AN INVESTIGATION OF ACADEMIC DISHONESTY AMONG UNDERGRADUATES AT KANSAS STATE UNIVERSITY

by

CANDACE LYNNE THOMPSON WALTON

B.A., University of Nebraska at Kearney, 1997

M.S., Kansas State University, 2001

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF PHILOSOPHY

Department of Special Education, Counseling and Student Affairs

College of Education

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Abstract

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Dedication

This dissertation is dedicated to the memory of my grandparents, Elmer and Agnes Smidt and Denly John and Joye Thompson. Thank you for encouraging your children and grandchildren to value education and learning.

Chapter 1 - Introduction to the Study

Honesty is the crux of integrity; furthermore, honesty is seen as a moral imperative (Turiel, 2006). The Center for Academic Integrity defines academic honesty as "the foundation of teaching, learning, research and service and the prerequisite for full realization of trust, fairness, respect, and responsibility" (Center for Academic Integrity, 1999, p. 5). Without honesty, integrity is not possible. Moreover, central to the mission of higher education is instilling values in its graduates (Kibler & Kibler, 1993); unfortunately, academic dishonesty threatens this mission by undermining the value of learning (Bertram Gallant, 2008).

This study investigated academic dishonesty among college students. Specifically, by focusing on combinations of variables that until now had not been investigated together, this study advances understanding of college student behavior and belief about peer behavior regarding academic dishonesty. The variable combinations include gender and age, race/ethnicity and gender, and major and gender.

Statement of the Problem

Rates of academic dishonesty among undergraduate students have been consistently high, ranging from 13% to almost 95% (Graham, Monday, O'Brien, & Steffen, 1994; McCabe & Trevino, 1997; Park, 2003; Pullen, Ortloff, Casey, & Payne, 2000; Williams & Hosek, 2003). While academic dishonesty has been a concern in higher education for centuries (Bertram Gallant, 2008; Kibler, 1992), colleges and universities have not yet been able to develop strategies to mitigate academic dishonesty.

Academic dishonesty interferes with what is supposed to be a cooperative effort among students, faculty, and administration to achieve basic educational goals (Bowers, 1964, Keith-Spiegel & Whitley, 2001). In particular, within the immediate campus community, distrust

develops among all parties when academic dishonesty occurs. Keith-Spiegel and Whitley (2001) offer seven ramifications of student academic dishonesty:

First, students who cheat on exams and assignments are more likely to receive higher grades than students who do not cheat (Keith-Spiegel & Whitley, 2001). Therefore, honest students are placed at a disadvantage when their scores are compared to the grade point averages and exam scores of dishonest students. Second, when students see others cheating, and when the university does not act to punish the offender, a student is left to believe that such behavior is acceptable (Keith-Spiegel & Whitley, 2001). Third, students who cheat do not learn, which opposes the mission of education since cheating devalues the worth of a college degree (Keith-Spiegel & Whitley, 2001). Fourth, observing cheating promotes demoralization of students who do not cheat (Keith-Spiegel & Whitley, 2001). Stated another way, students who do not engage in dishonesty may begin to believe that hard work does not lead to academic success and that dishonesty is the best way to be successful in college. Fifth, students who cheat in school tend to cheat in their careers. If cheating is left unchecked, cheating becomes part of a functional work skill set (Keith-Spiegel & Whitley, 2001). Sixth, the publicity about cheating can hurt a college's reputation (Keith-Spiegel & Whitley, 2001). Seventh, persistence of cheating can ultimately lead to lack of confidence in education, and the entire higher education system could lose support from the public (Keith-Spiegel & Whitley, 2001). These seven ramifications outlined by Keith-Spiegel and Whitley (2001) illustrate that all people in the higher education community are negatively affected by academic dishonesty.

Academic dishonesty as a field of study is relatively new. Indeed, Bertram Gallant (2006) states that systematic studies of academic dishonesty began only in the 1990s. Initially, Bowers (1964) conducted the first large-scale survey regarding college cheating in 1963. His survey was

given to 5,000 students on 99 different campuses and found that approximately one of every two students had engaged in dishonest behavior. Later, Haines, Diekhoff, LaBeff and Clark (1986) reported that 54% of students admitted to academic dishonesty, and 1% reported being caught. In a study by Singhal (1982), 56% of students admitted to having cheated at the college level. Meanwhile, of the 79% of faculty who found academic dishonesty in their classrooms, only 9% sanctioned the behavior. Next, McCabe and Trevino (1997) found that 87% of students in 1993 admitted to cheating on written work, and 70% cheated on a test at least once. In addition, 52% copied from another, and 25% plagiarized. Additionally, Cizek (1999) reported that more than half of all college students cheat. More recently, there is growing concern that technology is making it increasingly easier to engage in all types of dishonesty (Born, 2003; Campbell, 2006; Scanlon, 2003; Underwood & Szabo, 2003), which suggests that dishonesty among college students may increase.

The rates of dishonesty described above have led to a series of investigations based on various causes and effects of dishonesty. Studies focus on a variety of variables involving individuals' beliefs and attitudes about academic dishonesty (e.g. Burke, 1997; Campbell, 2006; Crown & Spiller, 1998; Grijalva, et al. 2006; Jordan, 2001; McCabe & Trevino, 1993; McMurty, 2001; Rakovski & Levy, 2007; Roig, 2001), determinants of academic dishonesty (Barnett & Dalton, 1981; Cizek, 1999; Eberhardt, Rice & Smith, 2003; Gardner, Roper, Gonzalez & Simpson, 1988; Gire & Williams, 2007; Iyer & Eastman, 2006; Kennedy, Nowak, Raghuraman, Thomas & Davis, 2000; Moeck, 2002; Nowell & Laufer, 1997; Thorpe, Pittinger, & Reed, 1999; Underwood & Szabo, 2003), institutional responses (McCabe & Trevino, 1996; McCabe, 2005;), and deterrents of academic dishonesty like classroom techniques (Gearhart, 2001; Marcoux, 2002; Olt, 2002; Rabi, Patton, Fjortoft & Zgarrick, 2006; Rowe, 2004; Wood & Warken, 2004).

These studies have shed light on some of the various problems facing the university community, but have yet to come up with a solution to the problem. This study advances understanding of students' behaviors and perceptions of peer behavior regarding academic dishonesty by examining the characteristics of demographic variables that previously have only been studied separately: gender, age, race/ethnicity, and major.

Research Questions

Based on the statement of the problem, values, and assumptions, the following research questions guided the research objectives, which are to determine the level of cheating on campus, and investigate undergraduate student behaviors and perceptions of peer behavior regarding academic dishonesty.

Research Question: To what extent are differences in student demographic characteristics associated with differences in behavior and perceptions of academic dishonesty issues?

Definition of Terms

Academic dishonesty has different meanings across the academic community (Bertram Gallant, 2006, 2008; Kibler, 1992). These meanings address academic dishonesty, academic integrity, and academic honesty. For the purpose of this study, academic dishonesty is used as an umbrella term that refers to behaviors that "result in students giving or receiving unauthorized assistance in an academic exercise or receiving credit for work which is not their own," (Nuss, 1984, p.1).

Academic dishonesty, as an undesirable characteristic, is used as the term opposing academic integrity, which is a desirable characteristic (Bertram Gallant, 2006). The term cheating was used sparingly in this study. In fact, cheating is used as a synonym for academic dishonesty (Cizek, 1999; Jendrek, 1992; McCabe, 1993) and only when the literature uses the

term. However, academic integrity is difficult to define because there are many definitions and interpretations (Bertram Gallant, 2006). While academic honesty, a rarely used term, is the clear antonym for academic dishonesty (Bertram Gallant, 2006), most researchers do not use the term academic honesty, instead opting to use academic integrity. However, academic integrity means something more than just being honest. For this study, academic integrity is defined as an attitude or value that a member of a college or university possesses that promotes honesty in an academic setting (Gehring, 1998).

Values and Assumptions

This study was conducted with values and assumptions that influenced the study's design and interpretation of results.

The first value that influences this study is that the researcher believes that colleges and universities are responsible for providing an educational environment that contributes to learning and excellence (Kibler & Kibler, 1993; Pascarella & Terenzini, 2005). To that end, academic integrity is a value that supports the entire academic community. The researcher believes part of the college experience is developing intellectual competencies that help students with careers and their lives (Nuss, 1984). This researcher accepts the assumption of the role of higher education made by Nuss (1984), who proposes that higher education should prepare students with the necessary elements to be intellectually competent to manage their careers and daily lives. The researcher acknowledges this value may not be shared with everyone who reads this work.

The second value that influences this study is that academic dishonesty is a negative behavior and should be discouraged. The researcher believes that academic dishonesty inhibits learning (Bertram Gallant, 2008) and creates distrust in the academic community (Keith-Spiegel & Whitley, 2001), which leads to conflict in the classroom (Bertram Gallant, 2008).

Academic dishonesty, as a negative behavior, is a widely accepted notion among faculty and administrators. However, some students and others in the academic community may not share this value. Therefore, it is important to note this value is assumed in this study.

The theoretical basis for this study is moral development. Accordingly, the next chapter details three major moral development theories: (1) Kohlberg's Moral Development Theory, (2) Gilligan's Moral Development Theory, and (3) Rest's Four Component Model, and describes how these theories influence academic dishonesty research, including this study. The major assumption of moral development theory that is used within this study is that students who engage in academic dishonesty are making a rational decision. A major underpinning of moral development theory is the assumption of an individual's ability to make rational decisions (Turiel, 2006) even when influenced by emotions (Okin, 1989; Rawls, 1971). There is certainly merit to arguments that this assumption is a Western philosophy (see Turiel, 2006).

A final assumption made in this study is that higher education is an important component of moral growth. This assumption is tied to moral development theory, which posits that as a person develops, he or she becomes more capable of complex thoughts and decision-making (Gilligan, 1982; Kohlberg, 1971; Rest, 1983).

The values and assumptions noted in this section were provided to demonstrate the openness and intent for this study to be as unbiased as possible. Noting that bias is impossible to avoid completely, these points provide the researcher's perspective on academic dishonesty and higher education.

Significance of Study

Borrowing from Bertram Gallant (2006), "what could be more significant to higher education than a study of its integrity?" (p. 13), this study continues efforts by previous

researchers to systematically investigate academic dishonesty among college students. Previous studies have investigated gender, age, major and race/ethnicity, but this research is the first effort to combine these variables (age with gender, major with gender and race/ethnicity with gender).

The information gleaned from this study furthers the body of knowledge regarding academic honesty, which is a complex issue as it occurs on a college campus. This study provides guidance on how demographic and academic variables can be combined to create new investigations of academic dishonesty. The results of this study can be used to further our understanding of how students behave and perceive behavior of their peers with regard to academic integrity.

Organization of the Dissertation

In the next chapter, the background literature that informed this study is described. Specifically, the chapter provides an historical perspective on academic dishonesty, a discussion of moral development theories as a foundation for this study, and a review of relevant scholarly research on academic integrity. Chapter two concludes with research hypotheses. Chapter three provides the research design, method for data collection, and the data analysis. Chapter four provides results, including tables and the findings based on the hypotheses. The final chapter presents conclusions based on the results of the study, a discussion of limitations of the study, and suggestions for future research on academic dishonesty.

Chapter 2 – Review of Literature

Academic dishonesty has a lengthy history in the United States (Bertram Gallant, 2008). This chapter reviews the historical context of academic dishonesty and discusses its definition and prevalence on college campuses. Additionally, cognitive theories and student development theories are presented. Together, they provide a foundation for understanding how students grow, develop, and form judgments in college. This literature review summarizes research on academic dishonesty. Bertram Gallant (2008) has identified four dimensions of academic misconduct: (1) internal, (2) organizational, (3) institutional, and (4) societal. Each dimension is defined, and relevant research is presented. In addition, moral development models are presented. These theories focus on the importance of the interaction of individuals and their environment and emphasize how growth occurs (Kibler, 1992).

The literature review provided a foundation for this study of undergraduate student behaviors and perceptions using variables defined by previous research. In the academic research section of this chapter, relevant academic studies relating to individual behavior regarding academic dishonesty and individual's gender, age, race/ethnicity, major and perception of peer behavior are reviewed. At the conclusion of this chapter, the research hypotheses are presented.

Historical Perspective

This section explores both the research findings and popular press reports of academic dishonesty, misconduct, and cheating throughout the history of postsecondary education in America. An historical review of university responses to academic dishonesty reveals concern about academic dishonesty dating back to the founding of the United States. Academic integrity and educational researchers have found consistently that most students in the United States

engage in academic misconduct (Center for Academic Integrity, 1999; McCabe & Trevino, 1996; McCabe, Trevino, & Butterfield, 2001; Stricherz; 2001).

Academic dishonesty has been noted in four distinct periods of U.S. history (Bertram Gallant, 2008; Brubacher & Rudy, 2002; Thelin, 2004; and Ward, 2003). They are (1) The Antebellum Period (1760-1860), (2) Research University (1860-1945), (3) Mass Education (1945-1975), and (4) the Contemporary University (1975-present). For each period, there is: (1) a description of the culture of the era in relation to academic dishonesty, (2) a critical examination of how campus organizations approached academic dishonesty, and (3) a statement articulating how academic dishonesty was defined during that day.

The Antebellum Period

Classrooms during the Antebellum period (1760-1860*)* were carefully structured. Students were assessed daily with tests on how well they had memorized course materials; student behavior was governed by strict rules and policies (Allemendinger, 1973; Brubacher & Rudy, 2002; Lucas, 1994; Moore, 1978; Thelin, 2004; Wagoner, 1986) that were enforced by professors and tutors (Brubacher & Rudy, 2002; Lucas, 1994; Thelin, 2004). Thus, academic honesty used the crime and punishment model (Bertram Gallant, 2008). The crime and punishment model treated academic dishonesty as a crime, and its punishment was handed down to punish the crime. Allemendinger (1973) speculated that the antebellum crime and punishment model was a remnant of the earlier residential college period where professors and students lived with each other. During the antebellum period, grades were used to rank students, which increased pressure for higher academic marks (Bertram Gallant, 2008).

Such pressure on students to have high grades could have led to dishonest behavior (Bertram Gallant, 2008). Common dishonest academic behaviors during this period involved

cheat sheets (Allemendinger, 1973; Lucas, 1994). Cheat sheets, also referred to as crib sheets, are a student's notes or other disallowed aids smuggled into examinations. During this period, students could purchase degrees from diploma mills (Thelin, 2004). In response to this dishonesty in student behavior, universities implemented a peer honor model that forced students to monitor other students' behavior (Bertram Gallant, 2008). Dishonesty was defined as disorder and defying campus authorities, including classroom teachers, by lying, cheating, or stealing (Bertram Gallant, 2008).

The Research University

The Research University period (1860-1945) was marked by the passage of the Morrill Acts of 1862 and 1890 (Brubacher & Rudy, 2002; Hessinger, 1999; Rudolph, 1990; Thelin, 2004; Ward, 2003). During this period, the production of knowledge and the division of faculty into academic departments emerged. Additionally, the California ideal articulated that college and universities should help create good leaders and citizens to counter political and corporate corruption (Thelin, 2004). The incorporation of the California ideal further elevated the importance of higher education's role in helping create ethical citizens.

Students were expected to be interested in generating knowledge alongside their professors. Also, they were involved in extracurricular activities such as intercollegiate athletics (Bertram Gallant, 2008; Brubacher & Rudy, 2002; Rudolph, 1990). During this time, class sizes grew, and examination testing became the norm, leading to new opportunities for academic dishonesty (Bertram Gallant, 2008). Students could easily obtain an advance copy of the examinations from friends (Marsh, 2004). As in the antebellum period, cheat sheets were used on examinations (Bertram Gallant, 2008; Pace, 2004). The classroom was an environment where the teacher and student tried to outwit the other (Bertram Gallant, 2008).

Academic dishonesty was defined as folly or a joke that had little effect on others (Bertram Gallant, 2008). As the misconduct became more commonplace, academic dishonesty was taken more seriously. Institutions began to implement honor codes to discourage academic dishonesty (Brubacher & Rudy, 2002). Honor codes, which mandated academically honest behaviors with threat of punishment, were intended to control student behavior (Bertram Gallant, 2008). The philosophy of honor among peers, prevalent in the antebellum period, was replaced by an honor code based on the institution's philosophy (Bowman, 2006). However, students still engaged in dishonest behavior in the classroom. At the end of this period, faculty began to supplement the honor code system with classroom deterrents like spacing students apart during examinations and not allowing additional material on student desks during exams (Bertram Gallant, 2008).

Mass Education

The mass education period (1945-1975) was marked by a great expansion of the student body to include individuals from a large range of people from different socioeconomic classes, races, ages, abilities and gender (Ward, 2003). During this period, several publicized student cheating scandals in large schools caused the public to question the effectiveness of honor codes and institutions' ability to control their students (Bertram Gallant, 2008; Brubacher & Rudy, 2002; Hechinger, 1965; McGrath, 1982; Pollard, 1972; Roark, 1981). This period includes turbulent times in United States history that was marked by such events as the (1) Vietnam Conflict (2) Civil and Human Rights movements; and (3) assassinations of President John F. Kennedy and Civil Rights Leaders, Dr. Martin Luther King, Jr. ("What Price Honor?" 1976).

As student enrollments in higher education increased, so did their demographic diversity. Before the mass education era, professors and students came from similar social, ethnic, cultural

and geographical backgrounds (Maruca, 2005) However, these new, diverse students did not share the same educational values as their professors (Maruca, 2005). This lack of shared values led to a disconnection between faculty and students' viewpoints of dishonesty. This fact may explain why the number of reported academic dishonesty cases and public skepticism about the integrity of education increased during this time period (Bertram Gallant, 2008; Connell, 1981; Sewall & Drake, 1980; Trachtenberg, 1972).

The definition of academic dishonesty has been referred to as cheating. Academically dishonest behavior, such as copying papers along with cribbing examinations, was common (Bertram Gallant, 2008). In fact, it was during the mass education period when both phrases academic dishonesty (Bertram Gallant, 2008) and academic integrity ("Columbia Weighs an Honor System," 1963) were first used in reference to academic misconduct and cheating.

During the mass education period, several trends emerged relating to academic dishonesty. The first trend was to separate student integrity from faculty, researcher, or administrative integrity, with separate policies and codes guiding each activity (Bertram Gallant, 2008). Several public and private universities developed honor codes that focused almost exclusively on student behavior while ignoring faculty, research, and administrative integrity (McCabe, 1993; McCabe & Trevino, 2002). This separation of students from the rest of the academic community ignited the focus of research on students' characteristics and beliefs about academic integrity.

The second trend focused on student character and integrity to the neglect of organization, institutional, and societal dimensions of academic integrity (Bertram Gallant, 2008). This trend viewed students as the central problem of academic dishonesty, and this focus was evident in the research on academic dishonesty. Studies of student behavior and

characteristics were featured heavily, while organizational, institutional, and societal dimensions of honesty were neglected.

The third trend involved the media whereby journalists turned their attention to the student cheating incidences and institutional actions following such systemic events (Akst, 1987; Hechinger, 1965; Morrison, 1976; Rafferty, 1965; Roark, 1981; Tolchin, 1965). Academic dishonesty had been a problem on college campuses for decades. During this era, it coincided with the rise of the mass media during this era (Rodman, 2009; Vivian, 2009). The decision of the mass media writers to focus on academic dishonesty during this period (Peterson, 1974; Sheils & Schmidt, 1975; Zagono, 1975) affected how institutions responded to the problem (Bertram Gallant, 2008). Colleges and universities began to create policies and procedures governing academic integrity (Bertram Gallant, 2008), likely in response to the perception of widespread cheating among students, coupled with judicial demands that students accused of academic misconduct be afforded due process (Bertram Gallant, 2008). While colleges and universities wrote policies and procedures designed to curb academic dishonesty, it became apparent that one-size-fits-all approaches to academic dishonesty policies did not meet the needs of all the different institutions of higher education (Bertram Gallant, 2008). However, in the next era, higher education institutions began to adapt different approaches to academic dishonesty policies.

The Contemporary University

The Contemporary University period, 1975-present, is highlighted by the commercialization of higher education. Commercialization of higher education refers to the requirement that institutions show benefits of higher education to the public to justify the investment in higher education (Slaughter & Rhoades, 2004; Thelin, 2004). Commercialization

is marked by an era of increased competition for funding and student enrollment (Bertram Gallant, 2008). As noted in the previous era, the growing diversity within the student population prompted research into the influence of college on student academic integrity and how students are affected by being in college (see Pascarella &Terenzini, 2005 for an in-depth review). This heightened understanding of the student body encouraged different approaches to addressing student academic dishonesty.

Universities during this period struggled with finances and decrease in public support from state legislatures (Bertram Gallant, 2008). This decrease in public funding has led to increased efforts to secure private funds, including donations from parents and students to supplement university finances (Thelin, 2004).

Examples of dishonesty during the current era included "cutthroat cheating" (Bertram Gallant, 2008, p. 25) like ripping pages out of library books and journals (Lamont, 1979), hiring other students as ringers to take exams, and submitting forged transcripts and letters of recommendations (Wentworth, 1976). More recently, cooperative cheating (Bertram Gallant, 2008) has emerged, where students share resources (like old reports, papers, and examinations) or divide workloads on required independent projects (Bertram Gallant, 2008).

During this period, the definition of academic dishonesty has grown to include copying the work of others without citing sources, which is often referred to as plagiarism (Aguirre, 2004; Lipka, 2009; McCabe, 1992; Newmark, 2005; Park, 2003).

Several cases over the last ten years highlight the large-scale cheating scandals at educational institutions. The following stories cover cheating incidences at four universities: (1) Florida State University; (2) Duke University, North Carolina, (3) Ryerson University, Toronto, Canada; and (4) Kansas State University.

Florida State University.

Florida State University is a large southern research university that is known for a strong football program along with research and academic pursuits. Twenty-five Florida State University football players were suspended in 2007 and not allowed to play in a post-season bowl game because of cheating (NewsServices, 2007). The scandal involved student athletes who copied answers from an old exam for use in an online course (Glier, 2007). Players, teachers, tutors, coaches, and administrators were each assigned some level of responsibility. Some critics suggested that Florida State University should have declined the $1.6 million payout from the bowl game sponsors because of the scandal (Shelton, 2007). The Florida State University scandal put university officials on the front page of most mainstream newspapers. It was the top news story covered by most sports television and radio programs for several weeks following the first report of the incidences. The tutor, an academic advisor, and a learning specialist were all fired as a result of the incidences (Sicilia, 2009).

In March 2009, the National Collegiate Athletic Association (NCAA) ruled that FSU must forfeit its victories and individual records from the 2006 and 2007 competitions (Sicilia, 2009). At the time of this writing, the outcome of the penalty placed on FSU by the NCAA was in appeal.

Duke University, North Carolina.

Officials at Duke University's School of Business reported that the school's judicial board convicted 34 first-year business students for cheating ("A Matter of Honor", 2007). The students had collaborated without permission on a take-home exam. The board ruled that nine students would be expelled.

The Duke University incident was prominently covered in business industry magazines like *Business Week* (Conlin, 2007). A Google search of the terms "Duke Business School Cheating" on November 11, 2009 revealed over 40 different websites discussing the incident. The scandal at Duke is an example of how one group of students' action can lead to much negative public attention for an institution.

Ryerson University, Toronto, Canada.

A student at Ryerson University created an online study group using Facebook.com. One-hundred and forty-six undergraduate students joined the online study group and shared homework answers with one another (Javed, 2008). When the professor found the study group, he failed the student who began the Facebook group. The professor justified the action by noting that the homework assignment instructions stated clearly that the assignment was an individual assignment not a group project.

The Ryerson example provides a glimpse of what the future may hold in academic dishonesty and detection of that dishonesty using new technologies. The Internet and other types of technology have provided new learning tools, but also new opportunities for academic dishonesty. As technology continues to expand, we can expect more stories like the Ryerson example.

Kansas State University.

In 1994, a large scale cheating incident at Kansas State University in the Biology department prompted discussion and ultimately major policy and organizational changes. (Ziegler,1994a). The incident attracted the national media to the campus when more than one-hundred students in biology lab classes (Bohn, 1994a) were accused of cheating after receiving exam answers from a student who took the biology exam early (Ziegler, 1994a). One student is

reported to have phoned Greek and residential living communities, and shared exam questions and answers with students who had not taken the examination yet (Zielger, 1994a). Campus and local police investigated the activity and decided that no laws had been broken (Zielger, 1994b). The 75 students, who were found guilty of cheating, failed the biology course and then given the opportunity to retake the course the following semester (Bohn, 1994b).

In the same year, thirty-five students were suspected of obtaining exam questions from an early Geology exam test-taker. The Geology professor learned of the incident prior to administering the exam to other students, and discarded the exams before they were administered ("Geology exam," 1994).

Marcoux (2002) wrote that the national television program, *Primetime,* mentioned Kansas State University's cheating scandal during a 1994 program focusing on cheating on college campuses. This series of events, and the consequent news coverage, prompted changes in Kansas State University's test taking policies. Students are required now to bring photo identification to take an exam. Ultimately, the university implemented an honor system in 1999 (Marcoux, 2002).

Currently, under Kansas State University's Honor and Integrity System, students make a pledge: "On my honor as a student, I have neither given nor received unauthorized aid on this academic work" (Honor & Integrity System, 2009, p. 1). This honor system evolved in response to the academic dishonesty incidences on campus and was a solution that students recommended and supported (Marcoux, 2002).

Summary of recent academic dishonesty cases.

These three institutional academic integrity cases have provided a snapshot regarding academic dishonesty in higher education. Furthermore, the mass media coverage of higher

education incidences illustrated an important historical context to this period and showed how media coverage draws attention to academic dishonesty and creates pressure on university officials to curb it.

Historical Perspective Summary

Three historical points are critical to the present investigation. First, academic dishonesty is not a new issue in higher education. It has existed, in some form, since the inception of higher education in the United States. Second, the definition of academic dishonesty is changing constantly. Finally, academic dishonesty is closely connected to the student's environment and situation. The historical review illustrated how various influences on higher education influence academic dishonesty. The next section describes the various cognitive development theories that have shaped our understanding of how individuals make moral judgments that shape how or whether they engage in academic dishonesty.

Theoretical Foundation for Present Study

The theoretical foundation for the present study requires an explanation of college student growth and development. Cognitive theories provide a foundation for this study of academic dishonesty. These theories explain college students' interactions with their environments and describe how students experience cognitive growth during college. Such interactions challenge students and facilitate their developmental growth (Kibler, 1992).

Cognitive theories view development as an ordered progression of constructions and reconstructions (Pascarella & Terenzini, 2005). Individuals develop because of experiences with dissonance or discomfort (Ratner, 1996), with discomfort occurring because of their own cognitive structures. In seeking resolution of the conflict, and thus reducing feelings of discomfort, people develop cognitively by thinking through the dissonance (Ratner, 1996). Thus,

an individual constructs new perceptions in response to dissonance (Pascarella & Terenzini, 2005).

All cognitive theories share four common attributes (Pascarella & Terenzini, 2005). First, an individual's development occurs through a series of developmental stages that are both universal and transcultural. Second, these developmental stages are hierarchical. One stage is a prerequisite for the next higher stage. Third, an individual's progression through these stages is sequential and invariant, and in most cases, irreversible, which results in new, more complex thought structures. Finally, once an individual reaches the next level, the new increased cognitive ability fundamentally changes how the individual thinks about the world, making it difficult to move backward to the earlier stage of making meaning (Kohlberg, 1981; Pascarella & Terenzini, 2005). To move through stages, individuals must face cognitive conflict. Piaget (1964) wrote that cognitive conflict is resolved by one of two methods: assimilation or accommodation. Assimilation occurs when individuals streamline their perception of a dilemma or problem with their own current thought processes. Accommodation occurs when individuals change their belief structures to be consistent with the experience that causes conflict, thereby diminishing tension caused by dissonance (Kwasnick, 1986). Thus, cognitive theory focuses on both intellectual and moral development (Ratner, 1996).

Three cognitive theories explain students' decision-making regarding academic honesty. The first is Kohlberg's Theory of Moral Reasoning, in which Lawrence Kohlberg explains how individuals make moral decisions using six stages of moral reasoning. The second theory is Carol Gilligan's Moral Development Theory, which came after Kohlberg's theory. Her theory views development of morality along two lines of ethics: the ethic of care and the ethic of justice. The third theory is James Rest's Four Component Model, which extends Kohlberg and Gilligan's

structured models, and suggests that development occurs gradually as an individual has life experiences.

These three theories represent two approaches to understanding moral reasoning and development. Kohlberg and Gilligan's theories are commonly referred to as moral stage theories (Lapsley, 2006), while Rest's theory is referred to as neo-Kohlbergian (Thoma, 2006). These two groupings within cognitive development theory, mark a shift in how individual development is approached. These differences are addressed in this section, which concludes with evidence to suggest how cognitive theories may explain academic dishonesty among college students.

Lawrence Kohlberg's Theory of Moral Reasoning

The modern approach to cognitive development was developed by Lawrence Kohlberg (1969, 1981). Building on Dewey and Piaget's work (Kohlberg, 1981), Kohlberg (1969, 1981) hypothesized corresponding and parallel stages of development in the moral and intellectual domains. His theory used three levels with each level having two sub-levels called stages. Table 1 presents these stages of development graphically. The preconventional level is first; here, a child has only a limited concept of morality tied to dualistic thinking: right or wrong, good or bad. This level is divided into two stages. The first stage is punishment and obedience orientation. Punishment and obedience are physical consequences of actions based on goodness or badness. The second stage is called the instrumental-relativist orientation. In this stage, children seek to satisfy their own needs.

The second level is called the conventional level. At this level, people seek to maintain the expectations of a family or group. The conventional level includes stage 3, defined as the interpersonal concordance or good boy-nice girl orientation. In this stage, good behavior is defined as behavior that pleases or helps others. Stage 4 is the law and order stage. In this stage,

orientation toward authority and fixed rules govern behavior such that good behavior is defined as doing one's duty and showing respect for authority. The third and final level is called post-conventional, the autonomous or principled level. This level is marked by a clear effort to define moral values and principles that have validity apart from authorities. Stage 5 in this level is the social contract, legalistic orientation. Good behavior exists in relation to individual rights and standards that have been critically examined and agreed upon by the society.

Table 1. Description of Kohlberg's Model.

Level 1 Preconventional	Stage 1: Moral action is the based on avoidance of punishment Stage 2: Moral action is determined by what brings rewards. Other individual's wants and needs are considered, but only in a reciprocal sense.
Level 2: Conventional	Stage 3: Moral action is determined by being a good person in view of yourself and others. The majority opinion is considered the right action. Stage 4: Moral action means showing respect for authority and maintaining social order. Laws and rules are unquestionably accepted and obeyed.
Level 3: Postconventional	Stage 5: Moral action is seen in a more complex way. An individual is obliged to comply with laws because laws are regarded as social contracts. These contracts are based on rational calculations of utilitarian philosophy, a decision based on the greatest good for the greatest number of people. Stage 6: Moral action is determined by our inner conscience and may or may not agree with public opinion or laws. Moral reasoning is based on abstract reasoning using universal ethical principles and personal commitment to these principals.

Adapted from Colby, Kohlberg, Gibbs & Lieberman (1983).

Kohlberg's work emphasizes the process of thought rather than the content of thought (Kibler, 1992; Nuss, 1981; Rich & DeVitis). The entire process is marked by rational thought processes and rational decision-making.

Carol Gilligan's Moral Orientation Theory

Carol Gilligan (1977, 1982), one of Kohlberg's students, challenged Kohlberg's theory, suggesting his theory was biased toward men. Gilligan's claim of gender bias is based on the characteristics of the original research Kohlberg conducted to create his model (Walker, 2006), which contained an exclusively male sample (Colby, Kohlberg, Gibbs, & Lieberman, 1983).

Moral orientation is the conceptual framework in which an individual views the world (Walker, 2006). Gilligan's moral orientation theory suggested that women's moral development is a struggle between the orientation of ethic of caring for others and a woman's responsibility to herself (Gilligan, 1982). Gilligan suggests that men's moral orientation is a justice, or sometimes referred to as rights, orientation (Gilligan 1977, 1982). Gilligan (1982) found that women judge themselves on the basis of their capacity to care. The belief that moral development is based on care suggests that responsibility and relationships are critical to moral development (Gilligan, 1982). To contrast Gilligan's theory with Kohlberg's theory, Kohlberg (1981) would view a link to emotion and moral reason as an indicator of low reasoning while Gilligan (1982) believes that moral development involves interaction with surroundings that includes emotions. Table 2 is a graphic illustration of Gilligan's perspectives.

Table 2. Description of Gilligan's Ethic of Care Orientation.

Perspective 1	Caring for yourself to ensure your survival. Transitional phase: This perspective is criticized as selfish and this signals a new understanding of connection between yourself and others.
Perspective 2	Seeking to care for others who are unequal or dependent. Good is equated with caring for others. Transitional phase: While caring for others and failing to care for self, disequilibrium is created as problems in relationships.
Perspective 3	Focus on the dynamics of relationships and the resolution of tension between selfishness and responsibility for others through a new understanding of the interconnection between others and self.

Adapted from Gilligan (1982).

Gilligan's ethic of care orientation theory has three perspectives with one transition between each perspective. In the first perspective, a woman is focused on her own needs to ensure survival. To enter the first transitional phase, a woman is confronted with criticism that to focus solely on one's self is selfish. The woman then seeks to accommodate her new view of society. She then moves into perspective two, where she seeks to ensure care for the dependent.

Good in this perspective is associated with caring for others. As a woman cares for others, she discovers she has failed to care for herself. This is the second transitional phase where problems arise in relationships, which creates disequilibrium. The third and final perspective focuses on the dynamics of relationships and resolution of tension between caring for self and caring for others. In the final perspective, she realizes a new understanding of the interconnectedness between care of others and care of self. Care becomes a self-chosen principle of judgment that is psychological in its concern for relationships and response but universal in condemning exploitation and hurt.

Gilligan's moral orientation theory suggests that relationships with other people are central to how individuals frame morality (Gilligan & Wiggins, 1987). Her concept of two different orientations for men and women had a large impact on the direction of research in moral development (Walker, 2006).

James Rest's Four Component Model

James Rest's Four Component Model (1983, 1986) represents the neo-Kohlbergian approach, which departs from the moral stages theories proposed by Kohlberg and Gilligan. The central concept for the neo-Kohlbergian approach is attending to how an individual comes to understand the social world and moral issues (Rest, Narvaez, Bebau, & Thoma, 1999; Thoma, 2006). Like, Kohlberg's approach, neo-Kohlbergians view growth in terms of how new forms of moral thought develop over time and assumes the new thoughts are improvements over the old thoughts (Thoma, 2006).

There are three major differences between the neo-Kohlbergian and Kohlbergian approaches. One deviation from Kohlberg and Gilligan's approach is a departure from strong stage models. Neo-Kohlbergian thinking defines development as a gradual shift from lesser to

more complex concepts of social cooperation (Thoma, 2006). A second difference is departure from the focus on utilitarianism as the central moral philosophy. The Neo-Kohlbergian model seeks to find common morality that fits across cultures (Thoma, 2006). A final difference is data collection. Both Kohlberg and Gilligan used interview methods to gather data, but neo-Kohlbergians use an objective measure of rating and ranking items.

The objective measure is a pencil and paper test, the Defining Issues Test, often referred to as the DIT, (Rest, et. al, 1999). The DIT was developed by Rest and associates to measure moral development and enhance the interview processes used by Kohlberg and Gilligan (Colby, et. al, 1983; Thoma, 2006). The DIT uses themes from the Kohlberg interview process, which are written into moral dilemmas. Then the participant is asked to rate and rank statements related to the moral dilemma, which are used to place the individual at a stage of development.

Rest integrated the concepts of care from Gilligan (1982) and of justice proposed by Kohlberg (1981) into his Four Component Model that is presented in Table 3. Rest's model suggests an individual's cognitive abilities affect one's ability to act morally (Rest & Narvaez, 1994). He suggests that four psychological processes must occur. Rest called these processes components such that each component involves a certain level of interactive cognition to face a dilemma, define what is morally right, prioritize values, and then act.

Table 3. Description of Rest's Model.

Component 1: Interpretation of the situation	Individual imagines possible actions. Individual anticipates consequences of action on each person involved. The individual's cognition is involved, especially empathy for others.
Component 2: Decision regarding a course of action	Individual's decision is influenced by moral intuition. Individual's decision is affected by the genetic predisposition to make moral judgments. For the decision, there is only possible course of action that is considered morally right.
Component 3: Conflict of other values with moral values	In this component, values that are immoral can preempt or compromise moral values. If an individual has desired goal or outcome, it can influence moral values. The individual prioritizes moral values.
Component 4: Execution and implementation of plan of action	The individual determines the sequence of actions, works around impediments and unexpected difficulties, overcomes fatigue and frustration, resists distractions, and keeps sight of the eventual goal. Perseverance, resoluteness, competence, and character lead to success in this component.

Adapted from Rest (1986).

The first component requires interpreting the situation. An individual must imagine a possible action and the consequences of that action to successfully complete this component. The first component, empathy, involves caring about the consequences of an action on others. The second component requires a decision on a given course of action. The decision is influenced by moral intuition, or one's own gut feelings, and is affected by one's predisposition to make moral decisions based on the possible actions imagined in component one. One action is then deemed the morally right action.

During these processes, individuals may encounter non-moral values that may conflict with their moral decisions. In component three, an individual's desired goals or outcomes can influence moral values. Therefore, the individual must prioritize moral values. The fourth and final component is to execute and implement a plan of action. Implementing the action involves determining a sequence of concrete actions, working around impediments and unexpected

difficulties, overcoming frustrations, resisting distractions and remaining focused on the eventual goal. Success in this component includes perseverance, resoluteness, competence, and character.

While Rest's model was first developed as an enhancement to the moral stage theory approaches, the Four Component Model has evolved into its own area of study. Rest's Four Component Model has led to a series of studies on moral judgment and a variety of topics including academic dishonesty.

Application of Moral Development Theories to Academic Dishonesty

There have been attempts to address academic dishonesty behavior by applying moral development theories and models. This subsection reviews the studies that sought to connect moral judgment to moral behavior.

Kohlberg's (1981) theory infers that one reason for non-moral behavior is an individual's inability to grow morally without challenging one's own reasoning. Kohlberg himself applied his moral development model to academic dishonesty in a study. Kohlberg and Krebs, (1994) found that 15% of those in the post-conventional level engaged in dishonest behavior when compared to 55% in the conventional level, and 70% in the pre-conventional level. These differences illustrate how individuals change as they progress through the levels.

College students who engage in dishonesty may be in a stage of moral development that understands fairness only in relation to one's own needs, not the needs of others. This supposition illustrates Kohlberg's conventional level stages 1 and 2 (Baxter & Boblin, 2007).

On the other hand, students who see other students copying answers during an exam may not report the offenders because they do not want to upset the offenders. However, the professor or other academic authority figure would be upset if the student did not turn in the offender. As a result, students may purposely ignore offenses. Students following this pattern of behavior are in

conventional level, stage 3, where they seek approval of others. As the student progresses through moral development, they become less concerned with maintaining social order and more concerned with actions consistent with authority and rules, which is in line with stage 4 where we would expect a student to report the offender.

Meanwhile, Gilligan's care orientation theory suggests that women's unethical behavior is directly related to the student's internal conflict between care of others and personal integrity, compassion, and personal autonomy. According to Gilligan (1982), students who behave unethically are in conflict with their feelings of responsibility to others. Therefore, someone in the second perspective would act unethically to care for others. This behavior could be sharing answers on an exam or writing a paper for someone who needs help. Boughn and Lentini (1997) suggest that students experiencing dissonance between caring for others and caring for self (integrity) will exhibit high levels of exhaustion and frustration. This may result in arguments over the rightness or wrongness of helping someone by engaging in dishonesty, which would be an example of a person in the transitional phase from Gilligan's second perspective to the third perspective.

Rest's Four Component Model seeks to evaluate a person's moral judgment. His four component model requires an individual to interpret the situation, decide a course of action, resolve conflict of other moral values, and implement a plan of action all based on moral values. For example, a student works in a student affairs position at a university. Normally, the student's role is to help people who are in need. The student's job today is to copy an upcoming exam for a student who needs extra time to complete the exam. The student's friend is in the same class and asks to see a copy of the exam (Bernardi, Metzger, Bruno, Hoogkamp, Reyes & Barnaby (2004). In the scenario, the student must understand the situation in terms of how it may be

dishonest to show the exam to her friend. Second, because she is a friend of the person asking to see the exam, she needs to resolve the conflicting values of friendship and acting dishonestly. Third, she must make a decision to show the exam to the friend or not. Finally, she must follow through with her decision. Based on these components, Rest's model allows researchers to estimate the student's moral judgment stage. Accordingly, a solution to increase moral reason, and therefore ethical behavior, is formal education that teaches students to think critically and act correspondingly (Duckett et al., 1992).

Theories provide a framework for understanding and predicting an individual's development. The theories discussed in this section suggest that, as students interact with their environment, they may become more moral if role models exhibit academic honesty and explain academic policies and procedures clearly. The next section reviews academic research on college students and academic dishonesty.

Dimensions of Research on Academic Honesty

There is a large and growing body of research on academic dishonesty. This section explores the existing literature regarding the variables of interest for this study using the newly developed research dimension framework by Bertram Gallant (2008).

There are four dimensions of academic misconduct research (Bertram Gallant, 2008) and each views academic dishonesty through a different lens. The first is the internal dimension, where individual student behavior and individual variables are classified as part of an internal dimension of academic honesty (Bertram Gallant, 2008). The internal dimension is the center lens. The ring of the concentric lens model is organizational, which includes the environment in which the student lives and studies (Bertram Gallant, 2008). The organizational dimension includes literature related to social norms that may affect academic honesty among students. The

third dimension examines the ways in which institutional systems like structures, rules, and institutional norms shape individual behavior. The societal dimension is the outer lens of academic honesty research (Bertram Gallant, 2008). It considers individual actions as shaped by forces, such as power, authority, and privilege that transcend the other three dimensions. Social lens research represents academic dishonesty as a symptom of disagreements among cultures and interests and ideas (Bertram Gallant, 2008).

Bertram Gallant's four dimensions framework provides a way to organize academic dishonesty literature meaningfully. These dimensions allow a researcher to sort the most important studies and describe what previous research tells us about academic integrity among college undergraduates. The present study involves both the internal and organizational dimensions of Bertram Gallant's framework.

Internal Dimension

The internal dimension of academic dishonesty research includes studies on individual variables like gender, age, and race and ethnicity, and perceptions of peer behavior.

Gender.

Gender divides students into two exclusive categorical groups, men and women. Research related to gender is mixed. Most research indicates that men engage in dishonesty more frequently than women (Baird, 1980; Calabrese & Cochran, 1990; Davis et. al, 1992; Eisenberger & Shank, 1985; Malinowski & Smith, 1985; McCabe & Bowers, 1994; Niiya, Ballantyne, North, & Crocker, 2008; Rakovski & Levy, 2007; Rettinger et al., 2004; Underwood & Szabo, 2003). Other studies have found no differences between men and women concerning dishonesty (Cooper & Peterson, 1980; Covey, Saladin & Killen, 1988; Haines et. al., 1986; Houston, 1983).

In a meta-analysis, Whitley, Nelson and Jones (1999) reviewed 34 studies of gender differences in cheating behavior and six studies that investigated attitude and behavior. They found a small effect size, but dishonest behavior showed a moderate relationship with gender. The conclusions include the findings that academic dishonesty behavior has remained the same since the 1960s, but attitudes about academic dishonesty have become more positive. The researchers concluded that women have higher ethical standards (they did not cheat) than men (Whitely, Nelson & Jones, 1999). However, women engaged in academic dishonesty as often as men (Whitley, Nelson & Jones, 1999).

Whitley, Nelson and Jones's (1999) analysis highlights that the body of research found differences between men and women in regard to academic dishonesty. In addition to the 46 studies analyzed by Whitley, Nelson and Jones (1999), other studies have revealed differences between men and women.

Rettinger, Jordan and Peschiera (2004) conducted a vignette experiment. Each participant read a vignette describing an opportunity in which the participant has an opportunity to cheat. The description was altered with respect to the individual's competence in the course and the source of the individual's motivation. There were 103 participants, 49 men and 54 women. The results indicated that 89.8 percent of men were more likely to engage in dishonest behaviors during their college careers compared to 72.2 percent of women.

In another experiment, Niiya, Ballantyne, North, and Crocker (2008) investigated the behaviors of 70 college students in which the participants were asked to complete an IQ test. The participants were told that if they scored in the top 10 percent of all the test takers, they would receive extra credit in their course. The experimenter held up the key and told the participants they could check their answers at the end of the exam. The answer key was placed on the corner

of the desk, and the experimenter left the room. The test included seven solvable questions and five unsolvable questions. When the experimenter left the room, a confederate went to the front of the room and offered to share the answers from the key with the participants. The outcome of the study was that 71 percent of men opted to act dishonestly compared to 41 percent of women.

The two previous examples were both conducted using experimental methods. The next two examples are based on survey methods. Rakovski and Levy (2007) conducted a survey of 1,255 business students at a Northeastern business college. Sixty percent of participants indicated that they would copy homework, allow others to copy homework, and gave or received help on graded work. In a category called serious cheating, which included blatant acts of cheating such as stealing copies of exams, researchers found significant differences between men and women. Compared to 8 percent of women, 12 percent of men had engaged in serious academic dishonest acts.

Calabrese and Cochran (1990) conducted a survey of 1,534 participants in grades 9-12 at select United States public and private schools. The study found that male students scored higher on dishonest behavior measures than females. Still other studies found no differences between men and women's behavior on academic dishonest measures (Cooper & Peterson, 1980; Covey, Saladin, & Kilen, 1989; Haines, et. al., 1986; Houston, 1983).

Additionally, there is evidence women engage in dishonest behavior as frequently as men. DePalma, Madey, and Bornschein (1995) conducted an experiment in which participants were asked to complete progressively complex and ultimately unsolvable tasks. The results demonstrated that women engaged in academic dishonesty twice as often as did men.

Most of the studies involving academic dishonesty and gender agree that men are more likely to engage in academic dishonesty practices than women. However, the discrepancies in the

various findings warrant further investigation into differences in behavior by gender. This study seeks to address the question whether gender and age account for these differences.

Age.

Another area of investigation in academic dishonesty is the age of the individual who engages in academic dishonesty. Studies on age and academic dishonesty have yielded consistent results. Studies have found that younger students are more likely to engage in dishonest behaviors than older students (Diekhoff, LaBeff, Williams, & Haines, 1996; Haines, Diekhoff, LaBeff, & Clark, 1986; McCabe & Trevino, 1997; Rakovski & Levy, 2007).

In a study of attitudes toward academic honesty and generational differences, the youngest group, Millennial students, those born between 1982-2000, were less likely to accurately identify dishonest acts than were Boomers, those born between 1943 and 1960, and Generation X, those born between 1961 and 1981 (Wotring, 2007). This study revealed that people born in different generations define different behavior as dishonest. Thus, a summary of the relevant research has revealed that older students are less likely to engage in academically dishonest behaviors than younger students.

Race and Ethnicity.

In this section, the literature is reviewed in relation to race, where race deals with physical differences among people (OMB BULLETIN NO. 00-02, 2000; RACE- The Power of Illusion, 2003), and ethnicity is defined as a social and political construct dealing with an individual's culture and/or the country or region in which his or her family originates (Revisions to the Standards for the Classification, 1997). For the purpose of this study, these two constructs are combined since people tend to identify race and ethnicity together not separately. For example, a Middle Eastern person may biologically be classified as White, but the person

identifies by ethnicity which is Middle Eastern. This person would likely not select White as one's race classification, but Middle Eastern. Therefore, in an attempt to be more inclusive, these two terms are combined and it is due to the overlapping nature of the constructs (Revisions to the Standards for the Classification, 1997).

Few studies have investigated race and ethnicity as variables related to academic dishonesty issues. Gongre, (1981) studied moral judgment using Rest's Defining Issues Test and found no significant differences in moral judgments among African American, Native Americans, and White students at a small private college. While Gongre reported tribal group differences among Native American students, he made no conclusions based on those differences.

Similarly Sutton and Huba (1995) conducted a survey that investigated behaviors and perceptions of peer behavior between African American and White college students. They found no significant differences in dishonest behavior between African American and White students. They did find significant differences between African American and White students' perceptions of dishonest behavior of their peers. White students perceived that more often students were adding item to a reference list than actually were used. Meanwhile, African American students perceived that getting answers to an examination was more common than actual reported behavior. These findings illustrate the importance of investigating race and ethnicity relative to academic dishonesty.

Using Rest's Defining Issues Test and the Managerial Defining Issues Test (a measure of work-related moral judgment), Loviscky (2000) measured the effectiveness of the DIT and the MDIT. Loviscky (2000) found significant differences among various ethnic groups on the DIT scores. White students scored significantly higher on moral judgments compared to Hispanic,

Asian, and Black students. White and Black students both scored significantly higher than Hispanic and Asian students. The author suggested cultural differences may explain the discrepancies.

Blau and Stearn (2002) studied adolescents and found that White students scored lower than Hispanic, Asian and Black students, while black students score significantly higher on moral judgment than all groups. The author concluded that Black students may face more scrutiny in their academic lives, and are more sensitive than White, Hispanic and Asian peers to moral judgment.

Race and ethnicity were inclusive as a factor that influenced academic dishonesty behavior or perception of such behavior among peers. Since few studies dealt with race, ethnicity, and academic dishonesty, this study seeks to investigate these variables by examining gender and race together. Due to the paucity of research on this topic, the researcher is unable to predict that any differences among ethnic groups.

Perception of peer behavior.

Students seek their peers' guidance as to what behavior is acceptable in college (Allen, Fuller, & Luckett, 1998; Graham, Monday, O'Brien, & Steffen, 1994; Kibler & Kibler, 1993; McCabe, Trevino, & Butterfield, 1999; Rettinger and Kramer, 2009). Carrell, Malmstrom, and West (2005) reviewed the self-reported data from the U.S. military service academies over the past 50 years and found that having peers who engage in academic dishonesty correlated highly with academically dishonest behavior. They created a magnitude measurement of how peer behavior affects individual behavior and found that, for every one person who cheats in high school, two to three new college cheaters created. Additionally, for each one college cheater .55 to .80 new college cheaters- meaning the for everyone one to two college cheaters about one

more cheaters are created (Carrell, et. al, 2005). This study concluded that institutions should treat college dishonesty as a problem that creates normative behavior, meaning that students who witness cheating behavior believe that cheating is normal (Carrell, et. al, 2005). These researchers concluded that institutions should implement strategies that promote students' disapproval of dishonesty behavior.

Similarly, McCabe and Trevino (1993) found that students who perceived their peers disapproving of academic dishonesty were less likely to engage in dishonesty themselves. Allen, Fuller, and Luckett (1998) found that students who engaged in academic dishonesty sensed dishonesty around them. If students thought that other people were being dishonest, they saw dishonest behavior as necessary to prevent being at a disadvantage (Allen et al., 1998).

Chapman, Davis and Wright (2004) asked students two sets of questions. They asked students to disclose their own dishonest behavior and asked what the student thought a friend would do in the same situation. They found students greatly overestimated how often their peers would cheat, especially when they themselves cheated.

Rettinger & Kramer (2009) examined participants' own academically dishonest behavior, peer attitudes, and dishonest behaviors. They found there was more peer pressure to engage in academic dishonesty when students saw others being dishonest. Barnett & Dalton (1981)surveyed business students and found that they perceived that most of their close friends or peers would not disapprove if someone was caught cheating. They found that a student who observed another student engaging in academic dishonesty, would not report that cheating to authorities. Other studies have found students rely on perceptions of peer behavior when choosing to cheat (Jordan, 2001).

In conclusion, the evidence suggests that student perceptions of peer behavior may affect a student's own behavior.

Organizational Dimension

The organizational dimension of academic dishonesty includes studies on organizational influences like academic major.

Academic majors.

In recent years, investigation of academic dishonesty by academic major has been popular among researchers, Wotring (2007) and Iyer and Eastman (2006) found no significant differences in dishonest behavior across majors. Other studies have found that business majors engage in dishonest behaviors more often than do other majors (Caruana, Ramaseshan, & Ewing, 2000; McCabe, 1995; Nonis & Swift, 1998; Roig, 2001; Smyth & Davis, 2003).

Nonis and Swift (1998) surveyed 301 marketing classes comprising business majors and asked participants about their own dishonest behaviors. The largest percentage of participants (83%) was marketing students who admitted to engaging in dishonest behavior at least one time during their college career. In a similar study, Allen, Fuller, and Luckett (1998) investigated business students' dishonest behaviors and perceptions of behavior of their peers. Using survey methodology, the researchers found that as students perceived more of their peers engaging in dishonest behavior, they were more likely to think such behavior was acceptable.

Later, Chapman et al. (2004) surveyed 824 business students and examined their behaviors and perception of peer behavior. Seventy-five percent of the participants indicated they would engage in dishonest behavior and that peers influenced their behavior. Marketing majors were the least likely to identify or indicate they would engage in dishonest behaviors.

Rakovski and Levy (2007) investigated academic dishonesty at a northeastern business college and found that at least 40% of business students had engaged in dishonest behavior. Management majors were least likely to engage in academically dishonest behaviors. Neither Chapman et al. (2004) nor Rakovski and Levy (2007) used non-business majors for control groups; thus, their findings do not allow comparison with non-business majors. Meanwhile, Caruana, Ramaseshan and Ewing (2000) examined dishonest behaviors in business students and found significantly higher occurrences of dishonest behaviors in male business students than in female business students.

This research suggests that business students engage in academically dishonest behavior more often than non-business majors. However, evidence regarding dishonesty behavior among business majors is not complete. Recent studies have found no differences in business student behavior between business and non-business majors. To generate more definitive results, the present study extends the literature by comparing perceptions of academic dishonesty between business and education students. Education majors were selected due to a similar number of students enrolled as majors at the university addressed in this research project and because the comparison group needed to be different from that of business.

Summary of Literature Review

This literature review illustrated the history of academic dishonesty in the United States. It examined how the problem of academic dishonesty has been defined and addressed over the years. Without understanding the historical nature of academic dishonesty in this country, it is impossible to appreciate the ongoing nature of the struggle to guide student behavior. All of these issues shed light on the academic dishonesty problem and its history.

This chapter presented a theoretical or conceptual framework for understanding academic dishonesty based on three cognitive theories. These theories were selected due to the impact that each model has had on the field of moral development. First, Kohlberg created an updated stage model based on Piaget's original concepts of ordered progression of moral development. Carol Gilligan added to Kohlberg's work by suggesting that moral orientations may explain moral conflict. Finally, Rest's model suggested that four components can be used to measure moral judgment. Each of these theories offers a conceptual framework for understanding how students think about or reason academic dishonesty.

Research on academic dishonesty was presented and examined within the context of those variables of interest in this study. First, research on gender revealed that men were more likely to engage in dishonesty than women. Second, the age of students was a significant predictor of behavior. Older students were less likely to engage in dishonesty when compared to their younger counterparts. Third, race and ethnicity were not common areas of academic dishonesty research. This body of research was examined and summarized but yielded no conclusions due to paucity of research in this area. However, race and ethnicity deserves attention and should be investigated in this study. Fourth, a review of academic major revealed that business majors were more likely to engage in dishonesty behaviors than non-business majors. Finally, perceptions of peer behavior was found to be a predictor of a student's own behavior.

Research Hypotheses

The hypotheses for this study are as follows:

Age and gender hypotheses.

H_{1a}: Age 18- to 24-year-old men will score higher than all groups in their perceptions of their own and peers' academically dishonest behaviors.

H_{1b}: Age 25-year-old and older women will score lower than all groups in their perceptions of their own and peers' academically dishonest behaviors.

H_{1c}: Men and women, regardless of age, will not differ in their perceptions of their own and peers' academically dishonest behaviors.

Gender and race/ethnicity hypotheses.

H_2: Multicultural men and women will differ from White men and women in perceptions of their own and peer academically dishonest behaviors.

Major and gender hypotheses.

H_{3a}: College of Business Administration majors, men and women, will differ in their own levels and their perception of peers' levels of engagement in academically dishonest behaviors.

H_{3b}: College of Education majors, men and women, will differ in their own levels and their perception of peers' levels of engagement in academically dishonest behaviors.

$H_{3c:}$ College of Business Administration majors will differ from College Education majors in their own levels and their perception of peers' levels of engagement in academically dishonest behaviors.

The present research studied and combined three independent variables: (1) age and gender; (2) age and race/ethnicity; and (3) major and gender. Combined variables provide a narrowed, possibly more useful, view of variables that are commonly researched independently. These groups may identify behaviors and perception of peer behaviors within groupings that could go unnoticed.

Chapter 3 presents the methodology for this study and includes (1) participant descriptions, (2) description and analysis of research instrument, (3) data collection procedures creation, (4) distribution of the instrument, and (5) statistical analyses.

Chapter 3- Methodology

This study examines the relationship between academic dishonesty and selected undergraduate student characteristics: (1) gender, (2) age, (3) race/ethnicity, (4) major, and (5) perception of peers' behavior. This chapter describes the participants instrument, procedures, and research design for this study. The chapter concludes with a discussion of the statistical analysis used to interpret the survey results in relation to the stated hypotheses.

Participants

The participants were 17,368 undergraduates enrolled at Kansas State University (Cox, 2009). This study employed a census of all undergraduate students at the university. There were 2,759 total useable responses that resulted in a 15.89 percent response rate. In this study, an undergraduate was defined as a student enrolled in at least one credit hour and who has not yet earned a Bachelor's degree (Glossary and Abbreviations - Kansas State University - acalog ACMS™, 2008). The participants completed the McCabe Academic Integrity Scale (M-AIS) survey (see Appendix A) in the fall of 2008.

Instrumentation

The McCabe Academic Integrity Scale (M-AIS) is a 40-item scale that measures the academic integrity environment and behaviors of students (McCabe, 2008). It has four subsections: (1) academic environment, (2) specific behaviors, (3) demographics and (4) free response. Each scale subsection is described below.

Academic Environment

The academic environment section investigated the participants' opinions on the academic environment at the university. The academic environment section contained twelve statements with Likert-type response options. These response items asked participants to share

their opinion of (1) severity of academic dishonesty penalties on campus; (2) student and faculty understanding of policies; (3) support of policies, and (4) the effectiveness of the penalties.

This section was not used in the analysis of the hypotheses.

Specific Behaviors

This subsection contained twenty-six statements items followed by Likert response options. Each statement item is behavior based, and addresses such content as plagiarism, cheating on exams, and cheating on other classroom assignments. Participants indicated how often they have engaged in the behavior using the following response options: (1) never, (2) once, (3) more than once, or (4) not relevant. Then, participant indicated how often they believed their peers engaged in the behavior based on the following response options: (1) never, (2) once, (3) more than once, or (4) not relevant. Last, participants rated the severity of each behavior based on the following options: (1) not cheating, (2) trivial cheating, (3) moderate cheating, or (4) serious cheating. Figure 1 illustrates the format for one statement item and shows the responses options (own behavior, perceived peer behavior, and seriousness of cheating).

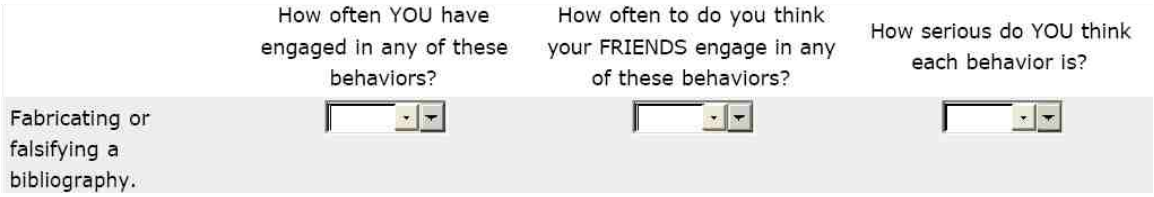

Figure 1. Example of M-AIS statement from the M-AIS with three different responses from the behavior section.

The specific behavior section was used to determine behaviors of participants, their perception of peer behavior and participant's opinion about the seriousness of each dishonest behavior (see Appendix A). The serious measurement subscale was not used in this study.

Demographic Information

The third section of the instrument asked participants to report demographic information. Each participant indicated (1) class standing from a choice of (a) freshman, (b) sophomore, (c)

junior, (d) senior, or (e) graduate student; (2) gender from a choice of (a) male or (b) female; (3) primary college from a choice of (a) Arts and Science, (b) Business Administration, (c) Agriculture, (d) Engineering, (e) Human Ecology, (f) Architecture, Planning and Design, (g) Education, (h) Aviation and Technology, (i) Veterinary Medicine, (j) Graduate School, or (k) Undecided; (4) major and minor with an option to fill in the blank with major and minor; (5) age in years as a numeral; (6) ethnicity/race from a choice of (a) American Indian/Alaskan Native, (b) Asian American, (c) Black, Non-Hispanic/African American, (d) Hawaiian/Other Pacific Islander, (e) Hispanic/Spanish/Latin American, (f) Middle Eastern American, (g) Native American, (h) White, Non-Hispanic/European American, (i) International Student, (j) Multiracial, (k) Other, or (l) I prefer not to respond; (7) time spent participating in social clubs, caring for dependents, and employment with choices for numbers of hours; and (8) participation in distance education courses from a choice of (a) yes or (b) no.

It is important to note that the demographic section was modified from the original M-AIS to match the titles of the colleges and race/ethnicity descriptive categories used by Kansas State University. For race/ethnicity options, the descriptive categories from Kansas State University's admissions form were used (Undergraduate Application, 2007).

Free Response

The fourth subsection is free response. Participants typed their own open-ended responses to two questions. The first question, item number 27, asked participants for specific recommendations to support academic integrity at their school. The second question, item number 28, asked participants to write additional comments regarding the survey. This section was not used in the data analysis.

Scoring of the Instrument

This instrument was scored ordinally by assigning a numerical value for each response choice for each item statement. Then, each response was given a numerical value in order from one to three. For example, when a participant chose the option "never" in response to a statement, the response was then coded as a number one. Such item statements were then ranked using statistical analysis described in the final section. For the response option not relevant, the series mean for the participants' responses was used. The series mean was calculated using the statistical software, SPSS. The total number of not relevant responses is available in Appendix G.

Reliability and Validity

The M-AIS, the survey instrument, has been used to gather information from over 165,000 students at more than 160 different colleges and universities in the United States and Canada (Center for Academic Integrity, 2009). The scale has been tested for reliability using the Cronbach Alpha test. Prior to this study, results indicated a score between .831 and .840 on the academic environment section and .859 and .865 on the specific behavior section (J. Ward, 1998).

Procedures

The procedures section describes the steps taken by the researcher to conduct the present investigation. The steps taken to gather information for this project included the following actions: (1) determining selection and number of participants, (2) online formatting of the instrument, which includes computer display settings and progress indicator, (3) getting consent approval, (4 conducting data collection, (5) creating an e-mail list, and (6) ensuring delivery of the instrument and online data security. Each step is described and discussed below.

Grouping of Participants

Groups were created to allow for statistical analysis. In the 18 to 24 year old group, there were 1390 women and 978 men. In the 25 year old and up age group, there were 112 women and 75 men. For the Multicultural group, there were 108 women and 79 men. The White group had 1294 women and 919 men. In the Business Administration group, there were 179 women and 147 men. Finally, in the Education group, there were 212 women and 52 men. Notably, there were very few participants in the 25 years and older and Multicultural group. Ultimately, the twelve combined groups corresponded to the three hypotheses for the research project. Table 4 is a summary of the number of participants by each group.

Table 4. N of participants by demographics

	N
Women	1584
Men	1162
Business Administration	326
Education	264
18-24 years old	2368
25 years and older	187
Multicultural	203
White	2213

Participants who did not complete the demographic information section of the M-AIS were not included in the analysis to ensure that extreme views did not skew the data. The scale scores for self behavior and perception of peer behavior were standardized, and cases with standardized scores greater than 3.29 were removed. Additionally, standardized scores greater than 3.29 were considered potential outliers (Field, 2009). In the end, thirty-five cases were removed because they had standardized scores greater than 3.29.

Online Formatting of the Instrument for Online Use

The M-AIS instrument was recreated for use in an online environment using SurveyMonkey.com to allow for secure online distribution to participants through e-mail correspondence. Several survey modifications were necessary in order to facilitate online data collection. First, computer monitor settings were set at minimal settings to ensure that all users had similar viewing experiences. Second, a progress indicator was used to keep the participant informed of the survey length. Third, the data was secured using server technology, software that protected the data from unauthorized use.

The survey was administered to participants online. The M-AIS was reformatted for use in SurveyMonkey.com, an online, web-based survey tool that creates surveys in a secure online environment (SurveyMonkey.com, 2008). Each question and response option was reformatted for online administration using SurveyMonkey's survey creation templates. A detailed manual on how to use the web-based software is available online at www.surveymonkey.com.

Computer display settings considerations.

How the instrument looks on a computer monitor is important for an online survey. It determines how easily research participants can respond and shapes how the instrument is organized and formatted. The researcher assumed that each participant's computer monitor was different. Therefore, it was important to create a survey design that is consistent across a variety of computer monitors.

This study used Best and Krueger's (2004) recommendations for best practices for display settings for an online survey. The purpose for using these settings is to create consistent viewing for all participants regardless of the type of computer, platform, or computer monitor size. The computer monitor resolution was set to 640 by 480 pixels with 14-16 lines of text for

each page. The survey used a white background with black Times New Roman and Ariel fonts to increase the survey's uniformity on the computer screens. The text was 12-point size type for the body content and 14-point size type for headers. All text used standard upper and lower case. The survey statement text was bolded, and the response choices were regular font. The text alignment was left justified with vertical alignment of choices of responses. The survey is available in Appendix A.

Progress indicator.

A progress indicator tells the participant how much of the survey is yet to be completed. When the participant began the survey, the indicator showed that zero percent of the survey was completed. As the participant completed sections of the survey, the progress indicator showed the percentage completed. At the end, the progress indicator reflected 100% complete. The progress indicator was seen as an image at the top of each survey page.

Consent Approval

The first step in data collection was to obtain approval from Kansas State University's Institutional Review Board (IRB). The approval process to conduct the research project included the following: (1) an application form, (2) correspondence letter for participants, (3) instruments used, (4) a description of the plan to limit risks to participants, (5) the informed consent form, and (6) a statement regarding confidentiality of participants. Procedures used is omitted from this list. Revise. For IRB approval, participants had to be given a way to leave the study without penalty. A participant who did not wish to participate had two ways to leave the study. First, a participant could exit the survey by clicking on a hyperlink found at the bottom of the e-mail correspondence. The link contained instructions that indicated how to remove one's e-mail address automatically. Second, the participant was given the researcher's e-mail address to

request removal from the list. Additionally, the participants were provided with e-mail addresses and phone numbers for the researcher's major advisor and the chair of the University's IRB Committee. Upon receiving the request, the researcher would contact the Computer Networking Services manager, who removed the student's e-mail address from the list. The current research project was approved by Kansas State University's IRB Committee on Sunday, November 6, 2008 (see Appendix B for IRB approval letter). Refer to Kansas State's Research Compliance Office website at http://www.k-state.edu/research/comply/ for detailed information about the University's policies and procedures related to IRB.

Data Collection

This study used an adaptation of Dillman's Tailored Design Method (TDM) (Dillman, Smyth, & Christian, 2008), which has been shown to increase responses (Dillman et al., 200). Dillman's method calls for multiple contacts and consideration of the needs of participants. Examples of consideration of participants include sensitivity to participants' time and convenience. This study employed four contacts with participants, and data collection was completed before the Thanksgiving Holiday break in late November.

There were two changes to TDM that must be noted. First, TDM requires the final contact to be made by an alternative communication method. In this case, an example of alternative communication would have been a printed and mailed survey, or a telephone prompt to complete the survey. The researcher was limited by monetary constraints and, therefore, was unable to pay for printing and postage. Thus, the final contact was made using the same mode of communication utilized for initiating the survey rather than an alternative method.

After receiving approval for the research project, the researcher sent participants e-mail invitations that requested their participation in the study. The e-mail invitation required several

considerations. Since the university uses spam filters to filter out unwanted e-mails, a plan was implemented to lessen the impact of these filters. The procedures for managing the electronic filters are reported below. The first contact by e-mail (see Appendix C) was sent electronically on November 9. The purpose of the first contact was to inform participants of the pending research project. It contained a brief project description and informed the reader that the survey would be sent to the participant shortly.

A second e-mail (see Appendix D) was sent four days later on November 12. The purpose of the second e-mail was to provide a description of the research project. It contained the following: (1) a hyperlink to the survey instrument, (2) survey instructions, (3) contact information of the researcher, supervising faculty member, and IRB committee chairman, and (4) the informed consent document. When participants clicked on the hyperlink, the survey opened in their respective web browsers.

The third e-mail (see Appendix E) was sent on November 19, approximately 7 days after the second e-mail. The purpose of this e-mail contact was to thank participants who had completed the survey. For persons who had not completed the survey, it was a reminder. A hyperlink to the survey instrument was included in this e-mail correspondence. The fourth e-mail contained a thank you and a hyperlink to the survey (Appendix F) and was sent on November 23. The purpose of the fourth e-mail was to provide participants with a final opportunity to complete the survey.

The survey was ended three weeks after the first contact at exactly eight o'clock in the morning CST. Responses submitted after this deadline were not accepted. Survey submissions were dated and time stamped by the SurveyMonkey server whenever a survey was completed.

Creation of Participant E-mail List

Kansas State University's Computer Networking Services (CNS) department staff provided a ListServ of all undergraduates enrolled at Kansas State University. From this master list, the participant list was created and maintained by the experts from the CNS department. Each contact e-mail was instantly distributed to every e-mail address on the list.

Ensuring Delivery of the Instrument

Because spam filters can interfere with the receipt of mass mailings (Best & Krueger, 2004), the e-mails had to be constructed carefully. Spam filters are implemented by the Internet provider for their user (Best & Krueger, 2004). To avoid spam filters, only three of six possible entry fields of the e-mail were used in this study (Best & Krueger, 2004). Each field was visible on the screen to the research participant. Figure 2 shows the entry fields graphically.

All electronic correspondence was sent from a recognizable university domain address. The sender's e-mail address was a K-State domain address, which is familiar to participants. The recipient field contained a single address, which personalized the survey and provided privacy protection for participants. Third, the subject line clearly stated the purpose of the e-mail in a few words: "Academic Integrity Survey." Words such as free, money, and offer were avoided because spam filters use such words to identify potential spam.

The remaining three fields courtesy copy, blind courtesy copy, and attachments, remained empty. For this research, the researcher obtained permission from computer network administrators to send e-mails on the University's e-mail system ensuring e-mail contacts were directly delivered to the user, by-passing university spam filters.

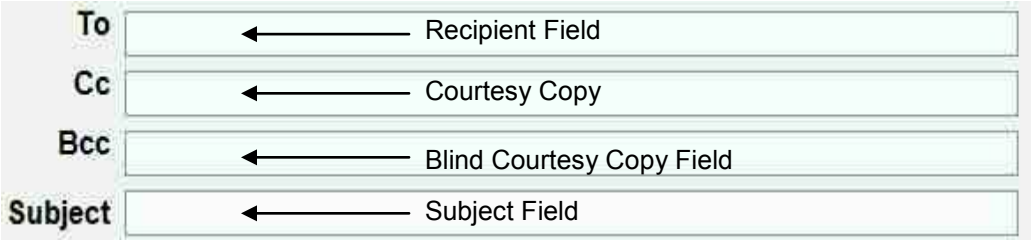

Figure 2. Illustration of e-mail fields

Controlling access to the instrument is another important consideration for web-based surveys. Since the survey was administered online, unsolicited responses posed a risk. Therefore, the survey link was sent only to target participants to correct for this potential survey bias. The survey was not available through search engines, which should have prevented people who were not part of the target population from accidentally accessing the instrument.

Online data security.

Data security included two concepts. First, the responses from the participants were secured from access by anyone other than the researcher. Second, during the data collection process, steps were taken to ensure that responses were kept confidential. The details of server security and confidentiality are discussed in this next section.

Privacy policies.

The data collected in this study was stored on SurveyMonkey's survey during data collection. In order to provide privacy for participants, the researcher ensured the data was protected by privacy policies. Privacy policies are written agreements with clients regarding how the company handles data. According to the SurveyMonkey's Privacy Policy, SurveyMonkey does not use clients' data for the company's advantage (SurveyMonkey.com, 2008). The policy states the data belongs to the researcher and that the company retains no rights to any user's data.

Physical security.

The services provided by Surveymonkey.com provided physical security and supported the privacy, ownership, and technical needs of this study. SurveyMonkey.com is located in the U.S., and its servers are located at Sungard (www.sungard.com) in Wayne, Pennsylvania (SurveyMonkey.com, 2008). The study's data were stored in SurveyMonkey's U.S. servers, secured in locked cages, which require a pass card and biometric recognition.

Confidentiality and privacy.

To ensure security of the information collected, the researcher purchased a professional account with Surveymonkey.com, which allows secure sockets layer (SSL) encryption, which is a protocol or standard developed for transmitting private documents or information via the Internet. Participants' responses were encrypted using SurveyMonkey's Verisign certificate version 2, a 1024-bit level of encryption. This level of encryption is an industry standard for web security (SurveyMonkey.com, 2008). Encryption protects information from being intercepted by unauthorized people as the information is transmitted through the Internet.

Additional steps were taken to ensure the privacy of participants. Participants had confidentiality, meaning that there was no way for their information to be associated with the individual who responded. At no time was the researcher able to associate responses with individual participants because the responses were stored on the SurveyMonkey server with no identifying information. Also, the researcher did not have access to the names on the Listserv, nor did the computer network manager have access to the survey instrument results. With these two safeguards in place, it was impossible for participants to be matched with their responses.

Summary of Procedures

This section describes the steps taken by the researcher to ensure that data for the study was collected properly. Online construction, consent approval, data collection, creation of e-mail list and ensuring delivery of instrument were described in detail. All of these procedures were essential to complete the study as objectively as possible.

Research Design

The hypotheses for this study were investigated using two dependent variables: own behavior and perception of peer behavior. The independent variables include three pairs of demographic responses: gender and age, gender and major college, and gender and race/ethnicity.

Dependent Measures

The dependent variable measures for this study are: (1) self reported dishonesty and (2) perceptions of peers' dishonesty. Each dependent variable was measured using twenty-six items from the specific behaviors section of the M-AIS (see Appendix G for a list). The reliability of each variable was calculated using Cronbach's Alpha calculation (Cronbach, 1951). The reliability for self-reported own behavior items was .858 while the reliability of self-reported perception friend behavior items was .937. Statistical analyses were performed using the software SPSS 17.0 (SPSS, 2008).

Independent Measures

The independent measures for this study were (1) age; (2) gender; (3) academic college and (4) ethnicity/race. Participants' responses in the demographic section of the M-AIS provided this information. Participants were assigned one of two age groups for coding and data analysis: 18-24 year olds and 25 and older. Gender was obtained by participant's indication of either male

or female. College was obtained by participant's indication of their academic college from an exhaustive list of majors at the university. Participants selecting Business Administration and Education were used in the analysis. Ethnicity/race was determined by indication from a list of ethnicities and race categories that best described the participant. Participants were assigned to one of two groups based on their responses to the race/ethnicity category. These groups were labeled White and Multicultural. The Multicultural group consisted of participants who indicated their race and/or ethnicity was any category other than White. Participants who did not indicate a race or ethnicity preference were excluded from analysis on this independent variable. Each of the independent measures was paired by gender and age, gender and major college, and gender and race/ethnicity.

Research Hypotheses Analysis

This study evaluated academic honesty using the M-AIS for systematic analysis of how individual characteristics of undergraduates affect academic honesty. The responses to the specific behavior section were used as dependent variables, and the demographic responses for gender, age, race/ethnicity and major college were used as independent variables. Each hypothesis was investigated using nonparametric and multivariate analyses.

Three hypotheses were tested using three sets of multivariate analyses to explore the variables. The comparisons made were grouped by: (1) gender and age, (2) gender and race/ethnicity, and (3) gender and major college. In the next subsection, each hypothesis is stated along with how the hypothesis was analyzed.

Gender and Age Analysis

For the gender and age analysis, three predictions were made:

H_{1a}: Age 18- to 24-year-old men will score higher than all groups in their perceptions of their own and peers' academically dishonest behaviors.

H_{1b}: Age 25-year-old and older women will score lower than all groups in their perceptions of their own and peers' academically dishonest behaviors.

H_{1c}: Men and women, regardless of age, will not differ in their perceptions of their own and peers' academically dishonest behaviors.

To investigate potential effects of independent variables on dependent variables, nonparametric statistical tests were used. A nonparametric analysis was selected because of the disproportionate cell sizes (N) of the independent groups (Field, 2009). The Kruskal-Wallis test was used as an alternative for the one-way independent ANOVA (Field, 2009, p. 559). The Kruskal-Wallis is based on ranked data. The sum of ranks for each group is calculated, and then squared, and the value is divided by the sample size for the group.

Gender and Race/Ethnicity Analysis

For gender and race/ethnicity analysis, one prediction was made:

H_2: Multicultural men and women will differ from White men and women on perceptions of their own and peer academically dishonest behaviors.

As with the gender and age analysis, a series of nonparametric analyses were conducted to detect significant differences. A Kruskal-Wallis nonparametric analysis was conducted to investigate significant differences between independent groups (Multicultural female, Multicultural male, White, non-Hispanic female and White, non-Hispanic male) for the two dependent variables, own and perception of peers' academic dishonesty.

Gender and Major Analysis

For the gender and major analysis, three predictions were made.

H_{3a}: College of Business Administration majors, men and women, will differ in their own levels and their perception of peers' levels of engagement in academically dishonest behaviors.

H_{3b}: College of Education majors, men and women, will differ in their own levels and their perception of peers' levels of engagement in academically dishonest behaviors.

$H_{3c:}$ College of Business Administration majors will differ from College Education majors in their own levels and their perception of peers' levels of engagement in academically dishonest behaviors.

The cell sizes for this comparison were proportional and allowed the researcher to conduct a 2x2 MANOVA (gender by college major) to test for main effects in college major and gender, interactions among the four groups (Business Administration females, Business Administration males, Education females, and Education males) and the dependent variables (own behavior and peer behavior). A Kruskal-Wallis analysis was conducted to compare for main effects.

Summary of Research Hypotheses Analysis

The three research hypotheses were analyzed separately using nonparametric multivariate statistical analyses. Each of the analyses was performed on the dependent variables, own behavior and perception of peer behavior, for the three independent variables (gender and age, gender and race/ethnicity, and gender and major).

Summary of Methodology

The present study investigated personal characteristics of undergraduate students with regard to their self-reported behaviors and beliefs about peer behavior regarding academic dishonesty. The personal characteristics that were investigated included: (1) gender and age, (2) gender and major college, and (3) gender and race/ethnicity. This chapter described the instrument, the M-AIS, and the online construction of the instrument. The instrument was distributed to participants through e-mail contacts. Specific considerations for e-mailing participants were also discussed. The selection of participants and how each hypothesis was selected were described, including a description of which statistical analyses were used to assess differences among groups. A full analysis of the data is presented in chapter 4.

Chapter 4- Results

The McCabe Academic Integrity Survey (M-AIS) was administered to Kansas State University undergraduates to gather information about students' own academically dishonest behavior and their perceptions of academic dishonesty in peers' behaviors. Own behavior and perception of peers' behavior served as dependent variables with gender, age, race/ethnicity, and major college serving as independent variables. The independent variables each had two levels: gender (men and women), age (age 25 and older and age 18-24), race/ethnicity (Multicultural and White), and major college (Business Administration and Education).

Three hypotheses were tested based on age and gender comparisons, race/ethnicity comparisons, and major and gender comparisons.

Age and Gender Analysis Results

A multivariate analysis was conducted using age (age 25 and older and age 18-24) and gender (men and women) as independent measures with own behavior and perception of peer behavior as dependent variables. Table 4 shows the results N, mean rank, and correlation coefficient (calculated as Kendall's Tau) of the Kruskal-Wallis analysis.

Table 5. N, Mean Rank, Correlations Coefficients for Age and Gender analysis.

	N	Mean Rank		Correlation Coefficient r (Kendall's Tau)
		Own Behavior	Peer Behavior	
Age 18-24 Women	1390	1333.42	1317.89	*.459*
Age 25 and older Women	108	771.59	1062.89	.330
Age 18-24 Men	978	1273.56	1250.13	*.517*
Age 25 and older Men	79	1050.19	1215.31	*.395*

Italicized correlation coefficient is significant at the .01 level (two tailed).

The group with the lowest mean rank for own behavior in academic dishonesty was 25 and older women, followed by18-24 men, and then 18-24 women. The highest was age 18-24 women. The group order was the same for peer behavior.

The results of the Kruskal-Wallis test for own behavior was ($H(3) = 66.88$, $p \geq .001$) and for perception of peer behavior was ($H(3) = 15.23$, $p \geq .001$). Thus, first hypothesis was supported.

Table 6. N, Mann-Whitney U statistics, significance level and effect size for Age and Gender analysis.

	Total N	Own Behavior				Peer Behavior			
		Mann-Whitney U	Sig.	Z	Effect size (r)	Mann-Whitney U	Sig.	z	Effect size (r)
18-24 Women by 25 and older Women	1498	41047.00	*.000*	-7.88	-.25	59841.50	*.000*	-3.52	-.11
18-24 Women by 18-24 Men	2368	649237.50	.062	-1.87	-.04	643943.00	.029	-2.10	-.04
18-24 Women by 25 and older Men	1469	42356.50	*.001*	-3.43	-.09	50445.50	.224	-1.22	-.03
25 and older Women by 18-24 Men	1086	33064.50	*.000*	-6.43	-.20	45303.00	.015	-2.43	-.07
25 and older Women by 25 and older Men	187	3334.00	.009	-2.61	-.19	3751.50	.166	-1.38	-.10
18-24 Men by 25 and older Men	1057	32250.50	.014	-2.14	-.07	37633.50	.383	-0.70	-.02

Italicized significant values are calculated using the Bonferroni correction (Field, 2009). The significance level of .05 was divided by 6 comparisons. Therefore significant levels are $\leq$.0083.

A Mann-Whitney U was used to follow up pair wise comparisons. Mann-Whitney U is a nonparametric equivalent to the independent t-test (Field, 2009). Also, the Bonferroni correction was applied. Therefore, all effects are reported at a .0083 level of significance. Table 5 shows the results of N, Mann-Whitney U analysis, and effects sizes for own behavior and perception of peer behavior for age and gender comparisons.

Effect sizes for each comparison, which provide an objective measure of the strength of the relationship between variables, were calculated by hand. The formula for calculating effect

size is z divided by the square root of N (Field, 2009). According to Field (2009), a small effect size that explains 1% of the total variance is .10, a medium effect size that explains 9% of the total effect size is .30, and a large effect size that accounts for 25% of the variance is .50. The effect sizes for the analysis were all small (explaining 1% of the total variance).

Comparing the results of own behavior on academic dishonesty comparisons gave the following results:

1. Age 18-24 women reported higher rates of academic dishonesty than 25 and older women.
2. Age 18-24 women reported higher rates of academic dishonesty than 25 and older men.
3. Age 18-24 men reported higher rates of dishonesty than 25 and older women.

Comparing the results of peer behavior on academic dishonesty gave the following results:

1. Age 18-24 women reported higher rates of academic dishonesty than 25 and older women.
2. Age 18-24 women reported higher rates of academic dishonesty than age 18-24 men.
3. Age 18-24 men reported higher rates of dishonesty than 25 and older women.

Ultimately, part of this hypothesis was supported in that there was a significant finding that 25 and older women and men reported themselves less likely to participate in academic dishonesty than age 18-24 men and women. However, age 18-24 women reported themselves more likely to participate in academic dishonesty than other groups, which was not predicted.

Race/Ethnicity and Gender Analysis Results

For the second hypothesis, little research reports how gender and race/ethnicity affect academic dishonesty. Therefore, no prediction of differences about main effects was made among Multicultural men, Multicultural women, White men, and White women. However, the analysis attempted to detect differences.

Table 7. Descriptive information: N, standard deviation, means and correlation coefficient for Race/Ethnicity and Gender analysis.

	N	Mean Rank		Correlation Coefficient r (Kendall's Tau)
		Own Behavior	Peer Behavior	
Multicultural Women	124	1125.91	1137.91	*.425*
White, non-Hispanic Women	1294	1227.37	1234.07	*.464*
Multicultural Men	79	1010.65	1035.45	*.532*
White, non-Hispanic Men	919	1210.08	1196.90	*.505*

Italicized correlation coefficient is significant at the .01 level (two tailed).

The results of the Kruskal-Wallis test for own behavior were not significant ($H(3) = 9.12$, $p \geq .05$). However, results for perceptions of peer behavior were significant ($H(3) = 8.13$, $p \geq .05$). The results of the Kruskal-Wallis test are ranks indicating the groups from lowest to the highest rates of dishonesty:

- Multicultural, women,
- Multicultural, men,
- White, men,
- White, women.

A Mann-Whitney U test was conducted to find differences in perceptions of peer behavior in academic dishonesty pairs applying the Bonferroni correction (Field, 2009). Therefore, all effects are reported at a .0083 level of significance (see Table 7).

Table 8. Mann-Whitney U test results for peer behavior of academic dishonesty for gender and race/ethnicity.

	Total N	Own Behavior				Perception of Peer Behavior			
		Mann-Whitney U	Sig.	Z	Effect size (r)	Mann-Whitney U	Sig.	Z	Effect size (r)
Multicultural Women by White Women	1418	73387	.115	-1.58	.04	73883.5	.145	-1.46	-.04
Multicultural Women by Multicultural Men	203	4395.5	.212	-1.25	.09	4499	.327	-.98	-.09
Multicultural Women by White Men	1043	53075.5	.213	-1.25	.04	54170	.372	-.89	-.03
White Women by Multicultural Men	1373	41882.5	.007	-2.71	.07	42476	.012	-2.53	-.07
White Women by White Men	2213	586246	.572	-.566	.01	576492	.221	-1.22	-.03
Multicultural Men by White Men	998	30403	.016	-2.41	.08	31665.5	.059	-1.89	-.06

Italicized significant values are calculated using the Bonferroni correction. The significance level of .05 was divided by 6 comparisons. Therefore significance levels are <.0083.

Results of the Mann-Whitney U test were no significant differences between groups. Furthermore, the differences in the Kruskal-Wallis investigation cannot be explained by comparing the groups. Thus, the second hypothesis was supported. There were no significant differences in own behavior or perception of peer behavior academic dishonesty based on gender and race/ethnicity.

Major and Gender Analysis Results

A 2 x 2 MANOVA, gender (men and women) by college major (Business Administration and Education) analysis was conducted to test for main effects in college major and gender and interactions among the four groups (Business Administration women, Business Administration men, Education women, and Education men) and the dependent variables (own behavior and peer behavior). The results of the test gave a Wilks's Lambda = .999, $F(2, 577) = .363$, $p > .05$. No significant differences were found. Therefore, no post hoc analyses were conducted.

Frequencies, descriptions, and correlations for the variables in hypothesis three were calculated (see Table 8).

Table 9. N, standard deviations, means, correlation coefficients for Major and Gender analysis.

	N	Mean		Standard Deviation		Correlation Coefficient R
		Own Behavior	Peer Behavior	Own Behavior	Peer Behavior	
Business Administration Women	179	30.81	38.96	.386	.728	*.704*
Business Administration Men	212	30.54	38.70	.363	.702	*.455*
Education Women	147	30.69	39.93	.468	.985	*.740*
Education Men	52	29.85	37.84	.833	1.85	*.816*

Italicized correlation coefficient is significant at the .05 level (two tailed).

The same nonparametric analysis was conducted to compare for main effects yielding no significant differences for the Kruskal Wallis test. Own behavior was ($H(3) = 5.74$, $p \leq .05$), and peer behavior was ($H(3) = 4.20$, $p \leq .05$). Clearly, hypothesis three was not supported. Education majors, men and women, did not differ in their reported behavior toward academic dishonesty from Business majors.

Summary of Results

Three hypotheses were investigated for differences. First, the age and gender analysis that tested hypothesis one was supported. Next, there were differences between age 18-24 women, age 25 and older women, age 18-24 men and age 25 and older men. The second and third analyses resulted in no significant differences. The findings indicate no differences between race/ethnicity and gender (hypothesis two) or between major and gender (hypothesis three). A discussion of the meaning and implications of the findings follows next in chapter five.

Chapter 5- Discussion & Recommendations

This chapter includes a discussion of the study's findings organized by independent measures including theoretical implications, a discussion of the limitations of the study, interpretations of what these findings mean, and suggestions for future research. This section discusses the implications of the findings of the analysis of three hypotheses by age and gender, major and gender and race/ethnicity and gender.

Age and Gender Findings

The literature review revealed that men engaged in academic dishonesty more often than women (Rakovski & Levy, 2007; Rettinger et al., 2004) and that younger students engaged in dishonest behavior more often than older students (Diekhoff et al., 1996; Rakovski & Levy, 2007; Rabi, S., Patton, L., Fjortoft, N., & Zgarrick, D. 2006). The literature revealed that perception of peer behavior may be more predictive than own behavior (McCabe et. al., 2001 & Chapman et. al., 2004). Because of these findings, this study tested two dependent variables: own behavior and perception of peer behavior using the behavior section of the McCabe Academic Integrity Scale (M-AIS).

The first hypothesis predicted 18-24 age men would report significantly higher rates than 25 and older age men students and 25 and older age women students. The results of the Kruskal-Wallis analysis supported the age prediction portion of this hypothesis in that the two lowest groups were 25 and older age. Meanwhile, the gender hypothesis was only partially supported. Twenty-five and older women were the lowest group, but 18-24 women were ranked higher in academic dishonesty than 18-24 men, which was not predicted.

The findings for own behavior is consistent with research reported by

Whitley, et al., (1999), which found that men's and women's attitudes toward dishonest behavior would be similar when they are younger and diverge as they mature. Then, women become less likely than men to engage in dishonesty (Whitley, et al.1999). Rettinger et al. (2004) found that women who are older likely would be more ethical than younger women. These findings were supported.

Research shows perception of peer behavior has been called more predictive than own behavior (McCabe, et. al, 2001; Chapman, et al., 2004). Accordingly, the present study predicted that the rankings for perception of peer behaviors would be the same as rankings for own behavior. Also, the hypothesis predicted that 18-24 year old men would report significantly higher rates of perceived academic dishonesty among their peers than 25 and older men's and women's perception of peer behavior. The mean ranks of gender and age were the same for both the own behavior and peer behavior groups.

These findings support developmental and cognitive theories including Kohlberg's Theory of Moral Reasoning, Gilligan's Moral Orientation Theory, and Rest's Four Component Model. These theories propose that people advance to higher stages of moral judgment as they progress through life. It is important to note that moral development was not directly studied as part of this project. Rather, the theories were used as a foundation for understanding an individual's moral behavior. Nonetheless, the findings in this study appear to support moral development theories. Age 18-24 students had a significantly higher engagement in dishonesty than did 25 and older students.

The findings seem to support Gilligan's Moral Orientation Theory (Gilligan, 1977). The present study found that age 18-24 women reported the highest level of engagement in academic dishonesty. However, women age 25 and older had the lowest report of engagement. This

difference is intriguing and may support Gilligan's model. Gilligan differentiated between two moral orientations: ethic of care and justice orientations suggesting that women are more likely to have an ethic of care orientation (Gilligan, 1977). The difference to academic dishonesty behavior found in this study between younger and older women could support Gilligan's concept of ethic of care. For example, the younger women (age 18-24) could represent Gilligan's second perspective in which an individual seeks to care for others who are perceived as unequal or dependent. The older women (age 25 and older) could represent Gilligan's third perspective in which the individual focuses on dynamics of relationship and related good to the universal principles of condemning exploitation and hurt. The difference in reported behavior seems to support this notion. This finding warrants future research.

Alternative explanations for differences in the gender and age analysis may be that students who engage in academic dishonest behavior may have lower intrinsic mastery motivation than those who do not engage in dishonest behaviors (Rettinger et al., 2004). Students who engage in dishonest behavior tend to value external rewards like high grades, high salaries, and so forth. It is possible students who are younger value the external rewards, and the 25 and older students have a stronger desire to learn (Rettinger et al., 2004).

Another reason for the findings may stem from exposure to university settings and values. Kansas State University, where the study took place, has an Honor and Integrity System, which is publicized and enforced (Allen, 2009). Many teachers emphasize the System, and all students are expected to abide by the System's rules. It may be that the more students are exposed to the ideals of an honor code, then perhaps the more morally the student will behave. However, since exposure to the Honor System was not directly studied, perhaps this area could be expanded for research.

The effect sizes for this analysis were small. Effect sizes account for the amount of variance measured by the variables (Field, 2009). For example, the effect size for own behavior for 18-24 year old women by 25 and older women was .25. This means that less than nine percent of the variance is attributable to these variables (Field, 2009).

Summary of Age and Gender Findings

This section discussed the findings of age and gender comparisons. Notably, the findings did not support previous literature that suggested that men engage in dishonesty more often than women (Rakovski & Levy, 2007; Rettinger et al., 2004). Instead, the findings suggested that younger students engaged in dishonesty more often than older students (Diekhoff et al., 1996; Rakovski & Levy, 2007; Rabi, et al., 2006). In addition, perception of peer behavior was investigated, where the findings suggested that perception of peer behavior and own behavior is the same and may be related. This finding may support the conclusion by McCabe, et al. (2001) and Chapman, et al. (2004) that peers are influential to a student's decision to engage or not engage in dishonest behavior. The findings were then tied to moral development theories, and alternative explanations were offered.

Race/Ethnicity and Gender Findings

The race/ethnicity hypothesis was purely exploratory because of the paucity of research in this area of academic dishonesty. Simply, there was not enough information to predict differences. The second hypothesis investigated race/ethnicity and gender differences in one's own behavior and perception of peer behavior. Again, there was little research available on race or ethnicity variables related to academic honesty. Ultimately, this study's findings suggest that race, ethnicity, and gender combined are not predictors of dishonesty behaviors.

The findings agree with Sutton & Huba's (1995) conclusion, which found no differences

in academic dishonesty behaviors between African American and White students. The lack of difference is worth noting because it indicates these variables are characteristics that neither predict behavior nor perception of peer behavior in relation to academic dishonesty.

One reason for not finding differences could be the strength of the Honor and Integrity System at this university. While this environmental variable was not directly studied, it could explain why the students' responses to the survey were not significantly different from one another. Students may have learned what the appropriate activity is and answered accordingly.

Summary of Race/Ethnicity and Gender Findings

This section discussed the findings of race/ethnicity and gender comparison. The findings supported previous literature findings that there were no differences.

Major and Gender Findings

This study compared the behavior and perception of peer behavior of women and men undergraduates majoring in Business and Education and found no differences. This finding means that students, regardless of gender or major, did not differ in either own dishonest behavior or perception of peer dishonest behavior. These results are consistent with Iyer and Eastman's (2006) findings that business students did not have higher instances of dishonesty than other majors.

Thus, the findings were inconsistent with those of Caruna et al. (2000), D. McCabe (1995), Nonis & Swift (1998), Roig (2001), Smyth & Davis (2003), Chapman et al. (2004) and Rakovsky (2007). Each of these studies concluded higher rates of dishonesty among business students than for other majors. The results of this study did not support the conclusion that business students had higher rates of dishonesty.

There are several reasons the results may differ from those of previous research. First, as noted in chapter two, there have been many high profile incidents of academic dishonesty at K-State. Professors may have stressed academic honest behaviors in their classes and could be extra vigilant on this campus. It is possible that business students have become more aware of the importance of business ethics. Ethics is embedded into the business curriculum as a required area of study. Another reason may be that the Association to Advance Collegiate Schools of Business mandates teaching ethics for accreditation (Chapman et al., 2004). These factors could explain the findings of this study, also.

Summary of Major and Gender Findings

This section compared major and gender findings. The findings did not support previous research, which found that business majors engaged in dishonesty more than any other majors. This study compared business college majors and education college majors and found no differences in behaviors and perception of behaviors. Explanations for the difference in findings were offered.

Limitations of the Study

Limitations of this study included: (1) controversial subject matter, (2) inconsistent definition of terms, (3) lack of systematic research, (4) study setting, and (5) survey method limitations: (a) nonresponse, (b) length of survey, and (3) social desirability of responses. Each is discussed in detail including the researcher's rationale for accepting each limitation.

Subject Matter was Controversial.

The idea that the subject matter was controversial was brought to the researcher's attention at the beginning of data collection when three participants found the subject matter of academic dishonesty controversial. Each student who e-mailed the researcher explained they felt

the research was inappropriate due to the subject matter. Because each response was unidentifiable from the rest of the responses, the students' requests that their response be deleted could not be granted. The researcher informed each student that his or her response could not be removed. However, each student's e-mail correspondence was deleted. These students' concerns were noted because the issue of the sensitivity of subject matter may have contributed to non-response.

The researcher took the following steps to ensure confidentiality and alleviate potential perceptions that a student may be turned in for cheating based on their responses to the survey. The survey was distributed to every undergraduate student at the University through the campus's computer network department. The researcher never had access to student e-mail addresses or names. In addition, the computer network department did not have access to the participants' answers to the survey. Therefore, identifying characteristics were never connected to survey responses. No electronic identifiers like internet protocol addresses were collected or therefore saved. These steps ensured that responses were confidential. As a final safeguard to participant confidentiality, the entire research project was thoroughly reviewed by the University's IRB and given approval with the designation of minimal risk to subjects.

To alleviate perception of risk among participants, the researcher explained the research process in multiple contacts to the participants. The explanations stressed that the information was confidential and offered the participants several ways to contact various people in authority including the researcher, the researcher's graduate advisor, and the chair of the IRB committee.

Inconsistent Definitions of Terms

From the outset of this study, the researcher found a lack of agreement among researchers on what academic dishonesty means. Indeed, very few studies defined the term academic

dishonesty. Rather, the works relied on the reader to infer the meaning of dishonesty. Clearly, the assumption that academic dishonesty is understood as a universal term is not a safe one . For example, dishonesty and cheating may be used interchangeably by some while not by others. While this study used Nuss 's definition of academic dishonesty (1984), the researcher cautions the reader to be alert to the problem of lack of universally accepted definition. Without definitions, readers are assimilating information based on assumptions that may not be accurate in a given work.

Lack of Systematic Research

Another universal limitation of the research body is lack of systematic research on the topic of dishonesty (Murdock & Anderman, 2006). Most researchers take their own unique, and, therefore, non-systematic approach to the topic. Yet, research on academic integrity requires a systematic and scientific approach to properly identify, explore, and solve the problem. The majority of previous research on academic dishonesty has been unsystematic, based in one-time only studies that are not able to be generalized or studies that do not build on previous research.

Study Setting

Another limitation of the study was the decision to use only one university's undergraduate population. This decision was made based on time and monetary resources. The research project needed to be completed in a short time frame and gaining access to participants and data gathering at multiple universities would have added considerable time and expense, which the researcher could not afford.

The largest limitation stemming from the choice of one university was the lack of diverse populations. According to the Kansas State University Fact Book (2008), the student body at this university is 84.6 percent White, and 90% are between the ages of 18-24. Since race/ethnicity

and age were investigated in this study, the small sample of multicultural students in these groups made data analysis across the racial and age groups difficult. Therefore, while the ability to generalize this information was specifically useful to universities with similar populations as Kansas State, the information may not be useful to schools with a diverse student body.

Survey Method Limitations

This subsection discusses survey method limitations including: (1) the lack of context to responses, (2) non-response, (3) length of survey, and (4) social desirability of responses.

Response context.

Survey research is limited by lack of ability to offer context for responses (Babbe, 2007). It is difficult to know for sure what participants mean when they mark a response. The inability to ask pointed follow-up questions to clarify what the participant really means is impossible with the present study's research design. Therefore, a limitation of this study is the inability to state conclusively that the researcher knows exactly what the participants meant when they answered the questions on the survey.

Non-response.

An effort was made to reduce non-response error. Non-response is the potential for bias in which the people not responding are systematically different from those who do respond (Fowler, 2008). Non-response error occurs when potential participants do not respond to the survey. The participants who do not respond could represent a viewpoint or behavior that would create a different result for the study. There is no way to know if nonparticipants would respond differently than participants, but certainly, there is potential for this type of error.

The researcher faced limitations that could have resulted in non-response bias due to the subject matter and attempted to inhibit non-response by adapting Dillman's Tailored Design Method (Dillman et al., 2008), which is designed to increase response rates.

Length of survey.

The researcher elected to implement an established survey instrument. However, while TDM's approach requires the instrument to be short and to the point. The researcher believes that the survey, which took on average 10 minutes to complete, was too long for most students. The researcher would have preferred that the completion length be reduced to 5 minutes. However, the M-AIS is an established instrument that has been used for many years across the U.S. and in Canada. The researcher elected to accept this survey length as a limitation because of the need to build on previous research by using an established survey instrument.

Social desirability of responses.

Related to the subject matter limitation, previous research has suggested that individuals may respond to self-reported surveys in a manner that they perceive as socially desirable (Bernardi & LacCross, 2004). However, if participants do not answer truthfully, then the researcher is unable to state definitively that the results of the survey would be accurate.

Recommendations

This study adds to the larger body of knowledge on academic dishonesty. There is much need for more research and practical application of research findings. Therefore, this section makes recommendations for future research and practical applications.

Future Research

There are dozens of examples of good research being conducted in the field of academic dishonesty. One good example is Don McCabe's research, which has been published and

referenced for decades. McCabe has developed a survey instrument (M-AIS) and gathered information from over 165,000 students at more than 160 different colleges and universities in the United States and Canada (Center for Academic Integrity, 2009). His research has focused on the development of Honors Codes at universities and his extensive work aided in the founding of the Center for Academic Integrity.

McCabe aside, much of the research found on dishonesty represents stand-alone studies, which do not connect to other studies. Many of the studies are not based in theory-testing, and focus instead on practical application in specific settings such as business or medical schools.

As research on academic dishonesty moves forward, researchers should connect previous research findings to create models that build toward conclusions based on strong scientific research and theory-building. This study used McCabe's scale (M-AIS) to establish a baseline of research into personal characteristics of gender, age, major and race/ethnicity at one university in the Midwest. Fortunately, the literature revealed several avenues to connect previous research with a systematic approach. Examples of variables that could connect to previous research include the following: (1) academic achievement, (2) academic ability, (3) Greek membership, (3) work ethic, (4) motivation, (5) involvement in risky behaviors, (6) morality, (7) religious beliefs, (8) technology, (9) classroom and (10) institutional environments, (11) academic level, (12) student perception of level of difficulty of task, and so forth. There are few limits on variables involving higher education that should be investigated.

The M-AIS is an important tool for academic honesty researchers; however, two changes could improve the M-AIS. First, the researcher recommends removing the not relevant option in the specific behaviors section. The not relevant option weakens the scale by removing some participants from the analysis. This research replaced the missing data with participants response

means, which allowed for analysis. However, if the option is removed, future researchers would not have to use mean replacement. The second recommendation stems from Dillman's TDM (Dillman, et. al, 2008). Given that the recommended time to complete a survey should be about five minutes, the M-AIS could be shortened (which McCabe is working on)without losing meaningful survey results (McCabe, personal correspondence,2008). A slightly revised and shortened M-AIS would help to gather more accurate information about academic dishonesty from more respondents.

Practical Application

The findings of this study support interventions such as an honor code and support a campus culture of integrity. The first recommendation is to create a consistent integrity policy or honor code system like Kansas State University's policy and system. The existence of an honor code on a campus does not guarantee lower rates of dishonesty (McCabe, 2005). However, previous research has found that an honor code with a culture of academic integrity on a campus and communicating expectations clearly appear to be effective in curbing dishonesty behavior (McCabe & Trevino, 1996).

To create a culture of integrity, faculty, including teaching assistants, must be supported. The literature review found that many faculty members do not report incidents of dishonesty (Graham et al, 1994) for many reasons including a lack of support from administration (Vandehay, Diekhoff, & LaBeff, 2007) and lack of understanding of university policies (Nonis & Swift, 1998). However, when faculty members do not report academic dishonesty, students do not receive interventions, and if students do not learn why their behavior is wrong, they may have no reason to stop the behavior. Also, students who perceive that faculty are concerned about academic integrity are more likely to act in honest ways (Crown & Spiller, 1998; Roig,

2001). There are several books and articles (Whitley & Keith-Spiegel, 2001; McCabe, 2005; Barnett and Dalton, 1981; Nowell & Laufer, 1997; Thorpe et al., 1999; Marcoux, 2002) that make recommendations regarding how faculty can manage their classrooms to prevent academic dishonesty. For instance, faculty can help reduce the likelihood of academic dishonesty by reducing the perception of high stakes projects and exams. One study found that faculty and students do not share perceptions of the level of stress involved in class workloads (Barton & Dalton, 1981). Therefore, a system of clear policy and procedure is recommended.

This study supports different approaches to academic dishonesty depending on students gender. Differences between men and women support different approaches to teaching correct behavior to men and women. If men have a justice orientation as Gilligan (1977) purports, then teaching strategies that stress rules and punishment may be more effective than strategies that stress how dishonesty hurts other people. Gilligan states women have a care orientation (1977), which means they are interested in helping others. This observation suggests that a more effective approach may be to stress how learning is important to people and that academic dishonesty only hurts people over time.

When students are caught engaging in dishonest behaviors, other students need to be made aware of the punishment to offset the likelihood that students who perceive that everyone is cheating around them are more likely to engage in dishonesty themselves (Allen et al., 1998). Moreover, perceived ease of dishonesty increases the likelihood of engagement (McCabe & Trevino, 1996). If students perceive that students are getting away with dishonest acts, then they are more likely to risk dishonesty themselves.

Summary

The purpose of this study was to determine if personal characteristics of undergraduate students regarding gender, age, major in college, and ethnicity/race would support differences found in the literature between own behavior and perceived peer behavior in relation to academic dishonesty.

The result of this study indicated that students age 18-24 are more likely to engage in dishonest behavior than students age 25 and older. Therefore, the finding suggests the need for ongoing education and training for undergraduate students with regard to what constitutes academic dishonesty. Next, men and women have significantly different behavior for and perceptions of academic dishonesty. This finding suggests there is a need to develop teaching strategies that are attractive and responsive to the different learning needs of men and women. Furthermore, colleges could investigate the merits of gender-based academic integrity education.

While the present study did not examine faculty roles, this researcher believes faculty should be included in professional development activities about academic integrity. Such faculty development activities could address modeling appropriate academic integrity behavior, strategies for managing classroom academic integrity, and strategies for reporting academic integrity allegations.

In closing, the overall approach of this research study was to add to the understanding of student behavior in respect to gender, age, major college, and perception of peer behavior. Future researchers should build on these concepts by modifying and adding to the variables studied. While there is a growing body of knowledge in academic dishonesty, the findings of each study are disconnected from each other. Each study uses different scales, measurements, definitions,

and so on. If researchers want to better understand this issue, it is imperative to create research that is purposefully systematic.

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Appendix A: Survey Instrument

M-AIS

Online Consent

The purpose of this research is to ask students about their beliefs and behaviors regarding academic honesty. The results from the survey will be used to improve education for students at Kansas State University. Your impressions regarding academic honesty are important to us. For this reason, we are contacting you today to ask you to participate in an online survey.

Your answers are completely confidential and the data collected will be reported as a summary. No one person's answers can be identified in this summary. Once you submit your completed online survey, your name is not associated with either your responses or other identifying information. This study does not guarantee cannot guarantee anonymity absolutely. The researchers assure you that any information provided will not be used against you in anyway. However, if your name, personal identification, or specific demographic information is associated with your answers, there is a risk that you could be accused of academic dishonesty. Your participation in this survey is voluntary. You can choose not to respond to this survey without fear of any penalty. You can exit the online survey at any time. If you are not a K-State undergraduate student, you have received this survey in error, likely. In that instance, fill out the first question only, then hit submit to end the online survey.

The survey takes approximately 10 minutes to complete. If you prefer not to respond, please let us know by e-mailing Candy Walton at walton@ksu.edu to opt out.

Follow the directions provided. If you have difficulties accessing or responding to the survey, please e-mail me at walton@ksu.edu and Candy will respond immediately to you.

If you have any questions or comments about this study, we would be happy to visit with you. Phoning 785-532-5941 or 785-587-7423 can contact Dr. Carroll. Her e-mail address is dcarroll@ksu.edu. Candy Walton's phone number is 605-677-5477. E-mail her at walton@ksu.edu.

If you wish to discuss any aspect of this research, you may contact Rick Scheidt, Chair, Committee on Research Involving Human Subjects, 203 Fairchild Hall, Kansas State University, Manhattan, KS 66506, 785-532-3224.

Thank you for your participation. We appreciate your help.
Sincerely,

Doris W. Carroll, Ph.D., Associate Professor, Special Education, Counseling, and Student Affairs

Candace "Candy" L.T. Walton, Doctoral Candidate

M-AIS

Academic Environment

1. How would you rate:

	Very Low	Low	Medium	High	Very High
The severity of penalties for cheating at Kansas State University?	◯	◯	◯	◯	◯
The average student's understanding of campus policies concerning student cheating?	◯	◯	◯	◯	◯
The faculty's understanding of these policies?	◯	◯	◯	◯	◯
Student support of these policies?	◯	◯	◯	◯	◯
Faculty support of these policies?	◯	◯	◯	◯	◯
The effectiveness of these policies?	◯	◯	◯	◯	◯

M-AIS

2. Have you been informed about the academic integrity or cheating policies at Kansas State University?

- ◯ Yes
- ◯ No

3. If yes, where and how much have you learned about these policies?

	Learned Little or Nothing	Learned Some	Learned A Lot	N/A
First-year orientation program.	◯	◯	◯	◯
Campus website.	◯	◯	◯	◯
Student Handbook.	◯	◯	◯	◯
Program Counselor, Residential Advisor, and/or Faculty Advisor.	◯	◯	◯	◯
Other students.	◯	◯	◯	◯
Faculty (e.g., discussed in class, course syllabi, or course outlines).	◯	◯	◯	◯
Teaching Assistant.	◯	◯	◯	◯
Dean or other administrator.	◯	◯	◯	◯

Other (please specify)

4. In the past year, how often, on average, did your instructors discuss policies concerning:

	Never	Very Seldom	Seldom/Sometimes	Often	Very Often
Plagiarism	◯	◯	◯	◯	◯
Guidelines on group work or collaboration	◯	◯	◯	◯	◯
Proper citation/referencing of written sources	◯	◯	◯	◯	◯
Falsifying/fabricating course lab data	◯	◯	◯	◯	◯
Falsifying/fabricating research data	◯	◯	◯	◯	◯

5. How frequently do you think the following occur at Kansas State University?

	Never	Very Seldom	Seldom/Sometimes	Often	Very Often
Plagiarism on written assignments.	◯	◯	◯	◯	◯
Inappropriately sharing work in group assignments.	◯	◯	◯	◯	◯
Cheating during tests or examinations.	◯	◯	◯	◯	◯

6. How often, if ever, have you seen another student cheat during a test or examination at Kansas State University?

- ◯ Never
- ◯ Once
- ◯ A few times
- ◯ Several times
- ◯ Many times

M-AIS

This section asks you some questions about specific behaviors that some people might consider cheating. Please remember that this survey is completely anonymous and there is no way that anyone can connect you with any of your answers.

In the LEFT column please mark how often, if ever, in the past year you have engaged in any of the following behaviors. If a question does not apply to any of the courses you took in the last year, please check the 'Not Relevant' column. For example, if you had no tests/exams in the last year, you would check 'Not Relevant' for questions related to tests/exams.

In the RIGHT column please mark how serious you think each type of behavior is.

7. In the LEFT column please mark how often, if ever, in the past year YOU have engaged in any of the following behaviors. If a question does not apply to any of the courses you took in the last year, please check the 'Not Relevant' column. For example, if you had no tests/exams in the last year, you would check 'Not Relevant' for questions related to tests/exams.

In the MIDDLE column, please mark how often, if ever, in the past year your FRIENDS have engaged in any of the following behaviors.

In the RIGHT column please mark how serious YOU think each type of behavior is.

	How often YOU have engaged in any of these behaviors?	How often to do you think your FRIENDS engage in any of these behaviors?	How serious do YOU think each behavior is?
Fabricating or falsifying a bibliography.			
Working on an assignment with others (in person) when the instructor asked for individual work.			
Working on an assignment with others (via email or Instant Messaging) when the instructor asked for individual work.			
Getting questions or answers from someone who has already taken a test.			

8. In the LEFT column please mark how often, if ever, in the past year YOU have engaged in any of the following behaviors. If a question does not apply to any of the courses you took in the last year, please check the 'Not Relevant' column. For example, if you had no tests/exams in the last year, you would check 'Not Relevant' for questions related to tests/exams.

In the MIDDLE column, please mark how often, if ever, in the past year your FRIENDS have engaged in any of the following behaviors.

In the RIGHT column please mark how serious YOU think each type of behavior is.

	How often YOU have engaged in any of these behaviors?	How often have your FRIENDS engage in any of these behavior?	How serious do YOU think each behavior is?
In a course requiring computer work, copying another student's program rather than writing your own.			
Helping someone else cheat on a test.			
Fabricating or falsifying lab data.			
Fabricating or falsifying research data.			

M-AIS

9. In the LEFT column please mark how often, if ever, in the past year YOU have engaged in any of the following behaviors. If a question does not apply to any of the courses you took in the last year, please check the 'Not Relevant' column. For example, if you had no tests/exams in the last year, you would check 'Not Relevant' for questions related to tests/exams.

In the MIDDLE column, please mark how often, if ever, in the past year your FRIENDS have engaged in any of the following behaviors.

In the RIGHT column please mark how serious YOU think each type of behavior is.

	How often have YOU engaged in this behavior?	How often have your FRIENDS engaged in this behavior?	How serious do you think the behavior is?
Copying from another student during a test WITH his or her knowledge.			
Copying from another student during a test or examination WITHOUT his or her knowledge.			
Using digital technology (such as text messaging) to get unpermitted help from someone during a test or examination.			
Receiving unpermitted help on an assignment.			

M-AIS

Specific behaviors

10. In the LEFT column please mark how often, if ever, in the past year YOU have engaged in any of the following behaviors. If a question does not apply to any of the courses you took in the last year, please check the 'Not Relevant' column. For example, if you had no tests/exams in the last year, you would check 'Not Relevant' for questions related to tests/exams.

In the MIDDLE column, please mark how often, if ever, in the past year your FRIENDS have engaged in any of the following behaviors.

In the RIGHT column please mark how serious YOU think each type of behavior is.

	How often have YOU engaged in the following behaviors?	How often have your FRIENDS engaged in the following behaviors?	How serious do YOU think each behavior is?
Copying (by hand or in person) another student's homework.			
Copying (using digital means such as Instant Messaging or email) another student's homework.			
Paraphrasing or copying a few sentences from a book, magazine, or journal (not electronic or Web-based) without footnoting them in a paper you submitted.			
Turning in a paper from a "paper mill" (a paper written and previously submitted by another student) and claiming it as your own work.			

M-AIS

Specific behaviors

11. In the LEFT column please mark how often, if ever, in the past year YOU have engaged in any of the following behaviors. If a question does not apply to any of the courses you took in the last year, please check the 'Not Relevant' column. For example, if you had no tests/exams in the last year, you would check 'Not Relevant' for questions related to tests/exams.

In the MIDDLE column, please mark how often, if ever, in the past year your FRIENDS have engaged in any of the following behaviors.

In the RIGHT column please mark how serious YOU think each type of behavior is.

	How often have YOU engaged in the behavior?	How often have your FRIENDS engaged in the behavior?	How serious do YOU think the behavior is?
Paraphrasing or copying a few sentences of material from an electronic source - e.g., the Internet - without footnoting them in a paper you submitted.			
Submitting a paper you purchased or obtained from a Web site (such as www.schoolsucks.com) and claimed it as your own work.			
Using unpermitted handwritten crib notes (or cheat sheets) during a test or exam.			
Using electronic crib notes (stored in PDA, phone, or calculator) to cheat on a test or exam.			
Using an electronic/digital device as an unauthorized aid during an exam.			

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Student behaviors

12. In the LEFT column please mark how often, if ever, in the past year YOU have engaged in any of the following behaviors. If a question does not apply to any of the courses you took in the last year, please check the 'Not Relevant' column. For example, if you had no tests/exams in the last year, you would check 'Not Relevant' for questions related to tests/exams.

In the MIDDLE column, please mark how often, if ever, in the past year your FRIENDS have engaged in any of the following behaviors.

In the RIGHT column please mark how serious YOU think each type of behavior is.

	How often have YOU engaged in this behavior?	How often have your FRIENDS engaged in this behavior?	How serious do YOU think each type of behavior is?
Copying material, almost word for word, from any written source and turning it in as your own work.			
Turning in a paper copied, at least in part, from another student's paper, whether or not the student is currently taking the same course.			
Using a false or forged excuse to obtain an extension on a due date or delay taking an exam.			
Turning in work done by someone else.			
Cheating on a test in any other way.			

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Specific behaviors

13. If you indicated above that you have paraphrased or copied material from a written or electronic source without citing it, please tell us how you accessed this material:

- ◯ Internet or other electronic means only
- ◯ Have only used hard (paper) copies of sources
- ◯ Have primarily used Internet or other electronic means
- ◯ Have primarily used hard (paper) copies of sources
- ◯ Have used both methods pretty equally
- ◯ Not Relevant

14. Have you ever taken an online test or exam at Kansas State University?

- ◯ Yes
- ◯ No

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Specifc Behaviors

15. If you have taken an online test or exam at Kansas State University, have you ever: (Check all that apply.)

- [ ] Collaborated with others during an online test or exam when not permitted?
- [ ] Used notes or books on a closed book online test or exam?
- [ ] Received unauthorized help from someone on an online test or exam?
- [ ] Looked up information on the Internet when not permitted?

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Specific behaviors

16. How strongly do you agree or disagree with the following statements?

	Disagree Strongly	Disagree	Not Sure	Agree	Agree Strongly
Cheating is a serious problem at my school.	◯	◯	◯	◯	◯
The investigation of suspected incidents of cheating is fair and impartial at my school.	◯	◯	◯	◯	◯
Students should be held responsible for monitoring the academic integrity of other students.	◯	◯	◯	◯	◯
Faculty members are vigilant in discovering and reporting suspected cases of academic dishonesty.	◯	◯	◯	◯	◯
Faculty members change exams and assignments on a regular basis.	◯	◯	◯	◯	◯
The amount of course work I'm expected to complete is reasonable for my year level and program.	◯	◯	◯	◯	◯
The degree of difficulty in my exams and assignments is appropriate for my year level and program.	◯	◯	◯	◯	◯
The types of assessment used in my courses are effective at evaluating my level of understanding of course concepts.	◯	◯	◯	◯	◯
The types of assessment used in my courses are effective at helping me learn course concepts.	◯	◯	◯	◯	◯

17. If you had cheated in a course and the following individuals knew about it, how strongly would they disapprove?

	Very strongly	Fairly strongly	Not very strongly	Not at all
One of the students you go around with	◯	◯	◯	◯
A close friend	◯	◯	◯	◯
Your parents	◯	◯	◯	◯

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Demographics

18. What is your academic class standing?

- ◯ Freshman
- ◯ Sophomore
- ◯ Junior
- ◯ Senior
- ◯ Graduate student

19. What is your gender/sex?

- ◯ Female
- ◯ Male

20. What is your primary college?

- ◯ Arts & Sciences
- ◯ Business Administration
- ◯ Agriculture
- ◯ Engineering
- ◯ Human Ecology
- ◯ Architecture, Planning & Design
- ◯ Education
- ◯ Aviation & Technology
- ◯ Veterinary Medicine
- ◯ Graduate School
- ◯ Undecided

21. What is/are your major(s)?

22. What is/are your minor(s)?

23. What is your age (in years) as of today?

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24. Which group BEST represents your ethnicity/race? (please select one)

- ◯ American Indian/Alaskan Native
- ◯ Asian American
- ◯ Black, Non-Hispanic/ African American
- ◯ Hawaiian/ Other Pacific Islander
- ◯ Hispanic/Spanish/Latin American
- ◯ Mexican/Mexican American
- ◯ Middle Eastern American
- ◯ Native American
- ◯ White, Non-Hispanic/European American
- ◯ International Student
- ◯ Multiracial
- ◯ Other
- ◯ I prefer not to respond

25. If you actively participate in any of the following, please tell us about how much time you spend on each activity in an average week.

	Do Not Participate	1-9 Hours	10-19 Hours	More Than 19 Hours
Paid employment	◯	◯	◯	◯
Social fraternity/sorority/club	◯	◯	◯	◯
Caring for a dependent	◯	◯	◯	◯

26. Are you currently taking classes EXCLUSIVELY through Distance Education?

- ◯ Yes
- ◯ No

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Free Response

27. What specific changes would you like to see Kansas State University make in support of academic integrity? What role should students play in this process?

28. Please use this space for any comments you care to make, or if there is anything else you would like to tell us about the topic of cheating.

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Debriefing and Thank you!

Thank you for participating in this survey!

If you have any questions or comments about this study, we would be happy to talk with you. Candy Walton's phone number is 605-677-5477 or you may e-mail Candy Walton at walton@ksu.edu.

In addition, if you want to discuss any aspect of this research, you may contact Rick Scheidt, Chair, Committee on Research Involving Human Subjects, 203 Fairchild Hall, Kansas State University, Manhattan, KS 66506, (785) 532-3224.

In closing, the summary of the results of this study will be made available if you e-mail Candace Walton at walton@usd.edu. Also, the results will be published in a dissertation through Kansas State University. The author's full name is Candace Walton.

Appendix B: IRB Approval

K-STATE
Kansas State University

University Research
Compliance Office
203 Fairchild Hall
Lower Mezzanine
Manhattan, KS 66506-1103
785-532-3224
Fax: 785-532-3278
http://urco.ksu.edu

TO: Doris Carroll
Spec Ed Counseling & Stud Aff
369 Bluemont

Proposal Number: 4862

FROM: Rick Scheidt, Chair
Committee on Research Involving Human Subjects

DATE: November 5, 2008

RE: Approval of Proposal Entitled, "Academic Honesty Survey."

The Committee on Research Involving Human Subjects has reviewed your proposal and has granted full approval. This proposal is **approved for one year from the date of this correspondence, pending "continuing review."**

APPROVAL DATE: November 5, 2008

EXPIRATION DATE: November 5, 2009

Several months prior to the expiration date listed, the IRB will solicit information from you for federally mandated **"continuing review" of the research**. Based on the review, the IRB may approve the activity for another year. **If continuing IRB approval is not granted, or the IRB fails to perform the continuing review before the expiration date noted above, the project will expire and the activity involving human subjects must be terminated on that date. Consequently, it is critical that you are responsive to the IRB request for information for continuing review if you want your project to continue.**

In giving its approval, the Committee has determined that:

☒ There is no more than minimal risk to the subjects.
☐ There is greater than minimal risk to the subjects.

This approval applies only to the proposal currently on file as written. Any change or modification affecting human subjects must be approved by the IRB prior to implementation. All approved proposals are subject to continuing review at least annually, which may include the examination of records connected with the project. Announced post-approval monitoring may be performed during the course of this approval period by URCO staff. Injuries, unanticipated problems or adverse events involving risk to subjects or to others must be reported immediately to the Chair of the IRB and / or the URCO.

Appendix C: 1st Contact Introduction to Study

November 9, 2008

Dear Student,

In a few days you will receive an e-mail request to fill out a brief questionnaire for an important research project being conducted at Kansas State.

It concerns Kansas State undergraduate students and beliefs and activities regarding academic dishonesty. This study is part of an effort to learn what makes students decide to act in certain ways regarding academic decisions.

We are contacting K-State students from every part of campus to ask about beliefs and behaviors.

We are writing in advance because we have found many people like to know ahead of time they will be contacted. The study is important because results from the survey will be used to help us improve the quality of education at K-State.

If you prefer not to receive the survey, please let us know by following the instructions below to remove your e-mail address from the list.

Thank you very much for your time and consideration. It's only with your help that our research can be successful.

Sincerely,

Doris W. Carroll, Ph.D., Associate Professor, Special Education, Counseling, and Student Affairs

Candace "Candy" L. T. Walton, Doctoral Candidate

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You can remove your subscription for this list at:

http://listserv.ksu.edu/web?SUBED1=AC_INTEGRITY

Appendix D: 2nd Contact Delivery of Instrument

November 12, 2008
Dear Student:

We are contacting K-State students to seek their participation in an online survey regarding academic decision-making in the classroom. The purpose of this research is to ask students about their beliefs and behaviors regarding academic honesty. The results from the survey will be used to improve education for students at Kansas State University. Your impressions regarding academic honesty are important to us. For this reason, we are contacting you today to ask you to participate in an online survey.

Your answers are completely confidential and the data collected will be reported as a summary. No one person's answers can be identified in this summary. Once you submit your completed online survey, your name is not associated with either your responses or other identifying information.

This study cannot guarantee anonymity absolutely. The researchers assure you that any information provided will not be used against you in anyway. However, if your name, personal identification, or specific demographic information is associated with your answers, there is a risk that you could be accused of academic dishonesty. Your participation in this survey is voluntary. You can choose not to respond to this survey without fear of any penalty. You can exit the online survey at any time. If you are not a K-State undergraduate student, you have received this survey in error, likely.

In that instance, fill out the first question only, and then hit submit to end the online survey.

The survey takes approximately 10 minutes to complete. If you prefer not to respond, please let us know by e-mailing Candy Walton at walton@ksu.edu to opt out.

To take the online survey click on the link:
http://www.surveymonkey.com/s.aspx?sm=Rc4PdEnsYD1hWJyILGTt3A_3d_3d

Follow the directions provided. If you have difficulties accessing or responding to the survey, please e-mail me at walton@ksu.edu and Candy will respond immediately to you.

If you have any questions or comments about this study, we would be happy to visit with you. Phoning 785-532-5941 or 785-587-7423 can contact Dr. Carroll. Her e-mail address is dcarroll@ksu.edu. Candy Walton's phone number is 605-677-5477. E-mail her at walton@ksu.edu.

If you wish to discuss any aspect of this research, you may contact Rick Scheidt, Chair, Committee on Research Involving Human Subjects, 203 Fairchild Hall, Kansas State University, Manhattan, KS 66506, 785-532-3224.
Thank you for your participation. We appreciate your help.

Sincerely,

Doris W. Carroll, Ph.D., Associate Professor, Special Education, Counseling, and Student Affairs

Candace "Candy" L. T. Walton, Doctoral Candidate

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You can remove your subscription for this list at:
http://listserv.ksu.edu/web?SUBED1=AC_INTEGRITY

Appendix E: 3rd Contact Thank you & Reminder

November 19, 2008

Last week a survey was e-mailed to you seeking input on academic honesty. If you have all ready completed and submitted the survey to us, please accept our sincere thanks. If you have not, please do so today. We are especially grateful for your help because your experiences help us understand how to make your K-State education more meaningful.

If you did not receive a survey or if you haven't completed it yet, please click on this link: http://www.surveymonkey.com/s.aspx?sm=Rc4PdEnsYD1hWJyILGTt3A_3d_3d

Follow the directions provided. If you have difficulties accessing or responding to the survey, please e-mail me at walton@ksu.edu and Candy will respond immediately to you.

If you have any questions or comments about this study, we would be happy to visit with you. Phoning 785-532-5941 or 785-587-7423 can contact Dr. Carroll. Her e-mail address is dcarroll@ksu.edu. Candy Walton's phone number is 605-677-5477. E-mail her at walton@ksu.edu. If you wish to discuss any aspect of this research, you may contact Rick Scheidt, Chair, Committee on Research Involving Human Subjects, 203 Fairchild Hall, Kansas State University, Manhattan, KS 66506, 785-532-3224.

Thank you very much for your help with this important study.

Sincerely,

Doris W. Carroll, Ph.D., Associate Professor, Special Education, Counseling, and Student Affairs

Candace "Candy" L. T. Walton, Doctoral Candidate

Appendix F: 4th Contact and Replacement Link

November 23, 2008

About 3 weeks ago we e-mailed you a survey link that asked about Kansas State undergraduate beliefs and activities regarding academic dishonesty. This study is part of an effort to learn what makes students decide to act in certain ways regarding academic decisions. The comments of other K-State students who have already responded include a wide variety of responses. We think the results are going to be very useful in better understanding K-State students.

We are writing again because of the importance your response has for helping get accurate results. Although we sent a survey to people all over campus, it's only by hearing from nearly everyone in the sample that we can be sure that the responses are truly representative. A few people have written back to say that they should have received the survey because they are no longer K-State undergraduate students. If this applies to you, please let us know by responding to this e-mail so we can delete your e-mail address from the list.

A comment on our survey procedures: your answers are completely confidential and will be released only as summaries in which no individual's answers can be identified. When you submit your completed questionnaire, your name is not associated with your name or any other identifying characters. This survey is voluntary. However, you can help us very much by taking a few minutes to share your beliefs and opinions. Protecting the confidentiality of people's answers is very important to us, as well as the University.

Your participation in this survey is voluntary. However, we hope you will complete the survey soon, but if you prefer not to answer it, please let us know by responding to this e-mail with a note. Here is the link:

http://www.surveymonkey.com/s.aspx?sm=Rc4PdEnsYD1hWJyILGTt3A_3d_3d

Follow the directions provided. If you have difficulties accessing or responding to the survey, please e-mail me at walton@ksu.edu and Candy will respond immediately to you.

If you have any questions or comments about this study, we would be happy to visit with you. Phoning 785-532-5941 or 785-587-7423 can contact Dr. Carroll. Her e-mail address is dcarroll@ksu.edu. Candy Walton's phone number is 605-677-5477. E-mail her at walton@ksu.edu.

If you wish to discuss any aspect of this research, you may contact Rick Scheidt, Chair, Committee on Research Involving Human Subjects, 203 Fairchild Hall, Kansas State University, Manhattan, KS 66506, 785-532-3224.

Thank you very much for your help with this important study.

Sincerely,

Doris W. Carroll, Ph.D., Associate Professor, Special Education, Counseling, and Student Affairs

Candace "Candy" L. T. Walton, Doctoral Candidate

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Appendix G: Frequencies of Items by Own Behavior and Perceived Peer Behavior

Frequencies

	Own Behavior Frequency (Percentage)				Perceived Peer Behavior Frequency (Percentage)			
	Not Relevant	Never	Once	More than Once	Not Relevant	Never	Once	More than Once
Fabricating or falsifying a bibliography.	168 (6.1)	2445 (88.6)	113 (4.1)	33 (1.2)	224 (8.1)	1804 (65.4)	499 (18.1)	232 (8.4)
Working on an assignment with others (in person) when the instructor asked for individual work.	130 (4.7)	1508 (54.7)	554 (21.1)	544 (20.5)	148 (5.4)	639 (23.2)	625 (22.7)	1347 (48.8)
Working on an assignment with others (via e-mail or Instant Messaging) when the instructor asked for individual work.	133 (4.8)	2128 (77.1)	247 (9.0)	251 (9.1)	216 (7.8)	1201 (43.5)	544 (19.7)	798 (28.9)
Getting questions or answers from someone who has already taken a test.	49 (1.8)	2197 (79.0)	307 (11.1)	206 (7.5)	126 (4.6)	1271 (46.1)	553 (20.0)	809 (29.3)
In a course requiring computer work, copying another student's program rather than writing your own.	669 (24.2)	1931 (70.0)	121 (4.4)	38 (1.4)	581 (21.1)	1500 (54.4)	398 (14.4)	280 (10.1)
Helping someone else cheat on a test.	29 (1.1)	2536 (93.0)	143 (5.2)	51 (1.8)	144 (5.2)	1950 (70.7)	370 (13.4)	295 (10.7)
Fabricating or falsifying lab data.	474 (17.2)	1928 (69.9)	219 (7.9)	138 (5.0)	449 (16.3)	1627 (59.0)	364 (13.2)	319 (11.6)
Fabricating or falsifying research data.	489 (17.7)	2154 (78.1)	82 (3.0)	34 (1.2)	509 (5.9)	1864 (67.5)	232 (8.4)	154 (5.6)
Copying from another student during a test WITH his or her knowledge.	18 (0.7)	2554 (92.5)	124 (4.5)	63 (2.3)	164 (5.9)	1878 (68.1)	370 (13.4)	347 (12.6)
Copying from another student during a test or examination WITHOUT his or her knowledge.	17 (0.6)	2467 (89.4)	206 (7.5)	69 (2.5)	154 (5.6)	1818 (65.9)	383 (13.9)	404 (14.6)
Using digital technology (such as text messaging) to get unpermitted help from someone during a test or examination.	22 (0.8)	2712 (98.3)	18 (0.7)	7 (0.3)	167 (6.1)	2201 (79.8)	239 (8.7)	152 (5.5)
Receiving unpermitted help on an assignment.	66 (2.4)	1962 (71.1)	437 (15.8)	294 (10.7)	193 (7.0)	1358 (49.2)	562 (20.4)	646 (23.4)
Copying (by hand or in person) another student's homework.	33 (1.2)	1698 (61.5)	491 (17.8)	537 (19.5)	120 (4.3)	985 (35.7)	485 (17.6)	1169 (42.2)
Copying (using digital means such as Instant Messaging or e-mail) another student's homework.	51 (1.8)	2464 (89.4)	128 (4.6)	116 (4.2)	187 (6.8)	1756 (63.7)	328 (11.9)	488 (17.7)
Paraphrasing or copying a few sentences from a book, magazine, or journal (not electronic or Web-based) without footnoting them in a paper you submitted.	120 (4.3)	1863 (67.6)	413 (15.0)	363 (13.2)	232 (8.4)	1278 (46.3)	481 (17.8)	758 (27.5)

Turning in a paper from a "paper mill" (a paper written and previously submitted by another student) and claiming it as your own work.	78 (2.8)	2646 (95.9)	26 (0.9)	9 (0.3)	201 (7.3)	2275 (82.5)	147 (5.3)	136 (4.9)
Paraphrasing or copying a few sentences of material from an electronic source - e.g., the Internet - without footnoting them in a paper you submitted.	107 (3.9)	1857 (67.3)	489 (17.7)	306 (11.1)	222 (8.0)	1352 (49.0)	603 (21.9)	582 (21.1)
Submitting a paper you purchased or obtained from a Web site (such as www.schoolsucks.com) and claimed it as your own work.	82 (3.0)	2640 (95.7)	17 (0.6)	20 (0.7)	197 (7.1)	2386 (86.5)	115 (4.2)	61 (2.2)
Using unpermitted handwritten crib notes (or cheat sheets) during a test or exam.	35 (1.3)	2546 (92.2)	123 (4.5)	55 (2.0)	153.7)9 (5.8)	2033 (73.7)	326 (11.8)	241 (8.7)
Using electronic crib notes (stored in PDA, phone, or calculator) to cheat on a test or exam.	39 (1.4)	2538 (91.9)	101 (3.7)	81 (2.9)	163 (5.9)	2065 (74.9)	240 (8.7)	291 (10.5)
Using an electronic/digital device as an unauthorized aid during an exam.	33 (1.2)	2680 (97.2)	27 (1.0)	19 (0.7)	166 (6.0)	2246 (81.4)	195 (7.1)	152 (5.5)
Copying material, almost word for word, from any written source and turning it in as your own work.	60 (2.2)	2520 (91.4)	117 (4.2)	62 (2.2)	178 (6.5)	2059 (74.6)	271 (9.8)	251 (9.1)
Turning in a paper copied, at least in part, from another student's paper, whether or not the student is currently taking the same course.	70 (2.5)	2541 (92.0)	100 (3.6)	48 (1.7)	173 (6.3)	2005 (72.6)	306 (11.1)	275 (10.0)
Using a false or forged excuse to obtain an extension on a due date or delay taking an exam.	31 (1.1)	2356 (85.3)	254 (9.2)	118 (4.3)	146 (5.3)	1521 (55.1)	552 (20.0)	540 (19.6)
Turning in work done by someone else.	20 (0.7)	2601 (94.3)	92 (3.3)	46 (1.7)	147 (5.3)	2055 (74.5)	278 (10.1)	279 (10.1)
Cheating on a test in any other way.	50 (1.8)	2483 (90.0)	151 (5.5)	75 (2.7)	191 (6.9)	1965 (71.2)	262 (9.5)	341 (12.4)