

THE EFFECT OF ENROLLMENT STATUS ON PLAGIARISM AMONG TRADITIONAL  
AND NON-TRADITIONAL STUDENTS

by

Robert Roth

Liberty University

A Dissertation Presented in Partial Fulfillment  
of the Requirements for the Degree  
Doctor of Education

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2017

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## ABSTRACT

Previous research has consistently shown that plagiarism in higher education exists. Most of the previous research had measured the number of incidents of plagiarism at different institutions of higher learning. Recently, research has tried to identify incidents of plagiarism in relation to student demographics or academic discipline. With the increase in older adults returning to school and the advancements in distance education, there is a need to understand whether acts of plagiarism vary by student status (i.e., traditional versus non-traditional enrollment). The purpose of this research was to examine incidents of plagiarism among traditional and non-traditional undergraduate students. Five thousand randomly-selected undergraduate students from a large public university in the southeastern United States were invited through their university email account to participate in a 20-question survey. Questions 1-10 were used to collect data on traditional or non-traditional demographics. Questions 11-18 were taken from McCabe's Academic Integrity Survey. Questions 19 and 20 were designed to collect data on the participants' understanding of plagiarism. A *t*-test was used to analyze the data to determine whether there was a statistically significant difference in reported instances of intentional plagiarism and unintentional plagiarism between traditional and non-traditional undergraduate students. The research showed that there was no statistically significant difference between reported instances of plagiarism between traditional undergraduate students and non-traditional undergraduate students. However, there was a significant difference between reported acts of intentional plagiarism and unintentional plagiarism with both groups reporting higher instances of unintentional plagiarism. Further research focusing on intentional and unintentional plagiarism is necessary to better understand student behavior and assist school faculty and administrators in addressing and preventing such acts.

*Keywords:* traditional, non-traditional, student, intentional, unintentional, plagiarism

## **Dedication**

I would like to first dedicate my dissertation to my late Grandfather, William “Coach” Johnston. After serving our country in the U.S. Marine Corps, he spent a career as a public school teacher and football coach. He was the very first person who made me believe that a doctorate was possible.

I would also like to dedicate my dissertation to my parents, Robert and Linda Roth. I want to dedicate this to them because in everything I do, they believe in me. And, in all of my successes and all of my failures, they love me.

Finally, I dedicate my dissertation to my family. I dedicate this to my wife, Stephanie, for allowing me to pursue this great and challenging endeavor and for reminding me of the importance of dedication, determination, and perseverance. I also dedicate this to my children: Peyton, Cooper, Brady, and Dalton. I hope this dissertation opens new opportunities for them and I want it to be an example of Philippians 4:13 (NIV) “I can do all things through Christ who strengthens me.”

### **Acknowledgements**

Although this dissertation has my name on it, there are so many individuals who played a role in its completion. I would like to acknowledge those individuals without whom this dissertation would not have been possible:

Dr. Barbara Boothe, my Committee Chair, for her feedback, her direction, her support, and, most importantly, for being the proverbial shoulder to cry on when I was struggling with time management and frustrated with my progress. I am thankful for her words, her guidance, and her prayers.

Dr. Mary Brewster, Chair and Professor of Criminal Justice at West Chester University of Pennsylvania, who served on my committee and guided me through the use of SPSS. She assisted me in developing and analyzing my statistical testing. She took a great deal of time out of her own very busy schedule to direct me in the use of SPSS software and in properly presenting and explaining my statistical results.

Dr. Reginald Kimball, Assistant Professor of Education at Liberty University, for his encouragement, his feedback, and his prayers. Dr. Kimball has been very positive and reassuring throughout this process and I am grateful that he chose to sit on my committee.

Stephanie Roth, my wife, for her never ending love and support. This has been a very long and challenging process and she has stood with me every step of the way.

I want to thank my parents-in-law, Jim and Janet Ramsey, along with my children, my neighbors, my colleagues, and my students. They all have played a role or had some influence on me as a teacher, as a student, and as a person. I thank God for the people He has brought into my life.

Of course, none of this is possible without God. It is He who strengthens me, encourages me, guides me, and keeps me moving. I hope to honor Him with this dissertation and with my life.

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### **List of Abbreviations**

Advisory Committee on Student Financial Assistance (ACSFA)

Arizona State University (ASU)

The Council of Writing Program Administrators (CWPA)

McCabe's Academic Integrity Survey (M-AIS)

National Center for Education Statistics (NCES)

United States Department of Education (USDOE)

## **CHAPTER ONE: INTRODUCTION**

### **Background**

Plagiarism, whether committed intentionally or unintentionally, is a serious issue in academia. It is so serious, that several states have passed laws making some intentional forms of plagiarism criminal offenses. In Florida, statute §877.17 states:

It shall be unlawful for any person or business entity to sell, offer to sell, or advertise for sale any term paper, thesis, dissertation, essay, or report or any written, recorder, pictorial, artistic, or other assignment which the seller or advertiser knew or reasonably should have known was intended for submission by a student, unaltered to any substantial degree, in fulfillment of the requirements for a degree, diploma, certificate, or course of study at a university, college, academy, school, or other educational institution in the state.

Violators of this offense are guilty of a misdemeanor of the second degree and may be punished by up to 60 days of incarceration (Florida Statute §775.082) and up to a \$500.00 fine (Florida Statute §775.083). Pennsylvania has a similar statute making it unlawful to sell or distribute any written assignment to a student in any academic institution to be submitted under the name of the student in fulfillment of any requirement in their course of study (Pennsylvania Crimes Code §7324). Violations of the statute results in a misdemeanor of the third degree and can be punished by up to one year in prison and a \$2,000.00 fine (Pennsylvania Crimes Code §15.66). And, in New York, the State Assembly unanimously voted to amend the education law by adding that no person may, for profit, prepare any material for another that is intended to be submitted to an academic institution (New York Education Law §2 13-b).

A historical examination of academic dishonesty in higher education shows that cheating in colleges and universities has been, and continues to be, a problem among students and a threat to the integrity of academia (Baker, Berry & Thornton, 2008; Bealle, 2014; Bowers, 1964; Coleman & Atkinson, 2014; Ford, 2015; Henslee, Murray, Olbright, Ludlow, Hays & Nelson, 2016; Roig, 2010; McCabe, 1996; Qualls, 2014; Whitley, 1998). From the landmark study conducted by Bowers in 1964 to the multiple studies conducted by McCabe (1992 & 1999) and McCabe and associates (1994, 1996, 2001) to Robertson (2008) to Rinn, Boazman, Jackson & Barrio (2014), studies on cheating have consistently shown high levels of instances of academic dishonesty among college and university students and have explored characteristics and demographics of students likely to cheat along with their motivations.

A serious form of cheating is plagiarism. Plagiarism, from the Latin word *plagiarius* meaning to kidnap or abduct, is the intentional presentation of another's work as one's own without authorization (Chaudhuri, 2008; Eisner Institute, 2012; Hansen, 2003, Honig & Bedi, 2012). The United States Department of Education (2005) defines plagiarism as "appropriating another person's ideas, processes, results, or words without giving proper credit." In Duke University's (2013) definition, a distinction is made between intentional and unintentional acts of plagiarism. According to The Duke Community Standard in Practice: A Guide for Undergraduates (2013), plagiarism occurs when a student presents information or words of another as their own without giving proper credit to the source. This can be done with the intent to deceive (intentional), through reckless disregard for proper research and writing procedures (unintentional), or through a student's ignorance or negligence of crediting sources (unintentional) (Duke University, 2013). The Council of Writing Program Administrators (CWPA) (2003) identifies plagiarism with the following: "In an instructional setting, plagiarism

occurs when a writer deliberately uses someone else's language, ideas, or other original (not common-knowledge) material without acknowledging its source" (pg. 1).

In today's technological world where the Internet has provided near instant access to a seemingly unlimited amount of information from a wide variety of sources, plagiarism has become an increasingly troubling issue and its once clear definition has become blurred (Gabriel, 2010). This concept of the blurred lines is supported by Phillips's (2012) claim that even when students properly cite the use of legitimate sources it is still plagiarism if there is insufficient original content to balance the author's ideas with the referenced information.

In keeping with these advancements in technology, there is a new category of college student emerging. Colleges and universities are seeing an increased number of working adults enrolling into undergraduate programs for a variety of reasons including: transitioning into a new career, advancing a current career, improving one's skills, and increasing one's earning potential (Randolph College, 2013). The National Center of Education (NCES), as a part of the U.S. Department of Education (USDOE), reports that student enrollment in degree granting institutions has increased 38% from 1999-2009 (2010). Contributing to that growth is the increased number of non-traditional students entering the ranks of colleges and universities. From the same NCES report, non-traditional student growth increased by 43% compared to traditional student enrollment of 27% during those same years (USDOE, 2010). A non-traditional student, according to the NCES (2002), is any student who meets one or more of the following criteria: delays enrollment by not entering an institution of higher education in the same calendar year that he or she finished high school, attends school as a part time student for some part of the year, works at least 35 hours a week, is considered financially independent for purposes involving financial aid, has children (or dependents other than a spouse), is a single

parent, or received a high school diploma through a GED or other high school certificate program.

Surveys regarding instances of plagiarism among students in higher education have reported that cheating in college is both prevalent and growing (McCabe, Trevino, & Butterfield, 2001; Qualls, 2014). The first significant research conducted on cheating in higher education was done by Bowers in 1964. This research concluded that 65% of the students participating in the study reported cheating on their assignments (Bowers, 1964). Three decades later, McCabe and Bowers (1993) repeated the study at nine of the same institutions Bowers surveyed in that initial study in 1964. This research reported an increase in some areas of self-reported acts of cheating, but the overall outcome yielded roughly the same results as the earlier study (McCabe & Bowers, 1994).

Although plagiarism falls under the umbrella of cheating, or academic dishonesty, there is something about plagiarism that separates it from other forms of cheating. Plagiarism is the only form of cheating that might not be committed intentionally. There are a variety of cheating methods. These include: copying other students' work, taking credit for work done by others, falsifying data, hiding books or notes, lying about personal circumstances, using unauthorized material in testing, and plagiarism (Beauchamp & Murdock, 2009). Of those cheating methods, plagiarism is the only act that might occur without the intent to cheat. Plagiarism can occur due to a lack of understanding of the appropriate rules of research and writing.

The research done by Bowers in 1964 and McCabe and Bowers in 1993 focused on the "why" of academic dishonesty and looked to identify reasons for cheating by surveying large numbers of students across the nation. Neither of the studies examined the "what" of cheating. More recently, research on academic dishonesty in higher education began looking at student

demographics and characteristics such as age (Coleman & Atkinson, 2014; Iyer, 2006; Jurdi, Hage & Henry, 2011), gender (Coleman & Atkinson, 2014; Iyer, 2006; Jurdi, Hage & Henry, 2011), academic discipline (Carpenter, Harding, Finelli, Montgomery, & Passow, 2006; Iyer, 2006; McCabe & Trevino, 1993), academic year in college (Brown, 2002; Iyer, 2006), religiosity (Robertson, 2008), institutional involvement in athletics (Robertson, 2008; Shariff, 2011) and Greek life (Glum, 2014; McCabe & Bowers, 2009).

Previous research failed to measure instances of intentional and unintentional plagiarism as different instances, or examined plagiarism across student enrollment types. This research will specifically address self-reported instances of plagiarism, intentional and unintentional, based on enrollment as a traditional or non-traditional undergraduate student. There is a theoretical framework that underpins this approach in studying plagiarism: Rational Choice Theory. Rational Choice Theory states that all people choose to engage in criminal or deviant behavior as a result of their own rational decision-making process (Jennings & Beaudry-Cyr, 2014). That is, people will perceive a situation and the factors surrounding that situation and choose to act, or not to act, based upon perceived outcomes (Cochran, 2015). This theory is the theoretical foundation of intentional plagiarism. Regardless of the reasons why students choose to intentionally plagiarize: pressure from family or for good grades or for better jobs (Anderman, 2015; Cleary, 2012; Middle Georgia State University, 2016; Popomaronis, 2016; Spieler, 2013); poor time management (Middle Georgia State University, 2016); because they believe that their classmates are plagiarizing (Blackburn, 2013; Popomaronis, 2106); because you do not think you will get caught or punished (Cochran, 2015; Popomaronis, 2013) or disdain for the assignment or the faculty member or the school (Middle Georgia State University, 2016), these just become influences or justifications in the rational decision to intentionally plagiarize.

However, this theory requires that the person or student in this case, be informed of his or her actions and the consequences of those actions. Along with the foundation of rational choice, this research must also include a view on the lack of understanding, or ignorance, regarding behavior. Instances of plagiarism also occur as a result of a student not having the right skills or knowledge or understanding of proper research and writing (Beasely, 2014; Cleary, 2012; Middle Georgia State University, 2016). Plagiarism might also occur unintentionally when there are differences in cultural understanding of crediting the work of others (Razek, 2014).

### **Problem Statement**

Research conducted by Anderman (2015), Bealle (2014), Bowers (1964), Bretag (2013), DuPree & Sattler (2010), Fain (2012), Henslee et al., 2016, McCabe (1999, 2005a, 2005b), McCabe and Bowers (1994), McCabe and Trevino (1996), McCabe et al. (2001), and Robertson (2008) shows that cheating is prevalent in institutions of higher education. This prevalence of cheating is a threat to the integrity of higher education and the value of the education represented by an undergraduate degree (McCabe & Bowers, 2005; Whitley, 1998). Plagiarism is a specific type of cheating and has the distinction of being a form of academic dishonesty that can be committed intentionally as a result of purposeful cheating (Cochran, 2015; Spieler, 2013) and unintentionally as a result of negligence or ignorance (Middle Georgia State University, 2016; Razek, 2016).

Statistics show that college enrollment in the United States is increasing. According to the NCES (2016), total undergraduate enrollment in the fall semester of 2014 reached 17.3 million students. This was an increase of over 30% from the same time in the year 2000 (NCES, 2016). It has been proposed by the NCES (2016) that enrollment will continue to rise with a projected increase of 14% over the next 10 years. Non-traditional students are the fastest

growing undergraduate population (USDOE, 2011). In 2011-12, almost 75% of all undergraduates possessed at least one non-traditional characteristic (Diamond, 2016; USDOE, 2015).

In an effort to identify problematic areas of academic cheating among college students, it is necessary to pinpoint where the highest areas of academic cheating take place. Previous research has studied academic dishonesty, in general, by specific student demographics (Danilyuk, 2015; Iyer, 2006; McCabe & Bowers 1994) and acts of academic cheating, as well as academic disciplines (Henslee et al., 2016; McCabe, 2005b) and academic cheating. The results of these studies have helped identify the reasons why students might plagiarize. These results allow the Middle Georgia State University's Student Success Center (2016) to present reasons why students plagiarize. These reasons are: lack of research skills, difficulties evaluating sources, confusion between plagiarism and paraphrasing, carelessness, confusion on proper citing of sources, pressure from outside influences (family, jobs, scholarships), poor ethics, and poor time management (Middle Georgia State University, 2016). These reasons are reiterated by Cleary's (2012) *Top Ten Reasons Students Plagiarize & What You Can Do About It*. Both of these sources report a mix of reasons for intentional plagiarism and unintentional plagiarism. Instead of looking at the various explanations for plagiarism, research needs to examine plagiarism as a choice and as an accident.

Taking a closer look at those areas most related to the characteristics of traditional and non-traditional undergraduate students, a report by Heibutzki (2013) described how poor time management can affect an undergraduate student. The report stated that poor time management is often the result of too many responsibilities (Heibutzki, 2013). Not only do undergraduate students carry heavy course loads, but also have the demands of a job as well (Heibutzki, 2013).

Research conducted by Appiah (2016) concluded that poor time management was a factor in students' decisions to plagiarize. This is important because a non-traditional undergraduate often carries the burden of a job and a family along with school.

Research conducted by Murray, Henslee, and Ludlow (2014) reported that married students cheat less than those without a spouse. It was also reported that younger students cheat more frequently than older students (Murray et al., 2014). Students entering college immediately after completing high school will typically enter at the age of 18 or 19 years old. Students who enter college after the year they graduate high school enter at an older age. Having the responsibility of a family and being of an older age might increase the student's maturity level and affect their decision whether or not to cheat.

The problem is that our college classrooms are growing with a great variety of students and plagiarism continues to be a problem. Identifying a relationship between the type of plagiarism (intentional or unintentional) with a type of student (traditional or non-traditional) can be the first step towards increasing understanding and improving student work. Reasons like poor time management (Appiah, 2016, Heibutzki, 2013), poor research and writing skills (Appiah, 2016), or a lack of understanding of plagiarism (Appiah, 2016) might be better addressed if they are connected to a characteristic.

### **Purpose Statement**

The purpose of this quantitative research study was to examine self-reported instances of intentional and unintentional plagiarism by type of student enrollment as traditional or non-traditional undergraduate students. Through the use of a non-experimental, causal comparative study, the research will explore any relationship between acts of plagiarism and student enrollment and it will also compare self-reported instances of intentional plagiarism with

unintentional plagiarism to see if one type is more prevalent than the other (Gall, Gall & Borg, 2010). The dependent variable in this research was the self-reported incidents of plagiarism. Plagiarism, for the purpose of this research, was identified as intentional and unintentional. Intentional plagiarism takes place when a student intentionally procures or uses material or information from another source without properly crediting the source (Duke University, 2013; Morrison, 2015). Unintentional plagiarism takes place when a student uses material or information from an outside source and unknowingly, or unintentionally, fails to properly cite or credit the source (Duke University, 2013; Morrison, 2015). The independent variable in this research was the student enrollment type. This was identified as a traditional student or non-traditional student. A traditional student is one who enrolls in college as a full-time student within the same calendar year as when they graduated high school and received their high school diploma (Deil-Amen, 2011; Gulley, 2016; NCES, 2002). A traditional student does not work full-time (more than 35 hours per week) while enrolled and they are not considered financially independent (Deil-Amen, 2011; Gulley, 2016; NCES, 2002). Traditional students also have no dependents of their own (Deil-Amen, 2011; Gulley, 2016; NCES, 2002). Any participant who does not meet the definition of a “traditional college student” is considered a “non-traditional college student”. The population for this research consisted of undergraduate college students from a large public university located in a southeastern state of the United States.

### **Significance of the Study**

This research took a view of plagiarism in colleges and universities that is different than what is found in the literature. While other research explored academic dishonesty, or cheating, in general, this research focused specifically on plagiarism. Previous research measured plagiarism by school of study (Carpenter et al, 2006; Schmitt, 2014), student demographics or

characteristics (Iyer, 2006; Robertson 2008; Schiming, 2013), involvement in school activities (Bourassa, 2011; McCabe & Bowers, 2009; Robertson, 2008), and online versus residential instruction (Miller & Young-Jones, 2012; Watson & Sottile, 2009). No research looked specifically at intentional and unintentional instances of plagiarism, and no study looked at academic dishonesty of traditional and non-traditional undergraduate students.

Over the years, schools have initiated strategies such as honor codes, disciplinary policies, student tutorials, and the use of plagiarism recognition software with little change in reducing acts of plagiarism (McCabe & Trevino, 1993; McCabe, 2005a & 2005b). Sadly, the more plagiarism becomes an accepted practice in higher education, the more it undermines the integrity of the educational environment (Robertson, 2008; Thomas, 2015).

This research filled a gap in the literature by looking at the intent and ability of traditional and non-traditional undergraduate students in committing plagiarism. The research also examined if there was a difference in the number of instances of self-reported intentional plagiarism and unintentional plagiarism between the two groups. By looking at the intent of the student in the commission of the act, it will be possible for the institution to make a connection between specific explanations of plagiarism and to determine if the focus for improvement should be on discipline (intentional) or remediation (unintentional) (Kreuter, 2013).

### **Research Questions**

**RQ1:** Is there a significant difference between the number of self-reported instances of intentional plagiarism of traditional undergraduate students and non-traditional undergraduate students?

**RQ2:** Is there a significant difference between the number of self-reported instances of unintentional plagiarism of traditional undergraduate students and non-traditional undergraduate students?

### **Null Hypotheses**

**H<sub>01</sub>:** There is no statistically significant difference between the number of self-reported instances of intentional plagiarism of traditional undergraduate students and non-traditional undergraduate students.

**H<sub>02</sub>:** There is no statistically significant difference between the number of self-reported instances of unintentional plagiarism of traditional undergraduate students and non-traditional undergraduate students.

### **Definitions**

Throughout this paper, the terms “college”, “university”, and “institution of higher education” will be used interchangeably. Each of these terms will be used to identify a post-secondary educational institution offering undergraduate degrees.

The following is a brief list of terms used throughout the research and their definitions:

1. *Academic Dishonesty*, as defined by The Center of Academic Integrity, is “dishonest behavior related to academic achievement including cheating, plagiarism, lying, deception and any other form of advantage unfairly obtained by one student over others” (Wideman, 2008).
2. *Plagiarism* is defined as the intentional or unintentional use of another’s words, ideas, or processes without proper credit provided to the source (Duke University, 2013). It is important to note that, for the purposes of this study, there is a difference between

- an intentional act of plagiarism for the purposes of cheating and unintentional acts of plagiarism when the student may simply not know or understand the rules of writing.
3. *Intentional Plagiarism* will be defined as any act of plagiarism committed as the result of a student's purposeful and intentional effort to present information from another as his or her own (Duke University, 2013). Acts of intentional plagiarism can include the use of term paper mills, having another person write part or all of a paper, resubmitting another's paper as your own, or copying and pasting information from an outside source with the intent of using that information as your own.
  4. *Unintentional Plagiarism* will be defined as any act of plagiarism as the result of a student's lack of understanding of the rules of writing and the disregard of the requirement of properly citing the source of information gleaned from outside resources (Duke University, 2013).
  5. *Non-traditional student*, as defined by the NCES (2002), is any student that meets one or more of the following criteria: delays enrollment by not entering an institution of higher education in the same calendar year that he or she finished high school, attends school as a part time student for some part of the year, works at least 35 hours a week, is considered financially independent for purposes involving financial aid, has children (or dependents other than a spouse), is a single parent, or received a high school diploma through a GED or other high school certificate program.
  6. *Traditional student* is a student between the ages of 18 and 24 who graduates from high school and transitions into an undergraduate college or university program within the same calendar year; is defined by the school as a full-time student; is considered financially dependent to another for the purposes involving financial aid;

has no dependents of their own; and, if working, works fewer than 35 hours per week (NCES, 2002).

It is important to note that whether the student is enrolled as a residential student, a residential student taking some online classes, or a fully online student does not influence traditional or nontraditional student characteristics (Quillen, 2015). Therefore, a student who is enrolled as a full-time online student could be a traditional student. For the purposes of this research, online coursework is not an enrollment characteristic but a classroom environment and will not be measured (Bird, 2014).

## **CHAPTER TWO: REVIEW OF THE LITERATURE**

### **Introduction**

This section will address and summarize the current and relevant literature regarding plagiarism and characteristics related to the type of student enrollment. Specific topics will be discussed and then related through student attitudes and motivations towards intentionally plagiarizing their work and unintentionally plagiarizing in their work due to a lack of understanding of the rules of writing. Responsibilities of academic institutions, to include strategies used to address and control plagiarism, and the role punishments related to plagiarism will be investigated in an effort to distinguish institutional attitudes and enforcement of plagiarism. Social aspects and concerns will be included to assist in providing insight into the egregiousness and near tolerance of plagiarism at the college level.

There has been extensive research in the area of cheating and plagiarism in higher education. Research conducted over the years by Anderman (2010), Bretag (2013), Bowers (1964), Fain (2012), McCabe (1999, 2005a, 2005b), McCabe and Bowers (1994), McCabe and Trevino (1996), McCabe et al. (2001), and Robertson (2008) continue to show that cheating is a problem at institutions of higher education. In an effort to establish the relevance for this specific research, a thorough review of trends in college enrollment will be addressed. Once the role of the traditional and nontraditional student is established in the grand scheme of college enrollment, a close look will be taken at the theoretical explanations behind acts of academic dishonesty, specifically plagiarism, and the attitudes and understanding students have toward plagiarism and their intent to plagiarize.

## **Responsibilities of Academic Institutions**

People choose to attend an institution of higher learning for a variety of reasons. Looking past the reason of “my parents made me,” some of the most influential reasons are: opening up opportunities, increasing independence, opportunities to explore different options, and investing in yourself and your future (The College Board, 2015). Students who chose to attend an institution of higher education have more opportunities in the work force. They have the potential to earn higher salaries in better jobs than those with just a high school diploma (McGuire, 2011; The College Board, 2015). College students are also provided the opportunity to meet new people, make new friends, and expand their social and professional network to include faculty members who are often the top experts in their fields (McGuire, 2011). As a result of these reasons for choosing to go to college, institutions of higher learning have a responsibility to their students to provide an appropriate environment.

In 1973, The Carnegie Commission on Higher Education identified principles to provide an appropriate learning environment. These principles are: provide opportunities for the intellectual, ethical, and skill development of students, advance student capabilities within the society, enlarge educational justice, advance learning and wisdom, and critically evaluate society for the benefit of the society (Mayhew, 1973).

Crow (2014) reports that universities are unique institutions and in order to be durable and enduring, they must be adaptive and innovative. “Contemporary universities have the responsibility to transcend traditional disciplinary limitations in pursuit of intellectual fusion, and develop a culture of academic enterprise and knowledge entrepreneurship” (Crow, 2014). Universities should be more student-focused and less faculty-focused. They should be providing

academic environments that foster intellectual growth and assist students in developing competencies in a wide range of skills to better prepare them for the workforce (Crow, 2014).

When cheating occurs at colleges and universities, it devalues the roles and goals these institutions strive for. Arizona State University's (ASU) Academic Advising Services states that when students cheat, it harms more than just the offender. Students who cheat harm other students in that it creates unfair grading standards (ASU, 2015). Students who cheat also harm the institution. Cheating devalues the learning that takes place. Cheating taints the prestige of earning the college degree. And, cheating pierces the morals and values strived for in the academic and intellectual community (ASU, 2015). Buchmann (2014) reports that institutional apathy is a main reason why students choose to cheat. If students do not believe that they are held to higher standards, or that the institution does not promote high standards, then there is no reason to follow the rules (Buchmann, 2014). And, this same lack of respect for the university environment could prevent students from reporting cheating behaviors (Buchmann, 2014).

### **Non-traditional Student Defined**

The USDOE, through the NCES (2002), and the Advisory Committee on Student Financial Assistance (ACSFA, 2012) define a non-traditional student as any student who has any of the following characteristics:

- Delays enrollment (does not enter postsecondary education in the same calendar year that he or she finished high school);
- Attends part time for at least part of the academic year;
- Works full time (35 hours or more per week) while enrolled;
- Is considered financially independent for purposes of determining eligibility for financial aid;

- Has dependents other than a spouse (usually children, but sometimes others);
- Is a single parent (either not married or married but separated and has dependents); or
- Does not have a high school diploma (completed high school with a GED or other high school completion certificate or did not finish high school).

Non-traditional students can be measured on a continuum from minimally non-traditional (one non-traditional characteristic) to moderately non-traditional (two or three nontraditional characteristics) to highly non-traditional (four or more non-traditional characteristics) (ACSFA, 2012; Horn, 1996). According to the research conducted by the NCES (2002), almost 75% of college undergraduates are “in some way non-traditional”. In the academic year 1999-2000, 27% of all undergraduate students were considered “traditional” by the standards set by the USDOE, while 28% were identified as highly non-traditional (NCES, 2002). That is, there were as many highly non-traditional students as there were traditional students. The ACSFA (2012) identifies these characteristics as “their risk of attrition”. Another report refers to non-traditional characteristics as at-risk factors affecting retention (Bell, 2012).

### **Traditional Student Defined**

For the purposes of this research, a traditional college student will be defined as an undergraduate student who does not meet any of the characteristics defined as nontraditional by the USDOE. Therefore, a traditional college student will be one who scores a zero on the nontraditional scale and meets all of the following criteria:

- Enrolls in college in the same calendar year that he or she finished high school;
- Attends college as a full time student;
- Works less than full time (under 35 hours per week);

- Is considered financially dependent for purposes of determining eligibility for financial aid;
- Is not married or separated and has no dependents; and
- Earned a high school diploma.

### **Comparing Traditional and Non-traditional College Students**

A 2010 study conducted by the NCES displayed the prevalence of non-traditional characteristics among first-year undergraduate students. These findings showed that over half (58%) were enrolled as part-time students. The study also showed that just less than half (47%) were considered financially independent while a quarter of the undergraduates (25%) had dependents of their own (NCES, 2010). According to a U.S. Census report, about 20% of undergraduates work at least 35 hours a week (O'Shaughnessy, 2013). The National Center for Education Statistics reports that only 15% of undergraduates live on campus as full-time students while 37% are part-time students and 32% work full-time (Hess, 2011). The NCES also reports that the most significant growth in the non-traditional student population are those who delay entry into college (Hess, 2011). Almost 40% of students enrolled in an undergraduate program are over the age of 25 and that number is projected to increase (Bell, 2012; Hess, 2011).

Traditional and non-traditional students differ on more than the characteristics used to differentiate the two groups. Research by Strage (2008) showed that differences existed in the desired classroom environment and work by Morris, Brooks, and May (2003) identified differences in coping mechanisms between traditional and non-traditional college students.

Traditional college students, younger students entering college directly from high school, expect college to be an extension of high school (Strage, 2008). These students will take with them the basic rules for research and writing that were taught to them in their high school

environment. Traditional students also tend to see their college experience less as a journey to greater academic achievement and focus more on the social experiences (Deil-Amen, 2011).

Non-traditional students are seeking an educational environment that is flexible, serious, and relevant to the “real world” (Strage, 2008). Non-traditional students have been characterized as having the following traits: self-directed, task oriented and motivated, value their experiences, and ready to learn (Pappas, 2013a; Pappas 2013b; Kenner & Weinerman, 2011; Knowles, 1974). These learners are found to be most successful when they are able to connect newly learned material with experiences they have already had and apply the material immediately to their needs (Kenner & Weinerman, 2011; McNeal, 2016; Pappas 2013a; Pappas 2013b). For the non-traditional student, there is a gap in time between high school and college which may result in a disconnect in understanding the basic rules for research and writing; that is, an understanding of plagiarism. These students are less interested in the social experiences of college life and are concerned more with academic success and efficient use of their time.

Non-traditional students face challenges that traditional students do not. The very characteristics that identify a student as non-traditional can be a barrier to their success as a college student. Bell (2012) identifies three types of barriers faced by non-traditional college students that could negatively affect their retention and progression.

- Situational barriers are conditions that affect a student’s access to their education. Some specific examples are cost, available time, access to child care and reliable transportation. These are not ongoing issues, but issues that arise from time to time during a student’s educational journey (Bell, 2012).

- Institutional barriers are practices that the college has in place that hinder a student's access to an education. These barriers include scheduling issues, impractical or irrelevant course requirements, and bureaucratic challenges (Bell, 2012).
- Dispositional barriers are perceptions students may have regarding their own chances for success. Poor high school experiences may create a question of success in returning to college. Advances in use of technology in college classes may be intimidating for older students. Concerns over interacting with younger students in the classroom may create some anxiety (Bell, 2012).

Students facing these barriers, without having an effective support system, could find it difficult in persisting through their education (Bell, 2012).

### **College and University Enrollment**

College enrollment is on the rise. The NCES reports that from 1999 to 2009, enrollment in degree-granting post-secondary institutions increased by 38% (USDOE, 2010). A later study from the NCES reports that between 2002 and 2012, enrollment in degree granting institutions rose 24% to surpass 20 million (USDOE, 2015). And, of those 20 million, over 17 million are undergraduate students (USDOE, 2015). During that same time frame, non-traditional student enrollment increased by 43%, while traditional student enrollment increased by 27% (USDOE, 2010). Projections by the NCES expect this growth to continue (USDOE, 2012). From 2009 to 2020, “total enrollment in postsecondary degree-granting institutions is expected to increase by 13%” (USDOE, 2012). The study conducted by the NCES did not measure growth by traditional and non-traditional student enrollment specifically, but does address the notion that there will be a more significant growth in older students (over the age of 24) than those between the ages of

18-24 (USDOE, 2012). And, although age, specifically, is not a characteristic of a non-traditional student, it can be used to show a delayed transition from high school to college.

### **Theoretical Framework**

#### **Rational Choice Theory**

The Rational Choice Theory explains criminal or deviant behavior as the result of offenders weighing the benefits of their choices against the risks and potential punishments for their choices (Awdry & Sarre, 2013; Faqir RSA, 2015; Sattler, Graeff, & Willen, 2013). The Rational Choice Theory recognizes that people have free will and the power to choose their actions based upon the internal and external influences affecting their decision-making process (Cochran, 2015; Jennings & Beaudry-Cyr, 2014). This theoretical approach to deviant behavior, in this case academic dishonesty, explains the difference between intentional plagiarism and unintentional plagiarism.

The Rational Choice Theory neutralizes and controls for other factors, reason, or excuses students might use in explaining their choice to plagiarize. A person's free will to choose doing the work honestly or by cheating is not dependent on their age (Coleman & Atkinson, 2014; Iyer, 2006; Jurdi, Hage & Henry, 2011), gender (Coleman & Atkinson, 2014; Iyer, 2006; Jurdi, Hage & Henry, 2011), academic discipline (Carpenter, Harding, Finelli, Montgomery, & Passow, 2006; Iyer, 2006; McCabe & Trevino, 1993), academic year in college (Brown, 2002; Iyer, 2006), religiosity (Robertson, 2008), institutional involvement in athletics (Robertson, 2008; Shariff, 2011) and Greek life (Glum, 2014; McCabe & Bowers, 2009). Although these factors may assist in measuring patterns of behavior, it is founded in the students' ability to choose their actions.

## **Differential Association Theory**

Differential Association explains deviant behavior as being learned through interactions with others (Church, Wharton & Taylor, 2009; Gino, Ayal, & Ariely, 2009; Wolfe & Higgins, 2009). Sutherland (1974) developed the theory of differential association as a social learning theory to explain criminal behavior through nine principles. For this research, the term “criminal” will be replaced with “deviant”. This theory of behavior can be used as an explanation for students committing acts of intentional plagiarism. It does not support an explanation for unintentional plagiarism.

- Deviant behavior is learned.
- Deviant behavior is learned in interaction with other persons in a process of communication.
- The principal part of the learning of deviant behavior occurs within intimate personal groups.
- When deviant behavior is learned, the learning includes techniques of committing the acts and motives and rationalizations for committing the acts.
- The specific direction of the motives is learned from definitions of the ethical codes as favorable or unfavorable.
- A person will commit an act of academic dishonesty because of an excess of definitions favorable to cheating over definitions unfavorable to cheating.
- Differential associations may vary in frequency, duration, priority, and intensity.
- The process of learning of deviant behavior by association involves all of the mechanisms that are involved in any other learning.

- While deviant behavior is an expression of general needs and values, it is not explained by those general needs and values since non-deviant behavior is an expression of those same needs and values.

Sutherland's approach to explaining deviant activity, in this case intentional plagiarism, relied heavily on relationships and social bonds (Church et al., 2009). Specifically, the differential association theory identifies the role of peer influence on cheating, in this case intentional plagiarism, behaviors (McCabe, Butterfield & Trevino, 2012; Sutherland, 1974). Gino et al. (2009) generalized this concept even further in their research on people's behavior being influenced through very simple interactions. According to their results, people were more likely to commit unethical or deviant acts after they saw someone else commit the same act and get away with it. "Students become more willing and able to neutralize or rationalize their cheating behavior when their associations with dishonest peers are greater in duration, intensity, frequency, and priority" (McCabe et al., 2012, p. 115).

### **General Strain Theory**

The General Strain Theory posits that criminal or deviant behavior is the result of strains or stressors placed on an individual who lacks the ability to manage the situation in legitimate ways (Agnew, 2001; Darno, 2015; Peck, 2011; Smith, Lagenbacher, Kudlac & Fera, 2013). According to the general strain theory, there are three sources of strain that can result in deviant behavior: strain as a result from a failure to achieve positively valued goals; strain produced by the removal of positively valued stimuli; and, strain as a result of the presence of negative stimuli (Darno, 2015; Peck, 2011; Smith et al., 2013).

For undergraduate students, strain produced by a failure to achieve positively valued goals could be the result of failing to earn good grades or failing to maintain the same academic

status from high school (Darno, 2015; Pope, 2015; Smith et al., 2013). Strain is produced as a result of expectations not meeting achievement; especially if what is achieved is perceived as being unjust or unfair (Smith et al., 2013). As a result of the stressors in place after failing to achieve expected results students may be inclined to turn to cheating behaviors, such as plagiarizing work, to improve their class standing (Darno, 2015; Pope, 2015; Smith et al., 2013).

College students can also be affected by strain produced by the removal of positively valued stimuli. When going off to college, traditional undergraduate students can suffer from the “small fish in a big pond” experience where they transition from their high school where they may have flourished both academically and socially to a place where they know very few people and are introduced to the rigors of higher education (Moran, 2015; Pope, 2105). For both the traditional and non-traditional college student, the loss of free time can be a major stressor in their life. Non-traditional college students add college-level workloads to the already difficult task of balancing work with family (Trautner, 2015). Adding class time and coursework affects the amount of time students have with their families and for themselves (Trautner, 2015).

The presence of negative stimuli can also cause stress that could result in cheating behaviors. To earn an undergraduate degree, students are required to show a well-rounded education. This results in taking courses outside of their chosen major. Sometimes, these courses are viewed as without value. They are deemed useless and boring and a waste of money by the student. Another form of negative stimuli could occur when students struggle with their coursework and begin earning low grades. This could result in a change in their academic status. Being placed on academic probation would not only affect a student graduation track, but will also result in challenges with financial aid. These types of stressors could encourage cheating behaviors such as plagiarism.

## **Social Bond and Social Control Theory**

Social bond and social control theories are less about explaining deviant behaviors and more about explaining why people, in this case undergraduate students, do not commit deviant acts, in this case intentional acts of plagiarism. According to social bond and social control theories, people are prevented from committing deviant acts based upon their social bonds and/or the perceived control their surroundings have on them (Agnew, 1985). When these areas are strong, people will act ethically. But, when any of these areas are weak, people may be likely to commit deviant acts, including cheating. According to the social control theory, there are four social bonds that prevent deviant or unethical behavior:

- Attachment is the affection and respect an individual holds towards significant others in their lives (parents, teachers, and friends).
- Commitment refers to a person's investment in achieving conventional goals (education, career, material items).
- Involvement is the amount of time engaged in activities directed at completing a conventional goal.
- Beliefs are a person's commitment to the values of the society (Agnew, 1985).

The foundation of these particular theories is that as long as bonds are strong and social control is established, people will follow conventional rules and engage in what society deems as conventional behaviors. Similar to differential association, social control theories address people's actions based upon their relationship with others. However, these theories also take into consideration the strength of the individual's personal commitment levels and beliefs.

These theories are applied to academic integrity by looking at the students' relationship with their institution and by their commitment level to their academic success. The greater the

attachment to the college or university, the less likely a student might be to commit an intentional act of plagiarism. This can be seen through the use of an institution's Honor Code. Research has shown that the inclusion of an Honor Code and a well-developed sense of belonging to an institution results in fewer reported acts of academic dishonesty (Arnold, Martin, Jinks & Bigby, 2007; LoSchiavo & Shatz, 2011; McCabe & Trevino, 1993; McCabe et al., 2001). Students also might cheat due to poor time management or because of too many priorities (Loschiavo, 2015). Traditional college students can underestimate their workload and the amount of time to successfully complete their assignments. This can result with a work overload at the end of the semester and the student can result to plagiarizing work to save time (Loschiavo, 2015). Non-traditional students often have other commitments while attending college courses. With the priorities of work and family responsibilities and ineffective time management, they might result in plagiarizing work in an effort to save time (Stagman, 2011).

### **Self-control Theory**

Low self-control is a strong indicator of deviant and delinquent behavior (Cochran, Aleksa & Chamlin, 2006; Gottfredson & Hirschi, 1990). According to Tittle, Ward, and Grasmick (2004), self-control is made up of two important virtues: the capacity for self-control and the willingness to exercise this ability. It is this combination, and the extent of the strengths in these virtues, that explain deviant behavior. Simply put, those with the simultaneous existence of a low capacity of self-control and a minimal desire to exercise self-control will be especially prone to deviant behavior; while those with a great capacity for self-control and a willingness to exercise self-control will be especially unlikely to engage in deviant behavior (Arneklev, Elis, & Medlicott, 2006; Tittle et al., 2004).

Included in the area of self-control is impulsivity. According to Anderman, Cupp & Lane (2010, p. 136), impulsivity “refers to the tendency to act without considering the logical consequences of one’s actions”. Those individuals reporting impulsive behavior have challenges in exercising self-control. These challenges may increase the possibilities of engaging in cheating behaviors such as intentionally plagiarizing one’s work (Anderman et al., 2010).

### **Neutralization Theory**

The neutralization theory is actually less of a theory and more of a principle. Neutralization provides individuals an opportunity to justify unethical or deviant behavior by deflecting or denying personal responsibility for their actions (McQuillan & Zito, 2011). There are five basic neutralization strategies that may be implemented to avoid personal responsibility: denying responsibility, condemning the condemner, appealing to higher ideals, denial of injury, and denial of victim (Maruna & Copes, 2004; McQuillan & Zito, 2011).

Denial of responsibility is done through claiming the behavior was accidental, that the offender was unaware that it was wrong, or that their behavior was out of their control. These individuals portray themselves as victims of their environment or circumstance (Maruna & Copes, 2004; McQuillan & Zito, 2011). This particular strategy can be effective when combining it with a “mob mentality” where participants lose their self-identity and act as a part of the crowd (Bogden, 2012). Speeders can deny their responsibility for a traffic violation by simply claiming they were keeping up with the flow of traffic. In the case of plagiarism, it is often experienced in larger, mass-lecture university courses. Specific examples include the plagiarism scandals at Harvard University and the University of Virginia. In a government class of 279 students at Harvard University, almost half were suspected of plagiarism (Pérez-Peña, 2013). At the University of Virginia, 158 students over the course of five semesters in an

introductory physics class were suspected of plagiarizing their 1,500-word paper (Trex, 2009). The incidents went mostly unnoticed due to the large number of students in each section.

The second strategy is condemning the condemner. Here, the individual places the blame on those showing disapproval (Maruna & Copes, 2004). In the case of plagiarism, a cheater may claim that the teacher is unfair or being too harsh; or, that the professor could have done something differently to prevent it (Beasley, 2014). Perhaps the condemnation could be placed upon the school's administration. Essentially, students will deflect the attention of their plagiarism onto the perceived shortcomings of those who do not approve their actions (McQuillan & Zito, 2011).

Appealing to higher ideals is a technique that allows the individual to shed conventional ideals of the larger society and replace them with the norms and values of their closer social group (Maruna & Copes, 2004; McQuillan & Zito, 2011; Robertson, 2008). Here, loyalties are tested. In the case of plagiarism, students may choose to help others by writing part or all of a paper in an effort to help a relationship or a student may plagiarize as a shortcut to maintain high grades to be part of a certain group (McQuillan & Zito, 2011).

Denial of injury and denial of victim are similar techniques used to neutralize deviant behavior. Denial of injury allows the offender to justify the deviance by claiming no one was hurt (Maruna & Copes, 2004; Robertson, 2008). This lack of harm or danger to others minimizes the results of the deviance and, according to the offender, excuses the behavior (Maruna & Copes, 2004). If, by chance, the offender admits to the harm, they might still excuse the behavior by denying the victim. This can be done by identifying the victim as part of the conflict so they "deserve what they get". Or, victims are denied because they are either absent or unknown, therefore could not have been harmed (Maruna & Copes, 2004).

## **Plagiarism**

### **The Liability for Plagiarism**

Plagiarism is a unique form of academic dishonesty in that it can be committed intentionally or unintentionally. That is, it can be done purposefully with the intent to cheat or unintentionally due to a lack of understanding. It is the only form of academic dishonesty that allows for strict liability enforcement. According to the Cornell University School of Law (2015), strict liability offenses are those where a “defendant is in legal jeopardy by virtue of a wrongful act, without any accompanying intent or mental state”. Examples of strict liability offenses in the criminal justice system include possession offenses (drug possession or possession of stolen property) and motor vehicle offenses (speeding and reckless driving). When prosecuting strict liability offenses, only the criminal act must be shown. The prosecution does not need to prove any intent, or other mental state, to show liability (Schwartzbach, 2015). That is, a person is held accountable for the consequences of his or her actions regardless of the intent of the action (Bailey, 2014).

Plagiarism is plagiarism regardless of the intent (Bailey, 2014). Whether the person intentionally attempted to cheat by plagiarizing the work (purchasing a paper from a paper mill or paying another person to write the paper) or unintentional committed plagiarism due to the ignorance of the rules or writing, plagiarism occurred. The challenge for colleges and universities is to develop and enforce a punishment system for plagiarism that both addresses the seriousness of the issue while allowing enough leeway to account for culpability (Bailey, 2014).

### **Prevalence of Academic Dishonesty in Higher Education**

Academic dishonesty has existed in higher education throughout recent history. Going back to the 1960's self-reporting data has shown up to 60% of college students having cheated

(Bowers, 1964). Multiple studies conducted by McCabe (1992, 2005a) on academic dishonesty have revealed up to 79% of college students self-reporting cheating behaviors. More recently, a study by Robertson (2008) found that 85% of respondents admitted to engaging in cheating behaviors. Similarly, the Center for Academic Integrity (2007) reported that 85% of college students admitted to cheating. And, a survey conducted in 2010 at Texas Tech University, using McCabe's Academic Integrity Survey, showed that 74.2% of student participants engaged in at least one cheating behavior (DuPree & Sattler, 2010). These behaviors can include actions such as plagiarism, cheating on tests and quizzes using text messaging or concealed notes (crib sheets), sharing work with other students, and purchasing exam answers or completed essays from other students or through the Internet (Olafson, Schraw & Kehrwald, 2014).

Although still considered a problem in higher education, some research has shown a reduction in academic dishonesty (McCabe & Bowers, 1994). Support has been given to the use of honor codes by institutions of higher education as a strategy to reduce academic dishonesty (McCabe & Bowers 1994). Other strategies implemented by colleges and universities to combat acts of plagiarism are the use of online tutorials or "quizzes" to ensure the understanding of what constitutes plagiarism and the use of anti-plagiarism software, such as Turnitin and SafeAssign, which will search their databases for copied work and other incidents of plagiarism (Gabriel, 2010).

### **Plagiarism and the Internet**

Students have been plagiarizing work long before the development of the Internet. In fact, in a study conducted by Ison (2015), there was a greater occurrence of plagiarism in pre-Internet submissions than post-Internet submissions. However, having a source that provides nearly instant and seemingly unlimited access to information has made it easier and more

tempting for students to take shortcuts in their work. The two most common methods of plagiarism through the internet are copying and pasting material, which can be done intentionally to cheat or unintentionally, and through purchasing papers through a term paper mill website, which is done as intentional cheating.

Research conducted by Dant (1986) found that 80% of high school students had committed plagiarism in their papers even after 94% of the respondents received instruction on appropriate crediting of sources. This research shows a historical perspective as it was conducted before the Internet became a standard resource for student research and writing. It is support that plagiarism is not the result of the development of the Internet (Howard & Davies, 2005). More recently, the website, Plagiarism.org (2014), reported results from research by the Josephson Institute Center for Youth Ethics stating that 33% of high school students used the Internet to plagiarize, and from McCabe that reported 58% of high school students engaging in plagiarism.

At the college level, research conducted by McCabe (2005a) found that about 40% of undergraduate students surveyed had copied a portion of their work on writing assignments from an Internet source without properly citing the source. The same research reports that almost 70% of faculty surveyed had observed acts of plagiarism from an Internet source (McCabe, 2005a).

A Google search of “how to purchase a paper online” gave almost 270 thousand results on websites available for students to purchase papers online. According to Hansen (2004), it is estimates that 2% of students purchase papers over the Internet. An analysis of over 28 million papers by Turnitin, a plagiarism detection software, reported that 19% of content matches found in the submissions came from paper mills and cheat sites (Turnitin, 2015). And, the number one

source for plagiarized information is Wikipedia, which is not considered a legitimate educational source (Turnitin, 2015).

The Internet age does not simply make committing acts plagiarism easier with the use of copying and pasting, it has created a challenge in understanding and valuing the concepts of intellectual property and ownership of thoughts, ideas, and words (Gabriel, 2010). Faculty members cannot assume that their students know the basic rules of quoting, paraphrasing and citing information from outside sources. Regardless of the subject matter, “educators should incorporate the teaching of proper research habits upfront in order to reduce the number of academically dubious sources that appear in student writing” (Turnitin, 2015).

### **Controlling Plagiarism in Higher Education**

This research will take a view of plagiarism as both an intentional instance of cheating and an unintentional instance resulting from an ignorance or misunderstanding of the rules for research and writing. The previous section discussed the prevalence plagiarism in higher education. This section will identify and explain several common strategies implemented by institutions of higher education to reduce or manage acts of plagiarism.

Some commonly reported strategies to reduce plagiarism in higher education include the use of institutional honor codes (Boehm, Justice & Weeks, 2009; LoSchiavo & Shatz, 2011; McCabe & Trevino, 1993), the use of plagiarism detection software such as Turnitin (Brown, Jordan, Rubin & Arome, 2010; Sheehan, 2014), the implementation of plagiarism awareness activities to include quizzes, workshops and seminars (Sheehan, 2014; Boehm et al., 2009), and steps are taken by colleges and universities to cover plagiarism during freshman orientation or in a freshman success course (Roig, 2010). Also, faculty members are often required, or at least encouraged, to include plagiarism policies and penalties as a part of their individual course

syllabus (Sheehan, 2014). By using these strategies, institutions and their faculty members can effectively reduce plagiarism, or at least reduce unintentional instances of plagiarism, by: providing a clear definition of exactly what constitutes plagiarism, provide a clear plagiarism policy, and explain the consequences of plagiarism (Pappas, 2014).

**Honor codes.** The use of honor codes as a means of reducing instances of academic dishonesty, including plagiarism, has a long tradition and has shown to be successful. Research done by McCabe and associates has shown an almost 20% decrease in reported cheating at institutions with honor codes (Rettinger & Searcy, 2012). Requiring students to sign a document or take an oath ensuring not only their own honesty and integrity, but also including the responsibility of reporting other known instances of academic cheating creates an environment where social norms on campus are clearly defined and more likely followed (McCabe & Trevino, 1993; McCabe et al., 2001; Rettinger & Searcy, 2012). However, other research identified challenges in the use of Honor Codes in reducing cheating. According to research conducted by Jordan (2001, p. 242), “only 40% of participants believed that signing the honor code actually decreased cheating on campus; another 37.1% were uncertain about whether signing the honor code had a positive impact.” Jordan’s (2001) research also showed that 95% of the participants received information on cheating from their institution and 73.1% revealed that they had actually read the honor code. It appears that the effectiveness in the use of honor codes at curbing cheating came down to the overall sense of community on the school’s campus (Arnold et al., 2007; LoSschiavo & Shatz, 2011; McCabe & Trevino, 1993; McCabe et al., 2001).

McCabe and Trevino’s (1993) study on the use of honor codes found that it was not just the honor code itself that reduced instances of academic dishonesty, but the “institution’s ability

to develop a shared understanding and acceptance of its academic integrity policies” (p. 533).

Not only must the students be aware of the academic integrity policies, but they must also believe in the policies. This may be most effective at smaller institutions on their residential campuses where students feel a greater sense of community, but challenging at institutions with a larger commuter or online student population.

George Mason University has an enrollment of over 20,000 undergraduate students (George Mason University, 2012). Included in the university’s undergraduate catalog is the Honor System and Code (George Mason University, 2013). The Honor System and Code provides the students with an understanding of what is expected as it relates to cheating, plagiarism, lying, and stealing of academic work (George Mason University, 2013). According to the honor code policy, students are required to seek understanding of the honor code from their faculty, follow the code themselves, and encourage other students to abide by the code as well, including the reporting of known violations (George Mason University, 2013). An Honor Committee is available to field reports of violations of the honor code (George Mason University, 2013). The honor code is made available through the school catalog and faculty are required to explain the various forms of cheating to the students at the beginning of each semester, but there do not appear to be any personal accountability steps for the students to show an understanding or willingness to comply; no oath has to be taken and no signature is required (George Mason University, 2013).

The Stanford University Office of Community Standards (2013) includes the institution’s Honor Code. Similar to George Mason, Stanford’s Honor Code defines “expectations of students and faculty in establishing and maintaining the highest standards in academic work” (Stanford University, 2013). Stanford’s Honor Code identifies the need for students to not only

act with integrity themselves, but to actively encourage that other students also maintain a high level of academic standards (Stanford University, 2013). No oath, signed document, nor other student acknowledgement is required to ensure student knowledge or acceptance of this code is required; and, plagiarism is specifically addressed as a violation (Stanford University, 2013).

The College of William and Mary (2013), one of the oldest colleges in the country, has a long standing tradition of using honor codes as a system of maintaining student integrity and high standard of academic work. The use of their honor code dates back as far as 1736 and is implemented to matriculating students by students (College of William and Mary, 2013). Current students inform incoming students, faculty, and staff of the standards and these new members must recite the following pledge:

As a member of the William and Mary community, I pledge on my honor not to lie, cheat, or steal, either in my academic or personal life. I understand that such acts violate the Honor Code and undermine the community of trust, of which we are all stewards (College of William and Mary, 2013).

Interestingly, this pledge and the honor code administered and maintained by the students applies not just to the student body, but to the entire community of the college (College of William and Mary, 2013). Although plagiarism is not specifically mentioned in the pledge of the community, it is identified and defined in the “Infractions” section of the Honor Code (College of William and Mary, 2013). Plagiarism at the college is defined with an “intent to deceive or with reckless disregard for proper scholarly procedures” (College of William and Mary, 2013). Here, the act of plagiarizing work must be intentional; however, if a significant amount of un-cited material exists, the intent may be presumed by the hearing panel (College of William and Mary, 2013).

**Plagiarism detection software.** With the increased use of online researching and the submission of assignments through online sources, institutions have increased their use of plagiarism detection software to identify and attempt to manage plagiarism. Plagiarism detection software, such as Turnitin and PlagSpotter, can be used to compare student submissions to a database of information to search for similar, matching, re-submitted, or plagiarized material (Bailey, 2013; Brown, et al., 2010; Hansen, 2003). According to a 2015 survey conducted by Inside Higher Ed, almost 67% of surveyed faculty members feel that using plagiarism detection software can aid in keeping students from plagiarizing (Straumsheim, 2015). However, fewer than 25% of those same faculty members believe that their students have a full understanding of plagiarism (Straumsheim, 2015).

Although there are a variety of different plagiarism detectors available, according to Bailey (2013), they are broken down into two specific types: originality verification and infringement detection. Originality verification software, such as Turnitin and iThenticate, seeks to verify the originality of an unknown work; while infringement detection software reviews known works and attempts to locate incidents of its misuse (Bailey, 2013).

The benefit of using plagiarism detection software begins as a deterrent. If students are aware that their work will be run through a plagiarism detection software, they may be less likely to be tempted to plagiarize in the first place (Pappas, 2014). Plagiarism detection software allows faculty members to compare a student's submission to a database of Internet sources, books and journals, and a mass of student-authored research papers (Pappas, 2014; Hansen, 2003). This saves the faculty member time and

effort in identifying acts of plagiarism. The plagiarism report produced by the detection software is used as leverage, as evidence, for faculty members to question a student's originality and authorship.

Faculty and students should not view plagiarism detection software as the "Internet police" waiting to pounce on a potential violator, but as an educational tool to help students understand proper citing of sources and successfully develop moral and ethical standards for the work they create (Pappas, 2014).

**Plagiarism awareness activities.** Plagiarism awareness activities commonly include undertakings such as: workshops, seminars, online exercises. These activities are designed to "provide students (and faculty) with more information about what constitutes plagiarism and thereby encourage students to do their own work" (Jones & Scott, 2015). These workshops or seminars will often include an acknowledgement or understanding assessment to show that the student has completed the session and is aware of what constitutes plagiarism and the consequences of committing such acts.

Duke University (2013) includes intentional and unintentional instances as a part of their definition of plagiarism. In an effort to combat and control acts of plagiarism in their students' scholarly submissions, Duke University has created an interactive exercise addressing plagiarism that the students must complete in order to register for classes (Duke University, 2013). This tutorial and self-test includes the Duke University definition of plagiarism with examples, access to *The Duke Community Standard in Practice: A Guide for Undergraduates*, effective procedures to properly cite sources, plagiarism avoidance strategies, and a variety of useful website resources (Duke University, 2013). Their students also take the self-test to see if

they can effectively recognize instances of plagiarism (Duke University, 2013). Access to the self-test may only be granted with a student login and password.

Liberty University also uses a plagiarism awareness tool to ensure an understanding of plagiarism. In a Quantitative Methods of Research course, Liberty University requires that the registered students successfully complete a plagiarism awareness quiz during the first week of the course (Liberty University, 2013). The quiz requires a review of the Liberty University Academic Honesty Policy and APA Manual's plagiarism policy along with the successful completion of a three-question, multiple-choice quiz (Liberty University, 2013). This quiz is used to ensure the students are aware of the definition of plagiarism and the consequences of submitting plagiarized work.

Wayne State University's School of Library and Information Science also includes a plagiarism awareness quiz (Wayne State University, 2013). Although the school's definition of plagiarism does not specifically distinguish between intentional and unintentional instances, the plagiarism quiz was developed specifically to address possible misunderstandings about what constitutes plagiarism (Wayne State University, 2013).

The University of Southern Mississippi (2013) also includes a plagiarism awareness tool for their students. Similar to Duke University, The University of Southern Mississippi includes a full tutorial on plagiarism that includes an awareness test. However, The University of Southern Mississippi (2013) takes their activity a step further by including a pre-test and post-test on plagiarism awareness. Students will take a pre-test on their understanding of plagiarism before viewing tutorial links on the definition of plagiarism, how to properly cite and references sources, and paraphrasing (The University of Southern Mississippi, 2013). After reviewing the material in the tutorial, students will then complete a post-test to show their understanding (The

University of Southern Mississippi, 2013). The tutorial also includes a link for helpful strategies and useful websites to reference in an effort to avoid plagiarism.

**Freshman orientation and success courses.** According to two separate surveys conducted recently by Achieve, a college and career readiness organization, both college professors and high school students believe that high school graduates are not adequately prepared for college (Kirst, 2014; Schaffhauser, 2015). One survey conducted by Achieve asked 767 college instructors if students were prepared to do what was expected in college-level classes (Schaffhauser, 2015). Only 4% of college instructors at two-year institutions identified their students as prepared for college work; while 12% of instructors at four-year institutions found their students adequately prepared (Schaffhauser, 2015). The areas where students were least ready for in college were: study habits (78% unprepared), writing and written communication (78% unprepared), problem solving (76% unprepared) and conducting research (74% unprepared) (Schaffhauser, 2015). Interestingly, it is in these areas where incidents of plagiarism are likely to occur.

A second survey conducted by Achieve on college students received similar results (Kirst, 2014). High school graduates surveyed reported that they wished their high school did a better job in preparing them for college; especially in the areas of study habits and communications (Kirst, 2014). Achieve reported that up to 83% of surveyed college students felt at least some educational gap in one or more subject areas (Kirst, 2014). Being unprepared for the work can result in both intentional and unintentional instances of plagiarism.

Colleges are recognizing the challenge in student preparedness and taking action to better transition high school graduates into college freshman. This strategy has taken the form of student success courses. These courses take on different names at different institutions, but their

goals are the same: prepare new students by teaching them study skills; time management; effective communication; and other basic, yet important, skills (Fain, 2012). Students are also introduced to school policies and available school resources. Research has shown that these courses can be effective in better preparing students for college. One school showed that students who successfully completed their “Academic Strategies” course were 20% more likely to continue enrollment at the college than those who did not complete the course (Fain, 2012). Other research indicates that successful completion of student success courses lead to success in other classes, better grades, higher GPAs and the obtaining of degrees (Fain, 2012).

Ferrum College encourages new students to enroll in their FOCUS program (Ferrum, n.d.). FOCUS stands for First Opportunity for College Undergraduate Success (Ferrum, n.d.). This program is a two-week, credit earning course where students will be provided with an opportunity to improve their communication skills and develop relationships with Ferrum faculty (Ferrum, n.d.).

Georgia State University understands the importance of providing new students with avenues that promote college success, it has developed a variety of first-year programs for new students. Such programs include:

- Academic Coaching: Academic support to students under academic warning.
- Early Alert Programs: To provide support to students struggling within the first six weeks of the semester.
- Panther Excellence Program: This program can be used to meet people, begin using school resources and develop academic skills.
- Freshman Learning Communities: This program is designed to develop positive peer relationships and enhance success skills.

- First-Year Book: This program is designed to stimulate intellectual discussion and promote critical thinking.
- Success Academy: This programs invites new students to campus early to begin using school resources, meet new people and develop skills needed to make the most of the college experience (Georgia State University, n.d.).

The *U.S. News and World Reports* has recognized these programs as “outstanding examples of academic programs that are believed to lead to student success.” (Georgia State University, n.d.)

### **Penalties for Plagiarism**

Plagiarizing someone else’s work can have significant consequences both academically and professionally including civil and criminal penalties. Sheehan (2014) identifies academic penalties such as failed assignments, failed class, removal from school, and even retracted degrees. Similarly, Bora (2013) reports plagiarism consequences such as: receiving a reduced grade on the assignment, receiving a failing grade on the assignment, requiring a rewrite of the paper, suspension, expulsion, a formal report on the student’s academic record and revoking a student’s degree. These examples show a wide range of potential consequences for student plagiarism which effectively represents the notion of unintentional plagiarism and intentional plagiarism and provide faculty members with a great deal of discretion when addressing alleged acts of plagiarism. This amount of discretion and authority requires that faculty members be well trained in identifying and investigating plagiarism, and properly versed in their institution’s policy on dealing with plagiarism. This can be seen in an incident that took place in at the University of Virginia. A professor teaching a mass lecture, 300 to 500 students per semester, began noticing similarities among the course’s 1,500-word essay requirement (Trex, 2009). The professor used plagiarism software to investigate the similarities and found that as many as 158

students may have plagiarized their work (Trex, 2009). As a result of the investigation, 45 students were expelled from the university and three students had their degrees revoked (Trex, 2009). Another example displaying the range of penalties for plagiarism can be seen in the cheating scandal out of Harvard University. Over 100 students were identified as a part of a widespread plagiarism incident resulting from a single class's take-home final exam (Pérez-Peña, 2013). As a result of an investigation, Harvard Administrators found that some students inappropriately collaborated on their exam while others emailed exam answers to their classmates (Iaboni, 2013). Of the students investigated, 70 were forced to withdraw from the school while another unspecified number of students were placed on disciplinary probation (Pérez-Peña, 2013).

Plagiarism can also have severe consequences professionally. Writers who plagiarize can face job loss, loss of reputation, difficulty in finding work, lawsuits and trust (Sheehan, 2014). In 2012, author Stephen Ambrose was accused of plagiarizing work from the book "Wings of Morning" into his own book, "The Wild Blue". This incident resulted in an investigation that uncovered additional incidents of plagiarism and legal action against Ambrose (Bora, 2013; Driscoll, 2011). Harvard University student, Kaavya Viswanatham faced plagiarism accusations for her book, "How Opal Mehta Got Kissed, Got Wild and Got a Life", due to its similarities to two books written by a different author. The book was removed from distribution and Viswanathan lost her contract for a movie deal for the adaptation of the book and with her publisher for future books (Driscoll, 2011).

Consequences for plagiarizing work goes beyond book authors. George Harrison, former guitarist for the Beatles, was sued for plagiarizing a song by the Chiffons for his 1962, *My Sweet Lord*. Harrison lost the case and was ordered to pay the Chiffons \$587,000.00 (Bora, 2013;

Hutchinson, 2015). In 2015, Pharell Williams and Robin Thicke were ordered to pay the estate of Marvin Gaye \$7.3 million in damages for their use of Gaye's 1977 song, "Got to Give It Up", in developing their own hit song, "Blurred Lines" (Kaye, 2015).

It is not just writers and musicians who can be affected professionally by their plagiarism. Plagiarizing speeches can have an influence on a professional and political career as well. In 1988, Joe Biden was a Democratic candidate for President of the United States running against Michael Dukakis. At one point, Biden was ahead of Dukakis in the polls when he was accused of plagiarizing one of his speeches (Bailey, 2008; Sabato, 1998). A video juxtaposing speeches given by Biden and, then, British Labor party leader, Neil Kinnock, showed several similarities without proper crediting (Bailey, 2008; Sabato, 1998). Biden withdrew from the presidential race amid the plagiarism allegations (Bailey, 2008; Sabato, 1998). And, in 2014, Troy Snyder, as high school principal in Mead, Colorado, resigned after he was exposed plagiarizing his graduation speech (Erdahl, 2014). Snyder lifted more than half of the speech from Facebook CEO Sheryl Sanberg's book, "Lean In" (Erdahl, 2014). A member of the public recognized the words Snyder used and reported a concern to the school district (Erdahl, 2014).

### **Reasons Students Plagiarize**

When addressing the motives for academic dishonesty, some researchers adopted a situational approach; while others would study the character of the cheater (Bernardi, Metzger, Bruno, Hoogkamp, Reyes & Barnaby, 2004). Research has identified a wide-range of motives, or reasons, students may engage in plagiarism. Widerman's (2008) literature review collected a multitude of explanations including: ignorance, inadequate educational environments, inadequate professors, a lack of effective policies and penalties for cheating, peer pressure, improve grades, opportunity, lack of moral reasoning, the Internet, procrastination, the need for employment, and

a culture of cheating as acceptable. Even students with already acceptable grades may resort to cheating if necessary to reduce stress regarding their academic performance, maintain class rank, or to keep previously earned scholarships (Baird, 1980; Barnett & Dalton, 1981; McCabe & Bowers, 1994; Michaels & Miethe, 1989; Robertson, 2008).

More recent works identify many of the same reasons why students plagiarize. One reason identified is that students are not properly taught about plagiarism, so they do not know what it is or they do not understand how to properly research and present their findings (Harris, 2015; Heckler & Forde, 2015; Nelms, 2015). Or, students might know about plagiarism, but do not think of it as wrong (Harris, 2015). Another reason identified is that students tend to be lazy or they procrastinate, so they look for the quickest and easiest route to the completion of the assignment (Harris, 2015; Heckler & Forde, 2015). Similarly, students might feel overwhelmed by their workload and fail to manage their time well, so they plagiarize work to help save time or meet deadlines (Nelms, 2015). Some students plagiarize because they have no faith in their own ability. There is too much pressure to succeed and they fear earning a bad grade or negative criticism. In other words, some students will plagiarize to in an effort to avoid appearing “dumb” to the instructor or their classmates (Anderman, 2015; Harris, 2015; Nelms, 2015). And, for some students, plagiarism is the result of the thrill of getting away with it (Harris, 2015; Heckler & Forde, 2015).

Students will also plagiarize, not because of their own personal situation, but because of their attitudes towards their instructors and their school. Some students have a little or no respect for the authority of the classroom or have negative attitudes towards their teachers and plagiarize their work as a show of discontent (Heckler & Forde, 2015). And, on some campuses, a culture of plagiarism can be reinforced if it commonly goes undetected or unpunished (Heckler & Forde,

2015). As students get away with taking short cuts in their work without getting caught, the temptation to continue to plagiarize becomes greater and more widespread (Heckler & Forde, 2015). The resulting good grades that the students receive and the saved time and effort from plagiarizing their work reinforces the behavior for the student and can promote plagiarized work in future assignments (Walker, Shea & Bauer, 2014).

### **Student Attitudes Towards Plagiarism**

When it comes to plagiarism, students either commit it out of ignorance or for their own intentional purposes. Students may engage in academically dishonest behavior when they do not understand the seriousness of the violations, if they do not understand that their actions constitute cheating behavior or they lack the skills needed to avoid engaging in dishonest behaviors (Baker et al., 2008; Quartuccio, 2014).

Often, students will consider the motive behind the cheating when determining whether it is right or wrong (Baker et al., 2008; Jensen, Arnett, Feldman & Cauffman, 2001). According to the research conducted by Jensen et al. (2001) the more moral the motive for cheating, the more acceptable cheating behaviors become. Simply put, cheating to pass a class in order to avoid parental disappointment is more acceptable behavior than cheating just to try to get away with it. The level of a student's moral development as it relates to situational factors could result in cheating behaviors (Bernardi et al., 2004; McCabe, 1992). Many of these students would never steal material items such as food or clothing or money, but stealing others' words and ideas would not be considered morally wrong (Willen, 2004). Students might believe that academic cheating is acceptable if they believe that their friends are actively involved in cheating behavior (Engler, Landau & Epstein, 2008). Students will be more likely to cheat if they believe that the

instructor is not vigilant in monitoring assignments, the assignments are deemed unfair, or there is a dependence of financial support based upon good grades (Genereux & McLeod, 1995).

Another influence on student attitudes regarding plagiarism is the culture of their campus. As important as the student's own moral compass and one's integrity is as a factor towards plagiarism, the attitude of the campus can also affect approaches to plagiarism. College is a competitive environment and these institutions promote success. The greater the success in college, often based upon grades, the greater the opportunity after college (Willen, 2004). Research and writing assignments may be seen simply as a "means to an ends" and not necessarily as an opportunity to promote creative and analytical thinking. And, since the writing component might not be deemed valuable by the student, then learning about plagiarism might not be considered very important or very valuable (Fish, 2010). That is, students might take a "Who cares?" attitude towards plagiarism. As Blum stated, voicing the attitudes of college students:

If you are not so worried about presenting yourself as absolutely unique, then it's O.K. if you say other people's words, it's O.K. if you say things you don't believe, it's O.K. if you write papers you couldn't care less about because they accomplish the task, which is turning something in and getting a grade. And it's O.K. if you put words out there without getting any credit (Pinar, 2012, p. 146).

### **Summary**

Plagiarism occurs in undergraduate classes at colleges and universities. Based on different research reported by Bretag (2013), instances of self-reported plagiarism by undergraduate students can range from 19% to 81%. Plagiarism can be committed as an intentional act of cheating or as the result of a lack of understanding of the complexities of

effective research and writing. Previous research has found that plagiarism was committed by undergraduate students of varying ages (Iyer, 2006), both male and female students (Iyer, 2006), by the religious and non-religious (Robertson, 2008), across all academic disciplines (Carpenter et al., 2006; Iyer, 2006; McCabe & Trevino, 1993), across academic year in college (Brown, 2002; Iyer, 2006), institutional involvement in athletics (Robertson, 2008) and Greek life (McCabe & Bowers, 2009). However, a gap in the literature was found when looking at the growing number of non-traditional college students returning to school. There has been research done on specific characteristics relating to non-traditional students, such as age, marital status, and employment independently (Murray et al., 2014). However, there is a lack of research on non-traditional students generally. Almost twice as many non-traditional college students, as defined by the USDOE (2002), have enrolled in undergraduate programs as traditional college students (USDOE, 2010). Yet, no research exists on acts of plagiarism among these types of students.

## **CHAPTER THREE: METHODS**

### **Design**

This quantitative study was conducted through non-experimental, causal-comparative research. This research design attempts to identify a cause and effect relationship by measuring subjects who differ on the independent variable, traditional or non-traditional undergraduate students, and comparing instances of the dependent variable, intentional and unintentional plagiarism, without using an experimental method (Gall, Gall & Borg, 2010).

In this research, there is an examination of how the dependent variable, plagiarism (intentional and unintentional), is affected by the independent variable, characteristics identified through the type and degree of student enrollment, to examine any interaction and influence between the variables (Williams, 2007). Quantitative research allowed the researcher to study a representative sample of the population to infer any results to the total population (Lowhorn, 2007).

The research conducted was non-experimental since it was an empirical inquiry where the researcher has no control over the independent variables, traditional and non-traditional undergraduate students, because they cannot be manipulated (Johnson, 2001). No treatment was introduced to students in the sample. The study involved gathering and then analyzing survey data.

A causal-comparative design was utilized to explore the differences in the number of instances of intentional and unintentional plagiarism among traditional and non-traditional undergraduate college students. Causal-comparative research allowed the researcher the ability to examine any influence of enrollment type on the commission of plagiaristic instances without

experimentally manipulating the independent variable (Schenker & Rumrill, 2004; Williams, 2007).

### **Research Questions**

**RQ1:** Is there a significant difference between the number of self-reported instances of intentional plagiarism of traditional undergraduate students and non-traditional undergraduate students?

**RQ2:** Is there a significant difference between the number of self-reported instances of unintentional plagiarism of traditional undergraduate students and non-traditional undergraduate students?

### **Null Hypotheses**

**H<sub>01</sub>:** There is no statistically significant difference between the number of self-reported instances of intentional plagiarism of traditional undergraduate students and non-traditional undergraduate students.

**H<sub>02</sub>:** There is no statistically significant difference between the number of self-reported instances of unintentional plagiarism of traditional undergraduate students and non-traditional undergraduate students.

### **Participants and Setting**

For this study, approximately 5,000 registered undergraduate students over the age of 18 from a large, public university in a southeastern state of the United States were selected. The available population of the university was 18,498. Five thousand subjects were randomly chosen by their university email account by the University's Associate Vice-President for Administration of Student Engagement and Enrollment Services. Student subjects included those who were registered as full-time students, part-time students, students taking

undergraduate courses in professional development, and continuing education students. The subjects may have been enrolled as residential students, hybrid students, or fully online students. The students were introduced to the survey through an email generated by Survey Monkey that included a link to the survey. There were four email invitations sent over a period of two months to the students' email accounts asking them to participate.

This institution was selected because of its diversity in academics and its diversity in student population. The selected institution currently enrolls approximately 20,000 undergraduate students in over 124 different undergraduate programs falling into the Colleges of Arts & Letters, Business, Education, Engineering & Technology, Health Sciences, Sciences, Continuing Education & Professional Development, and the Honors College. This institution provided a wide range of academic disciplines and student demographics to allow for improved generalization of the results.

Of the 5,000 randomly selected undergraduates, a sample of 575 students participated in the survey (response rate =11.5%). This response rate falls within the average response rates for online surveys (Fryrear, 2015; Poole, 2014). As a result, there were enough respondents to move forward with the research. Demographic data were collected on gender, class standing, and age at the start of the subject's undergraduate program. As shown in Table 1 in Appendix E, 65% of the 574 respondents were female. The age of respondents ranged from under 17 years old through 20 years of age and older with a median starting age of 18 when they began their undergraduate program. Nearly 50% of the respondents were 18, while nearly 30% of the respondents were over 20 years old at the start of their program. Most of the survey respondents (nearly 64%) were either in their junior or senior year at the time of the study. The data collected on student demographics was not compared to the demographics of the larger student population.

### **Instrumentation**

A survey (see Appendix D) was used to collect the required demographic information from the respondents as well as data describing specific enrollment characteristics in the school. The survey also included questions from McCabe's Academic Integrity Survey (M-AIS) in order to gather information on instances of plagiarism. McCabe (1992) designed the survey to gather data on academic cheating, but only questions relating to plagiarism were used. M-AIS has been used to gather data for over 25 years and at more than 200 colleges and universities (Bealle, 2014).

The survey used for this research consisted of 20 questions. The first three questions gathered demographic information from the participants. The next seven questions were used to identify those characteristics used to determine whether a student would be defined as a traditional college student and a non-traditional college student. The next eight questions were questions used to identify acts of plagiarism. Four questions identifying intentional instances of plagiarism and four questions identifying unintentional instances of plagiarism. The final two questions inquired whether or not participants received an explanation of the rules of plagiarism by the university and if participants had signed an Honor Code with the university.

The eight questions on plagiarism were questions taken from M-AIS. McCabe's instrument consisted of 26 questions about academic cheating (DuPree & Sattler, 2010). Only four of the questions on M-AIS were directed specifically at plagiarism. These four questions were used in the instrument and modified to specifically address intentional instances and unintentional instances of plagiarism. Using the entire M-AIS along with the demographic and student characteristics questions would have made the instrument 38 questions and could have possibly dissuaded potential respondents due to its length and possible time to complete.

McCabe's instrument also used a Likert-Scale response format. This was adjusted to "yes" and "no" response choices. McCabe's instrument has been modified and adjusted in previous research. In Ford's (2015) research on faculty and student attitudes towards academic dishonesty, M-AIS was used in part to develop a survey specific to the needs of the research. Razek (2014) utilized just a few of McCabe's survey question to conduct interviews in his qualitative study on academic integrity. McCabe, himself, stated that his survey can be modified to fit the specific needs of the research being conducted (National Research Council, 2002).

McCabe had calculated the reliability of his instrument at  $\alpha=.82$  through its use in his own research (McCabe & Trevino, 1996; Robertson, 2008). Reliability was also measured by using Cronbach's alpha in more recent research. Stone, Kisamore, Kluemper, and Jawahar (2012) used M-AIS in their research on cheating and measured reliability at  $\alpha=.91$ . Ford (2015) used an adjusted version of M-AIS and measure reliability at  $\alpha=.87$ . Raynor's (2016) use of M-AIS reported reliability at  $\alpha=.91$ . The instrument has also been utilized in the research of others to include: Lipson & McGovern's (1993) research on cheating at MIT; Clifford's (1996) study on the perception of cheating at smaller institutions; Zimmerman's (1998) research on cheating and institutional compatibility; Ward's (1998) study of students' perceptions of cheating and plagiarism; Robertson's (2008) research on cheating and religiosity; DuPree's and Sattler's (2010) academic integrity report at Texas Tech University; Bealle's (2011) integrity survey at the State University of New York at Suffolk; and, Razek's (2014) study on academic integrity from a Saudi student's perspective.

In order to gather specific data on instances of intentional and unintentional plagiarism, the questions were modified to include the statement "During your time as an undergraduate student". Also, the words "intentional" and "unintentional" were included in some questions

regarding copying material from an outside source without properly citing the source. Using just the few questions from M-AIS kept the survey to a fewer number of questions for the participants and kept the researcher from gathering excessive extraneous data.

The advantage of using the survey was that the researcher was able to quickly and efficiently deliver the instrument to the large sample through an email delivery system. Also, the design of the survey was such that a more in-depth probe into respondents' answers was not necessary. The respondents would answer each of the survey's questions and all like answers would be collected and counted. The survey was able to quantify the variables by providing a number of incidents of reported plagiarism and separating those incidents by either intentional or unintentional. The survey responses also allowed the researcher to identify students as traditional or non-traditional based upon their responses.

The survey was administered through the on-line survey website, Survey Monkey. The participant email addresses were loaded into Survey Monkey and the recipients who chose to participate were provided a link to the 20 question survey. Survey Monkey collected and organized the data. The survey could be completed in approximately 10 minutes.

### **Procedures**

Research did not begin before approval had been provided by the Liberty University Institutional Review Board (See Appendix A). The sample population consisted of undergraduate students over the age of 18 who were randomly selected through their school email accounts. Five thousand undergraduate students were selected for the sample. An email inviting the students to participate in the survey was sent to their school email accounts (see Appendix B). An Internet link to the survey was embedded in the email invitation. Students who wanted to participate and respond to the survey had to click on the link. The data for this

research was collected using an electronic survey developed through Survey Monkey (see Appendix D). The respondents were sent to an electronic version of the survey that was administered through Survey Monkey. The respondents were directed to complete the survey anonymously. The email included specific directions on how to complete the survey and students were informed that their participation is voluntary, anonymous, what the survey was designed to measure, and that there was neither a reward nor any danger associated with it. Those students who did participate were then invited to enter into a drawing to win a \$50.00 Amazon gift card. Those participants were instructed to a different website where they were entered into the drawing. Students who entered the drawing were informed that they had to provide a name and mailing address. There was no connection between the student responses to the survey and the information provided for the gift card drawing. A single participant was randomly selected as the winner of the gift card and the gift card was mailed to the address provided.

The use of an electronic survey was beneficial to the researcher as it allowed the survey to be sent to a sample of 4,996 students in an efficient, unobtrusive manner and provided the subjects of the research some assurance that their responses would be kept anonymous.

A specific deadline was established for completion of the survey. The students received the initial email with the link during the beginning of their spring semester and had a four-week window to complete the survey. Once completed, the data were collected and stored. Four email reminders were sent to those subjects who did not complete the survey before the deadline. One reminder was sent at the end of each of the first three weeks. The final email reminder was sent one day prior to the deadline. The survey administrator, Survey Monkey, collected and stored the data. Upon the close of the survey, 575 students participated (11.5%). This response

rate falls within the average response rates for online surveys (Fryrear, 2015; Poole, 2104). As a result, there were enough respondents to move forward with the research.

### **Data Analysis**

A *t*-test was used to determine if there is a statistically significant difference in self-reported instances of intentional and unintentional plagiarism between traditional undergraduate students and non-traditional undergraduate students. The *t*-test is an effective method of analysis as it compares the mean scores of the samples to determine if there is a statistically significant difference between the scores (Gall et al., 2010).

Research Question 1 asked “Is there a significant difference between the number of self-reported instances of intentional plagiarism of traditional undergraduate students and non-traditional undergraduate students?” A *t*-test was run and an alpha level of .05 was used to determine statistical significance. The null hypothesis examined in order to answer this research question was, “There is no statistically significant difference between the number of self-reported instances of intentional plagiarism of traditional undergraduate students and non-traditional undergraduate students.”

This null hypothesis was evaluated by calculating and comparing mean scores for self-reported instances of intentional plagiarism by traditional undergraduate students and non-traditional undergraduate students. A *t*-test was used to determine if there was a statistically significant difference between self-reported instances of intentional plagiarism between traditional undergraduate students and non-traditional undergraduate students.

Research Question 2, “Is there a statistically significant difference between the number of self-reported instances of unintentional plagiarism of traditional undergraduate students and non-traditional undergraduate students?”, was investigated through the use of a *t*-test. An alpha level

of .05 was used to conclude significance. The null hypothesis for this research question stated, “There is no statistically significant difference between the number of self-reported instances of unintentional plagiarism of traditional undergraduate students and non-traditional undergraduate students.” This null hypothesis was examined and a mean score was calculated for self-reported instances of unintentional plagiarism among traditional undergraduate students and non-traditional undergraduate students. Unintentional plagiarism was analyzed using *t*-tests to determine if there was a statistically significant difference in unintentional plagiarism between traditional and non-traditional undergraduate students.

Before the *t*-test was conducted and analyzed, assumption tests for normality were performed to examine for normal distribution. Normality testing is hypothesis testing designed to make an insinuation about the population (Sampathkumar, 2015). The Shapiro-Wilk and Kolmogorov-Smirnov tests were used for assumptions for normality of distribution. The Shapiro-Wilk test “estimates whether data are from a normal distribution” (Cool & Ockendon, 2016). The Wilk-Shapiro test is an effective test for normality in a smaller sample size ( $n < 2000$ ) (Cool & Ockendon, 2016). The Kolmogorov-Smirnov test is a “goodness to fit” test and is an effective test for normality in sample sizes greater than 50 (Cool & Ockendon, 2016; Steyn, 2015).

The significance, or Alpha, level selected for this research was 5% ( $p = .05$ ). That is, the null hypothesis would be rejected if the significance level was less than .05 (Bruce, 2015).

## **CHAPTER FOUR: FINDINGS**

### **Introduction**

The purpose of this study was to examine the differences in self-reported instances of intentional plagiarism and unintentional plagiarism of traditional undergraduate students and non-traditional undergraduate students. This chapter explains the outcomes identified from the statistical analysis of self-reported instances of plagiarism reported by the research participants.

### **Research Questions**

**RQ1:** Is there a significant difference between the number of self-reported instances of intentional plagiarism of traditional undergraduate students and non-traditional undergraduate students?

**RQ2:** Is there a significant difference between the number of self-reported instances of unintentional plagiarism of traditional undergraduate students and non-traditional undergraduate students?

### **Null Hypotheses**

**H<sub>01</sub>:** There is no statistically significant difference between the number of self-reported instances of intentional plagiarism of traditional undergraduate students and non-traditional undergraduate students.

**H<sub>02</sub>:** There is no statistically significant difference between the number of self-reported instances of unintentional plagiarism of traditional undergraduate students and non-traditional undergraduate students.

### **Descriptive Statistics**

Table 2 in Appendix E displays traditional and non-traditional characteristics among respondents. These characteristics included: whether participants progressed from high school

to college within the same calendar year; whether participants earned a high school diploma or GED, or other high school equivalency; whether participants' school enrollment status was full-time or part-time; whether participants had dependents (not a spouse) or were single-parents; number of hours per week employed; and whether if the participant was considered financially independent for financial aid purposes.

Nearly 65% of respondents had a traditional progression from high school to college. That is, they graduated high school and began college in the same calendar year. The other 35% of respondents (non-traditional) began college in a later calendar year. Over 95% of respondents completed high school by earning their high school diploma (traditional), while approximately 5% of the respondents reported earning their GED, or equivalent (non-traditional). Over 85% of the respondents were enrolled as full-time students (traditional) and almost 15% reported part-time enrollment. Over 15% of the respondents reported having dependents (not a spouse) and over 12% reported being single parents. Just under 80% of the respondents reported working fewer than 35 hours per week, while over 20% reported working more than 35 hours per week. Most of the respondents, over 61%, reported that they were not considered financially independent as it pertained to receiving financial aid, while over 38% reported that they were considered financially independent.

Table 2 in Appendix E summarizes traditional and non-traditional characteristics of the sample. Based upon the seven characteristics, the researcher calculated a non-traditional score for the respondents. As deduced by the information in Table 3, 38.3% reported at least one non-traditional characteristic. Table 3, located in Appendix E, shows that nearly 12% of the respondents recorded two non-traditional characteristics and almost 14% of the sample identified 4 or more non-traditional characteristics.

The dependent variable in this research is instances of self-reported plagiarism. Specifically, this research collected data on instances of intentional plagiarism and unintentional plagiarism. Table 4 in Appendix E displays the data collected on plagiarism. In looking at instances of self-reported intentional plagiarism, 9% of the respondents admitted to intentionally copying or paraphrasing material from the Internet without referencing the source and almost 5.5% of respondents reported copying or paraphrasing material from a book, magazine, or journal without referencing the source. Almost 1.5% of the respondents reported having another person write a paper for them, while 0.5% of respondents submitted another student's paper as their own. Fewer than 1% of respondents reported purchasing a paper from a paper mill.

Data collected on unintentional acts of plagiarism show that over 17% of respondents copied or paraphrased material without referencing the source because they did not know that a reference was necessary. Almost 16% of respondents reporting using material from an outside source without citing the source because they did not believe it was necessary, and almost 10% of the respondents had copied material directly from an outside source without using quotation marks because they did not believe it was necessary.

Data were also collected on student understanding of plagiarism. This was measured by asking whether students had received an explanation of the rules of plagiarism and potential consequences of committing such acts and whether students had signed an Honor Code for their institution. Over 80% of the respondents received an explanation of the rules of plagiarism from their institution. Over 85% of the respondents remembered signing an Honor Code with their institution. Over 15% of the respondents reported that they did not remember if they received an explanation of the rules of plagiarism or signing an Honor Code.

## **Results**

The purpose of this study was to explore the relationship between student enrollment as traditional or non-traditional and acts of intentional and unintentional plagiarism. Specifically, the research addressed the following questions:

1. Is there a significant difference between the number of self-reported instances of intentional plagiarism of traditional undergraduate students and non-traditional undergraduate students?
2. Is there a significant difference between the number of self-reported instances of unintentional plagiarism of traditional undergraduate students and non-traditional undergraduate students?

### **Null Hypotheses One**

The first research question asked if there is a significant difference between the number of self-reported instances intentional plagiarism of traditional undergraduate students and non-traditional undergraduate students? The first null hypothesis stated that there is no statistically significant difference between the number of self-reported instances of intentional plagiarism of traditional undergraduate students and non-traditional undergraduate students.

In order to test the null hypothesis, an independent samples *t*-test was conducted in SPSS to compare the number of self-reported instances of intentional plagiarism by traditional undergraduate students and non-traditional undergraduate students. An alpha level of .05 was used to test for significance. Prior to analysis, an assumption of normality was tested using the Shapiro-Wilk test (See Table 10). The results of the test showed that the data were not normally distributed ( $p < .05$ ). The Kolmogorov-Smirnov test (See Table 10) was also used to assess

normality. The results showed the distribution of the sample was significantly different from a normal distribution ( $p < .05$ ).

The results of the  $t$ -test showed that there was no statistically significant difference in the mean scores for self-reported incidents of intentional plagiarism among traditional undergraduate students ( $M=.20$ ,  $SD=.53$ ) and non-traditional undergraduate students ( $M=.16$ ,  $SD=.49$ );  $t(524)=1.05$ ,  $p=0.29$ . The null hypothesis failed to be rejected. Table 6 in Appendix E displays the results of the  $t$ -test.

### **Null Hypothesis Two**

The second null hypothesis stated that there is no statistically significant difference between the number of self-reported instances of unintentional plagiarism of traditional undergraduate students and non-traditional undergraduate students. In order to test this null hypothesis, an independent sample  $t$ -test was conducted in SPSS to compare the self-reported instances of unintentional plagiarism of traditional undergraduate students and non-traditional undergraduate students. An alpha level of .05 was used to test for significance. To assess for normality, the Shapiro-Wilk test (See Table 10) was evaluated. The results of the test showed that the data were not normally distributed ( $p < .05$ ). The Kolmogorov-Smirnov test (See Table 10) was also used to assess normality. The results showed the distribution of the sample was significantly different from a normal distribution ( $p < .05$ ). This is not uncommon in larger ( $n > 100$ ) samples (Steyn, 2015).

The results of the  $t$ -test also showed that there was no statistically significant difference in mean scores for self-reported instances of unintentional plagiarism among traditional undergraduate students ( $M=.51$ ,  $SD=.85$ ) and non-traditional undergraduate students ( $M=.40$ ,  $SD=.81$ );  $t(521)=1.41$ ,  $p=0.16$ . Based upon the results of the testing, the second null hypothesis

failed to be rejected. Table 7 in Appendix E displays the results from the independent sample  $t$ -test.

## **CHAPTER FIVE: DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS**

### **Discussion**

The purpose of this study was to examine whether there was a relationship between traditional undergraduate students and non-traditional undergraduate students and self-reported instances of intentional and unintentional plagiarism. The participants of the study were randomly selected undergraduates over the age of 18 from a large public university located in a southeastern state of the United States. The study used a survey to collect data on student enrollment characteristics and reported instances of plagiarism. The data were then entered into SPSS software and *t*-tests were used to analyze the results in an effort to observe any relationship. It was hypothesized that there would be a statistically significant difference between self-reported instances of intentional plagiarism between traditional undergraduate students and non-traditional undergraduate students. It was also hypothesized that there would be a statistically significant difference between self-reported instances of unintentional plagiarism between traditional undergraduate students and non-traditional undergraduate students. The results of this research showed no statistically significant relationship between student enrollment as traditional or non-traditional undergraduate students and self-reported instances of intentional or unintentional plagiarism. In both tests, the null hypothesis failed to be rejected. However, failing to reject the null hypothesis does not mean acceptance of the null hypothesis. Looking at the results, there was little difference in the means between self-reported instances of intentional plagiarism between traditional and non-traditional undergraduate students. There was also little difference in the means between self-reported instances of unintentional plagiarism between traditional and non-traditional undergraduate students. However, the results did implicate that unintentional plagiarism occurred 2.55 times as often as

intentional plagiarism with traditional undergraduate students and 2.5 times with non-traditional undergraduate students.

Previous research on academic dishonesty has shown that cheating in colleges and universities has been, and continues to be, a problem among students and a threat to the integrity of academia (Baker et al., 2008; Bowers, 1964; Bretag, 2015; Coleman & Atkinson, 2014; McCabe & Trevino, 1996; Whitley, 1998). Typically studied through self-reporting data, plagiarism by undergraduate college students has been measured at a rate as low as 19% to as high as 81% (Bretag, 2015). This research looked at a very specific type of academic dishonesty, plagiarism, and broke it down into intentional plagiarism, or purposeful cheating, and unintentional plagiarism, or ignorance to the rules of effective research writing. This is a different approach to measuring plagiarism as most of the literature does not address the intent of the act, but simply the act.

The survey developed for this research asked participants specific questions about instances involving plagiarism. The specific questions were designed to distinguish between instances of intentional plagiarism and unintentional plagiarism. At least some respondents reported having committed each type of plagiarism that has been identified for this research. When looking at instances of intentional plagiarism, almost 1% of respondents admitted to having purchased a paper from a “term paper mill”. This is similar to the results where 1.4% of respondents reported purchasing a paper from an Internet source. Almost 1.5% of respondents had another student write a paper for them. Half of 1% of respondents admitted to submitting another person’s paper as their own. And, over 14% admitted to intentionally copying or paraphrasing material from an outside source without properly citing the source. This differs

than results found in the literature where only about 2.8% reported such an act (Dupree & Sattler, 2010).

There were far more occurrences of self-reported instances of unintentional plagiarism by the respondents of the study. Over 17% of respondents reported that they had copied or paraphrased material without properly citing the information because they did not know it needed to be. Almost 10% of the respondents reported that they used direct quotes from other sources without using proper quotation marks. Almost 16% reported that they had used information from an outside source without citing the source because they did not think they needed to.

Interestingly, participants identifying as traditional undergraduate students reported more instances of plagiarism than non-traditional undergraduate students. There were far greater reports of unintentional plagiarism than intentional plagiarism. There was no statistically significant difference between traditional undergraduate students and non-traditional undergraduate students and self-reported instances of plagiarism, but there was a significant difference between self-reported instances of unintentional plagiarism and intentional plagiarism regardless of enrollment status.

### **Conclusions**

For this research, the focus was on plagiarism, more specifically, self-reported instances of intentional and unintentional plagiarism by undergraduate students identified as traditional or non-traditional as defined by the United States Department of Education (USDOE, 2002).

The National Center of Education (NCES, 2010) reported that between 1999 and 2009, the enrollment of non-traditional college students increased by 43%. In 2012, almost 75% of undergraduate students possessed at least one non-traditional characteristic (USDOE, 2015).

About 38% of the sample for this research was comprised of non-traditional undergraduate students. That is, of the 574 respondents to the survey, 220 of them possessed at least one non-traditional characteristic.

For the non-traditional undergraduate student, there is typically a gap in time between high school and college. In this study, 35.3% of respondents began their undergraduate education in a different calendar year than graduating high school. In this case, the student may have forgotten some of the basic rules of appropriate referencing and citing of sources when conducting and presenting research. And, they find themselves less concerned with the academic process and more concerned with learning the material. Their motivations for enrolling in college are geared more towards career change or advancements or higher pay in a career they already have (Adams & Corbett, 2010). These students are often seeking a more flexible educational environment that will allow them the opportunity to attend school while balancing other lifestyle responsibilities (Adams & Corbett, 2010; Strage, 2008). In this study, 14% of respondents are part-time students and over 20% reported working over 35 hours per week at a job. These students are more likely to take classes in an online environment or through satellite campuses that better meet their needs for flexibility. As such, these students may not feel the same connection to their college or university as traditional students.

The primary findings of this research were not in the comparison between traditional and non-traditional students, but in the differences between self-reported instances of intentional and unintentional plagiarism. The research did not show a statistically significant difference in numbers of self-reported instances of plagiarism when comparing traditional undergraduate students and nontraditional undergraduate students. In fact, the differences in mean scores among traditional ( $M=.20$ ) and non-traditional ( $M=.16$ ) undergraduate students reporting

instances of intentional plagiarism were minimal. The same can be said when comparing mean scores of traditional ( $M=.51$ ) and non-traditional ( $M=.40$ ) undergraduate students reporting instances of unintentional plagiarism.

Faculty and administrators may be most interested in the findings related to the difference between intentional acts of plagiarism and unintentional acts of plagiarism. Undergraduate students, regardless of whether they were traditional or non-traditional students, were approximately 2.5 times more likely to have committed unintentional plagiarism than intentional plagiarism. For traditional undergraduate students, the mean scores for self-reported instances of unintentional plagiarism ( $M=.51$ ) was 2.55 times higher than the mean score for self-reported instances of intentional plagiarism ( $M=.20$ ). Table 9 in Appendix E shows the results of the comparison of self-reported instances of intentional and unintentional plagiarism of traditional undergraduate students. For non-traditional undergraduate students, the mean scores for self-reported instances of unintentional plagiarism ( $M=.40$ ) is 2.5 times higher than the mean scores for self-reported instances of intentional plagiarism ( $M=.16$ ). Table 8 in Appendix E charts the results of the *t*-test of self-reported instances of intentional and unintentional plagiarism of non-traditional undergraduate students.

### **Implications**

This study compared self-reported instances of intentional and unintentional plagiarism among traditional undergraduate students and non-traditional undergraduate students. These variables were examined to see if a relationship existed between specific types of plagiarism and students displaying traditional and non-traditional characteristics.

The results of the study showed that there was no significant difference in the level of plagiarism between traditional and non-traditional undergraduate students. However, it did show

a difference in self-reported instances of intentional plagiarism and unintentional plagiarism.

The results showed that the number of self-reported instances of unintentional plagiarism were reported 2.5 times greater than intentional plagiarism. That is, unintentional plagiarism occurred 71% more often than intentional plagiarism. This was consistent among traditional undergraduate students and non-traditional undergraduate students.

These results become more important in the light of over 83% of the respondents reported that they received an explanation on the rules of plagiarism from their institution and over 86% of the respondents reported that they had signed an Honor Code with their institution. Table 5 in Appendix E displays students' responses regarding their understanding of plagiarism and their signing of an Honor Code.

Although all forms of plagiarism are a problem, this research shows that unintentional plagiarism should be considered a greater problem, and one that could be prevented through more effective means of communicating the rules of plagiarism with the students. Such means could include changes to university policies to more effectively hold students accountable for understanding the rules of research and writing. This could also include incorporating more time and effort in first-year student development. Instead of assuming that students are taught about plagiarism in high school, colleges and universities can invest more instruction into students' understanding of the expectations of post-secondary education. Colleges and universities could also address the concerns of unintentional plagiarism with the faculty. Plagiarism should not be just an issue for English and Composition instructors to address, but across all disciplines. Offering training and support to faculty can result in greater training and support for the students.

### **Limitations**

The limitations of this research existed in the geographical area of the study, the sample size, the survey used to collect the data, the use of self-reported data, and the low number of reported instances of plagiarism. The research took place at a single university in the southeastern part of the United States. This may not be an accurate reflection of data that would be collected in other areas of the country. The research may have also been limited by the sample. A survey was distributed to approximately 5,000 undergraduate students through their university email accounts. A total of 575 students completed the survey. However, there is no guarantee that the 575 respondents represented the intended 5,000 undergraduate students invited to participate, or the remaining population of undergraduate students enrolled at the university where the research took place. Analyzing data on such a small sample provided a snapshot of how student enrollment might influence committing acts of plagiarism, but might not provide enough to make generalizations across all undergraduate college students.

Another limitation was in the design and use of the survey. The survey used in this research took questions from McCabe's Academic Integrity Survey and modified them to specifically ask for acts of intentional and unintentional plagiarism. McCabe's survey had been established as reliable based upon research done in 1990, 1993, 1995, 2012, 2015, and 2016 (Ford, 2015; McCabe & Trevino, 1996; Raynor, 2016; Robertson, 2008; Stone et al., 2012). It has also been used to research academic integrity for over 25 years and on over 200 campuses (Bealle, 2014). However, in only using specific questions from the survey and modifying them to fit the research, the reliability of the instrument could come into question. Also, the questions regarding the commission of acts of plagiarism also only allowed for "yes" and "no" responses. It did not allow for respondents to provide a number or range of acts of plagiarism. So, a student

who may have committed one act of plagiarism carried the same weight as a student who committed several acts of plagiarism. Using a Likert Scale would have allowed for the collection of more specific and detailed data. Respondents would be able to provide a specific range of incidents of plagiarism. Instead of “no” representing zero incidents and “yes” representing any and all numbers greater than zero, respondents could provide an answer within a range of choices.

Another limitation falls with the data for this research. The data relied on self-reporting information for both the dependent and independent variables. Self-reported data is limited by the honesty and understanding of the respondent and may influence the validity of any generalizations or conclusions. Data collected through self-reported data must be taken at face-value and cannot be independently verified (Brutus, Aguinis & Wassmer, 2013).

A final limitation was in the data collected. There were such a few instances of reported plagiarism. Since instances of intentional and unintentional plagiarism were so rare, it made differences in rates between traditional and non-traditional undergraduate students difficult to identify.

### **Recommendations for Future Research**

The identified limitations of this research, along with some of the findings of the research, support the need of further research in the area of plagiarism. Additional research with greater sample sizes in other geographical areas of the country could allow for greater generalizations on the commission of plagiarism. Also, altering the survey questions to utilize a Likert Scale will produce more specific data on the amount of intentional and unintentional plagiarism occurring among traditional and non-traditional undergraduate college students.

Although the data analyzed did not show a statistically significant difference in acts of plagiarism between traditional and non-traditional college students, there does appear to be a difference between committing intentional plagiarism and unintentional plagiarism among undergraduate students. Further research focusing intentional and unintentional plagiarism could be of great value to administrators in developing strategies to better inform undergraduate students in the rules of writing and properly referencing their work. Conducting the same research examining intentional and unintentional plagiarism among high school students could effectively show if plagiarism is being adequately addressed and taught in high school to best prepare graduates for undergraduate courses.

Another research approach that could provide valuable results would be to see how faculty understands the difference between intentional and unintentional plagiarism. According to one report, roughly 41% of college faculty in the United States are adjunct instructors (Brueng, 2014). Yet, an article in *Forbes* magazine states that nearly 75% of faculty at American colleges and universities are adjunct (Edmonds, 2015). This is a significant increase from the 30% of adjunct faculty in 1975 (Edmonds, 2015). Adjunct faculty are contract employees (Kuther, 2015). They are hired on a class by class basis with no guaranteed work beyond the current semester (Kuther, 2015). Many adjuncts have full-time jobs in the field they are teaching in and the greatest value is that they can bring the “real world” of their profession into the classroom (Kuther, 2015). However, they may not have the same academic understanding as full-time faculty. They might not put in the same time to understand and enforce the rules of appropriate scholarly research and academic writing. In fact, colleges and universities in general may not distinguish between intentional and unintentional plagiarism and enforce them equally. Developing a better understanding of intentional and unintentional

plagiarism by both student and faculty can lay the groundwork for creating more effective strategies in reducing the offenses and properly addressing incidences of plagiarism.

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## APPENDICES

### Appendix A: IRB Approval

# LIBERTY UNIVERSITY

## INSTITUTIONAL REVIEW BOARD

December 1, 2014

Robert Roth  
IRB Exemption 1865.120114: Plagiarism in Higher Education: A Non-Experimental, Causal-Comparative Study of Traditional and Nontraditional Undergraduate Students

Dear Robert,

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

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


(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:  
(i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

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

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

Sincerely,



  
Professor, IRB Chair  
Counseling

(434) 592-4054

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UNIVERSITY.

*Liberty University | Training Champions for Christ since 1971*

## Appendix B: Letter of Invite to Students

The Liberty University Institutional  
Review Board has approved this  
document for use from  
12/1/14 to —  
Protocol # 1845-120/14

### PLAGIARISM IN HIGHER EDUCATION: A NON-EXPERIMENTAL, CAUSAL- COMPARATIVE STUDY OF TRADITIONAL AND NONTRADITIONAL UNDERGRADUATE STUDENTS

Robert Roth

Liberty University

Department of Education

Dear Undergraduate Student,

You are invited to be in a research study focusing on traditionally enrolled undergraduate students and nontraditional college students and acts of plagiarism. You were selected as a possible participant because you are an actively enrolled undergraduate student with Old Dominion University. Please be sure you read the entire letter before agreeing to take part in the study.

This study is being conducted by Robert Roth, a dissertation candidate in the Department of Education of Liberty University.

#### **Background Information:**

The purpose of this study is to observe acts of intentional and unintentional plagiarism between traditionally enrolled undergraduate students and nontraditionally enrolled undergraduate students. The research will be using the U.S. Department of Education's definition of a traditional and nontraditional student.

#### **Procedures:**

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

Click on the included link to be directed to the anonymous survey and complete a survey that should take you between 5 and 10 minutes.

#### **Risks and Benefits of being in the Study:**

The risks of this study are minimum and are no more than you would encounter in everyday life

There are no direct benefits to participation. The results of the research may create opportunities to develop more effective strategies for colleges and universities to better prepare students to be successful in their educational programs.

#### **Anonymity:**

Your responses will be kept completely anonymous. In any sort of report I might publish, no names of any participants will be shared or reported.

The Liberty University Institutional  
Review Board has approved this  
document for use from  
12/1/14 to —  
Protocol # 1565-120/14

### **Voluntary Nature of the Study:**

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University or Old Dominion University. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

### **Compensation:**

If you choose to participate and you complete the survey, you will be entered for a chance to win a \$50 Amazon Gift Card. Once you complete the anonymous survey, you will be directed to another web-link where you can enter for your chance to win.

### **Contacts and Questions:**

The researcher conducting this study is Robert Roth. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact him at [rwroth2@liberty.edu](mailto:rwroth2@liberty.edu). You may also contact the researcher's faculty advisor, Dr. Barbara Boothe, at [bboothe@liberty.edu](mailto:bboothe@liberty.edu).

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd, Suite 1837, Lynchburg, VA 24515 or email at [irb@liberty.edu](mailto:irb@liberty.edu).

*You will be given a copy of this information to keep for your records.*

### **Statement of Consent:**

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

(NOTE: DO NOT AGREE TO PARTICIPATE UNLESS IRB APPROVAL INFORMATION WITH CURRENT DATES HAS BEEN ADDED TO THIS DOCUMENT.)

Thank you for your participation.

Robert Roth



**Original email sent to request participation**

Dear Undergraduate Student,

You are invited to be in a research study focusing on traditionally enrolled undergraduate students and nontraditional college students and acts of plagiarism. You were selected as a possible participant because you are an actively enrolled undergraduate student with the University of Richmond.

This study is being conducted by Robert Roth for the Department of Education of Liberty University.

**Background Information:**

The purpose of this study is to observe acts of intentional and unintentional plagiarism between traditionally enrolled undergraduate students and nontraditionally enrolled undergraduate students. The research will be using the U.S. Department of Education's definition of a traditional and nontraditional student.

**Procedures:**

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

Click on the included link to be directed to the anonymous survey and complete a survey that should take you between 5 and 10 minutes. If you complete the survey, you have an opportunity to be entered into a drawing to win a \$50.00 Amazon Gift Card.

**Anonymity:**

Your responses will be kept completely anonymous. In any sort of report I might publish, no names of any participants will be shared or reported.

**Voluntary Nature of the Study:**

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

**If you choose to participate...**

If you choose to participate and you complete the survey, you will be entered for a chance to win a \$50 Amazon Gift Card. Once you complete the anonymous survey, you will be directed to another web-link where you can enter for your chance to win.

Thank you for your participation.

Robert Roth

## Appendix C: Old Dominion University IRB Approval



### OFFICE OF THE VICE PRESIDENT FOR RESEARCH

#### Physical Address

4111 Monarch Way, Suite 203  
Norfolk, Virginia 23508

#### Mailing Address

Office of Research  
1 Old Dominion University  
Norfolk, Virginia 23529  
Phone(757) 683-3460  
Fax(757) 683-5902

DATE: December 1, 2014

TO: Robert Roth

FROM: Old Dominion University Institutional Review Board

PROJECT TITLE: [675289-1] PLAGIARISM IN HIGHER EDUCATION: A NON-EXPERIMENTAL, CAUSAL-COMPARATIVE STUDY OF TRADITIONAL AND NONTRADITIONAL UNDERGRADUATE STUDENTS

SUBMISSION TYPE: New Project

ACTION: ADMINISTRATIVE APPROVAL FOR NON-AFFILIATED RESEARCHER

DECISION DATE: December 1, 2014

Thank you for your submission of your project materials. As a non-affiliated researcher, your protocol has undergone an administrative review within the Office of Research at ODU.

Everything appears to be in order with your IRB submission and approval from Liberty University. You are free to begin your study recruitment and data collection. Please note that our review only confirms that appropriate human subjects approval has been obtained for your project. You may need to secure additional approval from the administrative unit at ODU in which you intend to recruit participants.

If you make any modifications to your project that require approval by your IRB, you must submit those changes to ODU upon receipt of approval by your IRB. Additionally, notices of continuing approval should be submitted to my office if you plan to collect data past your expiration date.

We will retain a copy of this correspondence within our records.

If you have any questions, please contact Adam Rubenstein at 757-683-3886 or [arubens1@odu.edu](mailto:arubens1@odu.edu). Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Old Dominion University Institutional Review Board's records.

## Appendix D: Survey Instrument Used

### *Student Characteristic and Academic Integrity Survey*

The following survey is completely anonymous and should take 10-15 minutes to complete. Please answer all of the questions as accurately as possible.

Thank you for your participation.

### **Section I – Student Demographics**

1. Gender
  - ☐ 1) Male
  - ☐ 2) Female
  
2. What is your current class standing?
  - ☐ 1) Freshman
  - ☐ 2) Sophomore
  - ☐ 3) Junior
  - ☐ 4) Senior
  
3. At what age did you begin your current undergraduate program?
  - ☐ 1) 17 years of age or younger
  - ☐ 2) 18 years old
  - ☐ 3) 19 years old
  - ☐ 4) 20 years old
  - ☐ 5) Over the age of 20
  
4. Which of the following best describes your progress from high school to college?
  - ☐ 1) I began my current undergraduate program in the same calendar year in which I completed high school.
  - ☐ 2) I began my current undergraduate program in a different calendar year than when I completed high school.
  
5. Which of the following best describes your completion of high school?
  - ☐ 1) High school diploma
  - ☐ 2) GED of other high school completion certificate
  
6. Do you attend school as a full-time student or part-time student; as defined by the institution?
  - ☐ 1) full-time
  - ☐ 2) part-time
  
7. Do you currently have any dependents (not a spouse; i.e.--children)?
  - ☐ 1) yes
  - ☐ 2) no

8. Are you a single parent (not married, married but separated, divorced, widowed)?  
\_\_\_\_ 1) yes  
\_\_\_\_ 2) no
9. Do you currently work a fulltime job (35 hours or more per week)?  
\_\_\_\_ 1) yes  
\_\_\_\_ 2) no
10. Are you considered financially independent for the purposes of determining eligibility for financial aid?  
\_\_\_\_ 1) yes  
\_\_\_\_ 2) no
11. During your time as an undergraduate student, have you ever purchased a paper from a term paper mill and submitted it as your own?  
\_\_\_\_ 1) yes  
\_\_\_\_ 2) no
12. During your time as an undergraduate student, have you ever had another person write a paper for you that you submitted as your own?  
\_\_\_\_ 1) yes  
\_\_\_\_ 2) no
13. During your time as an undergraduate student, have you ever submitted another student's paper as your own?  
\_\_\_\_ 1) yes  
\_\_\_\_ 2) no
14. During your time as an undergraduate student, have you ever intentionally copied or paraphrased material directly from an internet source without properly referencing the source?  
\_\_\_\_ 1) yes  
\_\_\_\_ 2) no
15. During your time as an undergraduate student, have you ever intentionally copied or paraphrased information from a book, magazine, or journal without properly referencing the source?  
\_\_\_\_ 1) yes  
\_\_\_\_ 2) no
16. During your time as an undergraduate student, have you ever copied or paraphrased material from another source without properly referencing the source because you did not believe it needed to be cited?  
\_\_\_\_ 1) yes  
\_\_\_\_ 2) no

17. During your time as an undergraduate student, have you ever copied information directly from an outside source without properly using quotation marks because you did not think they were necessary?

\_\_\_\_ 1) yes

\_\_\_\_ 2) no

18. During your time as an undergraduate student, have you ever used information from an outside source without properly referencing the source because you did not believe a reference was necessary?

\_\_\_\_ 1) yes

\_\_\_\_ 2) no

19. During your time at this institution, have you ever received an explanation of the rules of plagiarism and potential consequences of plagiarizing work?

\_\_\_\_ 1) yes

\_\_\_\_ 2) no

\_\_\_\_ 3) I don't remember

20. Have you ever signed an Honor Code agreement while attending this institution?

\_\_\_\_ 1) Yes

\_\_\_\_ 2) No

\_\_\_\_ 3) I don't remember

## Appendix E: Tables

Table 1

*Sample Demographics (n=574)*

Demographic	Frequency	%
Gender		
Male	202	35.4%
Female	369	64.6%
Age		
Under 17 years old	49	08.6%
18 years old	283	49.4%
19 years old	43	07.5%
20 years old	27	04.7%
Over 20 years old	171	29.8%
Class Standing		
Senior	197	34.3%
Junior	168	29.3%
Sophomore	117	20.4%
Freshman	91	15.9%

Table 2

*Traditional and Non-traditional Characteristics*

Traditional and Non-traditional Characteristic	Frequency	%
Progress from high school to college (n=573)		
Same calendar year (traditional)	371	64.7%
Different calendar year (non-traditional)	202	35.3%
Diploma or GED (n=572)		
High school diploma (traditional)	546	95.5%
GED or other equivalency (non-traditional)	26	04.5%
Enrollment status (n=572)		
Full-time (traditional)	492	86.0%
Part-time (non-traditional)	80	14.0%
Dependents (not a spouse) (n=569)		
No (traditional)	478	84.0%
Yes (non-traditional)	91	16.0%
Single-parent (n=565)		
No (traditional)	495	87.6%
Yes (non-traditional)	70	12.3%
Hours worked per week (n=567)		
Less than 35 hours (traditional)	450	79.3%
More than 35 hours (non-traditional)	117	20.6%
Financially independent (n=570)		
No (traditional)	350	61.4%
Yes (non-traditional)	220	38.6%

Table 3

*Number of Non-traditional Characteristics (n=574)*

Number of non-traditional characteristics	Frequency	Percentage
0	354	61.7%
1	42	07.3%
2	68	11.8%
3	32	05.6%
4	45	07.8%
5	20	03.5%
6	12	02.1%
7	1	00.2%

Table 4

*Intentional and Unintentional Acts of Plagiarism*

Acts of Plagiarism (intentional and unintentional)	Frequency	Percentage
Purchased a paper from a term paper mill (n=556)		
Yes (intentional plagiarism)	5	00.9%
No	551	99.1%
Had another person write a paper for you (n=556)		
Yes (intentional plagiarism)	8	01.4%
No	548	98.6%
Submitted another student's paper as your own (n=558)		
Yes (intentional plagiarism)	3	00.5%
No	555	99.5%
Intentionally copied or paraphrased material from an Internet source without referencing the source (n=557)		
Yes (intentional plagiarism)	50	09.0%
No	507	91.0%
Intentionally copied or paraphrased information from a book, magazine, or journal without referencing the source (n=552)		
Yes (intentional plagiarism)	30	05.4%
No	522	94.6%
Copied or paraphrased material from another source without referencing the source because you did not believe it needed to be cited (n=556)		
Yes (unintentional plagiarism)	95	17.1%
No	461	82.9%
Copied information directly from an outside source without using quotation marks because you did not think they were necessary (n=554)		
Yes (unintentional plagiarism)	53	09.6%
No	501	90.4%
Used information from an outside source without referencing the source because you did not believe a reference was necessary (n=552)		
Yes (unintentional plagiarism)	88	15.9%
No	464	84.1%

Table 5

*Received an Explanation on the Rules of Plagiarism (n=559) and Signed an Honor Code with their Institution (n=555)*

Explanation of the rules of plagiarism and/or signed an Honor Code	Frequency	%
Received and explanation of the rules of plagiarism (n=559)		
Yes	466	83.4%
No	64	11.4%
I do not remember	29	0.52%
Signed an Honor Code (n=555)		
Yes	494	86.1%
No	19	03.3%
I do not remember	42	07.3%

Table 6

*Comparison of Acts of Plagiarism by Traditional and Non-traditional Students*

Act of Plagiarism	N	Mean	Std. Dev.	t	p-value
Intentional Plagiarism				1.05	.294
Traditional students	226	.20	.53		
Non-traditional students	300	.16	.49		
Unintentional Plagiarism				1.41	.159
Traditional students	223	.51	.85		
Non-traditional students	300	.40	.81		

Table 7

*Acts of Unintentional Plagiarism by Traditional and Non-traditional Students*

Act of Plagiarism	N	Mean	Std. Dev.	t	p-value
Unintentional Plagiarism				1.41	.159
Traditional students	223	.51	.85		
Non-traditional students	300	.40	.81		

Table 8

*Comparison of Intentional and Unintentional Acts of Plagiarism among Non-traditional Students*

Acts of Plagiarism	N	Mean	Std. Dev.	t	p-value
Intentional Plagiarism				5.54	.000
Non-traditional students	300	.16	.49		
Unintentional Plagiarism				8.58	.000
Non-traditional students	300	.40	.81		

Table 9

*Comparison of Intentional and Unintentional Acts of Plagiarism among Traditional Students*

Act of Plagiarism	N	Mean	Std. Dev.	t	p-value
Intentional Plagiarism				5.80	.000
Traditional students	226	.20	.53		
Unintentional Plagiarism				8.92	.000
Traditional students	226	.51	.85		

Table 10

*Kolmogorov-Smirnov and Shapiro-Wilkes Tests Results*

Test for Normality							
		Kolmogorov-Smirnov			Shapiro-Wilkes		
		Statistic	df	Sig.	Statistic	df	Sig.
Numbers of types of intentional plagiarism	Traditional	.504	220	.000	.426	220	.000
	Non-traditional	.501	295	.000	.356	295	.000
Numbers of types of unintentional plagiarism	Traditional	.411	220	.000	.639	220	.000
	Non-traditional	.451	295	.000	.558	295	.000