

DIFFERENCES OF ATTITUDES AND NORMS TOWARD PLAGIARISM BETWEEN
FIRST- AND CONTINUING-GENERATION COLLEGE STUDENTS

by

Michael Owen Harris

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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ABSTRACT

This quantitative, causal-comparative study examines differences in attitudes and subjective norms between first- and continuing-generation college students toward plagiarism. Research studies have reported that up to 90% of college students admitted having committed plagiarism. Plagiarism harms the student who cheats, the reputation of the school, and all associated. First-generation college students experience greater challenges in their first years of college than their continuing-generation peers and may be more at risk for resorting to plagiarism. The researcher employed the Attitude Toward Plagiarism Questionnaire (Cronbach's score of .79) to measure attitudes and norms toward plagiarism. The findings from the administration form the basis of determining if a causal relationship exists between first-generation college student status and having positive attitudes, negative attitudes, and social norms toward plagiarism. The questionnaire was administered to 130 students enrolled in undergraduate general studies classes at a university in the south-central United States. The data were analyzed via an examination of change for each dependent variable against the independent variables of college generation status and gender. The analysis of data reveals that first-generation and female college students appear to exhibit less positive and more negative attitudes and subjective norms toward plagiarism, but not to a statistically significant level. Based on these findings, universities need to support all incoming students by educating them on plagiarism and introducing academic support structures to ease their transition into college as part of their orientation programs.

Keywords: Plagiarism, academic misconduct, theory of social learning, theory of planned behavior, first-generation college student.

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Dedication

This manuscript is dedicated first to my wife. She is my best friend and confidant. Robyn has been my source of strength, dedication, and conviction since we first met in 1982. I love her more than anything and without her, this dissertation would not have been possible. Next, I dedicate this work to my mother who passed away as I was preparing for the defense of my proposal and to my father who passed the day I accepted my first school administrator position. My parents taught me the skills, perseverance, and grit to succeed. Finally, I praise God who enabled me to pursue this passion.

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The list of those who made this effort possible is long but foremost in the list is first my wife, Robyn. Together we are completing our separate dissertations and submitting our completed studies. Cross-editing and serving as sounding boards for each other, this study was enriched by her support and advice. Thankfully, we will graduate together. Dr. Nichols and Dr. Street, my chair and methodologist, were amazing to work with. Their advice was patient and sound. I would still be spinning my wheels without their support and guidance. Dr. Brent Sykes of Randall University and Davin Winger with Oklahoma Panhandle State University, my supervisors, provided so much support allowing me to focus on my research and classes when I needed to. Thank you for your friendship and mentorship.

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List of Abbreviations

American College Testing (ACT)

Analysis of variance (ANOVA)

Attitudes Toward Plagiarism Questionnaire (ATP)

Defining Issues Test (DIT)

Institutional Review Board (IRB)

Principal Component Analysis (PCA)

Science, Technology, Engineering, and Mathematics (STEM)

Theory of Planned Behavior (TPB)

Theory of Reasoned Action (TORA)

CHAPTER ONE: INTRODUCTION

Overview

The purpose of this quantitative, non-experimental study is to identify possible causal factors to a student's attitudes and social norms toward plagiarism. Specifically, the paper investigates whether there exists a significant causal-comparative relationship between the factors of identification or classification as a first-generation college student and the student's positive attitude toward plagiarism, or social norms toward plagiarism. The role of gender was also examined in this study. Chapter One includes discussion on the background of the problem and the historical context of academic misconduct in higher education. The background includes common factors that have been investigated for their roles in academic misconduct and plagiarism and introduce the possible factor of college generation status, as it applies to plagiarism. The background continues with a discussion of the social context and an overview of the theoretical framework of this study. The problem statement examines the scope of recent literature on this topic. The purpose of this study is followed by the significance of the current study and the research questions. The chapter concludes with a list of key terms and their definitions.

Background

Academic misconduct is a persistent problem in higher education where Cronan et al. (2015), Curtis and Tremayne (2019), Curtis and Vardanega (2016) indicated that 64% to 82% of students have cheated. In a more recent study, Waltzer and Dahl (2020) stated that 90% of their survey participants admitted to committing some form of plagiarism at least once during their academic careers. One way to resist this level of academic misconduct might be to identify predictive factors that contribute to a propensity to cheat as well as measures that may retard

cheating. If universities can recognize those factors that increase the likelihood that students will exhibit cheating behaviors, they may be able to act to prevent cheating rather than reacting to its occurrence.

First-year students face a substantial level of stress in dealing with the life changes surrounding leaving home to begin life as college students (Bhujade, 2017). This group has also been found to be susceptible to resorting to cheating behaviors (Burnett et al., 2016; Stiles et al., 2017). The pressures inherent to the first year dictates this cohort is an appropriate juncture at which to begin a study on predictive factors for committing plagiarism.

Historical Context

Academic misconduct has been a pervasive problem in academe for many years. Research on academic misconduct dates back several decades to at least that conducted by Charles Drake (1941). In his study of 126 college students, he reported that 30 admitted to cheating at least once in their careers. His findings indicated the most prevalent cheaters were those that tested in the lower half on intelligence tests and those that were members of fraternities. Research on academic misconduct continued in a formalized fashion into the 1960s and into the turn of the century with studies by Hetherington and Feldman (1964), Bowers (1964), and McCabe and Trevino (1993) to name a few. Hetherington and Feldman (1964) observed 46 of 78 students involved in the study engaged in cheating behaviors; 87% of those students continued to cheat multiple times during the study. Bowers (1964) found that three fourths of the 5,000 students in his study on academic misconduct reported engaging in cheating behaviors. The widespread cheating in Bowers' study was not mitigated by conscience, in that 80% of the participants agreed or strongly agreed that students were morally obligated to not cheat. McCabe and Trevino (1993) reported that two thirds of the 6,000 students they surveyed

reported engaging in cheating behaviors. The United States became the first nation to formalize processes for investigating and adjudicating this type of misconduct (Lytton, 1996).

Research continued into the new millennium with study by Hughes (2006). Her study was a meta-analysis of studies into what factors, personal, instructional, or institutional, might contribute to cheating behaviors. This study followed the research of Beck and Ajzen (1991) that considered the theory of planned behavior, one of the theories of this study, in its applicability to predicting cheating behaviors. The U.S. researchers have considered and investigated several factors that may influence a student's decision to cheat.

Common Factors Investigated

The persistent problem of academic misconduct has led researchers to study several factors, many of them repeated study-to-study. Common elements in recent research are demographics such as gender, cohort, and type of academic program or major (business, technology, or education). Classroom or instructional and pedagogical factors have also been considered. Research results on most of the demographic factors have been conflicting.

Gender has been a widely researched factor in predicting academic misconduct. Cheating behaviors have been more closely linked to males than females (AL-Dossary, 2017; Case et al., 2019). This may be due to problems with information illiteracy being more closely associated with males than females (Sprajc et al., 2017). Reports of males being more likely than females to commit plagiarism is countered by the research of Fass-Holmes and Vaughn (2018) and Stiles et al. (2017). In neither study was gender a significant factor.

In 2014, class cohort was found to be a significant factor in the propensity to cheat. In a study, Olafson et al. (2014) found that 49% of adjudicated cases at a midwestern university were committed by freshmen. Sophomores and juniors combined for 24% of the cases, and seniors

comprised another 24% of the cases. Burnett et al. (2016) also found that freshmen were more likely to cheat. Their discussion of freshmen's propensity to cheat centered around time management crises experienced by first-year students. Additionally, the freshmen are taking several general education courses outside of their major, and they may not be motivated to apply themselves to learn the material. Finally, Burnett et al. found that seniors were more likely to cheat in response to pressures to earn a higher grade point average or to compete for a competitive job or graduate school. Cohort was later identified as not being a significant factor in two studies (Fass-Holmes & Vaughn, 2018; Stiles et al., 2017).

Academic major has been tenuously connected to a propensity to commit academic misconduct. Fass-Holmes and Vaughn (2018) reported that economics students were more likely to commit plagiarism than other majors. Science, technology, engineering, and math (STEM) majors have been linked to increased propensity to cheat. Computer information systems and business majors may also be susceptible to engaging in cheating behaviors (Cronan et al., 2015; Fass-Holmes & Vaughn, 2018; Stiles et al., 2017). Burnett et al. (2016) reported that students felt cheating in social science classes presented the most difficulty, but education classes were among the easiest.

The propensity for students to engage in academic misconduct appears to be directly related to the actions of instructors and integrity protection measures in the classroom. Students report they are much more likely to cheat if the instructor is lackadaisical and has a permissive attitude about academic integrity, or if they exhibit the impression of not caring or knowing how to combat it (Gira & Jaeck, 2019). Research results have supported a notion that there is increased likelihood of cheating in classrooms where protective safeguards are not established (Curtis et al, 2018; Makarova, 2019). It is possible that instructors who do not address cheating

behaviors act to make cheating more prevalent (Burnett et al., 2016; Makarova, 2019). The results of several studies indicated that injunctive norms such as codes of conduct and honor codes are significant deterrents to cheating behavior (Cahn, 2018; Camara et al., 2016; Case et al., 2019; Cronan et al., 2015; Makarova, 2019).

First-generation College Status

First-generation college students are defined as students whose parents have not obtained a baccalaureate degree (Garriott & Nisle, 2018; Pike & Kuh, 2005). Whether a student is a first-generation college student is a factor that has not been extensively researched regarding plagiarism or academic misconduct. First-generation college students have demonstrated more serious adjustment challenges than their continuing-generation peers (Garriott & Nisle, 2018; Ganns, 2016). First-generation college students tend to be older, often married, have children, and tend to work off campus and for more hours than their continuing-generation peers. As such, they have weaker support systems. It is apparent that in many cases their environments do not foster academic success. First-generation college students tend to be less academically successful than their continuing-generation peers (Eveland, 2019). First-year, first-generation students may enter college without an understanding of the rules and expectations of college and without a guiding mentor who can suggest successful and acceptable courses of action (Garriott & Nisle, 2018). The first year is the most emotionally challenging for many students. Concerns about adjusting to the new expectations of college are real concerns for many students and their families (Bhujade, 2017). The emotional stress and learning to adjust creates pressures that could lead to academic misconduct or other negative behaviors (Bhujade, 2017; Burnett et al., 2016; Ganns, 2016). Based on the earlier discussion, first-generation college student may be especially susceptible to these poor decisions.

Social Context

The social context of academic misconduct extends well beyond the classroom. The initial occurrence of successful cheating behaviors increases the likelihood of future attempts at cheating (AL-Dossary, 2017). The researcher found that even if the cheating occurred in high school, it was likely to persist into a student's college career. The 2015 Raising Academic Standards in Education report identified that 895 of those surveyed believed that if an individual cheated in college they would also cheat in their professions after graduation (Cronan et al., 2015). The cheating behaviors will most likely not be confined to the first student who decides to cheat. Findings from Camera et al. (2016) indicate that if students perceived that plagiarism was common among their peers, then they were more likely to display a positive attitude toward and a greater intent to engage in plagiarism. The greater intent is due to a belief that cheating is a normal and acceptable behavior for college students thus creating a social norm of acceptability (Camera et al., 2016). Social norms, those actions that are acceptable or permissible in groups or society (Fishbein & Ajzen, 2015), favorable to cheating behaviors lead to attitudes favorable to the same behavior. If persons of influence advocate the cheating behavior, then a subjective norm is created (Fishbein & Ajzen, 2015). The presence of both attitudes and subjective norms favorable to cheating constitute a significant predictor of a student's intent to plagiarize, as does the student's perception of their control over the behavior (Fishbein & Ajzen, 2015).

Theoretical Context

This study investigates causal-comparative factors of college generation status and gender that may affect students' positive or negative attitudes toward plagiarism and their subjective norms toward plagiarism. The frameworks by which the study is constructed are the social learning theory (Bandura, 1977) and the theory of reasoned action as updated with the

theory of planned behavior (Ajzen, 1991). Social learning theory holds that individuals develop learned responses by observing those emotionally or physically close to them (Bandura, 1972). First-generation college students will not have experienced the influence of role models in college life to explain behavior and social or academic expectations. Without these role models, the first-generation students will not possess a source of vicarious reinforcement of actions and attitudes in college (Bandura, 1972). In this way, they may exhibit a learning deficit regarding college ethical mores and academic expectations compared to their continuing-generation college student peers.

The theory of planned behavior holds that all action is the result of individuals' reasoned thought. Ajzen and Fishbein (1980) developed the theory to explain human behavior. The basic rationale behind their theory was that humans are rational beings, making use of all the information available to them at the time of their decisions (Fishbein & Ajzen, 1980). Every action is based on considered thought, to include the known or perceived implications of their considered action (Ajzen, 2011). The original theory of reasoned action defined behavior as a function of the intent to act (Fishbein & Ajzen, 1980). If behavior is a function of intent, then intent should be a predictor of behavior. Intention, the researchers argued, was a function of an individual's attitude toward the behavior and the beliefs or attitudes of those persons of relevance to the actor toward accomplishing the behavior. The actor's personal beliefs comprise their attitudes (Fishbein & Ajzen, 1980). Attitudes toward any behavior are formed by the favorable or unfavorable personal judgement of the behavior in question (Beck & Ajzen, 1991). The beliefs and attitudes of persons of relevance (family, friends, and coaches) form the subjective norms relevant to the behavior being considered (Ajzen & Fishbein, 1980). More specifically, subjective norms are the actor's perceptions that those close to them believe the actor should or

should not behave in a certain manner (Ajzen, 1985). Another factor acting on an individual's intent to engage in a particular behavior is their perception of behavioral control, that is whether they are sufficiently in control of the situation that they believe they can successfully execute the considered behavior. The study focuses on attitude and theoretical elements of subjective norm of planned behavior. The theory of planned behavior is a theoretical construct that both the proposed study and the measurement instrument, Attitudes Toward Plagiarism (ATP) Questionnaire, to measure attitudes within the study have been designed (Mavrinac et al., 2010).

Problem Statement

Academic misconduct continues to be a significant problem in higher education. Cronan et al. (2015) cited a collection of studies with findings indicating 65% to 82% of college students either have cheated or have positive attitudes toward cheating. Research has been robust in looking for causal or correlative factors. Unfortunately, many of these findings are somewhat contradictory. With significantly more than half of college students reporting either a positive attitude toward academic misconduct or a history of it, the problem is one that must be addressed with corrective measures by university administrators (Cronan et al. 2015; Curtis & Vardanega, 2016; Waltzer & Dahl, 2020).

Efforts to curb academic misconduct must begin with identifying risk factors. The basis for identifying risk factors must be connected to a theory to predict behavior. The updated theory of reasoned action and the theory of planned behavior explain why individuals select certain courses of action to include cheating. They have been used in numerous studies (AL-Dossary, 2017; Cahn, 2018; Case et al., 2018; Curtis et al., 2018). Additionally, the formation of attitudes is also based on vicarious reinforcement of witnessing cheating or non-cheating behaviors in

persons of referent importance, such as parents, and forming attitudes based on the consequences those persons receive for their decision (Bandura, 1977).

Further research is needed to explore possible links between attitudes, subjective norms, the first-year college experience, and first-generation college attendance. Indicators, especially those linking pressures to adjust to college life and time management skills, suggest that more study is needed in linking the first-year experience with a propensity to engage in academic misconduct (AL-Dossary, 2017; Bhujade, 2017; Olafson et al., 2014). The stress of being a first-generation college student without an experienced role model or mentor places an extraordinary challenge on students' ability to adjust to college life and be academically successful without resorting to unethical behavior (Garriott & Nisle, 2018). Research that addresses this combination of risk factors is not openly available or is under-reported but is needed to address possible causal factors. The problem is that research assessing the perceptions of, attitudes toward, and social norms related to plagiarism of first-generation college students to determine if their status might be an added factor in a student's propensity to commit plagiarism is not sufficiently available.

Purpose Statement

The purpose of this quantitative, causal-comparative study is to identify causal factors present in first-year college students, specifically first-generation college students who have a favorable perception of plagiarism or who have subjective norms toward plagiarism (Creswell & Creswell, 2018). The first independent variable was college student generation status categorized, respectively, as first-generation college student, defined as having neither parent graduating college with a baccalaureate degree (Gillen-O'Neel 2019; Pike & Kuh, 2005) and continuing-generation college student. Continuing-generation students are those whose parents

or guardians have completed a baccalaureate education (Gillen-O'Neel 2019; Pike & Kuh, 2005). The effect of a second independent variable, gender, was considered as well. Participants were asked to self-report their gender as either male or female. The dependent variables include: having a positive attitude toward plagiarism defined as a scaled approval of plagiarism; a negative attitude toward plagiarism defined as a scaled disapproval of plagiarism; and, having subjective norms toward plagiarism defined as "normative beliefs and their perceptions of its prevalence in the academic and scientific community" (Mavrinac et al., 2010, p. 197). The instrument reflects the degree of approval and disapproval of the dependent variables using a five-point Likert-type scale. The population of the study was undergraduate students enrolled in general education classes at a public university in the South Central United States.

Significance of the Study

The proposed study adds to the theoretical body of knowledge on academic misconduct by applying the theory of reasoned action and theory of planned behavior (Fishbein & Ajzen, 2015). This study follows the research of AL-Dossary (2017), Camara et al. (2016), Cronan et al. (2015), Curtis et al. (2018), Mavrinac et al. (2010), and Waltzer and Dahl (2020). The theories were applied to the predictive factor of classification as a first-generation college student, a factor not previously applied to these theories. The study adds to the generalizability of the stated theories.

Empirically, the study added data and findings to support or refute the theories in a sample population that have not previously explored. The empirical findings of the study build upon the body of knowledge of what predictive factors explain a student's propensity or favorable attitudes to cheat. The findings, in keeping with previous research, expand the generalizability of the theories based on empirical data.

The practical significance of this study is to provide universities and institutions of higher education additional predictive factors that will allow them to engage students before they decide to commit academic misconduct. If the institutions are aware of predictive factors, they can create targeted interventions and student support measures that mitigate the likelihood of students choosing to engage in academic misconduct. In their task force report on academic misconduct, Ballentine et al. (2019) stated the reason for a focus on plagiarism and other forms of integrity violations should include the loss of prestige and confidence that their institution's graduates are prepared for their future employment. The positive effects not only include the individual targeted student but the community of students who demonstrate the propensity to cheat more often when they perceive an environment of cheating. More importantly, those students, who have not yet cheated, attend classes at institutions that are known to host cheating environments may be able to distance themselves from their less ethical peers (Ballentine et al., 2019; Camara et al. 2016).

Research Questions

RQ1: Is there a difference in scores between first-generation college students' positive attitudes toward plagiarism and continuing-generation college students based on gender?

RQ2: Is there a difference in scores between first-generation college students' negative attitudes toward plagiarism and continuing-generation college students based on gender?

RQ3: Is there a difference in scores between first-generation college students in subjective norms toward plagiarism and continuing-generation college students based on gender?

Definitions

1. *Academic Misconduct* – any type of cheating that compromised the academic integrity of the institution (Mavrinnac et al., 2010).

2. *Continuing-generation College Student* – a student whose parents or guardians earned at least one baccalaureate degree (Gillen-O’Neel, 2019; Pike & Kuh, 2005).
3. *First-generation College Student* – a college or university student from a family where no parent or guardian has earned a baccalaureate degree (Gillen-O’Neel, 2019; Pike & Kuh, 2005).
4. *Plagiarism* – unauthorized appropriation of another’s work, ideas, methods, results, or words without the source and original author (Mavrinac et al., 2010).
5. *Self-plagiarism* – inappropriate presentation of one’s own published data or text as original or new (Mavrinac et al., 2010).
6. *Social Norms* – acceptable or permissible in groups in society (Fishbein & Ajzen, 2015).
7. *Subjective Norms* – beliefs a person holds of how those important to them feel whether they should or should not perform a certain act (Fishbein & Ajzen, 2015).
8. *Traditionally-aged College Students* – students falling within the age group of 18-24 (Sessa et al., 2018).

CHAPTER TWO: LITERATURE REVIEW

Overview

This literature review is a systematic review of empirical research and meta-analysis research articles of predictive factors contributing to the conduct of plagiarism and academic misconduct and how they relate to first-generation college students. This chapter reviews current and past research literature on the topic. It begins with a discussion on the theoretical basis of predictive elements to commit academic misconduct based on social learning theory and the theory of reasoned action and the theory of planned behavior. This discussion is followed by related research that links attitude, subjective norms, injunctive norms, perceived control, the first-year experience, gender, academic cohort, academic major, classroom controls and challenges facing first-generation college students that potentially place them at risk of committing plagiarism or other forms of academic misconduct. The discussion concludes with gaps in the literature that present a viable need for the current study.

Theoretical Framework

Social Learning Theory

Albert Bandura (1977) developed a theory of how learned behavior is passed between individuals through observed actions and results. Bandura postulated that behavior is formed and maintained through what he termed vicarious reinforcement (profiting from the successes and mistakes of others) as well as self-reinforcement (self-reward or self-punishment assigned by the actor due to their personal standard of behavior). In comparing vicarious learning to experiential learning, Bandura held that observers are more focused on the events and outcomes than the actors in the situation. The actors in the situation must act, interpret the outcome, react to the outcome, and then interpret how their actions impacted the situation and define if the result was

rewarding or not (Bandura, 1977). Those in observation, however, may remain more focused. Because they are not acting, they are free to simply interpret the actions and responses to discern positive and negative outcomes. In this manner, Bandura held that observed behavior can result in faster learning than experiential learning (Bandura, 1977). Bandura further held that both observed reward and punishment promote the learning of the acts being punished or rewarded. Akers (2017) applied social learning theory to deviant behavior and crime. In his application, based on differential reinforcement, observing reward or punishment resulting from the deviant behavior committed by other persons of relevance to the observer, social learning theory is focused on non-conforming behavior such as crime or academic misconduct. Brauer and Tittle (2012) asserted the social learning theory establishes a causal relationship between deviant behaviors that lead toward rewards or punishments experienced either directly or vicariously, through observation or anecdotally, and future action. Applying the assertions of Bandura (1977), Akers (2017), and Bauer and Tittle (2012) regarding social learning theory, it is possible that through interpersonal and parental relationships continuing-generation college students develop attitudes and norms toward plagiarism and other forms of academic misconduct based on observations of parents and relevant individuals in their lives prior to arriving at college, an avenue of learning not necessarily available to first-generation college students.

Theory of Reasoned Action

Fishbein and Ajzen (1975) and Ajzen and Fishbein (1980) developed a theory to explain human behavior. The basic rationale behind their theory is that humans are rational beings, making use of all the information available to them at the time of their decisions (Fishbein & Ajzen, 1975). Every action is based on considered thought to include the known or perceived implications of their considered action. This consideration is taken before the action is initiated

(Ajzen & Fishbein, 1980). The theory's name, the theory of reasoned action (TORA), is descriptive of the process of considered thought and weighing of implications of a course of action before acting (Ajzen & Fishbein, 1980).

The original theory of reasoned action defined behavior as a function of the intention to act (Fishbein & Ajzen, 1975). If behavior is a function of intent, then intent should be a predictor of behavior. Intention, the researchers argued, was a function of an individual's attitude toward the behavior as well as the beliefs or attitudes held towards accomplishing the behavior by those persons of relevance to the actor. The actor's personal beliefs comprise their attitudes. These beliefs are learned predispositions to respond in a determined, either favorably or unfavorably, and consistent manner to a given situation or object (Fishbein & Ajzen, 1975). The beliefs and attitudes of persons of relevance (family, friends, coaches) are the subjective norms. More specifically, subjective norms are the actor's perceptions of how those persons of reference to them, those close to and significant to them, believe the actor should or should not behave in a certain manner (Ajzen & Fishbein, 1980).

The individual actor will form an intent to act in a certain way based on the cues from their attitude and their perception of how others feel, subjective norms (Ajzen & Fishbein, 1980). If there is an incongruence of these two variables, the individual will assign relative weight to each and will form intent to act based on the strongest input. Fishbein and Ajzen (1975) argued that this intent is the greatest predictor of behavior.

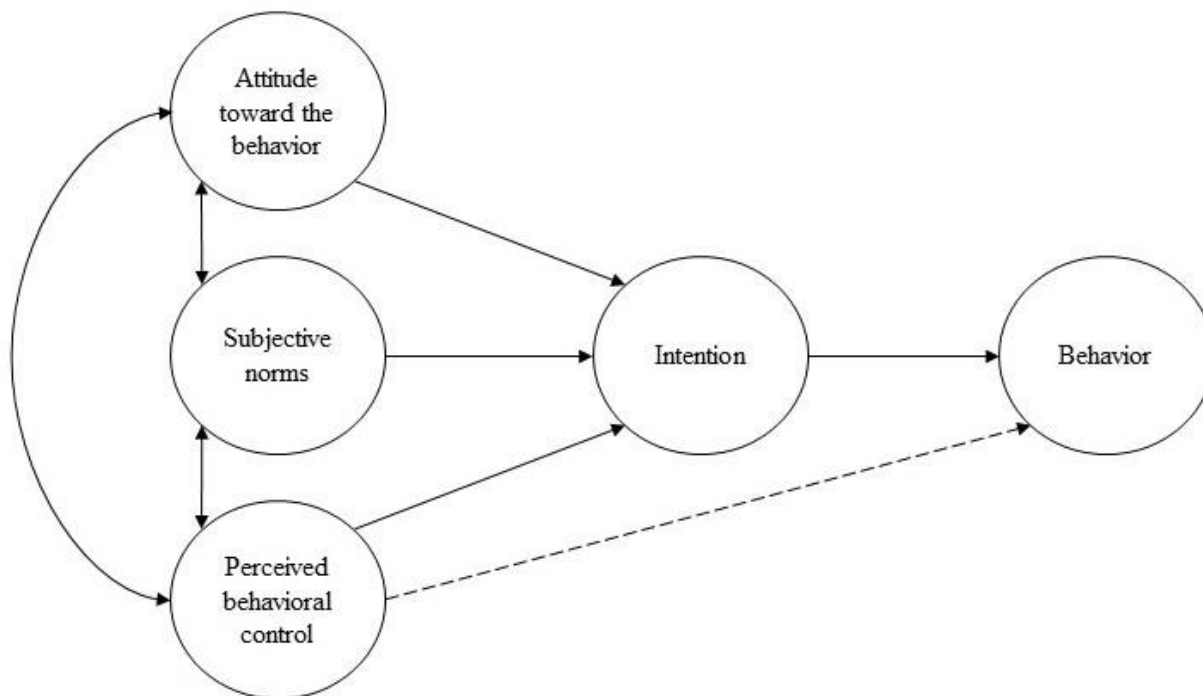
Theory of Planned Behavior

Beck and Ajzen (1991) expanded Ajzen and Fishbein's (1980) research on the theory of reasoned action to include another predictive element, perceived behavior control. Their new theory was named the theory of planned behavior (TPB). Perceived behavioral control is the

level of an individual's control over an action (Ajzen, 1991). Perceived control may affect the individual's intent to commit the action. Ajzen was able to show that individuals who have a favorable attitude about an action, such as going to class or a movie, are likely to intend to go. If, however, an obstacle presents itself so that their ability to go is limited (i.e., car trouble) they are less likely to go to the movie or class (Ajzen, 2011). The inclusion of perceived behavioral control to the model was necessary because individuals must engage in situations for which they have incomplete or even no volitional control. Ajzen (1991) argued that if the individual feels they have little or no control over their ability to participate in the act, they are less likely to intend to attempt it even if they feel positively towards it. The phenomenon in question is labeled perceived behavior control. Ajzen (2011) defined it as the level of control over a given situation. He also defined it as the relative ease with which an individual engages in a certain behavior. Perceived behavior control adds a third predictor of intent, joining attitude and subjective norms (Ajzen, 1991).

Modified Theory of Planned Behavior

Fishbein and Ajzen (2015) again modified their theory building on formation of beliefs and attitudes to develop an updated theory of reasoned action. Figure 1 illustrates the concept and relationships postulated in the theory of planned behavior. In the course of their research, they found that beliefs are formed from a variety of factors. Behavioral, normative, and control beliefs are built upon the following: individual factors including personality, values, perceived risk, and past behavior; social factors including education, age, gender, and culture; and information factors including knowledge, media, and technology (Fishbein & Ajzen, 2015).

Figure 1.*The Theory of Planned Behavior*

Note. This figure is adapted from The Theory of Planned Behavior (Ajzen, 1991).

The researchers argued three statements: behavior beliefs form the attitude toward a specific behavior; normative beliefs form perceived norms; and control beliefs form the perceived behavioral control. Attitude, perceived norms, and perceived behavior control combine to form intention (Fishbein & Ajzen, 2015). The researchers concluded that intention is the prime indicator of behavior if the behavior is completely under the individual's control. In cases where the individual does not express complete control, perceived behavior control is influenced by the level of the individual's actual control (skills, abilities, and external factors) over the behavior (Fishbein & Ajzen, 2015). They further argued that the individual's perception of control will also impact the likelihood of participating in the behavior. Fishbein and Ajzen acknowledged

that, although their theories suggest logic and forethought in behavior, not all individuals act in a logical manner making it necessary to include impulse in the predictive factors behavior.

Studies on Social Learning Theory and Theory of Planned Behavior

Social learning theory provides a framework upon which internal belief and self-control measures are developed through vicarious learning (Bandura, 1977). The theory of planned behavior provides a framework so that once established, those beliefs and attitudes form a set of norms, which regulate the intention to act (Fishbein & Ajzen, 2015). Taken together, these two models form a predictive path toward a student's intent to commit plagiarism that begins with their formative development in their homes. Numerous studies have been conducted to test Bandura's (1977) and Fishbein and Ajzen's (2015) factors of motivations, beliefs, intent, and behavior in predicting a student's propensity to commit academic misconduct.

Burnett et al. (2016) framed a study on university student perceptions of cheating using the social cognitive and social learning theories. In the study, it was discovered that students' response and attitudes toward cheating were based on their perceptions of what was happening around them rather than on concrete facts. They rationalized cheating behaviors because they perceived that everyone was participating (Burnett et al., 2016). Krueger (2014) employed the social learning theory as the theoretical framework for a study on academic dishonesty among nursing students. In the survey, the elements of consequences and reinforcement of engaging in academic misconduct, peer modeling in academic misconduct, personal beliefs/values associated with academic misconduct, and self-generated consequences were explored. The results of the study reflected that academic misconduct decreased with an increase in integrity scores pointing to a negative relationship between the two variables and supported the assertion that the social learning theory is, in part, an explanatory tool for academic misconduct (Krueger, 2014).

Freiburger et al. (2017) found that students who either had experience in cheating without being caught or had knowledge of peers who had cheated without being caught were more likely to cheat again based on direct or referent reinforcement of cheating behaviors, a finding that supports both the theory of planned behavior and social learning theory.

Several researchers expanded upon Fishbein and Ajzen's (2015) research to determine the level of importance of individual perceptions about how other people perceive committing acts of academic misconduct (Camara et al., 2016; Curtis et al., 2018; Cahn, 2018; Cas, et al., 2019). Camara et al. (2016) sampled 517 students to determine the predictive power of each element of the theory of planned behavior and its precursor, theory of reasoned action on students' intent and motivation to commit plagiarism. The results of the study were that both models were good predictors of a student's intent to plagiarize (Camera et al., 2016). Cahn's (2018) study revealed that students believed that copying homework would lead to higher grades than not copying homework even though they assumed a greater than one-in-three chance of getting caught. Curtis et al. (2018) expounded upon Fishbein and Ajzen's (2015) work on the role of injunctive norms in committing academic misconduct. Their study measured attitudes, subjective, descriptive, and injunctive norms, perceived behavioral control, and self-control as predictors of intent to plagiarize. Injunctive norms produced the single greatest correlation with intent to plagiarize in the study of 350 Australian university students. Cahn (2018) and Case et al. (2019) furthered Fishbein and Ajzen's (2015) collective work on perceived behavior control. Beck and Ajzen (1991) conducted a study where they applied the theory of planned behavior specifically to the dishonest actions of cheating on tests, shoplifting, and lying to avoid homework assignments.

Motivation and Vicarious Reinforcement

Estep et al. (2017) conducted a study with 127 students regarding the parenting styles under which they were raised, and their attitudes and behaviors toward deviancy, academic misconduct, and relationship fidelity. The researchers' supposition was that, based on Bandura's social learning theory (1977), students with more authoritarian parents would exhibit significant negative attitudes and experiences toward each of the tested factors (Estep et al., 2017). The results of the study reflected a significant negative relationship between authoritative parenting and adult attitudes toward deviance. There were also strong significant positive relationships between attitudes toward deviant behavior and academic misconduct; however, there was not a significant relationship between authoritarian parenting and adult attitudes toward academic misconduct. This incongruence, according to the researchers, may be due to the nontraditional age of the students, over 25 years of age, and the social acceptance of academic misconduct (Estep et al., 2017). Freiburger et al. (2017) asserted that students who had experience with academic misconduct, either vicariously or directly, were motivated toward cheating behaviors enough to overcome warnings and threats of punishment stated in course syllabi.

Attitude and Subjective Norms

The theory of reasoned action lists subjective norms and attitude as significant predictors in the intention to engage in any behavior (Ajzen, 2011; Ajzen & Fishbein, 1980; Fishbein & Ajzen, 2015). In testing the theory, Beck and Ajzen (1991) found that both, subjective norms and attitudes, predicted tendencies toward academic misconduct, theft, and lying. Attitude was a significantly greater predictor of the intent to cheat in all three categories, cheating on an exam, shoplifting, and lying to avoid an assignment. Subjective norms were not a consistent predictor of all levels of cheating. Subjective norms were a significant predictor of lying (Beck & Ajzen,

1991) and sharing homework but not plagiarism (Cronan et al., 2015). Data from more recent studies lend more weight to original arguments of the importance of subjective norms (AL-Dossary, 2017; Camara et al., 2016; Giluk & Postlethwaite, 2015). Individuals' perceptions of how those close or important to them feel about an action is a significant predictor of intent (Fishbein & Ajzen, 2015). The level of importance does not seem to be influenced whether the norm is positive (AL-Dossary, 2017) or negative (Giluk & Postlethwaite, 2015) toward cheating. It seems that students generally align their beliefs to those who are important to them, family, friends, teammates, instructors, and coaches (Camara et al., 2016). If the students felt that peers and instructors accepted the practice of cheating, they were much more likely to engage or accept cheating behaviors (Grira & Jaeck, 2019).

Research in personality has highlighted a potential link between factors of personality and cheating. Of the factors of the Big Five Personality Traits (extroversion, agreeableness, conscientiousness, neuroticism, and intellect), the factors considered to be the most significant predictors of propensity to cheat are conscientiousness and agreeableness. These factors are most closely linked with subjective norms and attitude (Digman, 1990; Giluk & Postlethwaite, 2015). The researchers found that those high in these factors are least likely to cheat. Subjective norms and attitudes are significant predictors of individual intent to cheat; however, in a group setting, subjective norms were not shown to be a reliable predictor of intent to cheat (Leonard et al., 2017).

Researchers in a 2019 study found that subjective norms were not a significant predictor of intent to plagiarize but that attitude was a significant predictor of intent to plagiarize (Uzun & Kilis, 2020). This countered some studies mentioned above which supported the position that subjective norms are a significant predictor of intent to plagiarize (Uzun & Kilis, 2020). These

findings were in direct agreement with those of Beck and Ajzen (1991). In their study, attitude was the most significant predictor of intent with nearly twice the predictive power of subjective norms (Beck & Ajzen, 1991).

Perceived Behavioral Control

As part of the theory of reasoned action, perceived behavioral control is a key factor in determining the intent to take part in a behavior (Ajzen, 1991, 2011; Ajzen & Fishbein, 1980; Chang, 2012; Fishbein & Ajzen, 2015). Beck and Ajzen (1991) applied the theory specifically to academic misconduct and found the perceived behavioral control to be a significant predictor of intent to cheat and of cheating behavior, especially when the individual had previous cheating behavior. The ease with which an individual can cheat has been shown to be a factor in their intent (Beck & Ajzen, 1991). Chang (2012) conducted a study evaluating both TORA and TPB. His findings suggested that while both theories are effective at predicting intent to perform unethical behavior, the inclusion of perceived behavioral control made TPB a higher fidelity prediction tool. Perceived chances of success were evident in the results of Grira and Jaeck's (2019) research where students who had a history of cheating and reported they felt their institution and instructors' responses to cheating were ineffective tended to cheat more often and displayed more favorable attitudes toward cheating. The ease of copying and pulling data from online sources has been associated with an increased incidence of plagiarism and other forms of online cheating (Case et al., 2019; Cronan et al., 2015; Grira & Jaeck, 2019; Scott, 2017; Sprajc et al., 2017). Whether students felt they had the ability to plagiarize because they had control was a strong predictor of their intent to plagiarize (Camara et al., 2016; Scott, 2017). If students feel that integrity policies are poorly managed, their sense of control is enabled, and they are more likely to cheat (Grira & Jaeck, 2019). When students feel teacher resources to detect and deal

with plagiarism are ineffective or ineffectively managed or that teachers are indifferent to plagiarism, the students are more likely to attempt it because they perceive more control over the situation (Makarova, 2019).

Related Literature

Researched Factors of Academic Misconduct

Several factors have been identified as contributing to the propensity of a student to engage in academic misconduct. Gender differences in self-reported instances of academic misconduct are difficult to draw firm inferences from, as they do not hold to a set pattern in more recent research (AL-Dossary, 2017; Bokosmaty et al., 2017; Case et al., 2019; Curtis & Vardanega, 2016; Grira & Jaeck, 2019; Stiles et al., 2017). Cohort differences have been identified although the findings differ from study to study and between researchers (Fass-Holmes, 2017; Stiles et al., 2017). Certain majors have been linked to cheating behaviors (Fass-Holmes, 2017; Stiles et al., 2017). Finally, classroom/instructor conduct and standards have been associated with incidences of misconduct (Burgason et al., 2019; Cahn, 2018; Camara et al., 2016; Case et al., 2019; Grira & Jaeck, 2019; Makarova, 2019).

Gender

Gender has been a widely researched factor in predicting academic misconduct. Cheating behaviors have been cited more often with males than females (AL-Dossary, 2017; Case et al., 2019; Henningsen & Henningsen, 2019). Krueger (2014), in her study on nursing students, found that males reported committing academic misconduct more often than females at a statistically significant rate. The researcher also reported that male students considered plagiarism was more ethical than females did. Some of the concern of males being more prone to academic misconduct than females may be due to problems with information literacy being more closely

associated with males than females (Sprajc et al., 2017). In Sprajc et al.'s (2017) study, many of the male students reported difficulty and a lack of understanding when citing other's work. This lack of understanding could contribute to their greater acceptance of plagiarism.

Beasley (2016) reported that in a study at Michigan State University, males self-reported committing plagiarism more often than females but not at a statistically significant rate. In a study of 178 business students, Doss, Henley, Becker, et al. (2016) reported some gender differences in the perceptions of plagiarism. Asking the questions of whether students perceived plagiarism as (a) A necessary evil, (b) Unprofessional conduct, and (c) Illegal conduct, the researchers analyzed the data based on gender. On professionalism and illegality of plagiarism, both genders reported neutral feelings without a statistically significant difference in scores. On the question of plagiarism being a necessary evil, both genders disagreed, but there was a statistically significant difference in the level of disagreement with females reporting a stronger disagreement with the question (Doss, Henley, Becker, et al, 2016).

Reports of males being more likely than females to commit plagiarism are countered by recent research by Fass-Holmes (2017), Stiles et al. (2017), and Tindall and Curtis (2020). Gender was not a significant factor in either study. One possible explanation for the differences in findings might be what Brunett et al. (2016) discovered in that, overall, males and females did not appear to have a gendered difference in their perceptions of academic misconduct; rather, the gendered differences appeared to be in the way they participated in dishonest actions. This finding is also supported by the research of Sprajc et al. (2017). Whether gender is a factor in the actual engagement in cheating behaviors remains a question, but Atkinson et al. (2016), and Jereb et al. (2017) found that female students generally displayed more negative attitudes toward cheating where male students demonstrated more positive attitudes toward cheating.

Cohort

Class cohort was found to be a significant factor in the propensity to cheat (Olafson et al., 2014). The researchers found 49% of adjudicated cases at a midwestern university were committed by freshmen. Sophomores and juniors combined for 24% of the cases, and seniors comprised another 24 % of the cases. In the survey population, freshmen were the most likely to cheat (Burnett et al., 2016). In a Burnett et al. focus group study of student perceptions of cheating, the four focus groups identified freshmen as the most prolific cheaters. The reasons for cheating among that cohort ranged from poor time management, coursework rigor, to disinterest in general education-required courses. The groups elaborated that freshmen were enrolling in several general education courses outside of their major where they may not be motivated to apply themselves to learn the material. The same groups also stated that cheating may increase toward the end of the undergraduate career due to mounting pressures for grades and job prospects (Burnett et al., 2016). Stiles et al. (2017) reported findings that juniors were significantly more likely to engage in academic misconduct than freshmen. This finding counters most other research, which found freshmen the most likely cohort to engage in academic misconduct. Much discussion of freshmen propensity to cheat centered on time management crises. A possible explanation for some of the cheating observed may come from Locquiao and Ives (2020). Their research, focusing on first-year college student knowledge and awareness of academic misconduct, produced results suggesting that freshmen enter college with a very limited knowledge of what constitutes cheating and academic misconduct.

Grira and Jaeck (2019) found seniors demonstrated the highest incidence of cheating with more than half of that cohort admitting to cheating. The study results of Grira and Jaeck (2019) and Burnett et al. (2016) do not align with the findings of Beasley (2016) in his report on

cheating at Michigan State University. Beasley (2016) reported seniors were the only class with disproportionately low rates of reported academic misconduct. The researcher lists possible causes of this phenomenon as seniors enrolling in classes for which they are more engaged and less likely to cheat. The researcher further postulated that students who would cheat in that cohort have already been eliminated for school, or possibly that the seniors are more savvy cheaters. Further confounding the cohort as a predictive factor, Stiles et al. (2017) found juniors were significantly more likely to cheat than first-year students when investigating academic entitlement and cheating at a private university in the south central United States. The researchers presumed the reason is the increased rigor and difficulty in upper division courses (Stiles et al., 2017).

Major

Academic major has been tenuously connected to a propensity to commit academic misconduct. Fass-Holmes (2017) reported economics students were more likely to commit plagiarism than other majors. Science, technology, engineering and math (STEM) majors may have an increased propensity to cheat. Computer information systems and business majors also seem to exhibit more cheating behaviors (Fass-Holmes, 2017). The previous study was supported by findings in a study by Bertram Gallant et al. (2015). Among 2,463 adjudicated cases of academic misconduct, violations by computer science majors were more than twice as likely to occur than violations for biology majors. Biology students accounted for 23% of the population and amassed 23% of the violations. Engineering and economics majors were also significantly prolific in their cheating instances. Computer science majors accounted for 7.4% of the population yet amassed 14.6% of the violations, economics 11.8% population and 16.8% of violations, and engineering 7.3% population and 9.9% of violations. The majors of students that

were least prolific in their instances of cheating were those of the humanities and psychology (Bertram Gallant et al., 2015). Students in Burnett et al.'s study (2016) reported they felt social science classes were the hardest to cheat in, but education classes were among the easiest.

Beasley (2016) found, in a study at Michigan State University, that international students were reported, proportionally, five times as often as their domestic peers for academic dishonesty.

Classroom

The propensity for students to engage in academic misconduct seems to be impacted by the actions of instructors. Students report they are much more likely to cheat if the instructor is lackadaisical or has a permissive attitude about academic integrity or if they promote the impression of not caring or knowing how to resist it (Girra & Jaeck, 2019; Solomon, 2018).

Solomon (2018) cited as few as two percent of students engaged in cheating behaviors are caught or prosecuted. She details two episodes of instructors failing to employ anti-cheating measures that created cheating opportunities for students. In one case, an instructor assigned a student, not a graduate assistant, to proctor an exam. The proctor did not know the class roster and one student walked out of the class with a copy of the exam. The student then claimed he turned in the test and that the proctor must have lost it. The student was allowed a retake of the same exam despite evidence he had stolen the first copy (Solomon, 2018). In another case, a student was allowed to take an exam early. The instructor asked him to leave his book bag but did not monitor him during the exam. The student then posted pictures of pages of the exam online while he was taking the exam compromising it for the class that was to take it on schedule (Solomon, 2018).

There is an increased likelihood of cheating in classrooms where protective safeguards are not in place and students believe there is little chance of getting caught (Fendler & Godbey,

2015; Freiburger, et al, 2017; Makarova, 2019; Solomon, 2018). Fendler and Godbey (2015) asserted the prevalence of cheating, up to 90% of students, is in part due to the low expected repercussions of cheating. The researchers devised an expected cost of cheating functional equation. The expected cost is equal to the probability of first being accused, multiplied by the probability of being reported, and multiplied again by the probability of being convicted of the cheating behavior. Each of these probabilities is a number less than one so each factor lowers the consequences of cheating. The more permissive the instructor makes the environment by failing to report or act on plagiarism, the expected cost becomes significantly more palatable to the cheating student (Fendler & Godbey, 2015).

In a study of Russian, United States, Latvian, and Polish students, Makarova (2019) found teacher control was the strongest factor in predicting academic misconduct beyond gender, academic performance, and cohort of study. Her study highlighted the formal and long-standing conduct reporting system, codes of conduct and conduct adjudication, in the United States university. She stated the United States instructors see the benefit of this system and explain the system and how it functions to their students. These efforts may be a reason for the United States site in this study to have significantly fewer incidences of cheating than the other locations (Makarova, 2019).

It is possible that instructors who do not address cheating behaviors act to make cheating more prevalent (Burgason et al., 2019; Burnett et al., 2016; Makarova, 2019; Scott, 2017). Burgason et al. (2019) reported students were aware of cheating and described methods of cheating such as using multiple devices to evade lock-down browsers during computer-based tests either in online or face-to-face classes. He reported the students' knowledge and acceptance of cheating along with the ease with which it was practiced, served to lower the expected cost

and challenge of cheating (Burgason et al., 2019). Burgason et al. went on to report that even if institutions employ injunctive norms like honor codes, if instructors do not enforce the standards their effect on student behaviors will be negligible.

In a qualitative study on cheating at a four-year university in the mid-Atlantic region, Burnett et al. (2016) recorded student responses to cheating. Students reported that cheating happens “everywhere” (p. 58). The students cited incidences of instructors walking out of the room during tests and another instructor responding, when informed of cheating, that it was not their job to tell students to stop talking (Burnett et al. 2016). Researchers reported other students had witnessed peers getting “kicked out” for cheating (p. 60). The permissive attitude by some and overall inconsistency of application of the code of conduct by instructors limited its effectiveness (Burnette et al., 2016).

Scott (2017) offered specific strategies for instructors to lessen the problem of plagiarism and cheating in general. In her study of plagiarism-proof case assignments, she promoted an instructor-led proactive approach aimed at eliminating the opportunities to cheat. By changing case study names that hint to the assignment to numbers and using pools of rotating case studies in each assignment, rather than static assignments the instructor makes, it is much more difficult to plagiarize and purchase solutions to the assignments. In this manner, the instructor is addressing the students’ opportunities and control over cheating behaviors. These proactive, aggressive measures were shown to significantly curb cheating behaviors of students (Scott, 2017). Active measures must be taken in the university classroom to counter findings similar to those of Freiburger et al. (2016) where in a survey of 1330 students at two geographically separate universities 73.3% admitted to cheating behaviors yet only 4.9% reported getting caught, reported, or sanctioned for academic misconduct.

Injunctive Norms

Fishbein and Ajzen (2015) did not include injunctive norms in their theory of reasoned action because they could not link them to changes in individual behavior. Bandura (1977) did not specifically address injunctive norms in his initial theory either. Even without mention in the two prominent theories at work in this study, injunctive norms have factored into several studies using both social learning theory and the theory of planned behavior (Curtis et al., 2018; Uzun & Kilis, 2020). Curtis, et al. (2018) argued that injunctive norms (what people ought to do) are a significant factor in forming intent and behavior. Injunctive norms are measures like character education, codes of conduct, and honor codes. They set moral boundaries for members of the group (Curtis et al., 2018; Henningsen & Henningsen, 2019). The researchers argued people may model their behavior around injunctive norms because they believe it is the right thing to do. Uzun and Kilis (2019) reported injunctive norms such as honor codes and character education build moral obligation, which they found to be a predictor of intent to plagiarize. Students who believed it was morally wrong tended to report committing plagiarism less often (Uzun & Kilis, 2020). Fishbein and Ajzen (2015) did allow that injunctive norms may increase the mean behavior of a population.

Increasing an integrity standard is a justification for training on academic misconduct, plagiarism, and the establishment of university honor codes and codes of conduct to reduce integrity violations (Camara et al., 2016; Cronan et al., 2015; Cronan et al., 2017; Curtis, et al., 2018; Henningsen & Henningsen, 2019; Jereb et al., 2017; Leonard et al., 2017; Makarova, 2019; Uzun & Kilis, 2020). Camara et al. (2016) advocated anti-plagiarism campaigns to highlight social norms against plagiarism. The research team also recommended specific classes teaching citation skills and moral instruction to aid students in knowing and following

established rules in academic integrity. Cronan et al. (2017) conducted an online academic integrity education study to 5,000 college freshmen at two different universities. The researchers found posttest attitudes and knowledge of academic integrity were significantly improved across all categories measured, cohort, gender, major, online or face-to-face, and honors or not. The researchers in this (Cronan et al. 2017) and an earlier study (Cronan et al., 2015) found academic integrity campaigns and codes of conduct have an influence on attitudes toward cheating behaviors. Curtis et al. (2018) conducted a study on how well self-control, injunctive norms, and descriptive norms can predict plagiarism. Injunctive norms, such as honor codes, were the strongest predictor of a student's intention to commit plagiarism as well as engagement in plagiarism (Curtis et al., 2018). After their study on cheating and social normative behavior, Henningsen and Henningsen (2019) stated the establishment of injunctive norms that discourage cheating should effectively counter student perceptions of widespread cheating on their intent to cheat.

The results of the aforementioned studies indicate injunctive norms such as character education, codes of conduct, and honor codes are a significant deterrent to cheating behavior (Camara et al., 2016; Cronan et al., 2015; Curtis et al, 2018; Henningsen & Henningsen, 2019). Curtis et al. (2018) found the use of honor codes and other normative elements to strengthen student self-control were effective at curbing instances of plagiarism. Establishing these norms will improve the reputation of the university and protect its students and faculty (Hibschweiler et al., 2020).

Culture

Several studies have indicated a relationship between decisions to plagiarize and culture. A student's propensity to cheat may increase if the academic setting is a student studying in a

culture not their own or in a language which is not their first or primary language (Fass-Holmes, 2017; Grira & Jaeck, 2019; Ison, 2018; Khathayut et al., 2020; Makarova, 2019). Among university students in Thailand, Khathayut et al. (2020) surmised that, generally, students possessed an incomplete understanding of basic academic writing standards and, more specifically, plagiarism. The students reported plagiarism was often overlooked or ignored during their academic career. They also stated the effort to summarize and paraphrase without decontextualization was difficult. This difficulty made it worth the risk to plagiarize rather than risk error (Khathayut et al., 2020). The authors reported these findings match findings from previous research.

Fass-Holmes (2017) conducted a study of adjudicated cases of academic misconduct, by year, between the 2009-2010 and 2013-2014 academic years. During the course of the study, the number of international students reported for academic misconduct increased six-fold. Chinese students comprised the international demographic most often reported for academic misconduct (Fass-Holmes, 2017). Throughout the study, 6% of the international student population accounted for 19.8% of the total number of academic misconduct cases, university wide. International students comprised 7.5% of the total campus population. In addition, depending on the year, between 75%-90% of those international students reported for academic misconduct received sanctions up to and including expulsion (Fass-Holmes, 2017).

Grira and Jaeck (2019) conducted a study of student perceptions and experiences in cheating among university students in the United Arab Emirates (UAE). International students, defined as not originating in the UAE, produced a statistically significantly greater percentage of students who reported engaging in cheating behaviors, 47.14% versus 39.16%. Students of the non-dominant ethnicity also reported higher instances of cheating, 46.15% versus 40.74%.

Interestingly, students in the non-dominant religion experienced lower cheating rates than their peers of the dominant religion, 25% versus 41.17% (Grira & Jaeck, 2019).

Ison (2018) conducted a study of 266 doctoral and master's theses originating in the countries and regions experiencing the most issues with plagiarism in academic papers. Each of these documents were submitted to the Turnitin® plagiarism detection software. The regions examined included the United States, Western Europe, Eastern Europe and Russia, Africa, China, and India and the Middle East. The mean level of similarity across all groups was 25.1%. The United States and Western Europe provided the lowest scores, but their difference from the Middle East and Eastern Europe/Russia were not statistically significantly different. The difference between China and the United States was not significantly different, but the converse was true regarding the difference between India and the United States (Ison, 2018).

Makarova (2019) conducted a study on academic misconduct and integrity measures across cultures. Her study focused on students and integrity systems from the United States, Russia, Poland, and Latvia. The results of her study indicated that Russian students engaged in all forms of cheating behaviors at a statistically significant level when compared to students from the other three countries. The United States students engaged in cheating on exams at a lower rate than each of the other groups, and Latvian students engaged in plagiarism less often than students from the other countries (Makarova, 2019). The researcher stated the levels of implemented integrity systems are consistent with the reported levels of academic misconduct. More advanced integrity systems appear to have resulted in lower incidence of academic misconduct (Makarova, 2019).

Doss, Henley, Gokaraju, et al. (2016) re-analyzed the same study on gender differences in perceptions and attitudes toward plagiarism but included disaggregating the responses

between domestic and international students. Both groups reported disagreement with the statement that plagiarism is a necessary evil and were neutral on whether plagiarism is an illegal act. The difference in the two groups was that, in both cases, the domestic students reported a more statistically significant negative attitude toward plagiarism than the international students (Doss, Henley, Gokaraju, et al., 2016).

Differences seem to also occur among religious cultures. When comparing protestant and catholic theology students to business students, Meiseburg et al. (2017) found of the three groups Catholic theology students tended to cheat more prolifically followed by business and Protestant theology students. The results of this and the six previously highlighted studies seem to indicate a cultural component to attitudes and perceptions toward plagiarism and academic misconduct.

Self-control

Under the theory of planned behavior, the level of control an individual possesses over their actions and the expected outcome directly affects their behavior (Ajzen, 1991). Curtis et al. (2018) proposed that, in some cases, individuals act in situations that cannot be explained by their perceived behavioral control. In essence, they commit an act they realize they cannot control or predict its outcome. Criminal activity factors may also be used to predict the propensity to cheat as cheating is a deviant behavior (Curtis et al., 2018). Curtis et al. replaced the perceived behavior control element with the element of self-control in a study of 229 Australian university students. The basis for the design was that perceived behavior control is the perception that the individual has the ability to cheat (Curtis et al., 2018). The concept of self-control is the converse; the individual does not have the ability to prevent themselves from cheating given the opportunity (Curtis et al, 2018). The results of the study reflected that individuals who scored higher on measures of self-control produced more negative attitudes and

intentions toward plagiarism and tended to engage less often. Those results were further supported by research on academic misconduct (Baran & Jonason, 2020; Yu et al., 2018). In these studies, repeated and serial attempts at academic misconduct could be explained by disinhibition, a psychological state defined for the inability to control one's actions or a lack of self-control. Self-control may be inserted into the theory of planned behavior to help predict a propensity to engage in academic misconduct to explain behavior that operates against attitudes, subjective norms and perceived control (Curtis et al., 2018).

First-Year Experience

The first year of college is a year of great life changes with which first-year students find challenging. It is often the most emotionally challenging year of their academic career. Concerns about adjusting to the new expectations of college are real concerns for many students and their families (Bhujade, 2017). Most studies on the first year focus on underrepresented classes or groups. Holles (2016) conducted a study on preparedness of entering freshmen at an exclusive technical university in the Rocky Mountain region. The average American College Testing (ACT) score for admitted students is 31. Of the 14,000 that apply each year, only 900 are admitted in each freshman class. Admitted students' average high school grade point average is 3.85, and they rank in the top 10% of their high school class (Holles, 2016). Four of the five students interviewed stated they were not prepared for the rigor of the classes in which they enrolled. Survey results indicated that students had to learn how to study. One non-traditional student lived off campus. He described difficulty adapting to the campus social culture (Holles, 2016). This small cadre of very well-prepared students found their first college experience challenging.

Many students report entering college without an understanding of the expectations for college students (Longwell-Grice et al., 2016). In her study on rural first-year college students, Ganns (2016) documented students face a difficult social transition and that most of her participants cited concern with extending their social networks and their ability to meet others and create friendships. This was of even greater concern for those students who originated from small communities where they knew every member (Ganns, 2016). Hensley et al. (2015) surveyed 176 first-year students on their transition to college. In compiling their responses, the research team reported several study participants who wrote their transition to college revealed several areas in which they lacked knowledge and skills. Many reported they did not know how to study for college courses and were, otherwise, unprepared (Hensley et al., 2015). One strategy to address the unexpected academic stresses was to simply delay difficult assignments and activities leading to a time management crisis (Hensley et al., 2016). This strategy of procrastination often led to other time management issues and ultimately efforts to cut corners on assignments, sometimes ending in academic misconduct. The emotional stress and learning to adjust create pressures that, when stressed, could lead to academic misconduct or other negative behaviors (Bhujade, 2017; Burnett, et al., 2016; Ganns, 2016).

The first year of college is an area of concern for academic misconduct and transition (Ganns, 2016; Locquiao & Ives, 2020; Olafson et al; 2014; Stiles, et al., 2017). Olafson et al. (2014) indicated that freshmen accounted for nearly half of the adjudicated plagiarism cases. Burnett et al. (2016) further supported these findings in that surveyed students felt there existed more frequent cases of cheating among college freshmen than all other cohorts. The reasons provided included a lack of time management skills and the feeling that the large number of classes outside their major are less important. These stresses make it appear to be more

acceptable to seek easier, less ethical practices in freshman level courses rather than in classes associated with their majors (Burnett et al., 2016). AL-Dossary (2017) and others have recently countered that finding. Stiles et al. (2017) focused on social factors of millennials in describing their cheating behavior. Locquiao and Ives (2020) reported first-year students often enter college without a firm understanding of that which defines plagiarism and other forms of cheating.

First-Generation Status

First-generation college students encounter challenges that continuing-generation college students do not have to confront. Eveland (2019) specified many of the stressors these students encounter. They are more likely to be older than their peers of a continuing-generation. There is a greater likelihood they are married with children. A greater proportion of these students are employed off campus. Many of them provide care for other family members (Eveland, 2019). Income restrictions tend to be another stressor for first-generation college students. In her study of 280 first-generation and continuing-generation students at five private higher education institutions in Minnesota, Gillen-O'Neal (2019) found a definite income gap between the two populations. First-generation students' families earned medium incomes between \$25,000 and \$50,000, where continuing-generation students' families reported medium incomes between \$150,000 and \$200,000. The relatively low family income of first-generation college students' families supports the income disparity data reported by Gillen-O'Neal. This research lends support to assertions that first-generation students tend feel greater financial stresses than their continuing generation peers as identified by Eveland (2019) and Garriott and Nisle (2018).

The financial challenges and the need for off-campus work results in a limitation of the time first-generation students can take advantage of academic and social supports offered by their higher education institutions (Eveland, 2019; Garriott & Nisle, 2018). In their study of self-

reported differences between first- and second-generation college students, Froggé and Woods (2018) reported first-generation students enrolled in fewer classes. In addition, first-generation students, on average, worked more hours off campus than their peers of a second-generation (Froggé & Woods, 2018).

In their study on stress, coping, and perceived academic success differences between first- and continuing-generation college students, Garriott and Nisle (2018) reported the need for outside employment restricts the ability of first-generation students to seek university support services and engage in campus activities. First-generation students must compete with their peers of a continuing-generation with fewer support tools and without the ability to take advantage of the campus engagement resources their less burdened, continuing-generation peers are afforded. Garriott and Nisle (2018) reported findings suggest first-generation students are much more reliant on university resources to deal with college stresses than their continuing-generation peers. This finding is concerning considering that employment outside campus and added life pressures of the role as caregiver means they have less time and energy to cope with college pressures. These pressures may account for first-generation college students typically producing lower grade point averages than their continuing-generation peers (Eveland, 2019; Garriott et al., 2017; Gillen-O'Neel, 2019).

The same life pressures of outside employment and caregiver status take time from first-generation students participating in student engagement activities (Eveland, 2019; Garriott & Nisle, 2018). These limitations prohibit cultural bonding and the development of cultural capital within first-generation college students. Strangfeld (2019) stated cultural capital is an attribute that is passed generationally through social learning. According to Bourdieu and Passeron (1990/1977), in order to amass cultural knowledge, cultural capital, skills, and abilities that are

valued in society must be gained by observing others through family or school. Cultural capital includes the ability and self-efficacy of being able to assimilate and experience a sense of belonging (Strangfeld, 2019). Parents and significant others build within their children a social capacity to belong and assimilate. In 13 of 16 students she interviewed, Strangfeld (2019) cited deficiencies in cultural capital as a reason for intentional plagiarism

Self-efficacy is tied to a deficiency in cultural capital. In the Strangfeld (2019) study, 13 of the 16 first-generation participants claimed to feel unprepared for the challenges presented. They reported having poor vocabulary, poor linguistic skills, or poor writing ability. The students reported perceptions of lack of preparation for the level necessary to be successful in college and that they were incapable of college-level work. That was the rationalization for intentionally plagiarizing material on assignments. Plagiarism was a strategy for success and performing at a collegiate level (Strangfeld, 2019). Self-efficacy was shown to be a significant factor in plagiarism among graduate students (Fatima et al., 2019). Those findings were supported by the earlier research (Fida et al., 2018) that found regulatory self-efficacy levels produced an inverse relationship to plagiarism and cheating behaviors. Those individuals who experience high self-efficacy are less susceptible to engaging in cheating behavior even in tempting situations with time and peer pressure (Fida et al., 2018).

The pressures of meeting multiple demands of work and family also means they will have less time to devote to study. Froggé and Woods (2018) reported first-generation students spent fewer hours studying than their second-generation peers, a marginally statistically significant rate, in spite of co-requisite classes for freshmen with study workshops included and university study days included in the school calendar prior to mid-term and final exams. The reduced time spent studying creates added time pressures to turn in assignments. Strangfeld (2019) also found

time management was a stated reason for intentional plagiarism. The students reported not having sufficient time to complete the assignment either due to workload or procrastination. Time pressure has been reported to be a significant factor for resorting to plagiarism (Sprajc et al., 2017; Makarova, 2019, Memon & Mavrinac, 2020).

Another factor plaguing first-generation college students centers on the familial (or parental) support among those who have enrolled in and successfully completed a four-year degree. Those parents and guardians that have earned their degrees have been shown to express greater moral reasoning (Doyle & O’Flaherty, 2013). In their study of 311 individuals with degree statuses ranging from no college degree to having earned a university degree and post-graduate education, the researchers found individuals with college degrees scored much higher on the defining issues test (DIT) which measures moral reasoning (Doyle & O’Flaherty, 2013). This indicates parents with a college degree are better prepared to advise on moral issues than those parents who have not earned a baccalaureate degree. According to the study, those with a liberal arts degree are better prepared than a technical or professional degree (Doyle & O’Flaherty, 2013).

Like all first-year students, first-generation students face significant pressures due to change. Many first-year students enter college without a sufficient understanding of college rigor and expectations. This is more likely for first-generation students who do not have college-experienced parents that can help guide them in the first year (Hensley et al., 2015; Ganss, 2016; Eveland, 2019; Garriott & Nisle, 2018). Hensley et al. (2015) relayed a student experience from a first-generation participant who wrote “it can be difficult to not have any close family members that can understand what the stresses are like... none of them really have an accurate frame of reference for what life at school is like” (p. 182). Part of the issue first-generation students face is

that the parents and family members do not understand the pressures of college and do not have methods for helping their students navigate through the unwritten rules of college. In their three-part study on first-generation college students, Longwell-Grice et al. (2016) found all three groups, graduate students, students at two- and four-year private institutions, and Latino males at community colleges struggled adjusting to college. One surveyed student reported his experiences as “You’re the first from your family to go to college – you don’t really know how or where to start. You’re just going blind because you don’t know anything” (p. 39). Another participant referred to “unwritten rules of a culture” that requires time for adaptation (p. 37).

Participants in the Longwell-Grice et al. (2016) study found an issue confronting first-generation college students from all three groups, including those that graduated from K-12 schools that received support from affluent parent populations. The concern was the students’ progression into college created a distancing from family members and friends. They lost the ability to communicate with those of importance to them. They no longer felt connected or lost some sense of belonging with their families (Longwell-Grice et al., 2016).

Gillen-O’Neel (2019) conducted a study comparing first-generation college students to continuing-generation students and found first-generation college student attendance and academic self-efficacy increased and decreased with their sense of belonging where continuing-generation students were able to maintain consistent levels despite periodic changes in sense of belonging. The added stress of the college transition, feelings of isolation due to lacking a sense of belonging, combined with the stresses of time and out-of-class commitments that first-generation college students face, lead to a negative emotionality. Negative emotionality reduces the positive effect of creating a situation with the ability to increase the tendency for students to pursue less ethical options and plagiarize (Tindall & Curtis, 2020). Emotionality has been shown

to predict up to 10% of the variance in positive attitudes toward plagiarism (Tindall & Curtis, 2020). The additional stresses causing negative emotionality faced by first-generation students may be a significant factor in their decisions to plagiarize. In a study of student perceptions of plagiarism, 90% of the participants admitted to plagiarizing at least one time in their academic career. It is substantial to note that 49% of those surveyed were first-generation college students (Waltzer & Dahl, 2020). There has not been research into the impact or presence of attitudes and social norms toward plagiarism in this population of college students.

Summary

Academic misconduct is a constant and persistent problem in higher education. Within current research are reports of incidents of plagiarism and other instances of academic misconduct involving between 46% and 90% of college students. Efforts to curb academic misconduct must begin with identifying risk factors. The basis for identifying risk factors must be connected to a theory to predict behavior. The social learning theory explains the role of mentoring and vicarious learning from the experiences of family members. This vicarious learning shapes beliefs and attitudes that are brought to bear in college. The updated theory of reasoned action and the theory of planned behavior are explanatory for why individuals select certain courses of action to include cheating. Authors of literature use these theories to connect to the commission of academic misconduct and factors such as subjective and injunctive norms, perceived control, gender, class cohort, academic major, classroom controls, culture, and first-year behavior. Theorists have not expanded the research to cover college generation status as a potential factor of academic misconduct or plagiarism.

Subjective and injunctive norms appear to be accurate predictors of cheating behaviors, as does the perception of control over the act of cheating. Males have been shown to be more

prone to cheating or at least more receptive to it. Several studies have linked a propensity to cheat to freshmen followed by senior classes, with those cohorts making up more than 70% of the reported attempts. Economics, business, and STEM majors appear to be the most prolific cheaters. Students of all classifications are more likely to cheat in classrooms where instructors are tolerant or hesitant to confront cheating behaviors, or in classes where controls or consequences are minimal. Cultural backgrounds of students seem to also impact in their willingness to participate in and acceptance of cheating behaviors. Some students originate from groups with a more collective identity and are less likely to have developed negative feelings toward plagiarism. Some students, of which many are first-generation students, originate from backgrounds that produce a cultural deficit often dealing with academic thought and writing that makes plagiarism appear to be a strategy for success. Inductive norms, such as honor codes, provide a preventative quality in helping students develop negative attitudes towards cheating.

Further research is needed to explore possible connections between subjective norms and the first-generation college student status. Indicators, especially those linking pressures to adjust to college life and time management skills, suggest that more study is needed in finding the potential causal factors such as the college generation status with a propensity to engage in academic misconduct. The stress of being a first-generation college student and not having an experienced role model or mentor to guide them would seem to place an extraordinary risk on being able to adjust to college life and be academically successful without resorting to unethical behavior. Research that addresses this combination of risk factors is not openly available or is under reported.

CHAPTER THREE: METHODS

Overview

Included in this chapter is a discussion of the research methods for the study on causal factors in the attitudes and subjective norms of first-generation college students toward plagiarism. The chapter begins with a discussion on the non-experimental, causal-comparative research design and why the method was chosen. The research questions and matching hypotheses are discussed. The researcher then describes the study population and setting. The researcher identifies the chosen data collection instrument for the study. The researcher then provides a narrative of the approval process for both the research site and the study through the Institutional Review Board. The researcher describes the data collection methods and finally the data analysis using independent samples *t* test and analysis of variance (ANOVA) techniques. The researcher also describes the data screening necessary for the *t* tests and ANOVA and how effect size was computed.

Design

The researcher incorporated a quantitative, non-experimental, ex post facto, causal-comparative research design to answer the questions relating to attitudes toward plagiarism among first-generation, first-year, college students. The causal-comparative research design allowed the researcher to determine causal relationships of pre-existing factors or variables within the study (Creswell & Creswell, 2018). This type of study is non-experimental in that the researcher did not manipulate the independent variables (first-generation college student status and gender) because those values were previously established. The measurement was ex post facto (Gall et al., 2007). Kerlinger (1973) described ex post facto research as applicable to systematic research when the researcher does not have direct control of the independent or

predictive variable because it either pre-exists or is not controllable by the researcher. The researcher, in this study, was not able to manipulate the generation of college attendee status nor their gender. Those were pre-existing conditions for all research participants. The researcher employed the naturally occurring groups of first-generation and continuing-generation students and male and female students when analyzing the data. The discriminator between the groups was students with at least one parent or guardian that has graduated with the four-year degree (Gillen-O'Neel 2019; Pike & Kuh, 2005) or, in the case of gender, responding as either male or female in the demographic portion of the participant questionnaire.

The specific purpose of this survey study using causal-comparative research design is to investigate causal factors that are present in first-year college students, specifically first-generation and continuing-generation college students who may have a favorable or unfavorable perception of plagiarism or who may have subjective norms toward plagiarism. The first independent variable being considered is college generation status with the first category of that variable being first-generation college student status which is defined as having neither parent graduating college with a baccalaureate degree (Gillen-O'Neel 2019; Pike & Kuh, 2005). The second category under the independent variable is continuing-generation college student status. Continuing-generation students are those whose parents or guardians have completed a baccalaureate education (Gillen-O'Neel 2019; Pike & Kuh, 2005). Additionally, the researcher considered the independent variable of gender, categorized as male and female. Since the researcher cannot manipulate the degree status of the parents nor with whom the college student resided, that variable was pre-existing and considered ex post facto (Gall et al, 2007; Kerlinger, 1973). Gender was also considered ex post facto in nature. The non-experimental, causal-comparative design is suited appropriately for investigating causal relationships among pre-

existing variables such as college generation status and gender (Gall et al, 2007). In addition to being preexisting, the independent variable is nominal so that each participant is either a first-generation college student or a continuing-generation college student or male or female in the case of gender. Nominal variables are ideally suited for the causal-comparative design (Gall et al., 2007).

The dependent variables under consideration were those developed by the creator of the instrument. The first dependent variable, a positive attitude toward plagiarism, was defined as having some level of approval of plagiarism. The second dependent variable, a negative attitude toward plagiarism, was defined as having a clear disapproval of fraudulent actions. The third dependent variable, subjective norms toward plagiarism, was defined as having normative beliefs favorable to plagiarism and a perception of its prevalence in academic communities (Mavrincac et al., 2010).

Research Questions

RQ1: Is there a difference in scores between first-generation college students' positive attitudes toward plagiarism and continuing-generation college students based on gender?

RQ2: Is there a difference in scores between first-generation college students' negative attitudes toward plagiarism and continuing-generation college students based on gender?

RQ3: Is there a difference in scores between first-generation college students in subjective norms toward plagiarism and continuing-generation college students based on gender?

Hypotheses

The null hypotheses for this study are:

H₀₁: There is no significant difference between positive attitudes toward plagiarism scores among first-generation college students and continuing-generation college students as measured by the Attitudes Toward Plagiarism Questionnaire.

H₀₂: There is no significant difference between positive attitudes toward plagiarism scores among college students based on gender as measured by the Attitudes Toward Plagiarism Questionnaire.

H₀₃: There is no significant difference between positive attitudes toward plagiarism scores among first-generation college students and continuing-generation college students based on gender as measured by the Attitudes Toward Plagiarism Questionnaire.

H₀₄: There is no significant difference between negative attitudes toward plagiarism scores among first-generation college students and continuing-generation college students as measured by the Attitudes Toward Plagiarism Questionnaire.

H₀₅: There is no significant difference between negative attitudes toward plagiarism scores among college students based on gender as measured by the Attitudes Toward Plagiarism Questionnaire.

H₀₆: There is no significant difference between negative attitudes toward plagiarism scores among first-generation college students and continuing-generation college students based on gender as measured by the Attitudes Toward Plagiarism Questionnaire.

H₀₇: There is no significant difference between subjective norms toward plagiarism scores among first-generation college students and continuing-generation college students as measured by the Attitudes Toward Plagiarism Questionnaire.

H₀8: There is no significant difference between subjective norms toward plagiarism scores among college students based on gender as measured by the Attitudes Toward Plagiarism Questionnaire.

H₀9: There is no significant difference between subjective norms toward plagiarism scores among first-generation college students and continuing-generation college students based on gender as measured by the Attitudes Toward Plagiarism Questionnaire.

Participants and Setting

The participants for this study were drawn from a convenience sample of 500 undergraduate students enrolled in Introduction to Psychology and Sociology classes at a state-sponsored university in the south central United States. The university has an overall enrollment of approximately 5,000 students. The study took place during the fall semester of the 2021-2022 school year.

The number of participants in the study was 130. This sample size was sufficient for both *t* test and ANOVA with a .05 confidence level assuming a medium effect size (Gall et al., 2007). Effect size was computed during data analysis using standard deviations from the means to report the partial eta squared statistic (Warner, 2013). The expected study sample size exceeded the required minimum *N* when assuming a medium effect size with a statistical power of 0.7 and an alpha level, $\alpha = 0.05$ (Gall et al., 2007). The study population was first-year college students enrolled in General Psychology and Introduction to Sociology classes during the Fall 2021 semester. Because concurrent high school and college enrollment were expected in these introductory classes, any concurrently enrolled high school student in the classes sampled was eliminated from the sample to avoid introducing a confounding variable of high school students in the study sample. Any student concurrently enrolled in both General Psychology and

Introduction to Sociology classes was not included as participants as students in the Introduction to Sociology class in order to avoid redundant sampling.

The setting for the study was a land-grant institution in the south-central United States. The university referred in citations as Normal University was established in 1909 as one of six normal schools in the newly formed state. Normal University has an average semester enrollment of 3,600 students (History of Normal, 2020). Over 92% of its students are in-state residents. The university retention rate is 66% and its graduation rate is 34.4% (Unitized Student Data Information, n. d.). The sample was predominately first-year college students because the sample was drawn from introductory, general studies college courses. The university student population demographics are Caucasian at 67.3% ($n = 2422$), Hispanic at 2.2% ($n = 79$), African American at 4.1% ($n = 148$), and Native American 21.2% ($n = 763$) comprising the remainder of the race/ethnicity demographic. The student population is comprised of 37.5% males and 62.5% female (Unitized Student Data Information, n. d.). First-generation college students comprise a sizable portion of the student population, enough that the institution created a First-Generation Student Success Center.

The population from which the sample was taken was further segregated into groups identified by their college generation status, first-generation or continuing-generation college students, and by gender. First-generation college students are defined as having no parent or guardian that has graduated college at the baccalaureate level (Gillen-O'Neel 2019; Pike & Kuh, 2005). Continuing-generation college students are defined as having a parent or guardian that has graduated college with a baccalaureate degree (Gillen-O'Neel 2019; Pike & Kuh, 2005). Follow-up analysis required the groups to be reformed by gender to explore the effects of gender on attitudes and subjective norms toward plagiarism in first-generation college students. The

inclusion of gender in the data analysis was to address inconsistent results of the effects of gender on the intention or attitudes toward plagiarism.

The sample demographics included 51% female ($n = 66$) and 49% male ($n = 64$). Ages ranged from 18 to over 40. Traditionally aged students, aged 18 to 24, comprised 93.9% of the sample. Student race/ethnicity demographics included Caucasian at 51.9% ($n = 68$), Hispanic at 6.1% ($n = 8$), African American at 13.7% ($n = 18$), and Native American 19.8% ($n = 26$).

The sample was disaggregated into groups of first-generation college students and continuing-generation college students on the basis of demographic survey questions that was included with the questionnaire instrument. The percentage of first-generation college students in the sample was 50.0% ($n = 65$) with continuing-generation college students at 50.0% ($n = 65$). The ethnic breakdown of the groups by college generation was Caucasian 50.8% ($n = 33$), with Hispanic 6.2% ($n = 4$), African American 12.3% ($n = 8$), and Native American 26.2% ($n = 17$), and Asian 4.6% ($n = 3$) for first-generation students and Caucasian 53.8% ($n = 35$), with Hispanic 6.2% ($n = 4$), African American 13.8% ($n = 9$), Native American 13.8% ($n = 9$), and Asian 12.3% ($n = 8$) for continuing-generation college students.

The sample was also disaggregated into groups by gender for consideration of the effects of gender on attitudes and norms toward plagiarism. The ethnic breakdown by gender groups was Caucasian 46.9% ($n = 30$), with Hispanic 4.7% ($n = 3$), African American 21.8% ($n = 14$), and Native American 17.2% ($n = 11$), and Asian 9.4% ($n = 6$) for male students and Caucasian 57.6% ($n = 38$), with Hispanic 7.6% ($n = 5$), African American 4.5% ($n = 3$), Native American 22.7% ($n = 15$), and Asian 7.6% ($n = 5$) for female students.

Instrumentation

Along with demographic questions to determine age groupings, gender, ethnicity, and

college generation status, the Attitudes Toward Plagiarism (ATP) Questionnaire was used (see Appendix A for a copy of the instrument). The ATP includes 12 items measuring positive attitudes toward plagiarism, 7 items measuring negative attitudes toward plagiarism, and 10 items measuring social norms toward plagiarism. Each of the 29 items is measured using a five-point Likert scale with scores ranging from Strongly Disagree to Strongly Agree. Items in two of the three factors investigated were scored negatively, as the values in these questions are scored in reverse order from the other items contained in the instrument.

All three elements of the instrument were tested individually, and the first dependent variable (Factor I) was labeled a positive attitude toward plagiarism. The second dependent variable (Factor II) was labeled negative attitude toward plagiarism. The third dependent variable (Factor III) was labeled social norms toward plagiarism. Cronbach's alpha for each of the three factors is listed in Table 1. Correlations between factors were also computed with Factors I and II ($r = -0.37$), Factors I and III ($r = -0.41$), and Factors II and III ($r = 0.32$) (Mavrinac et al., 2010). Test validity was calculated using principal component analysis (PCA) (Mavrinac et al., 2010). Eigenvalues for validity testing have been broken out by factor and are included in Table 1.

Table 1

Reliability and Validity Testing of the Attitude Toward Plagiarism Questionnaire

Criterion	Factors		
	I	II	III
Cronbach's alpha	0.83	0.79	0.85
PCA Eigenvalues	9.18	1.94	1.47

Note. Data were extracted from Mavrinac et al. (2010).

The ATP was developed by Mavrinac et al. (2010). The instrument was constructed from the theoretical framework of the theory of planned behavior (Ajzen, 1991). The three factors it measures, positive attitudes toward plagiarism, negative attitudes toward plagiarism, and subjective norms toward plagiarism, align with the theory of planned behavior and how attitudes and subjective norms inform the intention to act (Ajzen, 1991; Mavrinac et al., 2010). It has been used in studying students' perceptions, attitudes, social norms, and intentions toward plagiarism in Australia, Europe, Africa, Asia, and the United States (Camara et al., 2016; Mavrinac et al., 2010; Memon & Mavrinac, 2020; Tindall & Curtis, 2020). Tindall and Curtis (2020) employed the ATP in a study of 787 Australian university students investigating negative emotionality as a predictor of positive attitudes toward plagiarism. Camara et al. (2016) administered the ATP in a study of 517 university students in the southwestern United States assessing factors that contribute to a student's intent to plagiarize. Mavrinac et al. (2010) validated the ATP in a study of 227 graduate and undergraduate students from three Croatian universities. Memon and Mavrinac (2020) employed the ATP in a survey of 765 early career researchers mostly from Africa and Asia as part of an online workshop to advance research and writing skills in developing countries. Each of the four studies were conducted under the TBP theoretical framework, the same framework the researcher has employed in the current study.

Each of the 29 items in the ATP are scored on a five-point Likert-type scale where 1 indicates "strongly disagree", 2 "disagree", 3 "neither agree or disagree", 4 "agree", and 5 "strongly agree" (Mavrinac et al., 2010). Under Factor I, the dependent variable of a positive attitude toward plagiarism, possible scores range from 12 to 60, with a score of 60 indicating a strongly positive attitude toward plagiarism. With Factor II, the dependent variable of a negative attitude toward plagiarism the possible scores range from 5 to 26, with a score of 26 indicating a

strongly negative attitude toward plagiarism. Factor III, the dependent variable of subjective norms toward plagiarism scores, could range from 9 to 46, with a score of 46 indicating subjective norms strongly toward plagiarism (Mavrinac et al., 2010).

Permission to use this instrument was granted by the author in September of 2020 (M. Mavrinac, personal communication, September 1, 2020). The researcher has email authorization to use the instrument as written and tested in its validation trials. The author specified that all 29 items in the instrument must be used as tested to avoid decreasing validity of the instrument. The author forwarded a copy of the instrument, the article on its validation testing, and the participant instructions on the questionnaire. The instrument and instructions are included in Appendix A.

Procedures

While drafting the proposal, the researcher contacted the author, via email (see Appendix B) of a validated data collection instrument, the ATP Questionnaire and obtained permission from the author to use that instrument in the research study. While securing that instrument, the researcher also, via phone, secured a host site. The researcher contacted the provost and dean of the College of Psychology and Education at a regional land-grant university in the south-central United States. The provost delegated to the dean the decision to support this study. The dean and the psychology department chair agreed, via email, to host the study pending Institutional Review Board (IRB) approval, first from Liberty University, and then from their institution (see Appendix C). Upon successful defense of the proposal, the researcher obtained formal permission from the research site to conduct the proposed study. With permission granted, and within 10 days of the successful proposal defense, the researcher prepared the following to present to the IRB: permission request letters to the host institution (see Appendix C), recruitment letters and materials including social media posts and follow-up materials to be used

to recruit students in the polled classes (see Appendix G), consent forms for study participants (see Appendix D), and the instrument with demographic questions attached (see Appendix A).

With approval from the IRB, the researcher contacted the research site by phone and email to obtain permission to contact a university professor to solicit study participants. The researcher distributed, via email, consent forms to be presented to school officials to be attached by the hosting instructor to the university learning management system course pages for the surveyed classes. These statements allowed research site students to complete online questionnaires to join the study and allow for the researcher to publish the results of the study (see Appendix D). The researcher merged the four demographic questions with the ATP questionnaire (see Appendix A) to complete the online questionnaire for participants. The instrument was typed into and distributed to participants via Google Forms. The 33-item ATP questionnaire, including the three demographic questions on college generation status, gender, age, and ethnicity, was displayed in one continuous instrument. The lead document in the online package was a cover letter with instructions and the 20-minute time limits for completing the questionnaire (see Appendix E). The final documents in the researcher's packet were notes of appreciation for both participants and officials at the university site (see Appendix F). Data collection began by first securing access to the online classroom and posting instructions and links to the questionnaire. Methods of contact to recruit participants was through the course learning management system and email directly to the students enrolled in the classes. Participants were allocated three weeks to complete the questionnaire. All questionnaire data was collected online via a data reduction procedure available from Google Forms. Notes of appreciation were given to the hosting professors, via email, upon completion of the study.

Data Analysis

The researcher employed six independent samples *t* tests and 3 two-way ANOVAs to analyze the data for this study. This is a method of analysis that is appropriate when the participants have scores on three variables, two categorical independent variables and one continuous dependent variable (Green & Salkind, 2017). The independent variables are college generation status and gender. Both independent variables were measured against three dependent variables. The second independent variable was added to the study to answer questions on the role of gender in attitudes toward plagiarism. Existing research on that issue is conflicting.

The two-way ANOVA is necessary to determine group mean variability on more than one variable (Gall et al, 2007; Green & Salkind, 2017). The *t* tests and two-way ANOVAs assessed the following: the first independent samples *t* tests measured the main effect of generation status on the dependent variables; the second independent samples *t* tests measured the main effect of gender on the dependent variables; and the two-way ANOVAs tested whether the interaction between gender and generation status is statistically significant for each dependent variable (Warner, 2013). The dependent variables are positive attitudes, negative attitudes, and subjective norms toward plagiarism as measured on the ATP instrument.

Data screening was necessary to ensure the data set is appropriate for the *t* tests and ANOVA. The data were screened for missing data points and inaccurate data. Unless the data are normally distributed and homogeneity of variance is present, neither the *t* tests nor ANOVA are appropriate tests (Warner, 2013). To test for normal distribution of the variables, a requirement and basic assumption of both the *t* tests and ANOVA, the researcher conducted a series of tests. The first test was a box and whisker plot to identify extreme outliers in the data. To test the assumption of normality, the researcher conducted the Kolmogorov-Smirnov test of normality.

Normality was reflected by a p score greater than $\alpha = 0.05$ (SPSS, n.d.). The researcher employed Levene's Test of Equality of Error Variance to ensure equal variance among the groups. A non-significant F ratio indicated the assumption of homogeneity was maintained (Green & Salkind, 2017; Warner 2013;). The final assumption is that of random selection and independence of the participants (Gall et al., 2007; Green & Salkind, 2017; Warner, 2013). This is a convenience sample; however, assignment to groups was randomized to the full extent possible and the independence of scores on the dependent variable was maintained.

The first step was to compute the measures of central tendency for each group and their paired factors. In this step, the mean and standard deviation were reported for all groups (Gall et al., 2007). The results were reported as follows: first-generation x positive attitudes, first-generation x negative attitudes, first-generation x subjective norms, continuing-generation x positive attitudes, continuing-generation x negative attitudes, continuing-generation x subjective norms, male x positive attitudes, male x negative attitudes, male x subjective norms, female x positive attitudes, female x negative attitudes, and female x subjective norms.

Three two-way ANOVAs were facilitated with the factors of college generation status and gender, and the dependent variables being positive attitudes, negative attitudes, and subjective norms toward plagiarism. Significant ANOVA F values would have resulted in follow-up t tests for each dependent variable, positive attitude, negative attitude, and social norms, based on the first-generation college student status or gender. Significant F ratios for a variable indicate the results of the interaction between the independent variable and dependent variable are not the product of chance (Gall et al., 2007).

The usual alpha level, $\alpha = 0.05$, was adjusted using a Bonferroni correction to guard against Type I error. This correction adjusted the alpha by dividing it by the number of

significance tests, in this case, three ($0.05/9 = 0.0555$, rounded to 0.006). This correction reestablished the confidence level at 0.006 (Warner, 2013). Effect size was computed using the formula partial eta squared. The partial eta squared calculation removes the effect of the interaction between the second effect and the primary effect. With regard to this study, the interaction effect includes gender on the dependent variable (Warner, 2013). The result was the variance in scores on the dependent variables that are attributable to only the first-generation college student status (Warner, 2013).

This study is a non-experimental survey design research study to determine if a potential causal relationship exists between first-generation college status and attitudes and social norms toward plagiarism. The research questions and hypotheses address first-generation college status as a possible causal factor of positive or negative attitudes toward plagiarism and social norms toward plagiarism. The study includes gender as a possible causal factor of positive or negative attitudes and norms toward plagiarism. The inclusion of gender is to address the inconsistent finding on gender in previous research, but gender is not the focus of the study. Mavrincac et al.'s (2010) Attitudes Toward Plagiarism Questionnaire instrument was used to gather data. The ATP has strong Cronbach's scores with the lowest of the three factors being examined being 0.79. This instrument was created on the same theoretical framework of this study, the work of Fishbein and Ajzen (1975, 2015) and their theory of reasoned action as it was expanded to become the theory of planned behavior. To address the two independent variables, college generation status and gender, an analysis method of combining the independent samples *t* tests with and the two-way ANOVA was chosen for the study. The effect size for the independent variables on each dependent variable was computed using the partial eta squared statistic.

CHAPTER FOUR: FINDINGS

Overview

The study of the differences in attitude and subjective norms toward plagiarism between students of varying college generation statuses and genders was conducted at a small regional university in the south-central United States. This chapter includes the research questions, null hypotheses, and findings from the study. The discussion of the findings includes descriptive statistics of the participants and scores on the questionnaire. This is followed by an analysis of the data from the study as well as charts and tables of the data analyzed. The chapter concludes with the results of the testing of each of the nine null hypotheses.

Research Questions

RQ1: Is there a difference in scores between first-generation college students' positive attitudes toward plagiarism and continuing-generation college students based on gender?

RQ2: Is there a difference in scores between first-generation college students' negative attitudes toward plagiarism and continuing-generation college students based on gender?

RQ3: Is there a difference in scores between first-generation college students in subjective norms toward plagiarism and continuing-generation college students based on gender?

Null Hypotheses

H₀1: There is no significant difference between positive attitudes toward plagiarism scores among first-generation college students and continuing-generation college students as measured by the Attitudes Toward Plagiarism Questionnaire.

H₀2: There is no significant difference between positive attitudes toward plagiarism scores among college students based on gender as measured by the Attitudes Toward Plagiarism Questionnaire.

H₀₃: There is no significant difference between positive attitudes toward plagiarism scores among first-generation college students and continuing-generation college students based on gender as measured by the Attitudes Toward Plagiarism Questionnaire.

H₀₄: There is no significant difference between negative attitudes toward plagiarism scores among first-generation college students and continuing-generation college students as measured by the Attitudes Toward Plagiarism Questionnaire.

H₀₅: There is no significant difference between negative attitudes toward plagiarism scores among college students based on gender as measured by the Attitudes Toward Plagiarism Questionnaire.

H₀₆: There is no significant difference between negative attitudes toward plagiarism scores among first-generation college students and continuing-generation college students based on gender as measured by the Attitudes Toward Plagiarism Questionnaire.

H₀₇: There is no significant difference between subjective norms toward plagiarism scores among first-generation college students and continuing-generation college students as measured by the Attitudes Toward Plagiarism Questionnaire.

H₀₈: There is no significant difference between subjective norms toward plagiarism scores among college students based on gender as measured by the Attitudes Toward Plagiarism Questionnaire.

H₀₉: There is no significant difference between subjective norms toward plagiarism scores among first-generation college students and continuing-generation college students based on gender as measured by the Attitudes Toward Plagiarism Questionnaire.

Descriptive Statistics

A total of 130 students participated in the study ($N = 130$). Participants in the study were

divided evenly between college generation status with 65 identified as first-generation college students and 65 identified as being continuing-generation college students. Participants were also nearly divided evenly between genders with 66 participants identified as female and 64 as male. Scores on the 29-item ATP Questionnaire were divided into three author-defined categories representing the three factors tested during the validation testing of the instrument (Mavrinac et al., 2010). These categories match the dependent variables of the study: positive attitudes toward plagiarism, negative attitudes toward plagiarism, and subjective norms toward plagiarism. Possible scores on positive attitudes toward plagiarism could range from 12 to 60. Possible scores on negative attitude toward plagiarism could range from 7 to 35. Possible scores on projecting subjective norms toward plagiarism ranged from 10 to 50. Table 2 depicts the descriptive statistics for the dependent variables. Table 2 provides minimum and maximum actual scores, means, and standard deviations for each of the dependent variables. It also lists the total number of participants that were scored along each variable. The variance of negative attitudes is noticeably smaller than that of positive attitudes and subjective norms. This condition was manifested when both generation status and gender were considered.

Table 2

Descriptive Statistics

	Minimum	Maximum	<i>M</i>	<i>SD</i>
Subjective Norms Toward	10	48	21.82	7.025
Negative Attitude	11	33	21.62	4.655
Positive Attitude	12	55	27.81	8.329

Results

Independent sample *t* tests were conducted to ascertain the main effects of college generation status and gender on positive attitudes, negative attitudes, and subjective norms

toward plagiarism in six null hypotheses, H₀₁, H₀₂, H₀₄, H₀₅, H₀₇, and H₀₈. Three two-way ANOVAs were also conducted to consider the interaction effect between gender and college generation on college students' attitudes and subjective norms toward plagiarism. Assumption tests were also conducted to determine the validity of the 3 two-way ANOVAs and six *t* tests.

Assumption Tests

The dependent variables, positive attitudes toward plagiarism, negative attitudes toward plagiarism, and subjective norms toward plagiarism were measured on continuous scales of 12 through 60, 7 through 35, and 10 through 50 respectively as defined by Mavrinac et al.'s (2010) ATP Questionnaire. The two independent categorical variables, gender and college generation status, were dummy coded as either 0 or 1. A value of 0 was assigned to represent first-generation college student status for tests comparing the impact of generation status on the dependent variables. Additionally, a value of 0 was also assigned to indicate female gender on tests comparing the impact of gender on the dependent variables. A value of 1 was assigned to indicate continuing-generation college student status for tests comparing the impact of generation status on the dependent variables. The same value of 1 was also assigned to indicate male gender on tests comparing the impact of gender on the dependent variables. Prior to conducting the *t* tests and two-way ANOVAs to test the significance of main effects and potential effects of the independent variables on attitudes and norms toward plagiarism, the researcher reviewed the data through a visual examination to detect any missing elements or improper input. The data were formatted correctly and comprised proper values within the expected values for the instrument.

Box and whisker plots for each research question matching generation status and then gender with each of the three dependent variables were constructed to identify potential outliers.

All scores in the data set were within the appropriate interval; however, four outliers were identified. Prior to eliminating the outliers, the Kolmogorov-Smirnov test of normality was conducted. This test was chosen because it is more suited for small sample sizes than the Shapiro Wilk test (Yazici & Yolacan, 2007). The results of the Kolmogorov-Smirnov test of normality reflect that the data meet the normal distribution requirement. This test revealed that with two of the test conditions, subjective norms toward plagiarism and negative attitudes toward plagiarism, the results were $p = .002$ and $p = .022$, respectively, indicating non-normal data distributions. Significance values of .05 and above would indicate normal distributions (Warner, 2013). The Kolmogorov-Smirnov test concluded that the data with eliminated outliers were normally distributed, however, with a non-significant p -value, $p = .066$ (see Table 3). The Levene's Test of Equality of the Error of Variance for all conditions was insignificant, $p = 0.969$, $p = 0.321$, and $p = 0.254$, for positive attitudes toward plagiarism, negative attitudes toward plagiarism, and subjective norms toward plagiarism, respectively. These tests satisfy the assumptions necessary in order to proceed with the two-way ANOVAs (Green & Salkind, 2017).

Table 3

Tests of Normality

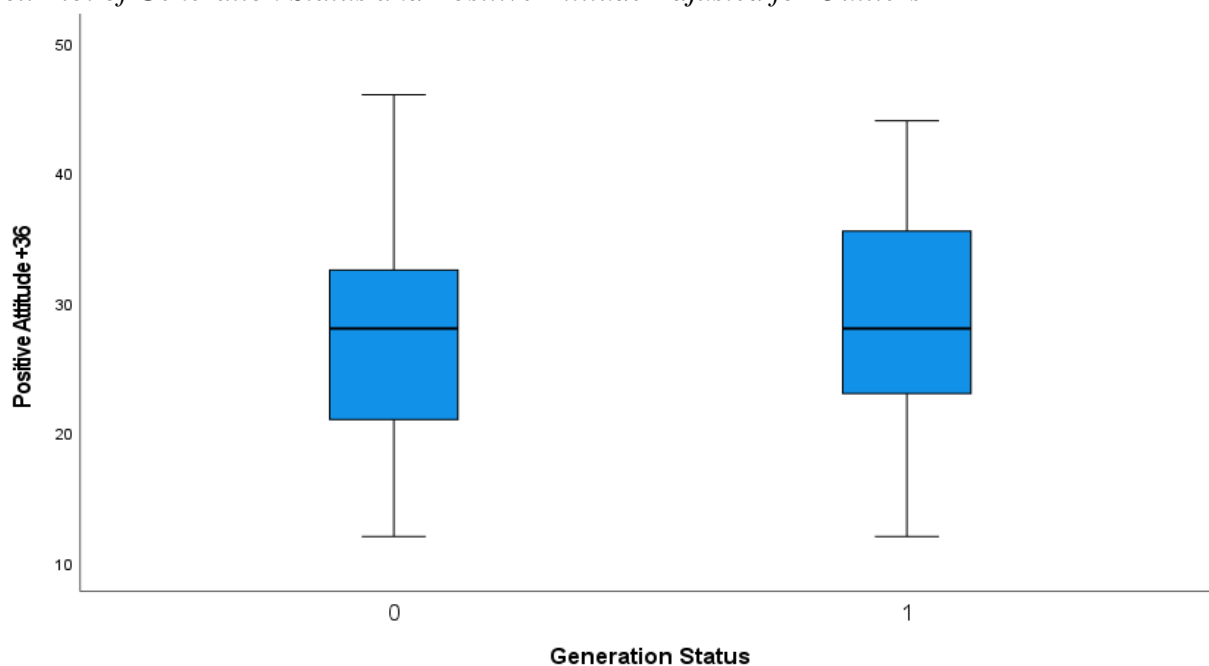
	Generation Status	Kolmogorov-Smirnov ^a		Shapiro-Wilk		
		Statistic	Sig.	Statistic	df	Sig.
Subjective Norms	0	.090	.200*	.971	63	.147
Toward	1	.104	.088	.957	63	.026
Negative Attitude	0	.108	.066	.970	63	.130
	1	.092	.200*	.974	63	.214
Positive Attitude	0	.101	.182	.981	63	.420
	1	.085	.200*	.978	63	.312

*Note.**. This is a lower bound of the true significance. Lilliefors Significance Correction applied. 0 = first-generation college students. 1 = continuing-generation college students.

The data were analyzed with the outliers suppressed and with the outliers eliminated. With there being no significant difference in the results of the analysis between suppressing or eliminating the outliers, the decision was made to eliminate the outliers. The four outliers were removed from the data set in order to construct new box plots and conduct normality tests again. After the removal of the four outliers the data were reduced to 126 participants, 63 first-generation and 63 continuing-generation students each. The new box plots revealed new outliers but were within the expected ranges (see Figures 2-7).

Figure 2

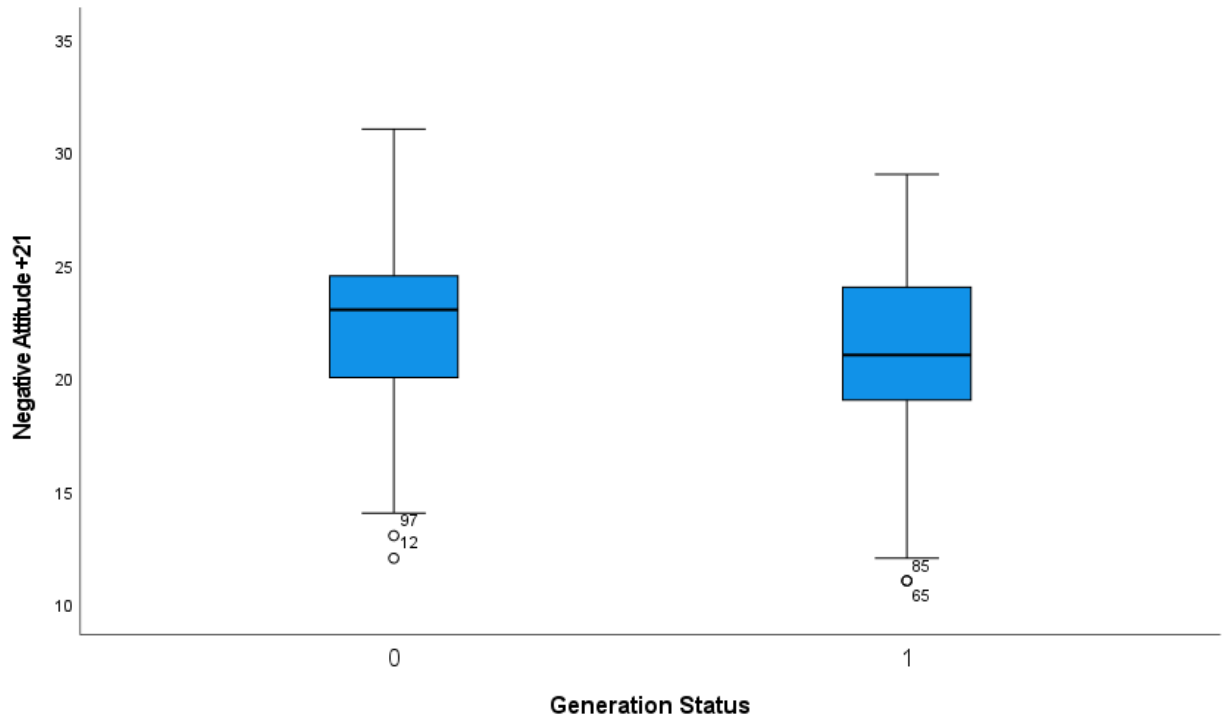
Box Plot of Generation Status and Positive Attitude Adjusted for Outliers



Note. Generation Status of 0 signifies first-generation college students. Generation Status of 1 signifies continuing-generation college students.

Figure 3

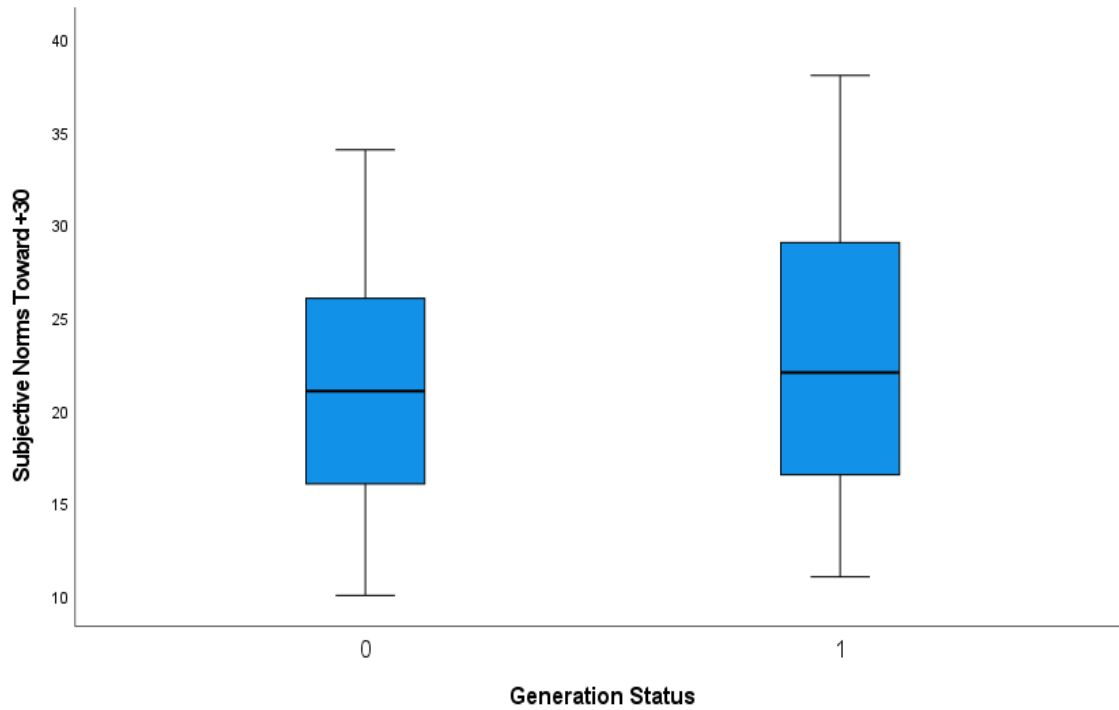
Box Plot of Generation Status and Negative Attitude Adjusted for Outliers



Note. Generation Status of 0 signifies first-generation college students. Generation Status of 1 signifies continuing-generation college students.

Figure 4

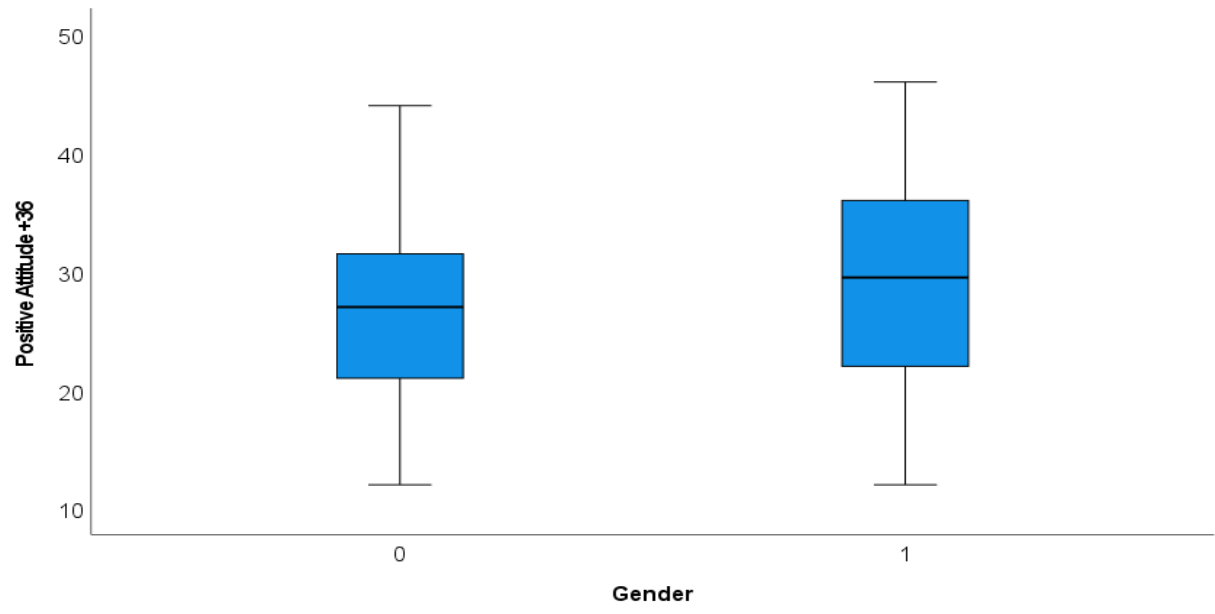
Box Plot of Generation Status and Subjective Norms Adjusted for Outliers



Note. Generation Status of 0 signifies first-generation college students. Generation Status of 1 signifies continuing-generation college students.

Figure 5

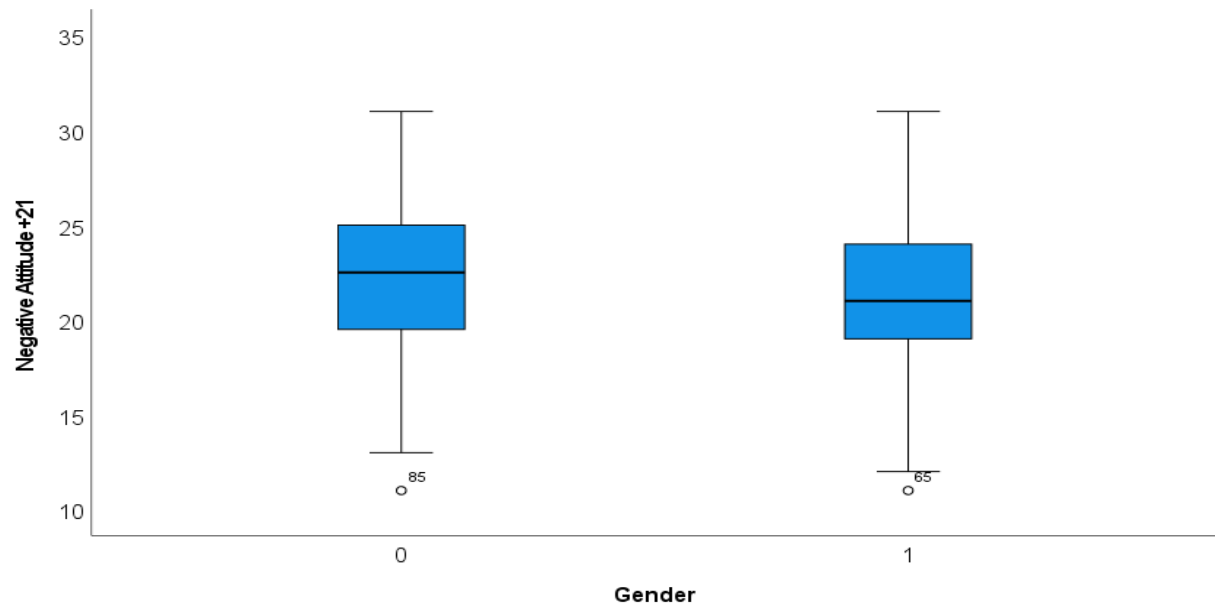
Box Plot of Gender and Positive Attitudes Adjusted for Outliers based on Gender



Note. Gender of 0 signifies female college students. Gender of 1 signifies male college students.

Figure 6

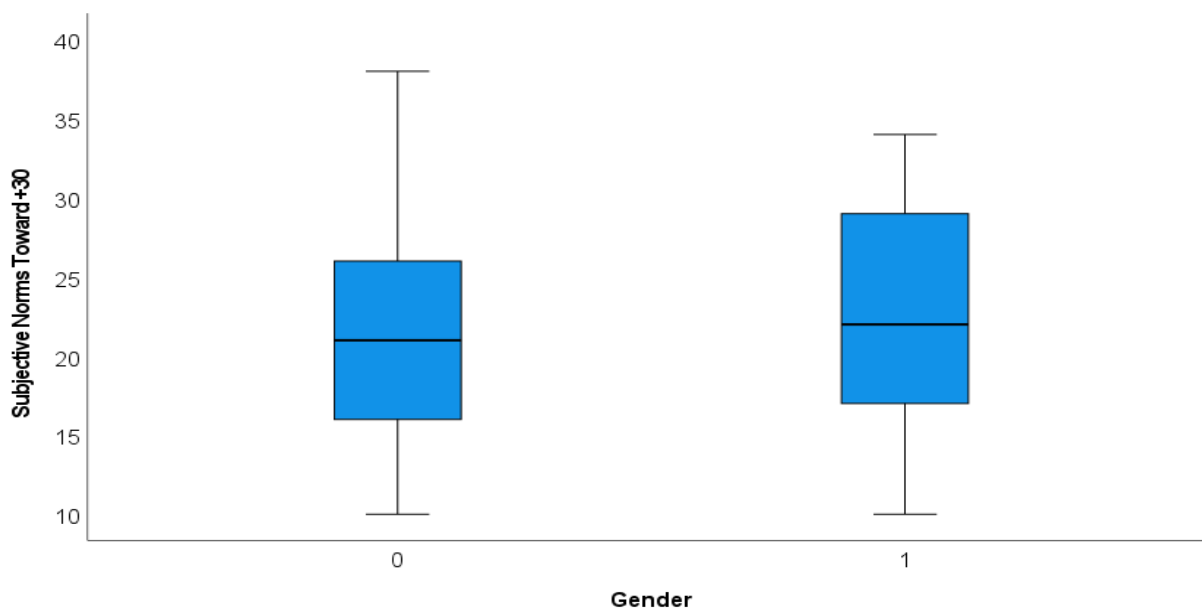
Box Plot of Gender and Negative Attitude Adjusted for Outliers



Note. Gender of 0 signifies female college students. Gender of 1 signifies male college students.

Figure 7

Box Plot of Gender and Subjective Norms Adjusted for Outliers



Note. Gender of 0 signifies female college students. Gender of 1 signifies male college students.

Hypotheses

Six *t* tests were conducted to examine the effects of introducing each independent variable to each of the dependent variables while 3 two-way ANOVAs were conducted to test the effects of both independent variables when introduced to the dependent variables. The level of significance for rejecting the null hypothesis was first established at $p < .05$. A Bonferroni correction was applied reestablishing the level of significance for each of the nine tests at $p = .006$. This correction protected against the increased Type I error risk that is inherent in multiple tests. The study-wise α was to be set at .05 with nine tests being run, one for each null hypothesis. The Bonferroni correction divides the study-wise α by the number of tests to guard against a compounding Type I error. In this case, .05 was divided by nine yielding the new $p = .006$ (Warner, 2013). The following sections detail the results of the *t* tests and two-way ANOVAs for each of the null hypotheses.

Null Hypothesis One

There was no significant difference between positive attitudes toward plagiarism scores among first-generation college students and continuing-generation college students as measured by the ATP Questionnaire. The SPSS results, $F(1,126) = 0.039$, $p = 0.554$, $\eta^2 = 0.003$, confirm the lack of a statistically significant main effect. The mean score for first-generation college students with a positive attitude toward plagiarism was 27.52, and the mean score for continuing-generation college students with a positive attitude toward plagiarism was 28.35. By virtue of the means scores, continuing-generation college students projected a slightly more positive attitude toward plagiarism, but the difference was statistically insignificant. Based on these findings, the null hypothesis failed to be rejected.

Null Hypothesis Two

There was no significant difference between positive attitudes toward plagiarism scores among college students based on gender (male and female) as measured by the ATP Questionnaire. The SPSS results, $F(1,126) = .209$, $p = 0.178$, $\eta^2 = 0.015$, confirm the lack of a statistically significant main effect. The mean score for female students with a positive attitude toward plagiarism was 27.02, and the mean score for male college students with a positive attitude toward plagiarism was 28.89. By virtue of the means scores, male college students projected a slightly more positive attitude toward plagiarism, but the difference was statistically insignificant. Based on these findings, the null hypothesis failed to be rejected.

Null Hypothesis Three

There was no significant difference between positive attitudes toward plagiarism scores among first-generation college students and continuing-generation college students based on gender (male and female) as measured by the ATP Questionnaire. The combination of college

generation status and gender on a college student's positive attitude toward plagiarism, $F(1,126) = 1.698$, $p = 0.195$, partial $\eta^2 = 0.014$, failed to produce a significant effect. Based on these findings, the null hypothesis failed to be rejected.

Null Hypothesis Four

There was no significant difference between negative attitudes toward plagiarism scores among first-generation college students and continuing-generation college students as measured by the ATP Questionnaire. The SPSS results, $F(1,126) = .384$, $p = 0.098$, $\eta^2 = 0.022$, confirm the lack of a statistically significant main effect. The mean score for first-generation college students with a negative attitude toward plagiarism was 22.40, and the mean score for continuing-generation college students with a negative attitude toward plagiarism was 21.11. By virtue of the means scores, continuing generation college students produced a slightly less negative attitude toward plagiarism, but the difference was statistically insignificant. Based on these findings, the null hypothesis failed to be rejected.

Null Hypothesis Five

There was no significant difference between negative attitudes toward plagiarism scores among college students based on gender as measured by the ATP Questionnaire. The SPSS results, $F(1,126) = .038$, $p = 0.096$, $\eta^2 = 0.022$, confirm the lack of a statistically significant main effect. The mean score for female students with a negative attitude toward plagiarism was 22.39, and the mean score for male college students with a negative attitude toward plagiarism was 21.10. By virtue of the means scores, male college students had projected a slightly less negative attitude toward plagiarism, but the difference was statistically insignificant. Based on these findings, the null hypothesis failed to be rejected.

Null Hypothesis Six

There was no significant difference between negative attitudes toward plagiarism scores among first-generation college students and continuing-generation college students based on gender (male and female) as measured by the ATP Questionnaire. The combination of college generation status and gender produced no statistically significant effects on a college student's negative attitude toward plagiarism: $F(1,126) = 0.092$, $p = 0.763$, partial $\eta^2 = 0.001$. Based on these findings, the null hypothesis failed to be rejected.

Null Hypothesis Seven

There was no significant difference between subjective norms toward plagiarism scores among first-generation college students and continuing-generation college students as measured by the ATP Questionnaire. The SPSS results, $F(1,126) = 1.324$, $p = 2.66$, $\eta^2 = 0.010$, confirm the lack of a statistically significant main effect. The mean score for first-generation college students with subjective norms toward plagiarism was 21.14, and the mean score for continuing-generation college students with subjective norms toward plagiarism was 22.46. By virtue of the means scores, continuing generation college students provided slightly higher levels of subjective norms toward plagiarism, but the difference was statistically insignificant. Based on these findings, the null hypothesis failed to be rejected.

Null Hypothesis Eight

There was no significant difference between subjective norms toward plagiarism scores among college students based on gender (male and female) as measured by the ATP Questionnaire. The SPSS results, $F(1,126) = 1.552$, $p = 0.268$, $\eta^2 = 0.010$, confirm the lack of a statistically significant main effect. The mean score for female students with subjective norms toward plagiarism was 21.16, and the mean score for male college students with subjective

norms toward plagiarism was 22.47. By virtue of the means scores, male college students produced a slightly higher level of subjective norms toward plagiarism, but the difference was statistically insignificant. Based on these findings, the null hypothesis failed to be rejected.

Null Hypothesis Nine

There was no significant difference between subjective norms toward plagiarism scores among first-generation college students and continuing-generation college students based on gender (male and female) as measured by the ATP Questionnaire. The combination of college generation status and gender produced no statistically significant effects on a college student's subjective norms toward plagiarism: $F(1,126) = 0.424$, $p = 0.516$, partial $\eta^2 = 0.003$. Based on these findings, the null hypothesis must fail to be rejected.

The study of 126 college students at the public university in the Southcentral United States produced results that indicated that neither college generation status or gender (male and female) are statistically significant factors in college students' attitudes and subjective norms toward plagiarism. The results, however, indicated that continuing college students and male college students maintain slightly more positive and less negative attitudes and subjective norms toward plagiarism. Despite these results, the differences between the groups in each configuration were not statistically significant. In testing each of the nine null hypotheses, there was not a statistically significant difference in attitudes or subjective norms between groups based on college generation status or gender in any configuration. As a result, all nine null hypotheses failed to be rejected.

CHAPTER FIVE: CONCLUSIONS

Overview

Chapter Five begins with a summary of the purpose and research questions of this study. It continues with a discussion of the findings with respect to the null hypotheses. Implications of the study follow the discussion. Next, limitations of the study are addressed. The report concludes with recommendations for future study.

Discussion

The purpose of this quantitative, causal-comparative study was to identify factors present in first-year college students, specifically first-generation and continuing-generation college students who present a favorable perception of plagiarism or who project subjective norms toward plagiarism (Creswell & Creswell, 2018). To investigate this topic, students enrolled in Introduction to Sociology and General Psychology at a regional university in the Southcentral United States were surveyed via the ATP Questionnaire (Mavrinac et al., 2010). This questionnaire measured the participants' positive and negative attitudes toward plagiarism as well as their subjective norms toward plagiarism. The questionnaire was constructed via application of the theory of planned behavior (Fishbein & Ajzen, 1975) and is useful in examining attitudes and beliefs that may be transferred as Bandura (1977) described in the social learning theory. The questionnaire was administered to 130 students during the first 6 weeks of the Fall 2021 semester.

The research questions in the study were based on two conditions: college generation status and gender. Applying the social learning theory (Bandura, 1977) and the theory of planned behavior (Fishbein & Ajzen, 1975) as the theoretical constructs, this study sought to provide greater knowledge of gender influences on the attitudes and norms toward plagiarism and to

develop some understanding of the possible effects of college generation status on establishing attitudes and norms toward plagiarism. Specifically, the research questions studied were:

RQ1: Is there a difference in scores between first-generation college students' positive attitudes toward plagiarism and continuing-generation college students based on gender?

RQ2: Is there a difference in scores between first-generation college students' negative attitudes toward plagiarism and continuing-generation college students based on gender?

RQ3: Is there a difference in scores between first-generation college students in subjective norms toward plagiarism and continuing-generation college students based on gender?

First-generation college students are those students originating from a family where no parent or guardian has earned a baccalaureate degree (Gillen-O'Neel 2019; Pike & Kuh, 2005). Continuing-generation college students are those students with at least one parent or guardian that has earned at least one baccalaureate degree (Gillen-O'Neel 2019; Pike & Kuh, 2005). Prior to the present study, college generation status had not been identified as a study condition in attitudes toward plagiarism.

Gender has been the subject of substantial research on causes and predictive factors of plagiarism and other academic misconduct, but with conflicting results. Early research on gender and academic misconduct, specifically plagiarism, indicated that males were more likely to commit plagiarism and other forms of cheating behaviors (AL-Dossary, 2017; Case et al., 2019; Henningsen & Henningsen, 2019; Krueger, 2014; Sprajc et al., 2017). These studies were countered by others that found either no significant difference or that females were more likely to cheat than males (Fass-Holmes, 2017; Stiles et al., 2017; Tindall & Curtis, 2020). Gender was added as an independent variable in this study to address the existing conflicted body of literature to clarify possible effects of gender on attitudes and norms toward plagiarism.

The study was designed to investigate whether first-generation college student status might influence attitudes toward plagiarism. There was a distinct possibility, based on existing research on first-generation college students, that their lack of understanding of rules and expectations that govern higher education students might make them more susceptible to experiencing attitudes and norms favorable to plagiarism as expressed by Holles (2016) and Longwell-Grice et al. (2016). As was noted in their research, first-generation students' lack of awareness of the severity of plagiarism may lead to less negative attitudes toward plagiarism. The results of this study did not support this previous result.

Null Hypothesis One

There is no significant difference between positive attitudes toward plagiarism scores among first-generation college students and continuing-generation college students as measured by the ATP Questionnaire. Based on the findings presented earlier, college generation status might not be a significant factor in a student's propensity to commit or favorable attitudes toward plagiarism. Null hypothesis one failed to be rejected.

The aggregate mean scores on presenting with positive attitudes toward plagiarism of first-generation college students were less positive than those of continuing-generation college students but not statistically significant. This may be due to first-generation college students experiencing college and its pressures without being able to socially connect with peers and faculty as well as their continuing-generation peers (Longwell-Grice et al., 2016; Strangfeld, 2019). This failure to connect and develop close relationships with peers and faculty may cause students to be hesitant to adopt social cultures at school clinging instead to values they learned prior to college. These students lack cultural capital (Bandura, 1977; Longwell-Grice et al., 2016). Another possible factor in this phenomenon is that first-generation college students may

focus more on their life lessons and social mores they developed at home than their continuing-generation peers. Families in the counties predominantly served by the research site university comprised populations that overwhelmingly reported membership in some type of church (U.S. Religion Census, n.d.). The 2010 United States Religious Census (n.d.) reported between 55% and 75% of families in these counties self-identified as members of evangelical, protestant churches. Southern Baptist was the most prominent membership reported among all denominations (U.S. Religion Census, n.d.). These fundamental, Biblically-based church affiliations promote a morally conservative lifestyle that would condone cheating behaviors, actively categorizing them as sin. This is evident in Solomon's words: "Whoever walks in integrity walks securely, but he who makes his ways crooked will be found out" (*New International Version [NIV]*, 1990, Proverbs 10:9). Solomon further stresses the importance of integrity in his multiple references on an unbalanced scale being an abomination to the Lord and just scales bringing pleasure to Him (Proverbs 11:1; 20:10; 20:23).

The focus on moral lessons taught in the home may account for less positive attitudes toward plagiarism among first-generation college students in the markedly Christian setting of the area surrounding the study site, but it does not support the occurrence in this study that continuing-generation college students maintain more positive attitudes. This may be explained by earlier research where up to 90% of those surveyed admitted to some form of plagiarism (Cronan et al., 2015; Curtis & Tremayne, 2019; Curtis & Vardanega, 2016; Waltzer & Dahl, 2020). Continuing-generation students may believe that academic misconduct is part of the college experience and, as such, be more accepting of it than their first-generation peers (Burnett et al, 2016). As Grira and Jaeck (2019) found, if students perceive cheating as acceptable, they

are more likely to engage and accept cheating behaviors. This could explain the slightly more positive attitudes toward plagiarism reported by continuing-generation college students.

Null Hypothesis Two

There is no significant difference between positive attitudes toward plagiarism scores among college students based on gender as measured by the ATP Questionnaire. Based on the findings presented earlier, gender might not be a significant factor in a student's propensity to commit or favorable attitudes toward plagiarism. The lack of a significant statistical difference aligns with Fass-Holmes (2017), Stiles et al. (2017), and Tindall and Curtis (2020). In each of these studies, no statistically significant results based on gender were reported. Conversely, in the current study, males did report more positive attitudes toward plagiarism, just not statistically significant. These results comport with the results reported by Atkinson et al. (2016) and Jereb et al. (2017). Krueger (2014) reported that male students considered plagiarism as a more ethical act than did female students. Beasley (2016) reported that males self-reported committing plagiarism more often than females but, as in the present study, the difference was not statistically significant.

The results of the current study on attitudes and norms toward plagiarism closely align with the results of Beasley's (2016) study where students completed a revised version of the ATP Questionnaire. Beasley posited the reason for the non-significant differences may be due to what he referred to as a blurring of gender lines and roles. Beasley further presents that studies reflecting a higher level of academic dishonesty in men might be artifacts the times of their studies. Considering Beasley's argument, this current phenomenon of diverging gender roles, may be a cause of the lack of statistically significant differences in this study as well. Considering these results and the limited number of participants, the presence of a trend

projecting more positive attitudes among males suggests that more studies with larger sample sizes are needed to fully analyze the question of whether gender influences positive attitudes toward plagiarism.

Null Hypothesis Three

There is no significant difference between positive attitudes toward plagiarism scores among first-generation college students and continuing-generation college students based on gender as measured by the ATP Questionnaire. Gender was measured as a possible factor influencing the positive attitudes toward plagiarism in both first- and continuing-generation college students as expressed by null hypothesis two. The finding that males maintained more positive attitudes toward plagiarism, albeit statistically insignificant, than females, resulted in the test for interactions between gender and college generation status to be of some importance.

The differences in attitudes between genders and between generation statuses, although statistically insignificant, was enough to take steps to verify that the two factors were not working together to cause an effect on the level of positive attitudes toward plagiarism held by students. A two-way ANOVA was employed to test this hypothesis. The two-way ANOVA compares the interactions between each of the two independent variables, *college generation status* and *gender*, on the selected dependent variable, *positive attitudes toward plagiarism*. It then tests for a combined interaction of the independent variables and how that interaction might affect the positive attitudes toward plagiarism. The results of the combined effect of *generation status* and *gender* in the two-way ANOVA, the $F(1,126) = 1.698$ score failed to reach a level of statistical significance indicating that there exists no significant difference between positive attitudes toward plagiarism scores among first-generation college students and continuing-generation college students based on gender as measured by the ATP Questionnaire. In

reviewing the results of the comparison data, there is not a significant combined effect of *gender* and *college generation status* on college students' positive attitudes toward plagiarism. The lack of statistically significant effects led to the failure of null hypothesis three to be rejected.

Null Hypothesis Four

There is no significant difference between negative attitudes toward plagiarism scores among first-generation college students and continuing-generation college students as measured by the ATP Questionnaire. There is no statistically significant difference between the levels of negative attitudes toward plagiarism between first-generation college students and continuing-generation college students. With no statistically significant difference between the levels of negative attitudes, null hypothesis four failed to be rejected. The aggregate mean scores of first-generation college students presenting with negative attitudes toward plagiarism were actually more negative than those of continuing-generation college students but not statistically significant level. This result is similar to those outlined by null hypothesis one results.

Fishbein and Ajzen (2015) in the theory of planned behavior argued that values and attitudes are often formed at home with persons of relevance to the actors. If first-generation college students are focusing more on these home-inculcated values in determining their attitudes, and if their homes are largely evangelically Protestant, Biblically-based homes (U.S. Religion Census, n.d.), then presenting a more negative attitude toward plagiarism could be expected among first-generation college students. The Biblical basis referenced above is based on the argument of the noted theologian, Alister McGrath (1997), that both Christian faith and Christian theology are derived from one primary source, the Bible. Further, he asserts that Christian ethics are firmly grounded in Christian doctrine. Continuing-generation college students still demonstrated a negative attitude toward plagiarism but not to the extent of their

first-generation peers. If the continuing-generation students learned what to expect in college from their families, as is indicated by Ganns (2016) and Hensley et al. (2015) in studies on differences in first- and continuing-generation college students, then their acceptance of a cheating culture is more likely (Grira & Jaeck, 2019). If these scenarios are an accurate representation of the causes of less negative attitudes toward plagiarism maintained by continuing-generation college students, then there is a greater need for more awareness training for students and faculty and establishment of injunctive norms in colleges to dissuade academic misconduct (Burgason et al., 2019).

Null Hypothesis Five

There is no significant difference between negative attitudes toward plagiarism scores among college students based on gender as measured by the ATP Questionnaire. There was no statistically significant difference between the scores of males and females in their scores of negative attitudes toward plagiarism. The lack of a statistically significant difference resulted in null hypothesis five failing to be rejected. The results comport with those of null hypothesis two in that males presented a less negative view of plagiarism but not statistically significant. These findings align to Atkinson et al. (2016) and Jereb et al. (2017) where female students generally reported more negative attitudes toward cheating behaviors and male students reported more positive attitudes toward cheating. Doss, Henley, Becker, et al. (2016), in a study on plagiarism, found both males and females reported a level of disagreement with the statement that “plagiarism is a necessary evil” (p. 31). Females tended to disagree more significantly. Gender may affect presenting a negative attitude toward plagiarism, but the results do not support that assertion as significant. The results of this question in the study may indicate that females, because of their demonstrated tendency in this study to maintain slightly more negative attitudes

toward plagiarism than their male counterparts, may be more open to responding to injunctive norms and plagiarism awareness training than their male counterparts. Despite female students' possible agreement with injunctive norms against plagiarism, those levels of negative attitudes indicated in the study would not support having different injunctive norms or training based on the gender of the students. Males and females should have the same level and type of training.

Null Hypothesis Six

There is no significant difference between negative attitudes toward plagiarism scores among first-generation college students and continuing-generation college students based on gender as measured by the ATP Questionnaire. Gender was measured as a possible factor influencing negative attitudes toward plagiarism in both first- and continuing-generation college students as expressed by null hypothesis five. The finding that males maintained less negative attitudes toward plagiarism, albeit statistically insignificant, than females combined with the results of testing for null hypothesis four where first-generation college students had a more negative reaction than their continuing-generation peers, although statistically insignificant, confirmed the need to test for interactions between *gender* and *college generation status* which might cause an effect on the level of negative attitudes toward plagiarism held by students. A two-way ANOVA was employed to test this hypothesis.

The two-way ANOVA compares the interactions between each of the two independent variables, *college generation status* and *gender*, on the selected dependent variable, *negative attitudes toward plagiarism*. It then tests for a combined interaction of the independent variables and how that interaction might affect the positive attitudes toward plagiarism. The results of the combined effect of *generation status* and *gender* in the two-way ANOVA, the $F(1,126) = 0.092$ score failed to reach a level of statistical significance indicating that there exists no significant

difference between positive attitudes toward plagiarism scores among first-generation college students and continuing-generation college students based on gender as measured by the ATP Questionnaire. In reviewing the results of the comparison data, there is not a significant combined effect of *gender* and *college generation status* on college students' negative attitudes toward plagiarism. The lack of statistically significant effects led to the failure of null hypothesis six to be rejected.

Null Hypothesis Seven

There exists no significant difference between subjective norms toward plagiarism scores among first-generation college students and continuing-generation college students as measured by the ATP questionnaire. There is no statistically significant difference between the levels of subjective norms toward plagiarism between first-generation college students and continuing-generation college students. As a result, null hypothesis seven was not rejected. The aggregate mean scores on presenting with subjective norms toward plagiarism of first-generation college students were slightly lower than those of continuing-generation college students but not statistically significant. This is similar to results for null hypotheses one and four.

The theory of planned behavior (Fishbein & Ajzen, 2015) supports that values and attitudes are often formed at home with persons of relevance to the actors. If first-generation college students are focusing more on these home-inculcated values in determining their attitudes, and if their homes are largely evangelically Protestant, Biblically-based homes (Public Religion Research Institute, 2021.), then presenting a more negative attitude toward plagiarism could be expected among first-generation college students. The negative attitude toward plagiarism is in line with Christian ethic and morality as discussed by McGrath (1997). Family members of continuing-generation college students may have believed that cheating was a part

of the college experience as is indicated by reports in that up to 90% of survey respondents committed some form of plagiarism (Waltzer & Dahl, 2020). Camara et al. (2016) reported people tend to align their beliefs to those who are important to them such as family and close friends. If they believed their families considered cheating as part of the college experience, then they would present with subjective norms more positive toward plagiarism (Al-Dossary, 2017; Giluk & Postlethwaite, 2015). This finding also supports the need for an increased emphasis on developing injunctive norms like codes of conduct and training college students and faculty in the harm created by plagiarism (Burgason et al., 2019). Despite the differences in reported levels of negative attitudes toward plagiarism, the training should be the same regardless of gender or generation status because the effect of the training would be to establish a cultural change that does not support academic misconduct (Burgason et al., 2019).

Null Hypothesis Eight

There is no significant difference between subjective norms toward plagiarism scores among college students based on gender as measured by the ATP questionnaire. There was no statistically significant difference between the scores of males and females pertaining to subjective norms toward plagiarism. The lack of a statistically significant difference meant that null hypothesis eight failed to be rejected. The results did align to those of null hypothesis two in that males presented higher degrees of subjective norms toward plagiarism but not to a significant degree. These findings match those by Atkinson et al. (2016) and Jereb et al. (2017). Bokosmaty et al. (2017) also found slight, but not significant, gendered differences on attitudes and norms toward plagiarism. The researchers speculated in the discussion of their findings that reason for the shift away from a gendered approach to academic misconduct may be the result of a convergence of gender roles making them much less distinct.

Null Hypothesis Nine

Gender was measured as a possible factor influencing the level of subjective norms toward plagiarism in both first and continuing-generation college students under null hypothesis eight. The finding that males had more positive subjective norms toward plagiarism, to a statistically insignificant level, than females when combined with the findings of null hypothesis seven where first-generation college students reported lower levels of subjective norms toward plagiarism than their continuing generation peers it became apparent that a test for interactions between gender and college generation status was important to the study. A two-way ANOVA was employed to test this hypothesis.

The two-way ANOVA compares the interactions between each of the two independent variables, *college generation status* and *gender*, on the selected dependent variable, *subjective norms toward plagiarism*. It then tests for a combined interaction of the independent variables and how that interaction might affect the *subjective norms toward plagiarism*. The results of the combined effect of *generation status* and *gender* in the two-way ANOVA, $F(1,126) = 0.424$ score failed to reach a level of statistical significance indicating there exists no significant difference between subjective norms toward plagiarism scores among first-generation college students and continuing-generation college students based on gender as measured by the ATP Questionnaire. In reviewing the results of the comparison data, gender appears to not have any significant effect on the level of subjective norms toward plagiarism held by either first- or continuing-generation college students. The lack of statistically significant effects led to null hypothesis nine failing to be rejected.

Implications

The present study applied social learning theory (Bandura, 1977) and the theory of planned behavior (Fishbein & Ajzen, 2015) as the theoretical constructs. Both theories consider how attitudes are formed and how they inform individual actions. The research was designed to determine if college generation status and gender are factors in forming attitudes (positive and negative) and subjective norms toward plagiarism. The problem cited earlier was that previous research did not consider whether college generation status might be a factor in committing plagiarism. The current study addresses this question and although no statistically significant results were found, there was a small trend in the findings that suggests college generation status may be a factor in a student's attitudes toward plagiarism. Additionally, the research added more data to the question of whether gender is a factor in attitudes and norms toward plagiarism.

The region where the study was conducted was a significantly religiously conservative community. The vast majority of the county population where the university is located and its prime recruiting district has experienced a significant increase in Christian church membership over the past 10 years. According to the 2010 U.S. Religion Census (n.d.), 70% of the population in the county were members or were significantly connected to Christian churches. The 2020 US Religion Census (Public Religion Research Institute, 2021) was published in November of 2021. In the updated census, Christian church membership had increased to 78% in the same county (Public Religion Research Institute, 2021). The Pew Research Center (2020) in their 2020 Religious Landscape Study reported that in Oklahoma regular church attendance, where adults attended services at least once a month, was 75% during both their 2007 and 2014 surveys. During the same period church attendance in the United States dropped from 72% to 69% (Pew Research Center, 2020). In the same 2014 survey, Christian affiliation was measured with 79%

of Oklahoman respondents claiming Christian affiliation where the total U.S. measurement was 70% (Pew Research Center, 2020). These surveys indicate a significantly stronger Christian churches affiliation in the region that this study on plagiarism occurred than may be evident in other parts of the United States. The percentage of reported Christian affiliation would lend toward greater evidence of people from this region aligning with Christian ethical and moral thoughts as discussed by McGrath (1997).

The percentage of the sampled population for this study between the ages of 18 to 24 years of age was 93.9%. That portion of the sample population was most likely living at home and under direct influence of their families' religious activities. Their families' membership and close association with Christian churches would most likely have exposed study participants to the distinctly Christian-based moral values taught by Christ during the Sermon on the Mount (*NIV*, 1990, Matthew 5-7) and echoed by the Apostle Paul in his letters to the church at Philippi, to Timothy, and to Titus. All these writings stress a Christian moral ethic of integrity and love. Paul in his letter to the church at Philippi urged church members to focus on what is "true...honest...just...and pure" in their dealings with others (*King James Bible*, 2014, Philippians 4:8). Paul charged Timothy to lead his church in Ephesus with "love, which comes from a pure heart and a good conscience and a sincere faith" (*NIV*, 1990, I Timothy 1:5). Titus is instructed to be an example to the young men in his church so that his "integrity, seriousness, and soundness of speech cannot be condemned" (*NIV*, 1990, Titus 2:7). These passages from the New Testament form an image from which Christians are to model their behavior. They are further bolstered by the writings of Solomon and others in the book of Proverbs with passages such as "Whoever walks in integrity walks securely, but he who takes crooked paths is found out" (*NIV*, 1990, Proverbs 10:9). The exposure of these lessons in Christian ethic may have

influenced the attitudes of study participants, possibly more so for the first-generation college students.

Where college generation status is concerned, the actual findings were unexpected. Although not statistically significant, the data suggest there may exist some connection between college generation status and attitudes toward plagiarism. Consistently across the battery of tests, continuing-generation college students reported slightly more positive attitudes and norms and slightly less negative attitudes toward plagiarism than their first-generation peers. This finding, because of its lack of statistical significance, does not represent a call to action but does address a need for further study with larger sample sizes within and beyond the geographical region. Further, the data trends noted in this research form a basis of support to increase efforts in establishing and enforcing injunctive norms that guard against plagiarism and other forms of academic misconduct while increasing education efforts for students, faculty, and staff in ways to avoid plagiarism and the harm academic misconduct causes to institutions. The goal of these actions would be to discourage future generations of college students from committing plagiarism and other forms of academic misconduct.

Ajzen and Fishbein (1980) suggested attitudes toward actions are formed by beliefs of that action. If the beliefs are positive, then the attitudes are likely to be positive, and, if negative, they are likely to be negative. Subjective norms are similarly formed in determining how persons important to the actors perceive certain behaviors. If individuals think that most people to whom they are close or hold in high esteem exhibit positive beliefs or attitudes toward a behavior, the individual's subjective norms will also be positive toward the same behavior (Ajzen & Fishbein, 1980). Following this rationale, it is possible that the participating students acted in accordance with beliefs they may have brought to college from interactions and experiences they

experienced prior to matriculation. If the students' parents and others they held in high esteem believed that cheating was part of the college experience as Cronan et al. (2015) and Curtis et al. (2018) have suggested, the continuing-generation students may have arrived with attitudes and norms more positive toward plagiarism and less negative. With most of the first-generation students originating from a geographic region where 78% of the population associate themselves with Christian church membership as reported in 2020 Census of American Religion (Public Religion Research Institute, 2021), then the lessons inculcated at home could be more negative toward cheating behaviors including plagiarism.

A possible implication for this trend is that first-generation college students, like their continuing-generation peers, are learning values and beliefs from important people in their lives before matriculating to college. The sample population originated from a region where 78% of the population claim membership in some church, 33% of those being an evangelical, Protestant faith (Public Religion Research Institute, 2021). Because first-generation students cannot access a guide in the home experienced in college, their only frame of reference is that which their families believe and that which they experienced in secondary and primary schools (Longwell-Grice et al., 2016; Strangfeld, 2019). When examining home and church values that pertain to Christian ethics of love and integrity, it is not surprising to find that these students do not generally present positive attitudes or subjective norms toward plagiarism and experience more negative attitudes toward the same. Christian ethic, drawing its basis from the Old Testament writings of Solomon with passages like, "The man of integrity walks securely" (*NIV*, 1990, Proverbs 10:9) is clearly in conflict with committing plagiarism. The ethical disconnect between plagiarism and Christian ethics continues in the fifth Chapter of Matthew with Christ's Sermon on the Mount. Paul adds to the commentary of integrity in his letters to churches in Philippi,

Ephesus, and Crete. These letters stress the importance of integrity in all actions (*NIV*, 1990, Philippians, 2 Timothy, & Titus). Plagiarism, a form of cheating, is diametrically opposed to this Christian ethic addressed in these writings.

Continuing-generation college students presented overall a slightly more favorable perspective of plagiarism in their rating on attitudes and subjective norms. They were slightly more positive and their scores on negative attitudes were slightly less negative than their first-generation peers. Values and beliefs are learned from experiences, either personally or vicariously, and these experiences form individuals' attitudes (Ajzen, 1980; Bandura, 1977). Continuing-generation college students learn about the nature of college from referent persons (parents and guardians) with previous experience (Gillen-O'Neel, 2019). The literature revealed that up to 90% of college surveyed students self-reported to have engaged in plagiarism at some point in their academic career (Cronan et al., 2015; Curtis & Vardanega, 2016; Waltzer & Dahl, 2020). With the reported prevalence of cheating in college, it is possible that continuing-generation college students are more likely to commit some form of academic misconduct in college. Students who perceive cheating as common tend to be more accepting of the behavior and are more likely to engage as well (Burnett et al, 2016; Grira & Jaeck, 2019).

If these assumptions are tenable, the primary implication of the present study is that a history of cheating in college leads to further cheating. This phenomenon was noted previously in research by Camara et al. (2016) in whose study participants' families and friends believed that plagiarism was acceptable reported more positive attitudes toward plagiarism using the same research instrument as was used in this study. To resist this troubling trend, higher education should focus on injunctive norms and systematic integrity programs that identify and correct cheating behaviors while educating all incoming students on the harm of plagiarism and how to

prevent intentional and unintentional instances of plagiarism. Because a likely cause of positive attitudes and norms toward plagiarism is the prevalence of the problem and a possible solution is to change the climate in higher education, all students regardless of age, gender, or generation status should participate in the proactive measures to dissuade plagiarism. This assertion is clearly aligned to Camara et al. (2016), Cronan et al. (2015), Cronan et al. (2017), and Uzun and Kilis (2020). Each found that injunctive norms, such as honor codes, codes of conduct, and character education, such as the Character First education series, are necessary for discouraging plagiarism. The research findings seem to be a call to advance these efforts further and begin this education at the secondary level or even in primary education as students are beginning to research topics and write their findings. This would result in students matriculating to college knowing how to cite and reference other works and its importance. In many cases, the knowledge of correct procedures eliminates the student's perceived need to plagiarize, or their accidental plagiarism (Camara et al., 2016).

Limitations

The study was subject to various threats to both internal and external validity. Measurement aspects of internal validity were managed by the selection of a tested and proved instrument with good Cronbach's alpha scores in selecting the ATP Questionnaire (Mavrinac et al., 2010). Other threats to validity manifested through the course of the study and review of the findings. One possible threat to the internal validity may be a possible confounding variable or religiosity. The region of the study was significantly one-sided in this respect, fundamental Christian. The greatest threats to the external validity will be the small sample size and the relative homogeneity of the population of the study region and how different they are from the rest of the United States.

The greatest limitation of the study was the small sample size. The sample size comprised the minimum number of participants to successfully employ the necessary analytic processes; however, the small sample size limits the generalizability of the results. The small sample size may have skewed the results in either direction for this study. Repeating the study at a significantly larger campus or on multiple campuses would have allowed for a much more stable sample population that could have produced more generalizable data. In addition to the small sample size the location of the study was in a region that was significantly more aligned to the Christian faith than other regions of the United States, 78% in the county of the survey where the general Christian affiliation in the United States was measured at 67.4% (Public Religion Research Institute, 2021). This significant difference in religiosity may have introduced a confounding variable that limits the study's generalizability of results.

Another limitation of the study was the culturally homogenous demographics of the sample. The demographics do not match populations located in other regions of the nation. The sample originated from a population where 78% of the families reported church attendance with half of those being members of Protestant, evangelical churches. This fundamentally Christian community holds a very conservative, biblically-based ethic (McGrath, 1997). Racially, the sample was also different from national averages consisting of a relatively substantial Native American population of nearly 20% and very small African American and Hispanic populations of 14% and 6% respectively. The small sample size increased the likelihood of failing to reject the null hypothesis when it should be rejected when in fact there is a difference between conditions, thus creating the potential for a Type II error (Gall et al., 2007). Type I error was controlled via the Bonferroni procedure.

The small, rural, regional university may yield significantly different results than a similar-sized university in a metropolitan area. The university size may also significantly affect the results. Choice of a Tier I or research university may also yield a sample that would respond differently than the small, land-grant, rural, regional university. A change of venue to a Tier I university 62 miles away would comprise significantly different demographics. The 2020 United States Religion Census (Public Religion Research Institute, 2021) reported a decline in church affiliation by four percent. If this study was conducted on either the east or west coast of the United States, it is likely to yield significantly different results. The differences could be the result of vastly different cultures in those locations from the research site, a small rural community in Oklahoma instead of large metropolitan areas in significantly more progressive regions. Considering the religious demographic alone, Sacramento and Los Angeles counties and Norfolk, Virginia maintain significantly fewer people reporting church affiliation at 67%, 67%, and 72%, respectively (Public Religion Research Institute, 2021). The racial compositions of these regions are also significantly different from the study location. These differences of cultural and economic setting limit the generalizability of this study's results.

Two additional limitations must also be considered. First, the study relied on self-reported answers to all responses. Because the questionnaire was administered online rather than face-to-face, the participants could have misrepresented their demographic data including college generation status. The participants could also have misrepresented their attitudes and subjective norms to provide what they believed were more socially and morally acceptable responses. Finally, the study participants were not offered any incentive or payment to participate. Including a small incentive from the instructors or a nominal gift, such as a gift card, may have increased

participation. The decision not to provide incentives arose from the researcher's inability to meet with the instructors of the courses for which the participants were enrolled.

Recommendations for Future Research

The study addressed important questions and underscored a need for further review. Its purpose was to identify causal factors present in first-year college students, specifically first-generation college students who have favorable attitudes and subjective norms toward plagiarism. The following list are recommendations for further research on plagiarism and factors that may vary by college generation status and gender. Each of these location changes would help identify possible Type II errors due to the current sample size and homogeneity. The recommendations for future research follow two paths: first, to increase participation to develop more generalizable findings and, second, to create a longitudinal perspective of the evolution of attitudes and norms during the college experience.

The study site is a small regional university in a rural setting. The small sample size was, in part, due to this setting. In order to develop greater generalizability, the current study and instrument should be administered at a larger campus, preferably a public research university in the south-central United States. Additionally, to consider the influence of the setting, a follow-up study should be conducted at a small, private, church-based university in the south-central United States as well as at research universities on either coast of the United States. The coastal view will allow for a more generalizable set of data as the cultural, ethnic, and religious demographics differ allowing for a better representative sample.

In order to study the generalizability of the results with respect to religion, the study could be conducted at a large Catholic university or another church-based university that is not as strongly aligned to the Southern Baptist Conference as was the research site. Additionally, the study could

be repeated at a non-Christian, religiously-affiliated university, such as those from Jewish or Islamic faiths, to consider the influence of non-Christian religious ethic that may influence participant responses. In each case, a question pertaining to religious affiliation should be added to the questionnaire's demographic questions. Currently, the questions are limited to college generation status, gender, ethnicity, and age.

The current study is a limited perspective of attitudes and subjective norms at a single point in time. Fishbein and Ajzen (2015) asserted that attitudes evolve over time based on lived experiences. Bandura (1977) related a similar outcome as environmental and social experiences occur and vicarious learning originates from other sources, particularly peers. Repeating the study at the same institution in April as opposed to the first two months of the fall semester would capture attitude changes over the course of the year. This would result in a short-term longitudinal study. Repeating the study at the same location in two years but limiting the participants to junior and senior students would result in a longitudinal perspective regarding the cohort's attitudinal and normative changes while enrolled in college. Both options would potentially increase the influence of the results and provide nuance to potential long-term effects of established injunctive norms.

This causal-comparative study on differences in attitudes and subjective norms toward plagiarism in college students based on their college generation status and gender addressed items not discussed in earlier research. Despite the failure to reject any of the null hypotheses, the data did provide some consistent, yet statistically nonsignificant, trends. Where college generation status was considered, continuing-generation college students trended to be more positive and less negative in their attitudes and subjective norms toward plagiarism than their first-generation peers. Male college students also tended to exhibit more positive and less

negative attitudes and subjective norms toward plagiarism than female students. Despite the presence of a consistent trend through each null hypothesis tested, none of the findings were statistically significant. Factors that may have contributed to these results included small, yet adequate, sample size for the study. Additionally, the sociocultural demographic of the study site was not parallel to the national demographic. Both of these limitations can and would be addressed by expanding the study as recommended. Recommendations for further study include repeating this study at sites with more diverse demographic settings and in different regions of the United States.

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APPENDIX A

Attitudes Toward Plagiarism Questionnaire

Please answer the questions honestly, as the questionnaire is completely anonymous.

If you are not completely certain about the meaning of the terms “plagiarism” and “self-plagiarism”, please read the following definitions:

Plagiarism is an unauthorized use of copyright (ownership), other people’s ideas, materials, processes, results or words, and presentation of someone else’s work as one’s own.

Self-plagiarism is when authors reuse their own previously published work without indicating that the previously published material is being reused, but rather presenting it as original and new.

The following statements refer to plagiarism (copying without citing the source) and self-plagiarism (copying one's own previous work without citing the source) among scientists and general scientific community. Please indicate to what extent you agree with each of the following statements and indicate your answer.

The numbers indicate the following:

- 1 Strongly disagree
- 2 Disagree
- 3 Neither agree nor disagree
- 4 Agree
- 5 Strongly agree

1.	Sometimes I'm tempted to plagiarize, because everyone else is doing it (students, researchers, physicians).	1	2	3	4	5
2.	Plagiarism impoverishes the investigative spirit.	1	2	3	4	5
3.	Short deadlines give me the right to plagiarize a bit.	1	2	3	4	5
4.	Self-plagiarism should not be punishable in the same way as plagiarism is.	1	2	3	4	5
5.	Sometimes one cannot avoid using other people's words without citing the source, because there are only so many ways to describe something.	1	2	3	4	5
6.	Plagiarized parts of a paper may be ignored if the paper is of great scientific value.	1	2	3	4	5
7.	The names of the authors who plagiarize should be disclosed to the scientific community.	1	2	3	4	5
8.	Young researchers who are just learning the ropes should receive milder punishment for plagiarism.	1	2	3	4	5
9.	I work (study) in a plagiarism-free environment.	1	2	3	4	5
10.	Those who say they never plagiarized are lying.	1	2	3	4	5
11.	It is justified to use one's own previously published work without providing citation in order to complete the current work.	1	2	3	4	5
12.	Since plagiarism is taking other people's words rather than tangible assets; it should NOT be considered as a serious offence.	1	2	3	4	5
13.	Sometimes I copy a sentence or two just to become inspired for further writing.	1	2	3	4	5
14.	Self-plagiarism is not punishable because it is not harmful (one cannot steal from oneself).	1	2	3	4	5
15.	When I do not know what to write, I translate a part of a paper from a foreign language.	1	2	3	4	5
16.	Plagiarism is not a big deal.	1	2	3	4	5
17.	I don't feel guilty for copying verbatim a sentence or two from my previous papers.	1	2	3	4	5
18.	Plagiarism is justified if I currently have more important obligations or tasks to do.	1	2	3	4	5
19.	I keep plagiarizing because I haven't been caught yet.	1	2	3	4	5
20.	In times of moral and ethical decline, it is important to discuss issues like plagiarism and self-plagiarism.	1	2	3	4	5
21.	It is justified to use previous descriptions of a method, because the method itself remains the same.	1	2	3	4	5
22.	Authors say they do NOT plagiarize, when in fact they do.	1	2	3	4	5

23.	Plagiarizing is as bad as stealing an exam.	1	2	3	4	5
24.	If a colleague of mine allows me to copy from her/his paper, I'm NOT doing anything bad, because I have his/her permission.	1	2	3	4	5
25.	Sometimes, it is necessary to plagiarize.	1	2	3	4	5
26.	Plagiarists do not belong in the scientific community.	1	2	3	4	5
27.	I could not write a scientific paper without plagiarizing.	1	2	3	4	5
28.	A plagiarized paper does no harm to science.	1	2	3	4	5
29.	If one cannot write well in a foreign language (e.g., English), it is justified to copy parts of a similar paper already published in that language.	1	2	3	4	5

Thank you for your cooperation.

APPENDIX B

Instrument Use Approval

Martina Mavrinac [REDACTED]

Mon 3/7/2022 3:06 AM

To: Harris, Michael Owen

Dear Michael, congratulations on your dissertation!

I am very pleased to receive this news and would be happy to receive a copy of your dissertation. You may publish the ATPQ as an appendix, just be sure to cite it properly.

If you need any help, please feel free to contact me.

I wish you much success in your future research!

Best wishes

Martina

Asst Prof Martina Mavrinac, PhD, PsyM
Head of Department
Department of Medical Informatics
Rijeka Faculty of Medicine
Brace Branchetta St. 20, 51 000 Rijeka-CRO

From: Martina Mavrinac [REDACTED]

Sent: Tuesday, September 1, 2020 2:06 AM

To: Harris, Michael Owen [REDACTED]

Subject: [External] RE: Attitudes Toward Plagiarism Questionnaire

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

Dear Harris,

I am glad you will use the ATP Questionnaire for your research study.

In the attachment you will find the original version of the questionnaire and the article where it's published.

The questionnaire can be used for future researches, but is essential to cite it the references.

I must point out that if you do not use the original version of the questionnaire (29 statements), but only few questions, the questionnaire will lose its metrical characteristics (validity, reliability, etc.). Be sure what your final goal is.

I will appreciate receiving one copy of any your publication (report or article) that makes use of survey data.

Thank you for your interest. I wish you luck in future researches.

Please be free to contact me if you have some questions.

Kind regards,

Asst Prof Martina Mavrinac, PhD, PsyM



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Croatia



Medicina Fluminensis
Statistical Editor
<https://www.medri.uniri.hr/hr/medicina-fluminensis.html>

Croatian Medical Journal
Statistical Editor



From: Harris, Michael Owen 
Sent: 31. kolovoza 2020. 22:32
To: 
Subject: Attitudes Toward Plagiarism Questionnaire

Dr. Mavrinac,

I am Michael Harris, a PhD candidate working on a prospectus for my dissertation on attitudes and norms toward plagiarism in first-generation college students. I have come across your instrument in studies during my research and would like to use it in my study. I am including a brief description of my problem statement, purpose of research, and my research questions. Please let me know what I must do to be allowed to use the instrument you have developed.

Problem Statement

The problem is that academic misconduct continues to be a significant problem in higher education. The issue of plagiarism and the need to find causal factors that may contribute to the propensity to cheat was highlighted when Cronan et al. (2015) cited a study that reported 89% of those surveyed believed that cheating in college leads to cheating in professional life after graduation. Research on plagiarism is prevalent and research on factors affecting first-generation college students has been growing. However, research considering any connections between factors impacting first-generation students and academic misconduct is missing from the professional body of knowledge. The problem is that research assessing the perceptions, attitudes, and social norms on plagiarism of first-generation college students to determine if their status might be an added and possibly predictive factor in a student's propensity to commit plagiarism is not sufficiently available.

Purpose Statement

The purpose of this study is to identify causal factors to a student's propensity to commit academic misconduct. Specifically, the paper will investigate whether there exists a significant causal relationship between the factors of being a first-generation college student and the student's positive attitude toward plagiarism, negative attitude toward plagiarism, or subjective norms toward plagiarism. This study seeks to begin establishing a baseline of data based on student perceptions at a regional university in the south-central United States. The ability to find causal factors of plagiarism will enable colleges and universities to establish countermeasures and support structures to assist students in avoiding academic misconduct.

Research Question(s)

RQ1: Is there a difference between first-generation college students' positive attitudes toward plagiarism and those held by second or greater generation college students?

RQ2: Is there a difference between first-generation college students' negative attitudes toward plagiarism and those held by second or greater generation college students?

RQ3: Is there a difference between first-generation college students' subjective norms toward plagiarism and those held by second or greater generation college students?

Thank you for your time and consideration.

Michael Harris



APPENDIX C**Conditional Host Site Approval**

Klippenstine, Marc A. [REDACTED]

Wed 1/20/2021 5:02 PM

To: Harris, Michael Owen

Yes, that does sound correct.

Marc

Marc Klippenstine, Ph.D.

Professor & Chair

Department of Psychology

Sent via the Samsung Galaxy S10

----- Original message -----

From: "Harris, Michael Owen" [REDACTED]

Date: 1/20/21 2:57 PM (GMT-06:00)

To: [REDACTED]

Subject: Re: [External] FW: Doctoral Study on Plagiarism--Michael Harris

[REDACTED]

I think I figured it out, looks like the current enrollment is 142 students in General Psychology and 133 in Intro to Sociology. Do those numbers sound correct?

Mike

From: Harris, Michael Owen [REDACTED]

Sent: Wednesday, January 20, 2021 2:48 PM

To: Klippenstine, Marc A. [REDACTED]

Subject: Re: [External] FW: Doctoral Study on Plagiarism--Michael Harris

Dr. Klippenstine,

Can you tell me how many students are enrolled in Intro to Psychology at ECU this spring?

Mike

From: Klippenstine, Marc A. [REDACTED]
Sent: Monday, January 11, 2021 8:44 PM
To: Harris, Michael Owen [REDACTED]
Subject: RE: [External] FW: Doctoral Study on Plagiarism--Michael Harris

That sounds good. Just let me know how I can help.

Marc

Marc Klippenstine, Ph.D.
Professor & Chair
Department of Psychology



Sent via the Samsung Galaxy S10

----- Original message -----

From: "Harris, Michael Owen" [REDACTED]
Date: 1/11/21 3:59 PM (GMT-06:00)
To: "Klippenstine, Marc A." [REDACTED]
Subject: Fw: [External] FW: Doctoral Study on Plagiarism--Michael Harris



Dr. Klippenstine,

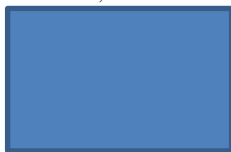
Thank you so much for your willingness to support my research. My new term begins next week and I will be seeking IRB approval during it. I will keep you informed of my progress. My Randall University email is mharris@ru.edu and my cell is [REDACTED]

From: Harris, Michael Owen [REDACTED]
Sent: Monday, January 11, 2021 10:04 AM
To: Isaacs, Phyllis L. [REDACTED]
Subject: Re: [External] FW: Doctoral Study on Plagiarism--Michael Harris

Dr. Isaacs,

Thank you so much. I will be joining the OACTE working group. My contact information is below. I will reach out to Dr. Klippenstine to coordinate my path forward and to thank him for his support. I look forward to working with you on OACTE and with the Psychology Department on my study.

Mr. Mike Harris
School of Education
3701 S. I-35 Service Road
Moore, OK 73160



From: Isaacs, Phyllis L. [redacted]
Sent: Monday, January 11, 2021 9:37 AM
To: Harris, Michael Owen [redacted]
Subject: [External] FW: Doctoral Study on Plagiarism--Michael Harris

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

Hello Michael—Below you will see the response from my Psychology chair. Please feel free to reach out to him regarding your study. He is more than willing to help. On another note, since you have taken over as the director of teacher education at Randall, I would like to add your contact information to our OACTE mailing list. We would like for you to join us as the representative from your institution. We have our first meeting for the semester this Friday, January 15th. It will be a Zoom meeting. I'll be sending out that information and the agenda later today. I'd appreciate it if you would send me your Randall email address and phone number to add to our list. Thank you—Phyllis

Phyllis Isaacs, Ph.D.
Professor and Dean
College of Education and Psychology



We educate and empower students to understand and transform our world.

From: Klippenstine, Marc A.
Sent: Friday, January 8, 2021 5:55 PM
To: Isaacs, Phyllis L. [redacted]
Subject: RE: Doctoral Study on Plagiarism--Michael Harris

That would be fine with me. He will need clearance through our campus IRB to be able to collect data - mostly he'll need to submit his IRB approval and information from his institution to get approval. Otherwise I'm good either that! I'm on the IRB committee so I can guide him through the process if he needs help.

Marc

Marc Klippenstine, Ph.D.
Professor & Chair
Department of Psychology



Sent via the Samsung Galaxy S10

----- Original message -----

From: "Isaacs, Phyllis L." [redacted]
Date: 1/7/21 4:51 PM (GMT-06:00)
To: "Klippenstine, Marc A." [redacted]
Subject: FW: Doctoral Study on Plagiarism--Michael Harris

Marc—This gentleman is a friend of Jerry Mihelic, which is why he contacted me. He would like to ask your General Psychology students to participate in his research study by filling out the attach questionnaire. He is willing to talk to you about anything, if you want. Feel free to do whatever you would normally do with a request such as this. Thanks—Phyllis

*Phyllis Isaacs, Ph.D.
Professor and Dean
College of Education and Psychology*



We educate and empower students to understand and transform our world.

From: Harris, Michael Owen [REDACTED]
Sent: Thursday, January 7, 2021 4:04 PM
To: Isaacs, Phyllis L. [REDACTED]
Subject: Doctoral Study on Plagiarism--Michael Harris

[REDACTED]

Dr. Isaacs,

Good afternoon ma'am. I am Mike Harris, a doctoral candidate with Liberty University. I am also the new Director of Teacher Education at Randall University. I am looking for a site to complete my doctoral study on attitudes and subjective norms toward plagiarism among first generation college students. I would like to survey Introduction to Psychology students using an instrument developed by Mavrinnac (2010) with high Cronbach's scores. The instrument is based on the work of Ajzen and Fishbein and their Theory of Planned Behavior (1991). The instrument is included in the attached article. It will be formatted to administer online with scoring on a Likert scale. The word document is the actual survey as approved to use by the author. My target collection period is in April, assuming board approval. I will be happy to provide drafts of my first three chapters if you would like to review them. Thank you so much for your time and consideration.

Very Respectfully,

Michael Harris

[REDACTED]
Doctoral Candidate, Liberty University
Director of Teacher Education, Randall University

APPENDIX D

Participant Consent Form

Title of the Project: Differences in Attitudes and Norms Toward Plagiarism Between First- and Continuing-Generation College Students

Principal Investigator: Michael Owen Harris, Doctoral Candidate, Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. In order to participate, you must be a full-time, enrolled student in the General Psychology PSYCH 1113 or the Introduction to Sociology SOC 1113 classes at East Central University during the Fall 2021 semester. Concurrently enrolled high school students are not eligible to take part in this study as it is to measure the full college experience. If you are enrolled in both PSYCH 1113 and SOC 1113 do not take this survey in the SOC 1113 course. Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research project.

What is the study about and why is it being done?

The purpose of the study is to determine if there are differences in the attitudes and norms associated with plagiarism between college students who are the children of university graduates and those who do not have a parent that has graduated with a four-year degree. Additionally, the researcher will compare whether there are differences between male and female students in their attitudes and norms toward plagiarism.

What will happen if you take part in this study?

If you agree to be in this study, I would ask you to do the following things:

1. You will be asked to open the link to the survey in the online companion to your PSYCH 1113 or SOC 1113 classroom. This link will open an anonymous 29 question survey on how strongly you agree or disagree with statements about plagiarism in Google Forms. This part of the task will take approximately 12 minutes.
2. After you have answered the 29 questions you will be asked four demographic questions about your gender, your parents education, your ethnicity and your age. These questions will take 2 minutes to complete. You will not be asked to include any identifying information.

How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from participating in this study. Benefits to society may include a more complete understanding about why students engage in academic misconduct, whether they act intentionally or accidentally. This study may help universities to build support systems that help student resist intentional cheating or better understand academic rules to prevent accidental cheating.

What risks might you experience from being in this study?

The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

How will personal information be protected?

The records of this study will be kept private. Research records will be stored securely, and only the researcher will have access to the records. Data collected from you may be shared for use in future research studies or with other researchers. If data collected from you is shared, any information that could identify you, if applicable, will be removed before the data is shared.

- Participant responses will be anonymous and personal identifying information will not be collected.
- Data will be stored on a password-locked computer and may be used in future presentations. The data may be used as comparison data for a similar study that may take place near the end of an academic year. After three years, all electronic records will be deleted.

How will you be compensated for being part of the study?

Participants will not be compensated for participating in this study.

What are the costs to you to be part of the study?

- There is no cost associated with participation in this study.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether to participate will not affect your current or future relations with Liberty University or [REDACTED]. 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.

What should you do if you decide 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.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Michael Harris. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact him at [REDACTED] or by email at [REDACTED]. You may also contact the researcher's faculty sponsor, Dr. Leldon Nichols, at [REDACTED]

Whom do you contact if you have questions about your rights as a research participant?

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 Ste. 2845, Lynchburg, VA 24515 or email at [REDACTED]

Your Consent

Before agreeing to be part of the research, please be sure that you understand what the study is about. You can print a copy of this document for your records. If you have any questions about the study later, you can contact the researcher using the information provided above.

APPENDIX E

Survey Instructions

Attitudes Toward Plagiarism Questionnaire Instructions

Please answer the questions honestly, as the questionnaire is completely anonymous. This survey will take 20 minutes to complete.

If you are not completely certain about the meaning of the terms “plagiarism” and “self-plagiarism”, please read the following definitions:

Plagiarism is an unauthorized use of copyright (ownership), other people’s ideas, materials, processes, results or words, and presentation of someone else’s work as one’s own.

Self-plagiarism is when authors reuse their own previously published work without indicating that the previously published material is being reused, but rather presenting it as original and new.

The following statements refer to plagiarism (copying without citing the source) and self-plagiarism (copying one's own previous work without citing the source) among scientists and general scientific community. Please indicate to what extent you agree with each of the following statements and indicate your answer.

The numbers indicate the following:

- 6 Strongly disagree
- 7 Disagree
- 8 Neither agree nor disagree
- 9 Agree
- 10 Strongly agree

APPENDIX F**Letters and Notes of Appreciation to Hosts**

January 8, 2022

[Host Professors]



Dr. [Host]:

Thank you so much for taking part in this research study on plagiarism. Your generous support of hosting the study and allowing your classes to be polled has helped us to understand why some students decide to take an unethical course that causes harm to themselves and their institutions. This is not a replication or modification of a previous study. Your efforts are a significant contribution to the study of academic integrity. Without your support, my efforts as a researcher would have been for naught.

Sincerely,

Michael Owen Harris
Graduate Student, Liberty University



APPENDIX G

Social Media and Recruitment Materials

Dear [Recipient]:

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a doctor of philosophy in higher education degree. The purpose of my research is to determine if there are differences in the attitudes and norms associated with plagiarism between college students who are the children of university graduates and those who do not have a parent that has graduated with a four-year degree. Additionally, the researcher will compare whether there are differences between male and female students in their attitudes and norms toward plagiarism. I am writing to invite eligible participants to join my study.

Participants must be full-time, enrolled students in the General Psychology PSYCH 1113 or the Introduction to Sociology SOC 1113 classes at East Central University during the Fall 2021 semester. Concurrently enrolled high school students are not eligible to take part in this study as it is to measure the full college experience. If you are enrolled in both PSYCH 1113 and SOC 1113 do not take this survey in the SOC 1113 course. Participants, if willing, will be asked to complete a survey on their attitudes and norms toward plagiarism. A link to the survey will be loaded into the online component of your PSYCH1113 or SOC 1113 class. It should take approximately 14 minutes to complete the procedure listed. Participation will be completely anonymous, and no personal, identifying information will be collected.

In order to participate, please click here [Plagiarism Questionnaire](#).

A consent document is attached to this email. The consent document contains additional information about my research. After you have read the consent form, please click the link to proceed to the questionnaire. Doing so will indicate that you have read the consent information and would like to take part in the study.

Sincerely,

Michael Owen Harris
Graduate Student, Liberty University



APPENDIX H

Institutional Review Board Request/Approval

**MEMO**

To: Michael Harris
From: Dr. Jeffrey Gibson *JKG*
Provost and Vice President for Academic Affairs
Subject: IRB Proposal FY21-23
Date: July 15, 2021

Dr. Marc Klippenstine (IRB Chair) and Ms. Leah Lyon (IRB Administrator) have reviewed the human subjects proposal, "Differences of Attitudes and Norms Toward Plagiarism Between First- and Continuing Generation College Students," of which Michael Harris is the principal investigator. The proposal was approved at the **exempt** status, **contingent upon full approval by Liberty University IRB** and all recommended changes to the proposal have been made. I concur with the reviewers' recommendation. You may now proceed with the study.

JKG: EM

cc Dr. Marc Klippenstine
Ms. Leah Lyon

Date: 8-2-2021

IRB #: IRB-FY20-21-915

Title: Differences of Attitudes and Norms Toward Plagiarism Between First- and Continuing-
Generation College Students

Creation Date: 5-13-2021

End Date:

Status: **Approved**

Principal Investigator:

Michael Harris Review



Board: Research Ethics

Office Sponsor:

Study History

Submission Type	Initial	Review Type	Exempt	Decision	Exempt
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Key Study Contacts

Member	Leldon Nichols	Role	Co-Principal Investigator	Contact	
Member	Michael Harris	Role	Principal Investigator	Contact	
Member	Michael Harris	Role	Primary Contact	Contact	