchanan developed the Advising Scale (Teasley & Buchanan, 2013a).

Teasley underwent an extensive development process for advising scale. First, she grounded the instrument in the literature of developmental advising theorists. Crookston's notion of developmental advising involved prescriptive advising and the application of developmental psychology. Teasley also drew on O'Banion's notion of academic advising structure and the five critical functions for advisors: exploration of life goals, exploration of vocational goals, program choice, course choice, and scheduling courses (Teasley & Buchanan, 2013a). Second, Teasley developed advising scale through experimentation over the course of three trials (Teasley & Buchanan, 2013a). Advising scale questions were designed to measure satisfaction with prescriptive advising areas (course selection and graduation requirements), developmental areas (career coaching and profession selection), and overall advisor traits (professionalism and personality), and these were the constructs used in the study (Teasley & Buchanan, 2013a).

Teasley and Buchanan underwent extensive construct validity tests through three testing trials with students that refined the questions and confirmed construct validity (Teasley & Buchanan, 2013a). During testing, exploratory factor analysis (EFA) was used to analyze the

underlying factor structure of the Advising Scale, which were developmental, prescriptive, and advisor traits (Teasley & Buchanan, 2013a). To select the ideal factors, Teasley & Buchanan (2013a) used both a scree plot and parallel analysis, and then used factor program that would identify the primary factors of an instrument (Teasley & Buchanan, 2013a). Using a maximum likelihood estimation, questions were considered associate to a factor, or load, if their relationship to that factor was over 0.300. Furthermore, the instrument developers ensured that questions loaded on at least one factor, and that they also did not load onto any other factors. Questions that loaded on more than one factor or questions that did not load onto any one factor were removed. The mean factor loadings for each question was about 0.700 for each of the three factors (Teasley & Buchanan, 2013a).

Teasley also used several fit indices: Root mean square error of approximation (RMSEA), standardized root mean residual (SRMR), Tucker-Lewis non-normed fit index (NNFI), and comparative fix index (CFI). Teasley scaled the RMSEA and SRMR to ensure that very low values indicated a good model fit. Similarly, Teasley scaled NNFI and CFI so that high values reflected good model fit. Through these tests, two factors emerged: advising functions and outreach functions. It was determined that most students lumped most academic advisor perceptions into these two factors (Teasley & Buchanan, 2013a).

Teasley then tested the advisor scale with confirmatory factor analysis (CFA). The CFA fit values were acceptable with scores of: RMSEA (0.09), SRMR (0.04), CFI (0.94), TLI (0.94), and χ^2/df (2.26). Furthermore, there was a high correlation between factors ($r = 0.72, p < 0.01$). The reliability of both factors has been high as well. Advising factors had a Cronbach's alpha of $\alpha = .98$ and outreach factors had a Cronbach's alpha of $\alpha = 0.88$. Warner (2013) explains that an acceptable Cronbach alpha level is 0.80, which means that both factors were reliable. This

instrument was used in several other studies to measure student satisfaction with academic advising in different settings and with different advisor types (Teasley & Buchanan, 2013b; Teasley & Buchanan, 2016).

Teasley's final version of advising scale had 24 questions centered around experiences with academic advising (see Appendix B). The advising factor had a total of 20 questions and outreach factor had 4 questions. Since this study measured student satisfaction with their online academic advisor, only the 20 questions associated with the advising factor were used. Each question asked the participant to rate on a 7-point Likert scale (1 for *strongly disagree*, 4 for *neutral*, and 7 for *strongly agree*). Since there were 20 questions within the advising factor of the instrument, the score range possibilities were from 20 to 140 for each participant submission. Higher scores indicated higher student satisfaction with academic advising while lower scores indicated lower satisfaction (Teasley & Buchanan, 2013a).

The researcher administered the survey through email, LinkedIn, and Facebook invitations. The researcher housed the instrument in Google Forms. Google Forms is cloud based survey software that creates the survey and collects response data. The consent form was embedded into the Google Form and participants chose to agree or disagree. Any responses that did not agree exited the participant from the survey using skip logic. The instructions for completing the survey was in the consent form (see Appendix C). The survey took about 5 minutes to complete and submit for each participant. Once the survey was submitted, Google Forms automatically scored each survey with an aggregate score based on response values. The researcher then loaded scores and responses into SPSS, a statistical analysis software, to analyze results.

The Advising Scale was the most appropriate instrument to use for this study since it was

grounded in developmental advising theory. Furthermore, it was the only instrument developed that was based on advising theory that has been statistically validated (Teasley & Buchanan, 2013a). The researcher has contacted Marilee Teasley and Erin Buchanan, and they have granted permission to use the instrument in this study and share the instrument (Appendix A).

Procedures

Before beginning the study, the researcher obtained permission from the Internal Review Board (IRB) within Liberty University's IRB Office. See Appendix D for IRB approval. Once IRB clearance was granted, the researcher began to send out solicitation posts via Facebook and LinkedIn with a link to the instrument. In a Facebook and LinkedIn posting, the researcher advertised the need for online student volunteers and clarified the necessary criteria for participation. The researcher also solicited participants in a mass Facebook and LinkedIn message communicating the specific criteria needed for the study. Students volunteered to participate by responding to the hyperlink embedded in the invitation post or mass message. Most of the recruited participants came from Facebook. There was only marginal recruitment success via LinkedIn attempts. In both the social media post and in the mass message, the researcher included the hyperlink to the survey form (see appendix E). The survey was loaded into Google Forms, which is an online survey tool that creates digital surveys to send participants and then collect responses. The first item on the survey was the consent form. The consent form communicated that participation was optional, and that all data collected would remain both anonymous and confidential. The directions in the consent letter explained the importance of the research to the participants. The directions further clarified that participation was completely voluntary, and that there are no repercussions for not participating. The consent form explained that they can change their mind once the survey began without penalty. Instructions also

clarified that the identities of the participants were unknown since there were no names assigned to the survey submissions. Students selected “Agree” to the consent form to unlock the rest of the survey question. Students that chose “Disagree” were exited from the survey using skip logic. Since the instrument was loaded into Google Forms, the responses automatically populated into the website for the researcher to collect. The researcher took the data collected from Google Forms and exported it to Excel for formatting and randomly selected 50 response for each advising group. Then the researcher uploaded data into SPSS for analysis (Gall et al, 2007).

Data Analysis

The researcher used a One-Way Analysis of Variance (ANOVA) to analyze the data. ANOVA was the best fit because there was one independent variable with three categorical independent groups (*advising format*) and one dependent variable (*student satisfaction*). Furthermore, the study looked for the difference in mean perception scores between these groups and the dependent variable was on a continuous scale (Warner, 2013).

Before conducting analysis, the researcher ran assumptive tests for ANOVA. The data was screened for missing data points. To avoid the negative impact of outliers, the researcher conducted Box and Whisker plots to identify extreme outliers and review them. Box and Whisker plots revealed that there were some outliers in the individual advising group, but the ANOVA is robust when dealing with outliers. Second, the dependent variable (*satisfaction score*) will need to be normally distributed. To test multivariate normality, the researcher used Kolmogorov-Smirnov since the sample is greater than 50 ($N=150$). Based on the Kolmogorov-Smirnov test, the general advising group is normally distributed, but the department and IA groups were not. However, the ANOVA is a robust test that will provide valid results even with

kurtosis or skewness (Warner et al., 2013). Third, there needs to be a homogeneity of variance.

To test variance homogeneity, the researcher conducted a Levene's test of equality of variances to ensure that p is greater than the alpha level of 0.05 (Warner et al., 2013). The researcher found that homogeneity of variance was violated. After assumptive tests, the researcher ran the One-Way ANOVA.

CHAPTER FOUR: FINDINGS

Overview

This study investigated whether different advising formats has an impact on overall student satisfaction. This section will go into more detail on the assumptive tests and statistical analysis results.

Research Question

RQ1: Is there a difference among student *satisfaction scores* of online college students who have a *general academic advisor*, a *department academic advisor*, or an *individual academic advisor*?

Null Hypothesis

H₀1: There is no significant difference in *student satisfaction scores* of online college students, as measured by the Advising Scale, between college students who have a *general academic advisor*, a *department academic advisor* or an *individual academic advisor*.

Descriptive Statistics

The final number of students that participated in the study consisted of 172 students. To ensure equal group sizes, the researcher randomly selected 50 entries for each group, so 150 student entries were used in this study. There were 24 males, 100 females, 1 undisclosed gender, 1 freshman, 12 sophomores, 21 juniors, 35 seniors, and 81 graduate students. The age groups were counts were 5 (18-20), 12 (21-23), 33 (24-28), 34 (29-35), 39 (36-45), and 27 (46 or older). Data obtained for the dependent variable *satisfaction* with independent variables *advisor format* can be found in the below Table.

Table 1

Descriptive Statistics

| Group | N | Mean | Std. Deviation |
|------------|-----|--------|----------------|
| IA | 50 | 125.48 | 23.068 |
| Department | 50 | 112.38 | 24.547 |
| General | 50 | 77.90 | 33.645 |
| Total | 150 | 105.25 | 33.924 |

The researcher also calculated the mean of for each survey question for each advisor format group. The question mean results are organized in the below table.

Table 2

Individual Question Scores

| Question | IA Mean | Department Mean | General Mean |
|---|---------|-----------------|--------------|
| Advising appointments are worth my time | 5.84 | 5.12 | 3.70 |
| My advisor listens to what I have to say. | 6.62 | 5.86 | 4.32 |
| My advisor is knowledgeable about course offerings. | 6.34 | 5.84 | 3.9 |
| My advisor has helped me develop a long-term education plan. | 6.06 | 4.98 | 2.82 |
| My advisor is prepared for my advising appointments. | 6.28 | 5.14 | 3.12 |
| My advisor is concerned about my overall development as a student. | 6.2 | 5.32 | 3.34 |
| My advisor considers my interests and talents when helping me choose courses to take. | 5.61 | 4.94 | 3.48 |
| After my advising | 5.92 | 5.20 | 3.86 |

| | | | |
|---|------|------|------|
| appointments, I feel that every course in my new schedule has a purpose. | | | |
| My advisor makes sure that I get the best possible educational experience. | 6.04 | 5.42 | 3.4 |
| My advisor is knowledgeable about graduation requirements. | 6.72 | 6.2 | 4.22 |
| If my advisor does not know the answer to one of my questions, he/she makes the effort to connect me to someone who does. | 6.46 | 5.9 | 4.34 |
| My advisor encourages me to speak freely in our appointments. | 6.38 | 5.9 | 4.34 |
| I am given the time I need during my academic advising appointments. | 6.48 | 5.88 | 4.46 |
| My advisor and I work together as a team. | 6.18 | 5.38 | 3.54 |
| My advisor acts in a | 6.78 | 6.34 | 5.18 |

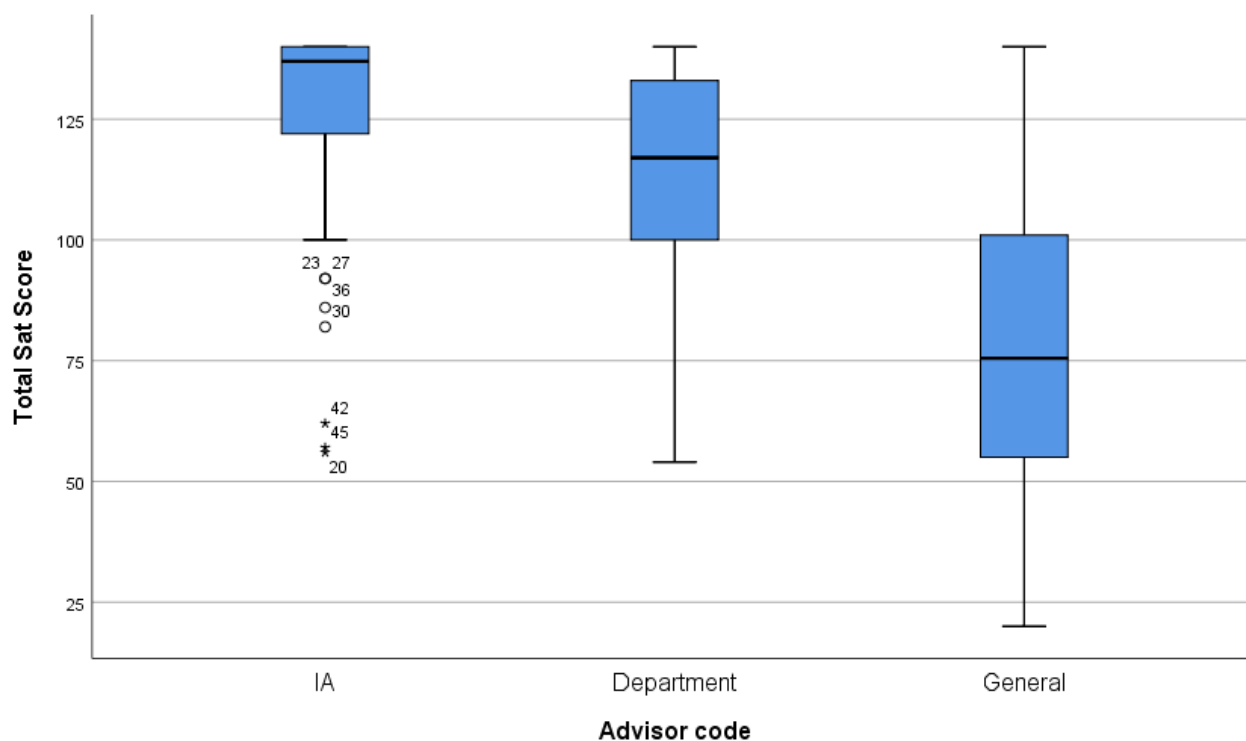
| | | | |
|--|--------|--------|------|
| professional manner. | | | |
| I can trust my advisor. | 6.50 | 5.84 | 4.0 |
| I feel like I will graduate in a reasonable amount of time thanks to my advisor's planning. | 6.06 | 5.64 | 3.28 |
| I would recommend my advisor to a friend. | 6.28 | 5.52 | 3.42 |
| My advisor is ethical. | 6.72 | 6.4 | 5.04 |
| I find academic advising appointments to be a positive experience. | 6.22 | 5.74 | 3.94 |
| Total Score Mean | 125.48 | 112.38 | 77.9 |

Results

Assumptive Tests and Data Screening

The null hypothesis was that there was no significant difference in *student satisfaction* scores of online college students, as measured by the Advising Scale, between college students who have a general *academic advisor*, a *department academic advisor* or an *individual academic advisor*. Participant responses were screened for validity and eligibility. Only students that agreed to consent form, were over the age of 18, were an online student living within the US, and had one of the three advisor formats were able to complete the study. If any of these criteria were not met, Google Forms used skip logic to take the participant to the end of the survey without the opportunity to fill out the questionnaire. The researcher then conducted a Box and Whisker to check for extreme outliers (see Figure 1). There were some outliers in the IA group of students, but the researcher left the outliers in the data sample because it did not impact the mean scores of the IA group too much (Warner, 2013).

Figure 1

Box and Whisker Plot

Assumptive tests were conducted for missing data, data inconsistencies, abnormalities, and outliers. To test multivariate normality, the researcher used Kolmogorov-Smirnov since the sample was greater than 50 ($N=150$).

Table 3

Tests of Normality

| Group | Kolmogorov-Smirnov | | |
|------------|--------------------|----|-------|
| | Statistic | df | Sig. |
| IA | .296 | 50 | .000 |
| Department | .171 | 50 | .001 |
| General | .073 | 50 | .200* |

Based on the Kolmogorov-Smirnov test, the general advising group was normally distributed, but the department and IA groups were not. However, the ANOVA is a robust test that will provide valid results even with kurtosis or skewness (Warner et al., 2013). Third, the researcher used Levene's test of homogeneity of variance to ensure that p is greater than the alpha level of 0.05 (Warner et al., 2013). Homogeneity of variances was violated, as assessed by Levene's Test of Homogeneity of Variance ($p = 0.07$), but this can be mitigated through a Welch's ANOVA.

Table 4

Levene's Test of Homogeneity of Variances

| | Statistic | df1 | df2 | Sig. |
|--------------------------------------|-----------|-----|---------|------|
| Based on Mean | 5.156 | 2 | 147 | .07 |
| Based on Median | 6.184 | 2 | 147 | .003 |
| Based on Median and with adjusted df | 6.184 | 2 | 136.398 | .003 |
| Based on trimmed mean | 5.733 | 2 | 147 | .004 |

ANOVA Results

After assumptive tests, the researcher ran the One-Way ANOVA. The researcher found that there was statistically significant p value between independent groups (advising format) and dependent variable (*perception score*) at the $p < 0.05$ alpha level. Using eta squared to determine effect size, a minimum of 126 participants is needed for an ANOVA with 3 groups to attain a medium effect size with statistical power of 0.7 at the 0.05 alpha level (Gall et al., 2007, p. 145).

The null hypothesis was rejected at a 95% confidence level where $F(2) = 39.974$, $\eta^2 = 0.34$, $p < 0.001$.

Table 5

One-Way ANOVA

| | Sum of Squares | df | Mean Square | F | Sig. |
|----------------|----------------|-----|-------------|--------|------|
| Between Groups | 60405.613 | 2 | 30202.807 | 39.974 | .000 |
| Within Groups | 111068.760 | 147 | 755.570 | | |
| Total | 171474.373 | 149 | | | |

However, since the homogeneity of variance was violated, the researcher also ran a Welch ANOVA. The student satisfaction score was statistically different for different academic advising groups, Welch's $F(2, 95.985) = 33.89$, $p < 0.01$, which meant that the difference between academic advisor groups was statistically significant, and the researcher rejected the null hypothesis that there is no difference in student satisfaction between different academic advising formats.

Table 6

Welch's ANOVA

| | Statistic ^a | df1 | df2 | Sig. |
|-------|------------------------|-----|--------|------|
| Welch | 33.890 | 2 | 95.985 | .000 |

a. Asymptotically F distributed.

ANOVA is an Omnibus test, so it only determined that there was a statistical difference between one set of groups. Since the p value was statistically significant and homogeneity of variance was violated, the researcher then ran a post-hoc Games-Howell test to identify the statistical significance between each group with an alpha of $p < 0.05$ (Warner et al, 2013). There was a difference in student satisfaction scores between the IA group ($M = 125.48$, $SD = 23.068$) and the Department group ($M = 112.38$, $SD = 24.547$), and General ($M = 77.90$, $SD = 33.645$) academic advising groups. Games-Howell post hoc analysis revealed that the mean decrease from IA to department advisor (13.1, 95% CI [1.76, 24.44]) was statistically significant ($p = 0.019$), as well as the decrease from IA to general (47.58, 95% CI [33.82, 61.34], $p < 0.001$). Department group had a mean decrease to general that was also statistically significant (34.480, 95% CI [20.44, 48.52], $p < 0.001$).

Table 7

Games-Howell Post-Hoc Test

| (I) Advisor | | Mean | 95% Confidence Interval | | | |
|-------------|------------------|-----------------|-------------------------|------|-------------|-------------|
| code | (J) Advisor code | Difference (I-) | Std. Error | Sig. | Lower Bound | Upper Bound |
| IA | Department | 13.100* | 4.764 | .019 | 1.76 | 24.44 |
| | General | 47.580* | 5.769 | .000 | 33.82 | 61.34 |
| Department | IA | -13.100* | 4.764 | .019 | -24.44 | -1.76 |
| | General | 34.480* | 5.890 | .000 | 20.44 | 48.52 |
| General | IA | -47.580* | 5.769 | .000 | -61.34 | -33.82 |
| | Department | -34.480* | 5.890 | .000 | -48.52 | -20.44 |

Based on Welch's ANOVA and Games-Howell post-hoc analysis, the null hypothesis was rejected since there is a significant difference in *student satisfaction* scores of online college students, as measured by the Advising Scale, between college students who have a *general academic advisor*, a *department academic advisor* or an *individual academic advisor*.

CHAPTER FIVE: CONCLUSIONS

Overview

In the conclusions section, the researcher discussed the purpose, foundations, and outcomes of this dissertation. The researcher explained how the results were supported by the selected literature of this study. Implications of the results were explained along with the limitations of the research. Lastly, the researcher made recommendations for future studies based on these results and limitations.

Discussion

The purpose of this quantitative, causal comparative study was to investigate *student satisfaction* for online college students among different *advisor formats*. Academic advising offices studied were all centralized for online colleges, and they included *individual advisors*, *department advisors*, and *general advisors*. Understanding academic advising best practices for online students is more important than ever given the established prominence of online education. Online education has seen explosive growth between 2004—2014, and then extreme competition for student enrollment between 2014—2016 (Allen & Seaman, 2017). The migration of colleges to distance learning took place between 2002 and 2010 where there was a 20% online enrollment growth each year (Allen & Seamen, 2017). The National Center for Education Statistics (NCES) reported that there were 6.3 million students enrolled in online courses in 2016, which is a 5.5% growth from the previous year. Hoffman and Lance (2018) explain that vast majority of universities moved to offering online programs. Even with this tremendous growth of online education, there was little research done on the effective academic advising formats that support the millions of online students today (Cross, 2017). There have been studies done on several traditional advising programs, but there is a gap in research in what

the best practices are for online students (Cross, 2017). There is also a more acute gap in research about which centralized academic advising format leads to higher student satisfaction (Stermer, 2018). What research there is available usually used their institutional instruments, which were not statistically validated (Teasley, 2013a).

To study effective academic advising formats, the researcher gleaned from developmental advising theory, adult learning theory, and career advising theory. Developmental advising explains that advisors should incorporate lifespan developmental psychology theory principles within student interactions to help them achieve their personal, career, and academic goals (Grites, 2013). Developmental academic advising is defined as a systematic process based on a close student-advisor relationship intended to aid students in achieving educational, career, and personal goals through the utilization of the full range of institutional and community resources (Crookston, 2009). Developmental advising relationships focus on identifying and accomplishing life goals and acquiring skills and attitudes that promote personal growth (Crookston, 2009). Adult learning theory was relevant because most online students are non-traditional students. In this study there about 89% of the online students sampled were over the age of 24. Adult learning theory explains that adults learn differently than adolescents (Schroeder & Terras, 2015). Adults use their experience to help them learn and are more objective oriented with education (Schroeder & Terras, 2015). Life-career theory explains that students assume different roles and identities during different times in their lives (Habley, 1994).

Effective advisors incorporate values found in developmental advising. That is why Teasley and Buchanan's Advising Scale was an ideal instrument to use in the study since it was developed using developmental advising theory (Teasley & Buchanan, 2013a). Teasley used

O'Banion's model of academic advising structure and the five critical functions for advisors: exploration of life goals, exploration of vocational goals, program choice, course choice, and scheduling courses (Teasley & Buchanan, 2013a).

Students that attend online are often supported within a centralized academic advising office with three different formats, which are general, department, and individual advisor (Lynch, 2004). A general advisor format is any available advisor available first when they call in, email, or visit. Department advisors consist of a specialized team of advisors that serve students within a specific academic department. Department advisors would exclusively work with their academic department's students, such as the school of business students. An assigned individual advisor personally has oversight over the student's entire academic experience (Cross, 2018). Individually assigned advisors stay with students from matriculation through graduation (Cross, 2018).

The central research question of this study was to investigate if there was a difference among student *satisfaction scores* of online college students who have a *general academic advisor*, a *department academic advisor*, or an *individual academic advisor*? To investigate this, the researcher sampled students that were 18 years or older, attended college online within the US, and had either an individual, department, or general academic advisor. Participants were recruited using LinkedIn and Facebook mass messages and direct messages. Messages invited participants to complete the Advising Scale. Survey scores included 24 questions, but only 20 of the questions were relevant to the study. Advising Scale scores could range from 20 to 140. The researcher retrieved 172 survey responses and then randomly selected 50 participants for each group.

Results from statistical analysis included descriptive statistics, assumption tests, and ANOVA test results. Since the homogeneity of variance was violated, the researcher used a Welch's ANOVA in addition to a standard ANOVA statistical test. Both the standard and Welch's ANOVA indicated a statistically significant F statistic with $p < 0.01$. Since ANOVA is an omnibus test and since homogeneity of variance was violated, the researcher used Games-Howell post-hoc test to determine statistical significance between each group type.

The mean student satisfaction score for individual advisors was highest at 125.48. Using Games-Howell post hoc test, it was clear that there was a statistically significant difference in student satisfaction between individual advisors and department advisors ($p = 0.019$), and between individual advisor and general advisor ($p < 0.01$). The individual advisor group student satisfaction mean was 13.1 higher than the department advisor group, and 45.58 higher than the general advisor group. This means that students being in the *individual advisor* group had a statistically significant impact on *student satisfaction* and is the most preferred advisor format when compared to *department advisor* and *general advisor* formats.

Department advisors had the second highest student satisfaction mean at 112.38. A Games-Howell post hoc test revealed that there was a statistically significant difference in perceived *student satisfaction* between *department advisor* and *individual advisor* ($p = 0.019$), and between *department advisor* and *general advisor* ($p < 0.01$). The department advisor group had a *student satisfaction* mean that was 13.1 lower than the individual advisor group, and 34.48 higher than the *general advisor* group. This means that having a *department advisor* has a statistically significant impact on student satisfaction when compared to *individual advisor* and *general advisor* formats. *Department advisor* was the second preferred advising format, but the department advisor group shows similar satisfaction scores as *individual advisor* formats.

Students in the *general advisor* group had the lowest *student satisfaction* mean score of 77.9. Games-Howell post hoc results showed that there was a statistically significant impact on student satisfaction between *general advisor* and *department advisor* ($p < 0.01$), and *general advisor* and *individual advisor* ($p < 0.01$). Students in the general advisor group had a mean 34.48 points lower than the *department advisor* group, and 45.58 lower than the *individual advisor* group. This means that having a general advisor does have a statistically significant impact on student satisfaction, and that *general advisor* formats are the lowest scoring type when compared to an individual advisor and *department advisor* formats.

This study's statistical analysis shows that an *individual advisor* produces the highest student satisfaction among online students within United States. Individual advisors having the highest scoring student satisfaction is congruent with developmental advising theory, adult learning theory, and career-life theory. Developmental advising theory explains that advisors should use developmental psychology theories during their advising sessions with students. Teaching students is also central to developmental advising (Crookston, 2009). Academic advisors best utilize developmental theories if they get a chance to know their students better. Students within the *individual advisor* group strongly believed that their advisor cared very much about their development as a student with a mean score of 6.2 out of 7 (Chart 1). This is remarkable when considering that *department advisor* students had a mean of 5.3 for the same question (Chart 2), and *general advisor* had an even lower question mean of 3.3 (Chart 3). This is not a surprise since developmental academic advising theory explains that advisors help students achieve their personal, career, and academic goals (Grites, 2013). Furthermore, "advising relies on student-advisor cocreated student development path designed according to the student's strengths and is fostered through regular advisor and student contact" (Miller, et al.,

2019, p.6). Results like this coupled with the highest mean *satisfaction score* of 125.48 support that developmental advising practices are most effective when delivered in an individual advisor format.

Department advisor scoring the second highest student satisfaction is supported by the literature. Whereas students do not have as much relationship building opportunities as *individual advisor* formats, *department advisor* format students still interact with the same few advisors frequently. Furthermore, students that work with the same team of academic advisors within the same academic school have a commonality of their discipline, which helps students experience feelings of connectedness. Rovai (2013) found that online students with higher levels of connectedness experienced higher levels of satisfaction with their college and were likely to persist. In this way, it is clear that department advisors may not connect quite as effectively as individual advisors but are close in *student satisfaction* scores.

General advisor formats scored the lowest in *student satisfaction*, and this is to be expected based on developmental advising theory. Online students that call their advising office and get a new agent tend to have transactional interactions like registration, information, or some general purpose (Bailey & Brown, 2016). There is little opportunity for advisors and students to get to know each other with these types of interactions (Bailey & Brown, 2016). Teasley and Buchanan (2013a) created an instrument that measured student satisfaction that was based on developmental advising practices. It is difficult for general academic advising offices to develop mentoring relationships, engage in teaching exercises with students, and understand student career goals at a deeper level (Bailey & Brown, 2016). General advisors often work with new a set of students each day and it is common to not work with that same student again. Such

inconsistent contact makes it difficult to build relationships or engage in developmental advising, which had a clear impact on *student satisfaction* scores.

Implications

This study added literature to the existing body of knowledge for academic advising, online student academic advising, online education, and student satisfaction. There already existed much literature revolving around academic advising, but there was scarce research done on academic advising formats for online students. Online education is displacing traditional college attendance with its rapid growth and current prominence, but there was little research done on how to support advising needs for the millions of students now attending college online within the US alone. There is also little to no research done on online academic advising effectiveness using a statistically validated instrument. This study is one of the only ones that uses a statistically validated instrument to measure online academic advising effectiveness. Distance education inherently leaves the student less connected than in-person traditional formats, but this research showed that having an individual advisor assigned to each student helped students perceive higher levels of satisfaction. It was also useful to know that teams of department specific academic advisors have many of the same benefits as individually assigned academic advisors. Although *department advisor* formats did not score quite as high in *student satisfaction*, the mean differences were only 13.1 less than the *individual advisor* format. Having a department specific advisor is also less expensive than having an individual advisor for each student, so department advisors could be a better solution for newer online colleges that want to offer quality academic advising without spending as much money on hiring more advisors to sustain an individual advisor model. This study also empirically showed sharp declines in student satisfaction in the *general advisor* formats. General academic advising

models gravitate towards transactional and impersonal interactions, which leaves students feeling less important to the university and thereby experience less satisfaction with their advising services. At a foundational level, this study will help academic advising offices to better understand which models are preferred by students. In an age where online education is quickly becoming the primary vehicle for higher education delivery, understanding how to best support their online student populations will be useful to colleges and universities everywhere.

Limitations

There were some limitations for this study. First, the study was completed with a causal comparative design. Causal comparative designs do not allow the researcher to manipulate the independent variables. Researchers also cannot establish a control group.

There were also limitations based on population sample. The researcher did not gather student ethnicity information. Ethnicity could have had an impact on student *satisfaction scores* within different academic advising formats. The sampling strategy was also through the researcher's LinkedIn and Facebook accounts. Although the researcher had thousands of students in his network and the invitation survey link was shared by others outside of the researcher's network, it still limited the study's general application. Participants were also limited to students within the US, so that limits the study's generalization for students outside the US. It is important to note that the researcher solicited students in a convenience sample format since he did not have access to college information systems to randomly send solicitation to the entire student body at each college, so there could be a sampling bias. Based on these sampling limitations, findings cannot be generalized beyond this study's population sample.

Recommendations for Future Research

This dissertation provided a useful first step into researching the best practices academic advising for online college students. However, there are still many opportunities for future research that can build from this:

1. ***Colleges send the survey directly to all their students.*** If colleges sent the survey directly to their own students, it would allow for a more statistically valid sample because it would mitigate sample bias and would allow for a larger randomized sample.
2. ***Use a qualitative approach.*** Future researchers could apply a qualitative approach to interview online students and get additional perspectives.
3. ***Sample different types of online colleges.*** The sample in this dissertation was open to all online college students if their advising format met the criteria of the study. It would be useful to see if different college types (religious, competency based, for profit, non-profit, etc.) impact academic advisor preference. It would also be useful to sample the same student types at different colleges to see if the overall image of the college impacts student satisfaction score. The college's name would be an additional independent variable in addition to advisor format.
4. ***Investigate ethnicity preferences.*** This study researched general student preferences for academic advising formats in online centralized environments. However, the impact ethnicity has on academic advising experiences and preferences was not researched.
5. ***Research different academic advising office structures.*** This study sampled students that were enrolled in an online program and had an academic advisor from a centralized academic advising office. Other formats include a decentralized approach wherein professors serve as academic advisors, and blended structure wherein both faculty and

academic advisors jointly assist their online students. Studying different formats within varying academic advising structures has not been researched yet.

6. ***Geographical region.*** This study allowed any online student within the United States to participate in the study. Whether or not geographical region or state has a bearing on academic advising experiences has not been studied yet.

REFERENCES

- Acosto-Tello, E. (2015). Enhancing the online class: Effective use of synchronous interactive online instruction. *Journal of Instructional Pedagogies*, *17*, 1–6. Retrieved from
- Allen, E., & Seaman, J. (2016). Grade level: Tracking online education in the United States. Babson Survey Research Group Report. Retrieved from <http://www.onlinelearningsurvey.com/reports/gradelevel.pdf>
- Allen, P., Withey, P., Lawton, D., & Aquino, C. T. (2016). Andragogical teaching methods to enhance non-traditional student classroom engagement. *Journal of Educational Technology*, *13*(2), 47–59. Retrieved from <http://ezproxy.liberty.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1131815&site=ehost-live&scope=site>
- Ames, C., Berman, R., & Casteel, A. (2018). A Preliminary Examination of Doctoral Student Retention Factors in Private Online Workspaces. *International Journal of Doctoral Studies*, *13*, 79–107. <https://doi-org.ezproxy.liberty.edu/10.28945/3958>
- Bailey, T. L., & Brown, A. (2016). Online student services: Current practices and recommendations for implementation. *Journal of Educational Technology Systems*, *44*(4), 450-462. doi:10.1177/0047239515616956
- Barbuto J. E., Jr., Story, J. S., Fritz, S. M., & Schinstock, J. L. (2011). Full range advising: Transforming the advisor-advisee experience. *Journal of College Student Development*, *52*(6), 656–670.
- Barker, S., & Mamiseishvili, K. (2014). Reconnecting: A Phenomenological Study of Transition within a Shared Model of Academic Advising. *Journal of Student Affairs Research and Practice*, *51*(4), 433–445. Retrieved from

<http://search.ebscohost.com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1045904&site=ehost-live&scope=site>

- Bireda, A. D. (2019). Doctoral student connectedness in open distance learning: A Case of Students and Supervisors. *Africa Education Review*, 16(5), 16–28. <https://doi-org.ezproxy.liberty.edu/10.1080/18146627.2016.1229576>
- Bloom, J. L., & Martin, N. A. (2002, August 29). Incorporating appreciative inquiry into
- Britto, M., & Rush, S. (2013). Developing and implementing comprehensive student support services for online students. *Journal of Asynchronous Learning Networks*, 17(1), 29-42. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1011371.pdf>
- Cate, P., & Miller, M. (2015). Academic advising within the academy. *The New Advisor Guidebook*. San Francisco, CA: Jossey-Bass.
- Chiteng Kot, F. (2014). The impact of centralized advising on first-year academic performance and second-year enrollment behavior. *Research in Higher Education*, 55(6), 527–563. <https://doi-org.ezproxy.liberty.edu/10.1007/s11162-013-9325-4>
- Creamer, D. G. (2000) Use of theory in academic advising. *Academic Advising: A Comprehensive Handbook*. San Francisco, CA: Jossey-Bass.
- Crookston, B. B. (2009). A developmental view of academic advising as teaching. *NACADA Journal*, 29(1), 78–82. <https://doi-org.ezproxy.liberty.edu/10.12930/0271-9517-29.1.78>
- Christensen, C. M., & Horn, M. B. (2008). How Do We Transform Our Schools? *Education Next*, 8(3), 12–19. Retrieved from <http://search.ebscohost.com.ezproxy.liberty.edu/login.aspx?direct=true&db=ofm&AN=508080635&site=ehost-live&scope=site>
- Christensen, C. M., Horn, M. B., & Johnson, C. W. (2017). *Disrupting class: How disruptive*

- innovation will change the way the world learns*. New York: McGraw-Hill Education.
- Coder, D. (2016, September). Retention efforts from an academic advising department. *Academic Advising Today*, 39(3). Retrieved from <https://www.nacada.ksu.edu/Resources/Academic-Advising-Today/View-Articles/Retention-Efforts-from-an-Academic-Advising-Department.aspx>
- Cross, L. K. (2018). Graduate student perceptions of online advising. *NACADA Journal*, 38(2), 72–80. <https://doi-org.ezproxy.liberty.edu/10.12930/NACADA-17-015>
- Drake, J. K. (2015). Academic advising approaches from theory to practice. *The New Advisor Guidebook*. San Francisco, CA: Josey-Bass.
- Filson, C. M. (2012). Describing undergraduate students' perceptions of academic advising practices in a college of food, agriculture, and environmental sciences. *ProQuest LLC*. ProQuest Retrieved from <http://ezproxy.liberty.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED550555&site=ehost-live&scope=site>
- Eide, S. (2018). Private colleges in peril: Financial pressures and declining enrollment may lead to more closures. *Education Next*, 18(4), 34–41. Retrieved from <http://search.ebscohost.com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1191235&site=ehost-live&scope=site>
- Foley, K., & Marr, L. (2019). Scaffolding extracurricular online events to support distance learning university students. *Journal of Interactive Media in Education*, 2019(1).
- Folk, Kevin (2019). Evaluating the impact of a first-year experience on student success at a distance learning university. *Online Journal of Distance Learning and Administration*, 9(2). Retrieved from <https://www.westga.edu/~distance/ojdla/winter224/folk224.html>

- Fosnacht, K., McCormick, A., Nailos, J., & Ribera, A. (2017). Frequency of first-year student interactions with advisors. *NACADA Journal*, 37, (1), pp. 74-86.
- Frost, S. H., (2000) Chapter one: A historical and philosophical foundations for academic advising. *Academic Advising: A Comprehensive Handbook*. Jossey-Bass: San Francisco, CA.
- Gall, J. P., Gall, M. D., & Borg, W. R. (2007). *Educational research: An introduction* (8th ed.). New York: Longman.
- Gaytan, J. (2015). Comparing faculty and student perceptions regarding factors that affect student retention in online education. *American Journal of Distance Education*, 29(1), 56–66. Retrieved from <http://ezproxy.liberty.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1054618&site=ehost-live&scope=site>
- Gill, P. M. (2017) The power of perseverance: A qualitative study of factors that impact adult student persistence to graduation. Indiana University of Pennsylvania: Theses and Dissertations. Retrieved from <https://knowledge.library.iup.edu/etd/1512>
- Glazier, R. A. (2016). Building rapport to improve retention and success in online classes. *Journal of Political Science Education*, 12(4), 437–456. <https://doi-org.ezproxy.liberty.edu/10.1080/15512169.2016.1155994>
- Glazer, H. R., & Murphy, J. A. (2015). Optimizing success: A model for persistence in online education. *American Journal of Distance Education*, 29(2), 135–144.
- Gordon, V. N. (2006). *Career advising: An academic advisor's guide*. San Francisco, CA: Jossey Bass.
- Gordon, V. N & Habley, W. R. (2000). *Academic Advising: A Comprehensive Handbook*.

- Jossey-Bass: San Francisco, CA.
- Gravel, C. (2012). Student-advisor interaction in undergraduate online degree programs: A factor in student retention. *NACADA Journal*, 32(2). Retrieved from <https://www.nacadajournal.org/action/doSearch?AllField=%22student+retention>.
- Habley, W. R. (1994) *Integrating Academic Advising and Career Planning*. Jossey-Bass: San Francisco, CA.
- Halupa, C. M. (2016). The Changing Roles of Online Deans and Department Heads in Small Private Universities. *Journal of Open, Flexible & Distance Learning*, 20(2), 32–44. Retrieved from <https://search-ebSCOhost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=asn&AN=119814271&site=ehost-live&scope=site>
- Hines, H., & Schulenerg, J. (2016). *The Evolution of Academic Advising as a Practice and as a Profession*. Jossey-Bass: San Francisco, CA.
- Hoffman, T. K., & Lance, J. (2018). Developing and implementing a prekindergarten associate degree program online to meet the needs of non-traditional students. *AURCO Journal*, 24, 129–143. Retrieved from <http://ezproxy.liberty.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=134257653&site=ehost-live&scope=site>
- Hutson, B. (2013). Faculty development to support academic advising: Rationale, components and strategies of support. *The Journal of Faculty Development*, 27(3), 5-11. Retrieved from <http://ezproxy.liberty.edu/login?url=https://search-proquest-com.ezproxy.liberty.edu/docview/1553179248?accountid=12085>
- Kennedy, K., & Moore, M.-R. (2008). The Community college and customer relationship

- management. *College & University*, 84(1), 63–65. Retrieved from
<http://search.ebscohost.com.ezproxy.liberty.edu/login.aspx?direct=true&db=ehh&AN=36312242&site=ehost-live&scope=site>
- Kirk, S. (2019). Excellence online: Professional teaching standards for distance Learning. *American Music Teacher*, 68(5), 14–17.
- Knowles, M. (1973). The adult learner: A neglected species. Retrieved from ERIC database. (ED084368)
- Knowles, M., Holton, E., Swanson, R. (2005). *The Adult Learner*. London: Routledge,
<https://doi-org.ezproxy.liberty.edu/10.4324/9780080481913>
- Lee, Y. & Choi, J. (2011). A review of online course dropout research: Implications for practice and future research. *Education Tech Research Dev.* 59. 593–618. doi: 10.1007/s11423-010-9177-y
- Li Lei, & Pitts, J. P. (2009). Does it really matter? Using virtual office hours to enhance student-faculty interaction. *Journal of Information Systems Education*, 20(2), 175–185.
 Retrieved from
<http://search.ebscohost.com.ezproxy.liberty.edu/login.aspx?direct=true&db=ofm&AN=508077756&site=ehost-live&scope=site>
- Luongo, N. (2018). An Examination of Distance Learning Faculty Satisfaction Levels and Self-Perceived Barriers. *Journal of Educators Online*, 15(2).
- Lynch, M. L. (2004). A survey of undergraduate student reactions to academic advising. *NACADA Journal*, 24(1), 62–74. Retrieved from
<http://search.ebscohost.com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ808090&site=ehost-live&scope=site>

- Marbach, J., Lages, C. R., & Nunan, D. (2016). Who are you and what do you value? Investigating the role of personality traits and customer-perceived value in online customer engagement. *Journal of Marketing Management*, 32(5–6), 502–525. <https://doi-org.ezproxy.liberty.edu/10.1080/0267257X.2015.1128472>
- McKenzie D., Tan, T., Fletcher, E., Jackson-Williams A. (2017). Major reselection advising and academic performance. *NACADA Journal* 1(37). Retrieved from <https://www.nacadajournal.org/doi/pdf/10.12930/NACADA-15-029>
- Mier, C. (2018). Adventures in Advising: Strategies, Solutions, and Situations to Student Problems in the Criminology and Criminal Justice Field. *International Journal of Progressive Education*, 14(1), 21–31.
- Miller, M. (2016). Building upon the components of academic advising to facilitate change. *Beyond Foundations: Developing as a Master Academic Advisor*. San Francisco, CA: Jossey-Bass.
- Miller, N., Greer, K., Cozier, L., Whitener, S., Patton, J., & Koffarnus, J. (2019). An advising initiative for online Students on academic probation. *NACADA Journal*, 39(1), 5–21.
- O'Banion, T. (2009). An Academic Advising Model. *NACADA Journal*, 29(1), 83–89. Retrieved from <https://doi-org.ezproxy.liberty.edu/10.12930/0271-9517-29.1.83>
- Page, E., & Kulick, M. (2016). Student satisfaction as a predictor of retention in a professional online for-profit higher education institution. *Online Journal of Distance Learning Administration*, 19(4), 1–12.
- Park, J., & Choi, H. J. (2009). Factors influencing adult learners' decision to drop out or persist in online learning. *Educational Technology & Society*, 12(4), 207–217
- Propp, K. M., & Rhodes, S. C. (2006). Informing, apprising, guiding, and mentoring:

- Constructs underlying upperclassmen expectations for advising. *NACADA Journal*, 26(1), 46–55. <https://doi-org.ezproxy.liberty.edu/10.12930/0271-9517-26.1.46>
- Olt, P. A. (2018). Virtually there: Distant freshmen blended in classes through synchronous online education. *Innovative Higher Education*, 43(5), 381–395. Retrieved from <http://ezproxy.liberty.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1189117&site=ehost-live&scope=site>
- Rennar-Potacco, D., Orellana, A., Chen, P., & Salazar, A. (2019). Rethinking Academic Support: Improving the Academic Outcomes of Students in High-Risk STEM Courses with Synchronous Videoconferencing. *Journal of College Student Retention: Research, Theory & Practice*, 20(4), 455–474. Retrieved from <http://search.ebscohost.com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1201691&site=ehost-live&scope=site>
- Renzulli, S. (2015). Using learning strategies to improve the academic performance of university students on academic probation. *NACADA Journal* 35(1). Retrieved from <https://doi.org/10.12930/NACADA-13-043>
- Roufs, K. (2015). Theory matters. *The New Advisor Guidebook*. San Francisco, CA: Josey-Bass.
- Schroeder, S., & Terras, K. (2015). Advising experiences and needs of online, cohort, and classroom adult graduate learners. *NACADA Journal* 35(1). Retrieved from <https://www.nacadajournal.org/doi/pdf/10.12930/NACADA-13-044>
- Seaman, J. E., Allen, I. E., Seaman, J., & Babson Survey Research Group. (2018). Grade increase: Tracking distance education in the United States. *Babson Survey Research Group*. Retrieved from
- Sorensen, C., & Donovan, J. (2017). An examination of factors that impact the retention of

- online students at a for-profit university. *Online Learning*, 21(3), 206–221. <https://doi-org.ezproxy.liberty.edu/10.24059/olj.v21i3.935>
- Soria K. & Stebleton M. (2013). Major decisions: *Motivations for selecting a major, satisfaction, and belonging*. *NACADA Journal* 2(33). Retrieved from <https://www.nacadajournal.org/doi/pdf/10.12930/NACADA-13-018>
- Stermer, L. L. D. (2018). *The Community of Inquiry Framework and Academic Advising: Online Student Perceptions*. ProQuest LLC. ProQuest LLC. Retrieved from <http://krex.k-state.edu/dspace/bitstream/handle/2097/38804/LauraStermer2018.pdf?sequence=3&isAllowed=y>
- Stone, C., & Springer, M. (2019). Interactivity, connectedness and “teacher-presence”: Engaging and retaining students online. *Australian Journal of Adult Learning*, 59(2), 146–169.
- Teasley, M. L. & Buchanan, E. M. (2013a). Capturing the student perspective: A new instrument for measuring advising satisfaction. *NACADA Journal*, 33(2), pp. 4-15. Retrieved from <http://nacadajournal.org/doi/pdf/10.12930/NACADA-12-132>
- Teasley, M., & Buchanan, E. (2013b). Are Missouri state students satisfied with academic advising? *LOGOS: A Journal of Undergraduate Research*, 6, 81–89. Retrieved from <https://search-ebSCOhost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=asn&AN=95062350&site=ehost-live&scope=site>
- Teasley, M. L., & Buchanan, E. M. (2016). When Music Goes Up in Flames: The Impact of

- Advising on Music Major Burnout. *NACADA Journal*, 36(1), 43–53. <https://doi-org.ezproxy.liberty.edu/10.12930/NACADA-15-002>
- Toro-Troconis, M., Alexander, J., & Frutos-Perez, M. (2019). Assessing student engagement in online programmes: Using learning design and learning analytics. *International Journal of Higher Education*, 8(6), 171–183.
- Trabant, T. D. (2006). Advising Syllabus 101. NACADA Clearinghouse of Academic Advising Resources [website]. Retrieved from <http://www.nacada.ksu.edu/Resources/Clearinghouse/View-Articles/Creating-an-Advising-Syllabus.aspx>
- Use a call center to provide more efficient service. (2011). *Successful Registrar*, 11(1), 6. Retrieved from <http://search.ebscohost.com.ezproxy.liberty.edu/login.aspx?direct=true&db=ehh&AN=58548180&site=ehost-live&scope=site>
- Villarruel, J. I. B., Rivera, R. N., & Lima, M. G. B. (2019). Influence of an instructional strategy on the attitudes of university professors toward distance education. *Turkish Online Journal of Distance Education*, 20(3), 73–88.
- Walker, R., Zelin, A., Behrman, C., and Strnad, R. (2017). Qualitative analysis of student perceptions: Some advisors care. Some don't. *NACADA Journal*, 37, (2), pp. 44-54.
- Warner, R. M. (2013). *Applied statistics: From bivariate through multivariate techniques* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Wdowik, S. (2014). Using a synchronous online learning environment to promote and enhance transactional engagement beyond the classroom. *Campus-Wide Information Systems*, 31(4), 264-264. doi:10.1108/CWIS-10-2013-0057

- Wighting, M. J., Liu, J., & Rovai, A. P. (2008). Distinguishing sense of community and motivation characteristics between online and traditional college students. *Quarterly Review of Distance Education*, 9(3), 285–348. Retrieved from <http://ezproxy.liberty.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=ofm&AN=508037464&site=ehost-live&scope=site>
- Winston, R. B., Miller, T. K., Ender, S. C., & Grites, T. J. (Eds). (1984). *Developmental academic advising*. San Francisco, CA: Jossey-Bass.
- Yuan, S., Hussain, S. A., Hales, K. D., & Cotten, S. R. (2016). What do they like? communication preferences and patterns of older adults in the united states: The role of technology. *Educational Gerontology*, 42(3), 1-12.
doi:10.1080/03601277.2015.108

APPENDICES

APPENDIX A: Instrument Permission



Gordon, Caleb
Mon 1/21/2019 4:29 PM

Hello Marilee,

I hope this email finds you well. I read a great article that you and Dr. Buchanan wrote back in 2013 about developing a statistical validated instrument to measure academic advising. I have been searching for an instrument to use in my dissertation prospectus and hopefully defense, and yours sounds like the perfect fit.

Is there any way that you can send me a copy of the final instrument?

Sorry about all the messages, and thank you for your time.

Sincerely,

Caleb Gordon



Lukefahr, Marilee <mlukefahr@maryville.edu>
Tue 1/22/2019 10:30 AM



Gordon, Caleb; ErinBuchanan@missouristate.edu <ErinBuchanan@MissouriState.edu> ✕

Hi Caleb,

Thanks for reaching out! You are more than welcome to use our instrument in your research endeavors. We'd love to see the final product when you're done!

Erin – do you happen to have a clean copy of the final inventory? I've looked and looked and can't find it in my Dropbox.

~Marilee



Gordon, Caleb
Wed 1/23/2019 4:19 PM

That is a relief, and thank you so much, Marilee!

Sincerely,

Caleb Gordon





Buchanan, Erin M <ErinBuchanan@MissouriState.edu>
Wed 1/23/2019 7:24 PM



Here's table 5 of the scale from our paper – you should be able to cut and paste the scale into whatever format you need from this document.

Cheers,

erin

--

erin buchanan, Ph.D.
Associate Professor
Department of Psychology
Missouri State University
ErinBuchanan@missouristate.edu
417-836-5592
PI: [The Doom Lab](#)



Gordon, Caleb

Sat 9/21/2019 12:52 PM



Buchanan, Erin M <ErinBuchanan@MissouriState.edu>; Lukefahr, Marilee <mlukefahr@maryville.edu> ✓

Thank you both again for your help. I know you gave me permission to use your instrument, but would you be alright with me publishing the instrument questions in my dissertation as well? I was told I need your permission to include it in the appendix.

Thank you for your time and attention, and talk to you soon!

Sincerely,

Caleb Gordon





Lukefahr, Marilee <mlukefahr@maryville.edu>
Sat 9/21/2019 10:13 PM

...

[EXTERNAL EMAIL: Do not click any links or open attachments unless you know the sender and trust the content.]

Ditto!

Marilee

Get [Outlook for Android](#)

...

Are the suggestions above helpful? Yes No



Buchanan, Erin M <ErinBuchanan@MissouriState.edu>
Sat 9/21/2019 9:05 PM

...

[EXTERNAL EMAIL: Do not click any links or open attachments unless you know the sender and trust the content.]

As long as the citation is there, that's fine with me.

erin

--

erin buchanan, Ph.D.
Associate Professor
Department of Psychology
Missouri State University
ErinBuchanan@missouristate.edu
417-836-5592
PI: [The Doom Lab](#)

...

APPENDIX B: Teasley's Advising Scale

1. Advising appointments are worth my time.
2. My advisor listens to what I have to say.
3. My advisor is knowledgeable about course offerings.
4. My advisor has helped me develop a long-term education plan.
5. My advisor is prepared for my advising appointments.
6. My advisor is concerned about my overall development as a student.
7. My advisor considers my interests and talents when helping me choose courses to take.
8. After my advising appointments, I feel that every course in my new schedule has a purpose.
9. My advisor makes sure that I get the best possible educational experience.
10. My advisor is knowledgeable about graduation requirements.
11. If my advisor does not know the answer to one of my questions, he/she makes the effort to connect me to someone who does.
12. My advisor encourages me to speak freely in our appointments.
13. I am given the time I need during my academic advising appointments.
14. My advisor and I work together as a team.
15. My advisor acts in a professional manner.
16. I can trust my advisor.
17. I feel like I will graduate in a reasonable amount of time thanks to my advisor's planning.
18. I would recommend my advisor to a friend.
19. My advisor is ethical.
20. I find academic advising appointments to be a positive experience.
21. My advisor lets me know about the importance of our public affairs mission.
22. I learn about different student organizations during my advising appointments.
23. My advisor tells me how I can obtain leadership experiences on campus.
24. I learn how I can contribute to the surrounding community during my advising appointments.

APPENDIX C: Consent Form**EFFECTIVE ACADEMIC ADVISING FORMATS FOR ONLINE COLLEGE STUDENTS**

Caleb Gordon

Liberty University

You are invited to be in a research study of online student satisfaction with academic advising experiences. You were selected as a potential participant because you meet criteria for the research population of interest, which are students who are completing an online degree. Please read this form and ask any questions you may have before agreeing to be in the study.

Caleb Gordon, a doctoral candidate in the School of Education at Liberty University, is conducting this research study.

Purpose of the Study: You are being asked to participate in a study examining student levels of satisfaction in different academic advising formats.

Procedures: If you agree to take part in this study, you will be asked to:

- Provide your gender and age; and,
- Complete a 24-question survey with a standard seven-point Likert scale format. Total time for completing the survey is less than 5 minutes.

Foreseeable Risks: The potential risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life. Some people may initially feel nervous, but there are no “right” or “wrong” answers. All responses are valuable. Should you experience undue anxiety, you may contact the Liberty University Student Counseling Services at (434) 582-2651, or access the self-help anxiety guide at <http://www.liberty.edu/index.cfm?PID=25936>.

Benefits of being in the Study: Participants should not expect to receive a direct benefit from taking part in this study. Participation in this study may help to inform researchers of the best academic advising formats for online students.

Confidentiality: All participants will remain anonymous. For the research survey, no personally identifiable information of any kind will be collected or recorded. All collected data will be encoded and stored on a secure, encrypted, password-protected server; only the researcher will have access to the records. Per federal law, after three years all data will be deleted.

Voluntary Nature of the Study: Participation in this study is voluntary. Your decision whether to participate in the study or not will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time prior to submitting the survey, without affecting those relationships.

How to Withdraw from the Study: If you choose to withdraw from the study, please exit the survey and close your internet browser. Your responses will not be recorded or included in the study.

Contacts and Questions: The researcher conducting this study is Caleb Gordon. You may ask any questions you have now. If you have questions later, you are encouraged to contact the researcher, who may be contacted at Cgordon43@liberty.edu. Mr. Gordon's advisor is Dr. Nathan Putney , who can be reached at nputney@liberty.edu.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Institutional Review Board, 1971 University Blvd, Green Hall Suite 2845, Lynchburg, VA 24515 or email at irb@liberty.edu.

Please notify the researcher if you would like a copy of this information to keep for your records.

Statement of Consent: I have read and understood the above information. I have had the opportunity to ask and have questions answered. By clicking the below link, I consent to participate in the study described above.

https://docs.google.com/forms/d/e/1FAIpQLSdiKsmaFJLEuPqTakfcXVmhZXXg9YV6vDM4soexpZTGpUyHXg/viewform?usp=sf_link

Appendix D IRB Approval**LIBERTY UNIVERSITY.**
INSTITUTIONAL REVIEW BOARD

January 23, 2020

Caleb Gordon

IRB Exemption 4189.012320: Effective Academic Advising Formats for Online
College Students

Dear Caleb Gordon,

The Liberty University Institutional Review Board has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under exemption category 46.101(b)(2), which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:101(b):

(2) Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met:

(i) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects;

Please note that this exemption only applies to your current research application, and any changes to your protocol must be reported to the Liberty IRB for verification of continued exemption status. You may report these changes by submitting a change in protocol form or a new application to the IRB and referencing the above IRB Exemption number.

If you have any questions about this exemption or need assistance in determining whether possible changes to your protocol would change your exemption status, please email us at irb@liberty.edu.