

A COMPARISON OF A CHRISTIAN AND A STATE INSTITUTION OF HIGHER
EDUCATION: THE RELATIONSHIP BETWEEN RELIGIOSITY AND ACADEMIC
DISHONESTY AMONG ATHLETES

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ABSTRACT

Lori A. Robertson. A COMPARISON OF A CHRISTIAN AND A STATE
INSTITUTION OF HIGHER EDUCATION: THE RELATIONSHIP BETWEEN
RELIGIOSITY AND ACADEMIC DISHONESTY AMONG ATHLETES.

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The purpose of this dissertation was to explore the relationship between religiosity and academic dishonesty among intercollegiate athletes at a private Christian college and a state university. This study also examined the level of academic dishonesty and the level of religiosity among intercollegiate athletes at both institutions. The researcher administered a questionnaire to 163 intercollegiate athletes. The questionnaire included 17 cheating behaviors and several subscales of religiosity (overall religiosity, intrinsic religiosity, organizational religiosity, and non-organizational religiosity). A significant difference was found in the level of religiosity between the athletes in the two schools. However, no significant difference was found in the level of academic dishonesty between institutions. Religiosity was a moderate predictor of academic dishonesty at the Christian college. Religiosity was not a predictor of academic dishonesty among athletes at the state institution.

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CHAPTER 1 – INTRODUCTION TO THE STUDY

Academic dishonesty is a complex issue affecting all groups within institutions of higher learning (McCabe, 1993). Intercollegiate athletics is a group that has long been present within higher education and has become embedded within American colleges and universities (Smith, 1988). In a 1997 study on academic dishonesty comparing intercollegiate athletes and non-athletes, McCabe and Trevino concluded that athletes engaged in cheating behavior more frequently than non-athletes. Many studies indicate that several intervention strategies have been implemented in institutions of higher learning in efforts to curb academic dishonesty among both athletes and non-athletes (Gehring, D., Nuss, E. M., & Pavela, G., 1986; Kibler, W. L., Nuss, E. M., Paterson, B. G., & Pavela, G., 1988; Levine, 1980).

Little empirical research has been conducted to determine if religiosity might have a buffering effect on cheating among intercollegiate athletes. Therefore, this research study was conducted to examine the relationship between religiosity and academic dishonesty, to discover if religiosity is a good predictor of academic dishonesty, and to determine if religiosity might have a buffering effect on cheating among intercollegiate athletes. The study compared athletes at a Christian and a state institution of higher learning.

Chapter 1 explains the background of the study, specifies the problem statement, and describes the purpose of the study. Research questions, hypotheses, limitations, assumptions, and design controls are also presented in this chapter. Finally, the chapter

describes the significance of the study, presents definitions of terms, and concludes with an organization of the study.

Background of the Study

In the 1964 landmark study of college cheating conducted by Bowers, 65% of students reported cheating on written work. Nearly thirty years later, in 1993, McCabe and Trevino (1996) surveyed nine medium to large universities that had participated in Bowers's project. There were substantial increases in self-reported test and exam cheating at these nine schools. For example, 39% of students completing the 1963 survey acknowledged one or more incidents of serious test or exam cheating; by 1993, this had grown to 64%. McCabe (2005) stated:

It was difficult to tell how much of this change represented an actual increase in cheating, and how much was simply a reflection of changing student attitudes about cheating.

In 1993, many students simply did not see cheating as a big deal, so it was easier to acknowledge – especially in an anonymous survey. (p. 3)

Putka (1992) declared that some of the nation's brightest students regard cheating as a "way of life." Pavela and McCabe (1993) blamed this attitude on the greed and selfishness that characterized the decade of the 1980s and its spread to college and university campuses. In 1986 Fass asserted that academic dishonesty must be identified "as the most serious violation of trust that can occur in a community of scholars and educators, and we must expect all members of the community to deplore and resist it" (p.35). According to numerous researchers, cheating remains a serious and growing

problem on college and university campuses (Bowers, 1964; Cross, Hendershott, & Drinan, 1999; Gehring & Pavela, 1994; Gerdeman, 2000; Haines, Diekoff, LaBeff, & Clark, 1986; Hollinger & Lanza-Kaduce, 1996; McCabe & Trevino, 1993, 1997).

In order to gain a better understanding of this growing epidemic, some studies have attempted to examine cheating by demographic similarities or academic concentration. Other studies have examined cheating by specific grouping. Some well-known group studies include business students (McCabe & Trevino, 1996; Tetzeli, 1991), economics students (Kerkvliet, 1994), and gender comparisons (Baird, 1980; Goode, 1999; Newstead, Franklin-Stokes, & Armstead, 1996). Numerous studies have been published concerning cheating among Christian groups (Kesler, 1990; Nisly, 1985; Peterson, 1972; Richardson, 1967; Rickards, 1962; Stroup, 1961; Tischler, 1965).

In 1999 Wertheim conducted a well-known group study of student athletes. He reported that intercollegiate athletes engage in academic dishonest acts more frequently than non-athletes. In a more recent study of 80 athletes and 164 non-athletes, 85% of athletes reported cheating as compared with 78% of non-athletes (Storch, 2002). Several other studies concurred that athletes have been reported as having a higher level of cheating behavior than non-athletes (Haines, et al., 1986; McCabe, 1992; McCabe & Trevino, 1997).

Due to the high level of cheating among both athletes and non-athletes, the Carnegie Council (1979) and others (Gehring et al., 1986; Kibler, et al., 1988; Levine, 1980; Pavela, G., 1981) have outlined a number of recommendations to assist colleges and universities with academic dishonesty. These recommendations include open communication, increasing awareness, involving constituents within the institution,

changing institutional norms, reducing opportunities to cheat through policy, the use and promotion of sanctions, and implementing an honor code.

Although several intervention programs have been outlined to curb cheating, little research has been conducted to determine if religiosity may have a buffering effect against academic dishonesty among intercollegiate athletes. In a 1994 study, Shehigh investigated the religiosity of college athletes and non-athletes. He administered a religiosity measurement instrument to determine if a significant difference existed between athletes and non-athletes on four dimensions of religiosity. He concluded that religiosity was not a major concern when contending with stereotypical images affecting college athletes. However, the Princeton Religion Research Center (1995) reported Gallup results that indicated that 92% of Americans reported a religious preference. Researchers are increasingly recognizing the importance of religiosity in the lives of some athletes (Balague, 1999; Hoffman, 1992; Storch, Storch, Kolsky, & Silvestri, 2001).

According to Storch (2002), religiosity certainly plays a role in the lives of many athletes. He noted that it is surprising that given its role in the lives of athletes, little empirical research has been conducted that has investigated the safeguarding effects of religiosity against academic dishonesty among intercollegiate athletes. Understanding this relationship is particularly important given the high incidence of academic dishonesty in higher learning institutions among intercollegiate athletes (Gerdeman, 2000; Haines, et al., 1986).

As researchers and institutions of higher learning are increasingly recognizing the magnitude of academic dishonesty on college campuses (Gerdeman 2000; Haines, et al., 1986), and the role of religion in the lives of many athletes (Balague, 1999; Hoffman,

1992; Storch et al., 2001), there is a need to understand the extent to which religiosity may assist athletes and college administrators in dealing with and reducing academic dishonesty.

Statement of the Problem

Research indicates that academic dishonesty is prevalent among college and university campuses in this country. Cheating behavior is a threat to the integrity of higher education (Loftus & Smith, 1999). Intervention strategies have been implemented to curb cheating behaviors at institutions of higher learning, but academic dishonesty seems to remain a serious and disturbing issue. Research has also indicated that athletes cheat more than non-athletes (Haines et al., 1986; Wertheim, 1999). If research indicated that religiosity might thwart academic dishonesty, college and university administrators could use the research results to make informed decisions concerning religiosity on campuses across the country. Thus, the research problem led to the overarching research question: What is the relationship between religiosity and academic dishonesty comparing intercollegiate athletes at a Christian and a state institution of higher learning?

Purpose of the Study

The purpose of this dissertation was to explore the relationship between religiosity and academic dishonesty among intercollegiate athletes at a private Christian college and a state university. This study also examined the level of academic dishonesty and the level of religiosity among intercollegiate athletes at both institutions. By taking the specific variable of religiosity into consideration, and by examining its relationship to the level of academic dishonesty, colleges and universities can reassess the effectiveness of their own strategies of incorporating religiosity to reducing academic dishonesty.

Research Questions

The analysis of the relationship between religiosity and academic dishonesty involved the following research questions:

1. Are there differences in the level of religiosity (intrinsic, organizational, non-organizational) between intercollegiate athletes at a private Christian college and a state university?
2. Are there differences in the level of academic dishonesty between intercollegiate athletes at a private Christian college and a state university?
3. Is there a relationship between religiosity (intrinsic, organizational, non-organizational) and academic dishonesty among intercollegiate athletes at a private Christian college?
4. Is there a relationship between religiosity (intrinsic, organizational, non-organizational) and academic dishonesty among intercollegiate athletes at a state university?

Hypotheses

The following null hypotheses were investigated to answer the first research question:

Level of Religiosity (Intrinsic, Organizational, and Non-Organizational)

Hypothesis 1. There is no difference in the level of religiosity between intercollegiate athletes at a private Christian college and a state university.

Hypothesis 2. There is no difference in the level of intrinsic religiosity between intercollegiate athletes at a private Christian college and a state university.

Hypothesis 3. There is no difference in the level of organizational religiosity between intercollegiate athletes at a private Christian college and a state university.

Hypothesis 4. There is no difference in the level of non-organizational religiosity between intercollegiate athletes at a private Christian college and a state university.

Level of Academic Dishonesty

The following null hypothesis was evaluated to answer the second research question:

Hypothesis 5. There is no difference in the level of academic dishonesty between intercollegiate athletes at a private Christian college and a state university.

Relationship Between Religiosity and Academic Dishonesty (Christian College)

The following null hypotheses were evaluated to answer the third research question using only private Christian college participants:

Hypothesis 6. Among intercollegiate athletes attending a private Christian college, there is no relationship between religiosity and academic dishonesty.

Hypothesis 7. Among intercollegiate athletes attending a private Christian college, a measure of intrinsic religiosity is not a good predictor of academic dishonesty.

Hypothesis 8. Among intercollegiate athletes attending a private Christian college, a measure of organizational religiosity is not a good predictor of academic dishonesty.

Hypothesis 9. Among intercollegiate athletes attending a private Christian college, a measure of non-organizational religiosity is not a good predictor of academic dishonesty.

Relationship Between Religiosity and Academic Dishonesty (State University)

The following null hypotheses were evaluated to answer the fourth research question using only state university participants:

Hypothesis 10. Among intercollegiate athletes attending a state university, there is no relationship between religiosity and academic dishonesty.

Hypothesis 11. Among intercollegiate athletes attending a state university, a measure of intrinsic religiosity is not a good predictor of academic dishonesty.

Hypothesis 12. Among intercollegiate athletes attending a state university, a measure of organizational religiosity is not a good predictor of academic dishonesty.

Hypothesis 13. Among intercollegiate athletes attending a state university, a measure of non-organizational religiosity is not a good predictor of academic dishonesty.

Significance of the Study

Implications

In spite of interventions such as honor codes and punishment, it seems that academic dishonesty has continued to plague institutions of higher learning. Cheating in school often becomes a life-long practice, and its presence can undermine the integrity of both work and education environments (Loftus & Smith, 1999). Previous research has provided a perspective on cheating from nationwide, multiple-campus perspectives and has also indicated that athletes cheat more often than non-athletes. Extending previous research on cheating behaviors among intercollegiate athletes to include the dimension of religiosity as a possible tool to shield against academic dishonesty could be beneficial to institutions of higher learning.

The results of this study could contribute significantly to the relatively small amount of literature on the relationship between academic dishonesty and religiosity among intercollegiate athletes. By taking the specific variable of religiosity into consideration, and by considering its relationship to academic dishonesty, colleges and universities can reassess the effectiveness of their own strategies of incorporating religious principles to reducing academic dishonesty among the specific subculture of intercollegiate athletes. The results of this study could reveal a need to implement classes into the curriculum that address morals, ethics, and academic integrity.

Applications

Several studies have recommended extending research in this area to include a greater variety of institutions in multi-campus studies, including religious colleges and universities (Haines, et al., 1986; Kibler, 1992). This research has attempted to extend research to both a state university and a private religious college. The results of this study should prove to be applicable to educational practice in that the results may provide institutions of higher learning with information concerning the athlete's rationale behind his or her acts of academic dishonesty. The outcomes of this study are important because they may identify discrepancies between religiosity and academic dishonesty and provide a base from which intervention strategies can be designed to enhance the integrity of intercollegiate athletes.

Definition of Terms

The terms academic dishonesty and cheating are found throughout current literature. For this study, the term academic dishonesty and cheating are used interchangeably. Other terms used in this study are defined as follows:

Academic dishonesty. Academic dishonesty is “an intentional act of fraud, in which a student seeks to claim credit for the work or effort of another without authorization, or uses unauthorized materials or fabricated information in any academic exercise. It includes forgery of academic documents, intentionally impeding or damaging the academic work of others, or assisting other students in acts of dishonesty” (Gehring & Pavela, 1994, pp. 9-10).

“Cheating is any behavior that consists of an individual’s engaging in deception or falsification that directly affects academic performance” (Zimmerman, 1998, p. 15). Cheating is intentional or unintentional application of unsanctioned information, materials, or procedures in academic activity (Sutton & Huba, 1995).

Campus culture. Campus culture refers to the component of the campus environment that deters academic dishonesty (McCabe & Trevino, 1996).

Christian. A Christian is a believer in Jesus Christ, or in the religion based on the teachings of Jesus Christ (Guralnik et al., 1979).

Culture. “Culture is the collective, mutually shaping patterns of norms, values, practices, beliefs, and assumptions that guide the behavior of individuals and groups in an institution of higher education and provide a frame of reference with which to interpret the meaning of events and actions on and off campus” (Hall, 1996, p. 11).

Intercollegiate athletics. Intercollegiate athletics distinguishes athletic competition between teams representing various institutions of higher learning (Guralnik et al., 1979).

Intrinsic religiosity. Intrinsic religiosity is the degree to which one integrates his or her religiousness into his or her life (Koenig, Parkerson, & Meador, 1997).

National Collegiate Athletic Association (NCAA). The NCAA represents the governing body that formulates and polices numerous rules pertaining to the recruitment of athletes (NCAA Official Website, 2007).

National Association of Intercollegiate Athletics (NAIA). The NAIA formally teaches character development and the core values of respect, responsibility, integrity, servant leadership, and sportsmanship through athletics (NAIA Official Website, 2008).

Neutralizing behavior. Neutralizing behavior is a form of rationalization that seeks to justify or deflect otherwise unacceptable behavior by engaging situation ethics (Haines, et al., 1986; Liska, 1978; Sykes & Matza, 1957.)

Non-organizational religiosity. Non-organizational religiosity is defined in terms of the amount of time spent in private religious activities such as prayer or meditation (Rowatt & Kirkpatrick, 2002).

Organizational religiosity. Organizational religiosity is conceptualized as the frequency with which one attends religious services (Rowatt & Kirkpatrick, 2002).

Plagiarism. Plagiarism is the unauthorized, or unacknowledged use of words, statements, compositions, or ideas to misrepresent the composition or academic work of another as one's own (Webster, 1973).

Student-Athlete. A student-athlete is a full-time student who participates in a sport sponsored by the school (NCAA Official Website, 2007).

Organization of the Study

Chapter 1 has included an introduction of the study, a background of the study, statement of the problem, and the purpose of the study. This chapter also stated research

questions, hypotheses, limitations, assumptions, and design controls. Finally, the significance of the study and definitions of key terms were presented.

In Chapter 2 of this investigation, the responsibilities of institutions of higher learning are presented. Academic dishonesty is defined. Next, several theoretical explanations for deviant behavior and academic dishonest behavior are discussed. A detailed literature review depicts societal concerns and classical and current trends relating to academic dishonesty. The beliefs and attitudes of students relating to academic dishonesty are addressed. Student dishonest academic behaviors are discussed including the methods to cheat, reasons for cheating, the attributes of cheaters, and strategies to curb cheating. An overview of campus culture and the subculture of the intercollegiate athletes are also described. Finally, several dimensions of religiosity and its relationship to academic dishonesty are explained and discussed.

In Chapter 3, the research design and method for the study are presented. Chapter 4 reports the results and analysis of the obtained data. Chapter 5 provides the conclusions of the study, a discussion of the results, the implications of cheating by college and university athletes for higher education, and suggestions for future research.

CHAPTER 2 – REVIEW OF THE LITERATURE

This section discusses the relevant theoretical and empirical literature regarding academic dishonesty and religiosity. Topics are presented categorically. Several aspects of the responsibilities of higher education are delineated to render the importance of academic integrity among all who are affiliated with these institutions. The various aspects of student academic dishonesty within the realms of higher education are presented to establish the context of the study.

Academic dishonesty is defined to develop an understanding of this troubling construct. Various theoretical explanations are investigated in an attempt to explain academic dishonesty as it relates to deviant behavior.

Societal concerns and cultural effects relating to academic dishonesty are outlined. An extensive overview of classical and current trends regarding student cheating in colleges and universities is discussed to give insight into the pervasiveness and magnitude of these dishonest academic acts.

Student attitudes, beliefs, and behaviors relating to academic dishonesty are examined including the issues of factors in cheating, methods for cheating, attributes of cheaters, and reasons for cheating. Several measures to deter cheating are presented. The importance of the culture of educational environments as it relates to academic dishonesty is described. The subculture of the student athlete is investigated to gain insight into this particular subgroup within institutions of higher learning.

Religiosity is discussed in an attempt to develop an understanding of this multifaceted construct and to accurately describe its three dimensions: intrinsic,

organizational, and non-organizational religiosity. Finally, the review of literature concludes with the suggestion that religiosity could perhaps play a role in reducing the level of academic dishonesty in higher education among intercollegiate athletes.

Responsibilities of Higher Education Institutions

Kibler, et al. (1988) asserted that institutions of higher learning are responsible for the task of disseminating knowledge. This goal has long been the foundation of higher education. The Carnegie Commission on Higher Education (1973) identified five purposes of higher education in the United States.

- (1) The provision of opportunities for the intellectual, aesthetic, ethical, and skill development of individual students, and the provision of campus environments which can constructively assist students in their more general developmental growth;
- (2) The advancement of human capability in society at large;
- (3) The enlargement of educational justice for the postsecondary age group;
- (4) The transmission and advancement of learning and wisdom; and,
- (5) The critical evaluation of society - through individual thought and persuasion - for the sake of society's self-renewal (p.1).

In 1984 Nuss claimed that the role of college is to promote the acquisition of knowledge, the development of intellectual competence, and the moral development of their students. He further argued that the collegiate experience should provide students with the opportunity to grow and mature as individuals. Institutions of higher learning

must realize their role in promoting academic integrity as part of the total collegiate experience.

McCabe (2005) stated that a goal of institutions of higher learning is to “find innovative and creative ways to use academic integrity as a building block in our efforts to develop more responsible students and, ultimately more responsible citizens.” He further asserted, “it is a challenge to develop responsibility for the ethical consequences of their ideas and actions” (p.5).

Nucci and Pascarella (1987) concurred that the college experience should increase principled moral judgment and behavior. Although the ethical and moral development of students has been a paramount responsibility of educational administrators, Pulvers and Diekoff (1999) asserted that academic dishonesty is endemic to today’s colleges and universities. Even though other researchers have questioned the severity of academic dishonesty on college campuses, student cheating is clearly a major problem in higher education (Kibler, 1994).

Academic Dishonesty

Defined

Studies have suggested that students often do not have a clear understanding of what constitutes academic dishonesty or how to avoid it (Partello, 1993). Aaron and Georgia (1994) claimed that nearly half of the students surveyed in their study lacked a clear understanding of what constitutes plagiarism, and this lack of understanding is a primary factor influencing cheating behavior.

Kibler, et al. (1988) referred to academic dishonesty as “forms of cheating and plagiarism which result in students giving or receiving unauthorized assistance in an

academic exercise or receiving credit for work which is not their own” (p. 1). Michaels and Miethe (1989) referred to cheating as “the fraudulent means of achieving scarce valued resources” (p. 870). Cheating has been described as a wide variety of behaviors that were deemed unethical (Barnett & Dalton, 1981).

Hetherington and Feldman (1964) categorized cheating into four sections. The first section, individualistic-opportunist, represented impulsive and unplanned cheating behaviors. The second section, individualistic-planned, referred to a planned act of cheating. The third designation, social-active, involved two or more people who instigated the cheating act. Finally, the fourth section, social-passive, involved two or more people with at least one allowing the other(s) to copy from his work. All definitions of academic dishonesty describe techniques for obtaining information in an unethical manner.

Michaels and Miethe (1989) asserted that cheating interferes with conventional learning and evaluation processes, and academic dishonesty can be comparable to other forms of deviant behavior and therefore should be explained in similar terms. They declared that no one theoretical explanation for academic dishonesty is better than any other. Many of the components for each theory overlap to suggest that an integrated perspective should be used to provide a more complete understanding of cheating.

Theoretical Explanations of Deviant Behavior and Academic Dishonesty

Cheating is a learned behavior and is most likely motivated by various pressures that weaken social bonds (Michaels & Miethe, 1989). Several theories are discussed in an attempt to explain why students cheat during academic studies.

Moral Development Approach

Many studies have indicated that cheating is a moral development problem (Barnett & Dalton, 1981; Kibler, et al., 1988; Pavela, 1981). These studies also claimed that cheating involves values and ethics. Kibler (1993) concurred that academic dishonesty consists of morals, values, and ethical issues.

Lawrence Kohlberg (1970), a leading theorist of moral development, used cognitive development theory to describe the process of moral reasoning. He theorized that individuals move through various stages from beginning to end once the previous stage has been satisfied and by utilizing various traits from earlier stages. He developed six cognitive stages of moral development to describe the modes of reasoning that directed various moral choices. These stages were divided into three levels, preconventional, conventional, and postconventional (Kohlberg, 1971, 1975). His primary concern throughout the stages of moral development was justice.

The first level, Preconventional Level, consisted of the first two stages. Stage 1 allowed an individual to rely upon physical consequences to determine whether behavior was good or bad. The morality of this stage, referred to as the Obedience and Punishment Orientation, was punitive. That is, moral action was only the result of the abiding of various laws or rules in order to avoid the consequences of these violations. Stage 2, Naively Egoistic Orientation, enabled an individual to decipher correct action as those that satisfy one's needs (Kohlberg, 1971, 1975).

The second level, Conventional Level, consisted of stages three and four. Stage 3, The Good Boy Orientation or Interpersonal Concordance Orientation, allowed an individual to conform to the expectations of friends, family, and society. These

expectations allowed for the maintenance of loyalty and trust, although they did not form a binding system of regulations. Stage 4, referred to as the Law and Order Orientation, allowed the individual to accept the authority of the system, including various roles and rules. Social order was paramount to this stage based on its reliability of an authoritarian position (Kohlberg, 1971, 1975).

The Postconventional Level consisted of stages five and six and occurred only in those cultures and individuals that valued morality and actions separate from the authority of society or personal interests. Stage 5, Contractual Legalistic Orientation, viewed morality as utilitarian. Moral obligation arose from a sense of duty to friends, family, or society. Individuals possessed a social contract that enabled them to challenge and change fixed laws for the larger good of the society. This stage is similar to terms of standards and individual rights that have been examined and agreed upon by society. Stage 6, Conscience or Universal Ethical Principle Orientation, was the highest level on the moral development continuum. This stage allowed individuals to function in an autonomous manner. The highest value was placed on human life, dignity, and equality. Proper decisions were guided by personally directed ethical principles. Obviously, Kohlberg (1970) inferred that education should strive to move students to these higher stages of moral reasoning.

Deterrence Theory

Deterrence theory is a sociological theory that is founded in the belief that cheating will continue unless students perceive the risks outweigh that which may be gained by the act of dishonesty (Cross, et al., 1999). Gibbs (1975) examined deterrence theory to understand the relationship between the principles of certainty and severity of

punishment with the commission rates for particular crimes. Gibbs suggested that behavior was deterred or inhibited based on the perceived or actual probability and severity of punishment. Deterrence theory claimed that when the objective severity and certainty of criminal punishments were high, actual crime rates would be low.

Deterrence theory also claimed that if individuals were fearful of potential punishments, regardless of accuracy, they would be less likely to commit delinquent acts. Thus, it was the threat of what potentially could happen that prevented individuals from engaging in deviant behavior.

Deterrence theory is practical and useful because deviant behavior is often deterred by the consequences of those actions (Michaels & Miethe, 1989). In short, cheating becomes a choice and students can be deterred from cheating based on the potential threat of punishment. If the perceived threat of consequences and punishment prevented the commission of delinquent behavior, then individuals had effectively utilized the principles of deterrence theory (Akers, 1997).

Rational Choice Theory

The rational choice theory differentiated from the deterrence theory in that it addressed both the magnitude and the probabilities of both punishments and rewards (Heineke, 1978). While the research on this theory is limited, the rational choice theory is relevant due to the importance placed on the decision a student must make to cheat. The rational choice theory predicted that cheating varies directly with the perception that students think the relative gains exceed or outweigh the costs for their behavior (Michaels & Miethe, 1989).

Social Bond Theory

Hirschi (1969) developed social bond theory as a method to investigate the relationship between society and the individual. This theory claimed that deviant behavior resulted from a weakening of an individual's social bonds to society.

The more weakened the groups to which [the individual]
Belongs, the less he depends on them, the more he
consequently depends only on himself and recognizes no
other rules of conduct than what are founded on his private
intellect (p. 16).

Thus, individuals with strong bonds to societal groups were less likely to engage in deviant behaviors. Hirschi identified four interrelational attributes of the social bond: attachment, commitment, involvement, and belief. The stronger these elements of social bonding with peers and family, the more an individual's behavior would be controlled by societal conformity. However, the weaker this bond, the more likely an individual would be to violate the law (Hirschi, 1969).

Attachment referred to the psychological and emotional connection between an individual and significant groups or others. This emotional connection involved the individual's sensitivity to the feelings of others. Through the attachment component, individuals would have the ability to internalize societal norms and develop a conscience. As long as attachment existed, the violation of conventional norms would be minimal (Akers, 1997; Michaels & Miethe, 1989).

Commitment, the second element, involved the personal investment of resources in conventional activities. Commitment relied upon the notion that individuals became

vested in abiding by the rules of society. When deciding to commit a crime, the individual must have evaluated potential costs and risks associated with nonconformity. Individuals were expected to refrain from committing deviant acts so that they may maintain a respectable reputation and remain within the good graces of society (Michaels & Miethe, 1989).

The third element, involvement, operated on the principle that the more time allotted to the participation in conventional activities, the less time there would be for the individual to be involved in deviant activities. The fourth element, belief, referred to the acceptance of the moral validity of conventional norms and values. That is, an individual would abide by the norms of society because of the existence and acceptance of a common system of values (Michaels & Miethe, 1989).

Social Learning Theory

Akers (1985) adapted social learning theory to explain delinquent behaviors. Social learning theory emphasized the reinforcement of deviant behavior in primary groups rather than the threat of punishment from society (Michaels & Miethe, 1989). Social learning theory consisted of two interrelated components. The first was dependent upon the perceived support obtained from primary groups for deviant behaviors. The second was related to individual's perceptions, definitions, or attitudes concerning deviant behavior. It could be expected that deviant behavior would form from the support and reinforcement of deviant members of an individual's group (Akers, 1997).

The social learning theory hypothesized that most human behavior is learned by the influence of example (Bandura, 1986). In the context of an educational setting, cheating that takes place is based upon the premise of the social learning theory. Students

observe their peers, learn what they are doing, and imitate those behaviors for peer approval (McCabe & Trevino, 1997).

Culture Conflict Theory

The fundamental premise of culture conflict theory is that deviants are members of a group that possess norms in direct conflict with those of a more powerful external group. Eve and Bromley (1981) stated that the theory stresses a strong commitment to the deviant norms of the subgroup. Culture conflict theory is similar to the social learning theory, but pertains to all forms of deviant behavior on a broader level. While social learning theory claims that the peer has influence on what an individual might do, in culture conflict theory the individual has already committed to the deviant norms of the group.

Sex Role Theory

The sex role theory posited that women have been trained or socialized to obey rules, whereas the socialization of men has been less insistent (Ward & Beck, 1990). Hendershott, Drinan, and Cross (1999) argued that sex role socialization theory is not as applicable today as it once was, especially to those women who are showing increasing levels of academic dishonesty.

Neutralization Theory

Haines, et al. (1986) described the neutralization theory as a rationalization that can be used before, during, and after deviant behavior in order to deflect the disapproval of others and self. By using neutralization techniques, students caught cheating conveyed the message that they realized that cheating is an unacceptable behavior. However, their behavior can be excused under certain circumstances. Sykes and Matza (1957) outlined

five specific techniques of neutralization theory: denial of responsibility, denial of injury, denial of victim, condemnation of the condemners, and appeal to higher loyalties.

The first technique, denial of responsibility, tends to be the most common of these five types of neutralization. Denial of responsibility allowed delinquents to claim that their actions were the results of forces beyond their control. The delinquent refused to accept responsibility for his actions, claiming that the behavior was a result of external factors (e.g., bad companions, peer pressure, illness, unloving parents, or a poor neighborhood). The delinquent learned to view himself as more acted upon than acting (Sykes & Matza, 1957).

Denial of injury, the second neutralization technique, focused on the harm or injury associated with the delinquent act. In this technique it was expected that the absence of any great harm to others allowed the act to be committed without guilt, even though the delinquent determined that the deviant behavior was against the law. The offender would often claim that the accusations of injury were grossly exaggerated (Sykes & Matza, 1957).

Denial of victim technique determined that delinquent behavior was acceptable under certain circumstances. The behavior may be viewed as a form of rightful punishment or retaliation. The offender would often portray their target as legitimate and would say that they “had it coming” (Sykes & Matza, 1957).

The fourth technique, condemnation of the condemners, is most often used after denial of responsibility. Condemnation of the condemner occurred when the delinquent shifted attention from personal behaviors and motives to the behaviors and motives of those that disapproved of the delinquent acts. Due to their own deviant behavior, these

condemners were viewed as hypocrites. Delinquents effectively deflected or reversed the negative sanctions associated with their deviant behavior. Cheaters used this technique to criticize the authority figure as unethical or unfair (Sykes & Matza, 1957).

The fifth technique, appeal to higher loyalties, involved the possible sacrificing of conventional behavior and norms in place of the accepted behaviors and norms of a delinquent's peers or social group. The delinquent would feel obligated to abide by the norms of these social groups. This technique is frequently used when a cheater shows greater allegiance to his peers rather than conforming to the normative expectations of the larger society (Sykes & Matza, 1957).

A review of these theories substantiates that deviant behavior is directly related to academic dishonesty. Academic dishonesty must be viewed through an integrated combination of theories and not just through one lens of theory (Michaels & Miethe, 1989). As institutions of higher education seek to understand these theoretical explanations for academic dishonest acts through an integrated combination of theories, society is also affected by and concerned about problems related to moral decay and unethical behavior.

Societal Concerns of Academic Dishonesty

The presence of academic dishonesty threatens the integrity of higher education in the United States. The Carnegie Council (1979) reported that there was an “ethical deterioration” in academic life. Later, in 1990, the Carnegie Foundation for the Advancement of Teaching reported that the academic integrity of college students has continued to deteriorate (Aaron & Georgia, 1994).

American society views cheating as moral failure (Bowers, 1966; Collison, 1990; Levine, 1980). Engaging in academic dishonesty may be a sign that students are not prepared to deal with the moral and ethical dilemmas and questions they will face in their careers and future relationships (Barnett & Dalton, 1981; Collison, 1990; Fass, 1986; Nuss, 1984). Kibler (1993) argued that today’s generation of students are habituated to cheat and their behavior reflects a society where ethics have eroded. He noted that the decision to cheat involves a range of issues such as values, ethics, and moral development.

Plane (1995) argued that the American system has become “value-free” based and that any system that denies the existence of values denies the possibility of an education. He stated that the reason for many of today’s social problems is the lack of shared values. Plane further claimed that our society would not have such corruption, crime, child neglect, lawlessness, and violence if a true sense of community existed.

Fass (1986) asserted that the consequences of cheating affect society by perpetuating dishonesty. Dishonest students were found to assume their roles in society where they continued to practice dishonest behavior. He observed that many of the scandals in business and politics reflected attitudes consistent with attitudes that emerged

decades earlier. Michaels and Miethe (1989) claimed that cheating is a general class of deviance occurring in a variety of contexts. They further suggested that cheating has become a widely accepted means of achieving institutional rewards and may also generalize to other organizational settings after graduation. Cheating may become normative adaptations to pressures to excel in a highly selective market.

Classical Trends in Academic Dishonesty in Higher Education

Several disturbing trends in academic dishonesty at institutions of higher learning have developed over the last few decades. The prevalence of cheating, student beliefs and attitudes concerning cheating, the methods used in cheating, the reasons for cheating, the attributes of cheaters, and prevention of cheating are troubling topics discussed in this section.

Prevalence of Academic Dishonesty

Student cheating has been an issue to be addressed since the beginning of formalized education (Pulvers & Dieckoff, 1999). An increasing trend towards academic dishonesty can be observed in several studies that are based on self-reported cheating behaviors. Drake (1941) reported that 23% of college students cheated. In 1960, Goldman reported that 38% of college students cheated; in 1964, Bowers reported that 60% of college students admitted to academic dishonesty.

In examining more recent studies, it appears the prevalence of cheating among higher education students continues to be widespread and increasing. Wellborn (1980), reported that cheating in American colleges and universities was epidemic; he described cheating as brazen and flagrant. A 1980 study by Baird reported that 75% of college students admitted to cheating. Several nationwide studies conducted by McCabe (1992,

1993, & 1999), revealed that up to 79% of college students self-reported academic dishonesty.

Other studies on academic dishonesty suggested that the trend is not as pronounced as it once was (McCabe & Bowers, 1994). Steinback (1992) claimed honor codes have made a revival on American college campuses. McCabe and Bowers (1994) supported that belief by their findings that students under an honor system are less likely to cheat. However, they concluded that students who do cheat engaged in a wider variety of test cheating behaviors and are also cheating more often than did students in 1964.

In 1996 Hollinger and Lanza-Kaduce reported that incidents of cheating on college campuses are more numerous than officials are willing to admit. According to Leibowitz (1999), the problem will continue to compound since the tendency to cheat appears to be increasing with advances in technology and increased use of the Internet. Underwood and Szabo (2003) purported that the technology revolution in learning, World Wide Web access and expanding use of the Internet and communications technologies, has created new and convenient means for students to engage in academic dishonesty methods. However, it is still unclear if cheating is more prevalent.

Student Beliefs and Attitudes Concerning Cheating

The lack of a clear definition as to what actually constitutes academic dishonesty can increase cheating behavior among students because many students may not perceive themselves as cheating (Partello, 1993; Rodabaugh, 1996). Some students do not even understand the basic principles surrounding academic honesty (Fass, 1986; Pavela & McCabe, 1993). There are behaviors, such as collaboration assignments or working on homework with another student, which many students do not believe are academically

dishonest (Eskridge & Ames, 1993; Singhal, 1982). Some students may unknowingly plagiarize due to unclear understanding. Colleges and universities need to provide students with a common understanding and a clear definition of academic dishonesty (Karlins, Michaels, & Podloger, 1988).

LaBeff, Clark, Haines, and Diekoff (1990) asserted that students admittedly understand that cheating is unethical even though they themselves cheat. Despite the evidence in research suggesting that most typically believe it is wrong or unjustified to cheat, most students have participated in some form of cheating behavior while in college (Eskridge & Ames, 1993; Franklyn-Stokes & Newstead, 1995; Haines et al., 1986; McCabe, 1993). When asked about the details of a particular scenario, the students often justified or rationalized their academic dishonesty for that particular circumstance (Gehring, et al., 1986; Haines, et al., 1986; Hall & Kuh, 1998; LaBeff, et al.; McCabe & Trevino, 1996; McCabe, Trevino, & Butterfield, 1999; Pulvers & Diekoff, 1999; Sykes & Matza, 1957).

The attitudes of students regarding cheating vary from study to study. Baird (1980) reported that 57% of students disapproved of cheating. In McCabe's (1992) study, three-fourths of the students surveyed felt that cheating was not justified in any circumstance. However, in several other studies, 40% to 75% of students surveyed considered cheating as a normal part of college life, and 30% felt no guilt about cheating (Baird, 1980; Fass, 1986; Houston, 1986).

Students express various opinions regarding cheating. Even though most students do not condone cheating, they do not condemn it either (Crown & Spiller, 1998). Research has indicated that less than four percent of students would inform the instructor

if they observed another student cheating (Jendrek, 1992; LeBeff et al., 1990). Jendrek reported that students are ambivalent to the reporting because they feel that it does not involve them and they simply do not care about the cheating.

Students are often asked to help one another while taking exams. Many students believe it is wrong to cheat on exams (Payne & Nantz, 1994). Other students believe it is not unethical to obtain the questions and answers from others who had previously taken a test in another section (Barnett & Dalton, 1981). According to Jendrek (1992), most students will honor the request to assist another student on an exam. Jendrek further noted that fewer than 15% of the students would outright reject a request to help another student.

Although professors often expect individual work on projects and homework, students will collaborate and work together on assignments (McCabe & Cole, 1995). Many students simply do not feel that it is cheating to work together with others while completing homework assignments (Barnett & Dalton, 1981; McCabe & Bowers, 1994; Michaels & Miethe, 1989). Students admitted that they are more likely to cheat on coursework that is considered less important because they assumed that teachers would not be so willing to take action (Nuss, 1984).

Methods Used to Cheat

Actual methods used to cheat are numerous. Students may cheat by copying from another student, inventing or altering new data, paraphrasing a citation without acknowledgement, fabricating references, or not properly grading another's exam (Franklin-Stokes & Newstead, 1995). According to Baird (1980), the most common types of cheating are sharing of assignments, test information, and test answers. Graham,

Monday, O'Brien, and Steffan (1994) cited copying someone else's exam, copying someone else's homework, taking an exam for someone else, looking at notes during an exam, and turning in a paper that one did not write as the most commonly viewed forms of cheating.

Franklin-Stokes and Newstead (1995) reported that students have admitted taking material into an examination. In a study conducted by Dawkins (2004), 42.4% of students admitted to cheating on classroom examinations. Students have even admitted to making prior arrangements to give or receive answers to one another through communication signals during a test, plagiarizing, using "cribsheets," altering or forging an official document, padding items on a bibliography, and obtaining an advance copy of the exam. (Barnett & Dalton, 1981).

Dawkins (2004) indicated that nearly 19% of students surveyed reported copying from the Internet to cheat. Folkers and Campbell (1999) found that students download essays from hundreds of Internet sites. They explained the ease with which students use technology to engage in plagiarism. Kleiner and Lord (1999) reported that plagiarism and technology-oriented cheating practices appear to be increasing.

Corbett's book (1999), *The Cheater's Handbook: A Naughty Student's Bible*, encourages cheating through the use of technology. In the book, Corbett provides instructions to students concerning how to use computers and calculators to cheat, how to avoid detection, and how to successfully engage in plagiarism. Corbett's book also recommends cheating techniques for examinations.

Reasons for Cheating

A variety of reasons exist to explain cheating behavior. In 1928 Hartshorne and May stated that one factor alone could not be solely attributed to the act of cheating. The desire to succeed, make good grades, pressure from parents and peers, and desiring to beat the system are all reasons students list as reasons for academic dishonesty (Antion & Michael, 1983; Aronson & Mette, 1968; Baird, 1980; Bronzaft, Stuart & Blum, 1973; Bushway & Nash, 1977; Crown & Spiller, 1998; Graf, 1971; Haines et al., 1986; Hetherington & Feldman, 1964; Johnson & Gormly, 1972; McCabe & Trevino, 1997).

According to Nuss (1984), students with lower grades often resort to cheating in order to maintain enrollment or to prevent the possibility of failing a course. Other researchers found that cheating does not exclude those with an exceptional academic record. Students with good grades often resort to cheating to maintain scholarships and to alleviate the pressure from parents to perform well in college (Baird, 1980; Barnett & Dalton, 1981; McCabe & Bowers, 1994; Michaels & Miethe, 1989).

Peer pressure can also have an undue influence regarding academic dishonesty. Students, especially those who are associated with a fraternity or sorority, feel pressure from peers to participate in the act of cheating, or to ignore the behavior of a fellow student (Baird, 1980; Eve & Bromley, 1981; McCabe & Trevino, 1997; Michaels & Miethe, 1989). Barnett and Dalton (1981) identified pressure to obtain good grades from coaches as a reason many student athletes cheat. LaBeff, Clark, Haines, and Dieckoff (1990) claimed that students specifically chose to ignore their responsibilities and moral obligations in order to maintain the interest of their peers. LaBeff et al. also stated that some students cheat to appeal to “higher loyalties” by helping friends who are in need.

Fass (1986) reported that students might have cheated when they believed coursework or grading procedure to be unfair, or when a high level of cheating by other classmates was perceived. Also, Fass reported an increase in levels of cheating if there was an inconsistent application of academic regulations. Students often use the excuse of vague academic honesty policies or not clearly understanding those policies as reasons to cheat (Barnett & Dalton, 1981; Collison, 1990; Fass; McCabe, 1993; Pavela, 1981; Peterson, 1972).

In 1980 Wellborn asserted that student cheating was due to heavy course loads, increased competition for admission into graduate school, and poor examples of integrity by institution officials. One disturbing reason for cheating commonly cited was the absence of any sort of fear of being caught and being punished (Haines et al., 1986; LaBeff, et al., 1990; Nuss, 1984). McCabe and Drinan (1999) attributed a substantial measure of cheating to a lack of integrity in government, business, society, and especially within institutional cultures. Another troubling reason for cheating may be attributed to the conviction held by one-half of the American student population that cheating is not necessarily wrong under all circumstances (Kleiner & Lord, 1999).

Attributes of Cheaters

Literature identifies many attributes of a typical student who cheats. Eve and Bromley (1981) noted that if a student is involved in one type of academic dishonesty he tends to cheat in other ways as well. Schab (1991) stated that students who cheated in secondary school tend also cheat in college. Following are traits that are commonly attributed to cheating.

Age.

Studies regarding the influence age played on cheating are inconsistent. Many studies have revealed that younger college students cheat more than older, more mature students (Baird, 1980; Diekoff, LaBeff, Clark, Williams, Francis, & Haines, 1996; Franklyn-Stokes & Newstead, 1995; Haines et al., 1986; Kerkvliet, 1994; McCabe & Trevino, 1997). In contrast, Michaels & Miethe (1989) found older students more likely to cheat.

Gender.

Studies regarding the influence gender played on cheating are also conflicting. Several studies claimed that women cheat more often than men (Antion & Michael, 1983; Hendershott, et al., 1999; Houston, 1977; Leming, 1980); however, most studies argued that men tend to cheat more than women (Baird, 1980; Johnson & Gormly, 1972).

Grades.

Several studies concluded that academic dishonesty is related to academic record or intelligence. Students with lower grade point averages are more likely to cheat than those with a higher GPA (Antion & Michael, 1983; Baird, 1980, Crown & Spiller, 1998; Haines et al., 1986; Hetherington & Feldman, 1964; Johnson & Gormly, 1972; Lipson & McGavern, 1993). Students that are considered less intelligent are more apt to cheat than those with a higher intelligence rating (Hetherington & Feldman, Johnson & Gormly; Vitro, 1971).

Athletes.

Several researchers reported that athletes have reported a higher level of cheating than non-athletes (Haines et al., 1986; McCabe, 1992; McCabe & Trevino, 1997).

Studying time was often compromised due to the large amount of time devoted to intercollegiate athletes. Therefore, athletes were often less than adequately prepared for college exams or assignments and were forced to engage in academic dishonest behavior (Gerdy, 1997; Lord & Chiodo, 1995; Sperber, 1990).

Religiosity.

In 1983 Borsellino studied the relationship between religious affiliations and cheating among students who attended a state university. Borsellino found attitudinal variance toward cheating among students who claimed membership in various religious organizations. The study concluded that religious affiliations affect students' attitudes toward cheating but not cheating behaviors. Borsellino also concluded that a difference in cheating behavior was observed among subjects in proportion to church attendance. He stated, "as church attendance and importance of religious development increases, the likelihood decreases of students being caught participating in an academically dishonest activity." He also stated that the greater a student's satisfaction with religious affiliation, the greater the likelihood that a student will report cheating behavior among peers (p. 138).

In 1999 Moring reported that 80% of Christian students admitted to cheating in high school and college. Moring stated that he believes that cheating adversely affects students' relationships with God, parents, and with other students.

Preventing Academic Dishonesty

Colleges and universities incorporate various measures to curb the epidemic of cheating. Several researchers claim that institutions of higher learning need to declare the importance of individual scholarship and academic integrity in order to develop a comprehensive and effective approach to address this problem (Aaron & Georgia, 1994; Boyer, 1990; Fass, 1986). According to McCabe and Trevino (2002), America's institutions of higher education need to recommit themselves to a tradition of integrity and honor. The greatest benefit of a culture embracing integrity will not be the reduction in student cheating, but the lifelong benefit of learning the value of living in a community of trust. Hendershott, Drinan, and Cross (2000) affirmed that every layer of an institution must embrace the process of increasing awareness of academic dishonesty.

The Carnegie Council and others (Gehring, et al., 1986; Kibler et al., 1988; Levine, 1980; Pavela, 1981) have delineated a number of recommendations to assist colleges and universities with academic dishonesty. Kibler and Kibler (1993) suggested that institutions should have formulated a clearly written academic dishonesty policy, offered opportunities to discuss such policies, established and publicized sanctions, and emphasized the importance of instructional settings.

Kibler (1993) developed an academic integrity program through a student development perspective. He identified three means of intervention regarding academic dishonesty in institutions of higher learning. The intervention program consisted of three primary constructs: (a) a philosophy promoting academic integrity, (b) policies on academic integrity, and (c) programs on academic integrity. Within the intervention program, Kibler defined seven components to aid in the prevention of cheating. The

seven components were communication, training, faculty assistance, disciplinary process/programs, disciplinary policies, honor codes, and the promotion of academic integrity.

A positive step to developing an intervention program is augmenting an awareness of academic dishonesty (Aaron, 1992; Nuss, 1984; Singhal, 1982; Singhal & Johnson, 1983). The value being place on academic integrity should be emphasized to students (Kibler et al., 1988; McCabe & Trevino, 1996; Nuss), and to faculty members as well (McCabe & Trevino, 1996; Nuss; Singhal; Singhal & Johnson).

Several studies identified clear and open communication as an important component to reducing academic dishonesty (Fass, 1986; Jendrek, 1992; McCabe & Pavela, 2000; Roth & McCabe, 1995). Students are less likely to cheat when they are aware of the policies of their institution (McCabe & Trevino, 1996). Students also become aware of the institutions commitment to reducing cheating and take responsibility for their own behavior when they have open lines of communication (McCabe & Pavela). Thus, building and sustaining an atmosphere of open communication regarding cheating helped to reduce the incidence of cheating (McCabe, 1993).

McCabe and Pavela (2000) suggested that an effective way to decrease academic dishonesty is to involve students in the development of policies relating to academic integrity. They further suggested that students could actively involve other students in discussions concerning academic dishonesty. Several researchers argued those faculties are critical in influencing student attitudes towards cheating (Carnegie Foundation for the Advancement of Teaching, 1990; Kibler, 1994; Kibler & Paterson, 1988).

The use of sanctions was observed as a key disincentive to academic dishonesty. To make the sanctions effective, it was important to inform the students of the consistency of the imposed sanction system (Kibler, 1994; McCabe & Trevino, 1993), and the retribution for cheating (Singhal & Johnson, 1983). Pavela and McCabe (1993) suggested to incorporate strict, but reasonable, penalties for acts of academic dishonesty.

Several studies have revealed that honor code systems are an effective deterrent to reducing academic dishonesty (Bowers, 1964; May & Loyd, 1993; McCabe & Trevino, 1993). McCabe, Trevino, and Butterfield (2001) reported that the use of an honor code system promotes academic integrity by placing the responsibility of controlling academic dishonesty on the students themselves. Honor code systems often include the responsibility of students reporting known incidences of cheating to the proper authorities. McCabe et al. further concluded that honor code systems continue to be successful in curtailing academic dishonesty.

The combination of the likelihood of being reported by another student, student acceptance for the system, and the severity of the punishment reduces a student's desire to cheat (McCabe & Trevino, 1993). Other deterrents frequently mentioned throughout the review of literature were surveillance during exams, smaller class sizes, test-security measures, and clarity in instructions regarding cheating (Aiken, 1991; Covey, Saladin, Killen, 1989; Singhal, 1982; Singhal & Johnson, 1983).

Bowers (1964) argued that the most important determinant of student cheating is the perceived campus climate, or culture, regarding academic integrity. McCabe and Trevino (1993) noted that students responded more favorably to institutions' community-like characteristics as a means of controlling cheating, rather than to administrative

procedures implemented to reduce cheating. In 1994 McCabe and Bowers reported that private institutions have less self-reported cheating than large public institutions. The authors further asserted that the university climate towards academic dishonesty influenced the amount of cheating that took place at the institution. McCabe and Trevino (1996) asserted that the main question to be asked is how to change the environment in an institution so that it is considered socially unacceptable to cheat.

Sperber (2000) summed up the 1990s research on cheating by stating: “A major factor determining whether a student will cheat or not is the academic culture of the specific institution that he or she attends.”

Student Athlete Subculture

As the review of literature indicates, the academic culture of an institution influences cheating behavior. While members of a culture may vary in the level of acceptance of certain cultural attributes, subcultures exist on all campuses. Members of a subculture are considered one's peer group. A group of individuals who have a distinct group identity, persistent interactions, and collective understandings that form the basis for action can be considered a subculture (Kuh & Whitt, 1988). Subcultures have their own uniqueness and range in influence and socialization power (Yiammakis, McIntyer, & Melnick, 1993).

In regards to institutional cultures, athletes are often viewed as a separate subculture of the educational institution and have an effect on the composition of the student body (Kuh & Whitt, 1988). Student athletes' perceptions of their college experience are likely to be significantly different from the perceptions of non-athletic students (Figone, 1994). Athletes are a considerable percentage of the student population,

and therefore need to be studied to understand how leaders in higher education can better accommodate these differences that may be associated with athletic programs (Smith, 1988). Athletic teams, as other subcultures on campuses, provide environments where the development of a culture that embraces the dominant values, attitudes, and behaviors exhibited by members of their team may flourish (Allen, 1997). Understanding this subculture is imperative in any attempt to address athletes and academic issues (Tierney, 1988). Gaining knowledge of this particular subculture is also very important to colleges and universities in order to identify and determine how intercollegiate athletics relate to their missions as institutions of higher learning (Baldizan & Frey, 1995).

History and Nature of Intercollegiate Sports

In the United States, intercollegiate athletics are embedded within the institutional structure of higher education (Smith, 1988). Intercollegiate sports have been present within higher education since the end of the nineteenth century. During the end of the nineteenth and early part of the twentieth centuries, intercollegiate sports grew in popularity (Rader, 1999). The need for universal rules and regulations, questionable ethics, and rising complaints of brutality led to the formation of the National Collegiate Athletic Association (NCAA) in 1905, and later, in 1952, the National Association of Intercollegiate Athletes (NAIA). The NCAA was formed in an attempt to create an intervening body, opposite of the once laissez-faire approach utilized by the students, to govern competition in a safe, fair, sportsmanlike and equitable manner (NCAA website, 2008). The NCAA has continued to set and enforce the regulations and rules for member institutions, which center around the academic standards necessary for athletes to be eligible to compete in intercollegiate athletics (Smith, 1995).

The NCAA (1999) has created many rules that deal with the academic requirements of all athletes. These requirements vary as an athlete progresses from the status of new recruit, to first year, to exhausted eligibility and graduation. These rules require an athlete to complete a percentage of degree requirements and to maintain a certain grade point average (GPA). These benchmarks were created to ensure that all athletes were continuing to make acceptable progress toward their degree. Failure to obtain these standards would result in the forfeiture of part of the complete athletic season due to ineligibility for academic reasons. It is therefore extremely important that athletes continue to make progress toward their degree and remain in good standing at their given institution. These regulations may influence an athlete to resort to cheating tactics in order to satisfy parents, coaches, teammates, or fans.

The NAIA has been teaching character development through athletics for decades through the core values of respect, responsibility, integrity, servant leadership, and sportsmanship. The NAIA has a history of leadership and innovation with initiatives such as racial and gender integration, and the ability to affect positive outcomes in educational settings. The NAIA has upheld the highest standards of academic achievement along with academic excellence. The program maintains the expectation of ethical behavior and commitment to leadership, scholarship, and sportsmanship (NAIA website, 2008).

According to Sperber (1990), the integrity and welfare of the athletic department and athlete have continued to be important concerns for many colleges and universities. Intercollegiate athletics has evolved into an enormous enterprise worthy of dishonesty but willing to fight this problem. Problems associated with the ethical violations committed by players and coaches continue to occur and negatively affect the public support of and

confidence in intercollegiate athletics. The NCAA has continued to enforce its rules and investigate violations and other dishonest practices. The NAIA continues to address character issues more comprehensively than any other national program (NAIA Official website, 2008).

For over a century, the nature of college sport with its apparent contradictions with the goals of higher education, excesses of commercialization, and professional nature of sports has been discussed (Smith, 1988). There is a common perception that athletes are actively recruited to their institutions to participate in sports first rather than to pursue an academic degree (Lords, 2000). In recent years many highly publicized scandals have surfaced and gained national media attention and some athletic programs have been targeted for issues of academic cheating (Suggs, 2000).

Colleges spend far more money on varsity sports than they do any other extracurricular activity. Many articles address the excesses of collegiate sport, the growing sports culture, academic underperformance of athletes, over emphasis on winning, year round training programs, and the recruitment of athletes in all sports (Smith, 1988).

Intercollegiate Athletes and Academic Dishonesty

Student athletes have been the topic of several studies addressing academic dishonesty. Athletes have been reported as having a higher level of cheating behaviors than non-athletes (Haines et al., 1986; McCabe, 1992; McCabe & Trevino, 1997). Athletic participation is generally found to be positively and highly related to cheating (Diekoff, et al., 1996; McCabe & Trevino). In a more recent study, Storch (2000) reported that 85% of athletes admitted to cheating as compared with only 78% of non-

athletes admitting to cheating. Haines et al. found that students who did not pay for their tuition and books were more likely to cheat. It appeared this lack of education investment affected the prevalence of cheating.

In several studies, varsity student athletes mentioned the pressure of maintaining adequate grades in order to maintain eligibility to participate in collegiate sports and to enter graduate and professional schools as reasons they have been compelled to engage in academic dishonesty (Barnett & Dalton, 1981; Hardy, 1982; Raffetto, 1985; Sullivan, 1984). It has been claimed that studying time was compromised due to the large amount of time devoted to intercollegiate athletics. Thus, these students were less than adequately prepared for the upcoming exams or assignments and were forced to commit acts of dishonesty. This notion, coupled with the fact that some athletes were already ill-prepared for college academics caused the athlete to resort to delinquent acts in order to remain eligible to compete (Gerdy, 1997; Sperber, 1990).

Moral Development of Student Athletes

Stevenson (1998) suggested that competitive athletics negatively affects the moral reasoning and moral development of student athletes. Research indicates that student athletes have different and less advanced social experience than non-athletes, which indicates a lower moral development for student athletes (Baldizan & Frey, 1995). Interestingly, Gerdy (1997) asserted that while studies have suggested that athletes may have lower moral and ethical reasoning skills than non-athletes, athletes in revenue-producing sports have a significantly lower level of moral development than their peers who are participating in non-revenue generating sports.

McCabe (1992) suggested that athletes and other students that participated in extracurricular activities might have utilized various techniques of neutralization in order to participate in academic dishonest behavior. He believed that the norms of this subgroup provided the foundation for some students to cheat. Athletes might have also used a neutralization technique in an attempt to maintain eligibility for competition or remain at the institution. Some athletes determined that the delinquent act of cheating was necessary. Since there was no apparent victim and injury was usually avoided, the athlete might be persuaded to commit deviant activity.

Kliever (1990) incorporated Kohlberg's theory of moral development into the intercollegiate athletic arena to address deficits in moral development.

Competitive sports can be carried out quite effectively at the lower levels of moral maturity. Sports participants and spectators need know nothing of higher fundamental ethical principles provided they have a lively fear of punishment (stage 1) or a prudent sense of reciprocity (stage 2). Even at its best, the morality of competitive sports seldom offers more than the reinforcement for a conformist morality of system maintenance (stage 3) or an authoritarian morality of fixed rules (stage 4). (p. 109)

Regardless of the moral level in which sport was carried out, "current systems of institutional control and sanctions for rules violations must be strengthened" (Kliever, 1990, p. 115). In order to be successful, the responsibility for institutional control must involve all represented parties, including the president of the institution, its athletic

director, administrators, and coaches. Kliever further asserted that enforcement of rules violations was the responsibility of the athletic program and must be solidified. He also suggested that the common perpetrators of these transgressions, the athletes, needed to be more accountable for their wrongdoings and subjected to increased punishments. Only with the threat of losing financial aid or eligibility would academic dishonesty among athletes begin to subside. Schools should be held accountable for these “failures of omission as well as commission” (Kliever, 1990, p. 115).

Gerdy (1997) described character development as a foundational reason for incorporating athletics into higher education. He believed the notion that character was built through participation in sports must be promoted regardless of its validity in order to ensure the continued placement of intercollegiate athletics. Several researchers have concluded that the gap between the fundamental mission of higher education and college sports has widened significantly, even at Ivy League members and the most selective liberal arts institutions (Sack, 2001; Shulman & Bowen, 2001). The widening gap should be diminished and the fundamental mission of higher education and college sports should strive for unification and integration. As colleges and universities seek to understand the specific intercollegiate athlete subculture and to gain further understanding of the cheating dilemma, religiosity and its possible buffering effects toward academic dishonesty must be considered as a means to curb academic dishonesty.

Religiosity

Commanger (1973) reported that according to Gallup surveys, one-third of the American people regarded religious commitment as the most important dimension of their lives. “Another third regard religion as a very important, though not the single most

dominant, factor in their lives” (p. 175). The Princeton Religion Research Center (1995) reported Gallup results that remained consistent over four decades of scientific polling. These findings indicated that 83% of Americans reported Christianity as their predominant faith. Ninety-six percent indicated a belief in a God or a universal spirit.

The majority of Americans have been raised with a religious upbringing. In the early 1970’s about 2.5% of adults indicated that they were raised without religion, and 6.5% of adults in the late 1990s indicated that they were raised without religion (Hout & Fischer, 2002). Although the number of persons being raised without some form of religion has increased over time, the majority of people in the country continue to be raised with some form of religion.

McGovern (1998) reported that a CBS News poll of 1000 adults found that 59% of Americans said that religion was very important or extremely important in their daily lives and that 60% prayed at least once a day. McGovern also reported a 1999 Gallup poll for CNN and USA Today found that 96% of Americans believed in God or a universal spirit and 61% claimed that religion was very important in their lives. Thirty percent attended church or synagogue at least once a week, and 43% attended often. Bryjak (2003) asserted that a recent international survey by the Pew Research Center found that 6 in 10 Americans agreed that religion played an important role in their lives.

Smith, Denton, Faris, and Regnerus (2002) reported that 13% of the youth in America claimed to have no religion in 1995. Smith et al. further stated, “The number of American adolescents within the Christian tradition has been gradually declining over the last two and one-half decades” (p. 614). The majority of church-attending youth claim

that they go to religious services not only because their families make them, but also because they themselves want to (Gallup, 1999).

Although religious practices in America have changed, America is and has always been, a religious country. Johnson (1976) stated, “Today it is generally accepted that more than half the American people still attend a place of worship over a weekend, an index of religious practice unequaled anywhere in the world, certainly in a great and populous nation” (p. 463).

A resurgence of interest in religion has contributed to a growing body of empirical research examining the relationships between religious faith and health outcomes. This research suggests that religious commitment is generally associated with improved mental and health outcomes. For instance, higher levels of religious commitment were generally associated with lower levels of anxiety, depression, substance abuse, suicidality, as well as higher levels of marital satisfaction, hope and meaning, self-esteem, social support, life satisfaction, and positive coping strategies for stress (Gartner, Lawson, & Allen, 1991; Plante, Saucedo, & Rice, 2001). Koenig (1997) concluded that religious commitment often serves as a buffer against mental health problems through the development of a system of promoting increased social support and interaction with others, health-promoting beliefs and attitudes, and focusing on inspirational personal and interpersonal experiences.

Overall, research indicates that Americans value the role of religion in their lives. Research also indicated that religious commitment has buffering effects against health problems. It is important to conduct further study to determine if religious commitment might also serve as a buffer against academic dishonesty among intercollegiate athletes

through the development of a system of promoting increased social support and focusing on transcendent experiences.

Defined

Koenig, Parkerson, and Meador (1997) defined religiosity as a person's degree of religious commitment. Peacock and Poloma (1998) concurred that religiosity is personal religious devotion. Just as several theoretical explanations of deviant behaviors have been defined, religiosity also requires a multidimensional conceptualization. Until recently, research examining the relationship between religiosity and academic dishonesty among athletes was plagued by the use of an incomplete definition of religiosity. Koenig et al. (1997) addressed this definition limitation through their description of three dimensions of religiosity, namely organizational, non-organizational and intrinsic. Religiosity is often examined in terms of intrinsic and extrinsic religiosity. Organization and non-organizational religiosity are described as extrinsic.

Extrinsic Religiosity

Organizational religiosity is conceptualized as the frequency with which one attends religious services. Non-organizational religiosity is defined in terms of the amount of time spent in private religious activities such as prayer or meditation (Rowatt & Kirkpatrick, 2002). .

Extrinsic religiosity refers to incentive arising mainly from practical and pragmatic needs. Extrinsic persons seek to use their religion and might participate in religious activities only to the extent that doing so helps them to achieve a self-serving goal, such as acquiring social status and approval or establishing business contacts (Kaldestad,

1996; Rowatt & Kirkpatrick, 2002). Kaldestad suggested that these people use religion to get consolation, relief, assurance, and social acceptance.

According to Donahue (1985), research indicates that extrinsic religiosity seems to measure the “sort of religion that gives religion a bad name: prejudiced, dogmatic, fearful” (p. 416). Kaldestad (1996) asserted that these people do not have religion highly integrated into their life or their personality. They might compromise their religion in order to promote their own social or economic interests.

Intrinsic Religiosity

Intrinsic religious orientation is widely recognized as one of the best measures of genuine religious devotion. Intrinsic religiosity refers to religious motivation that is internalized and highly personal. Intrinsic religious persons hold deep religious convictions and incorporate religiosity into every aspect of their lifestyle. They seek to live their religion. (Rowatt & Kirkpatrick, 2002). They are people who find their primary meaning in religion and could be described as living their faith (Knox, Langehough, Walters, & Rowley, 1998). Intrinsic religiosity looks at “religion as a master motive” and is the degree to which one integrates his or her religiousness into their life (Koenig, et al., 1997). Kaldestad (1996) described persons with intrinsic orientation as people who have their Christian belief as the meaning and goal of their whole life.

Spilka and Mullins (1977) depicted an intrinsic religious person as someone who perceives God as a gracious, kind, and benevolent deity who is lovingly and faithfully involved in human affairs. The intrinsic person also perceives God as an ever-present provider. The hypothesis that attitudes towards cheating among religious persons are influenced by their internal representation of God warrants further investigation.

Kahoe (1974) reported that studies have shown that intrinsic religiosity is related to internal locus of control. Intrinsic religiosity has also been shown to be related to a sense of purpose in life (Crandall & Rassmussen, 1975), to empathy (Watson, Hood, Morris, & Hall, 1984), and to control of alcohol consumption (Patock-Peckham, Hutchinson, Cheong, and Nagoshi, 1997). In a 1990 study, Bergin and Jensen stated that intrinsic religiosity is marked by inner conviction, spiritual experience, and resistance to social pressures contrary to one's beliefs. This study implies that intrinsic religiosity could create a cushioning effect on the social pressure of cheating.

Conclusion

This review of literature has detailed the importance of academic excellence as a key principle and purpose within institutions of higher education. However, an increase in academic dishonesty has been associated with this foundational goal of higher learning (McCabe & Trevino, 1997; Nuss, 1984; Sims, 1995).

Academic dishonesty has been defined, and various theories of delinquency have been researched in relation to the problem of academic dishonesty within institutions of higher learning. It has been suggested that certain theories of deviant behavior might have provided insight into understanding the behavior associated with academic dishonesty (Haines et al., 1986; LaBeff et al., 1990; McCabe, 1992; Michael & Miethe, 1989). The following theories were examined in the above discussion: moral theory of development, social bond theory, social learning theory, deterrence theory, rational choice theory, sex role theory, and neutralization theory. Colleges and universities might be able to understand and find solutions to the threat of academic dishonesty through the development of these theories of delinquent behavior.

Societal concerns have been discussed and evaluated, and trends of cheating behaviors in higher education have been presented. The attitudes and beliefs regarding cheating have been outlined. The factors, methods, and reasons for academic dishonesty have been identified. Several solutions and possible prevention methods have also been discussed.

The specific intercollegiate athlete subculture has been presented, and the influence and incorporation of intercollegiate athletics have been discussed. Background information on the popularity of college sports and the unethical and morally unacceptable behaviors of intercollegiate athletes have been examined.

Finally, religiosity has been examined as a possible solution or deterrent to reducing the level of academic dishonesty among intercollegiate athletes. Therefore, the purpose of this study was to determine the relationship between religiosity and academic dishonesty in higher education in a sample of intercollegiate athletes.

The design and methodology utilized in this study is outlined in Chapter 3. Specifically, Chapter 3 defines the sample of student participants and the questionnaire for this study. In addition, the research design and data analysis for the study are discussed, including an examination of the research procedures that guided this study.

CHAPTER 3 - METHODOLOGY

This chapter describes the methodology of the study and is divided into three sections. The first section provides a description of the participants who were used in the study. The second section describes the measures that were administered to the participants. The third section describes the procedures that were used to select the participants, administer the measures, and collect the data.

Descriptive research is used in the design of this study to describe the characteristics of a population by directly examining samples of that population through the use of a survey. This study makes primary use of a survey. Correlational research is also used in the study design. Correlational studies attempt to understand patterns of relationships among variables and are useful in predicting one variable from another (Glatthorn & Joyner, 2005).

Subjects

The sample for the study was comprised of 163 undergraduate intercollegiate athletes in spring sports and selected winter sports that were still practicing and competing. The athletes were enrolled at a private Christian college or a state university during the 2008 Spring semester. Criteria for selection were: first, it was based on geographical location, and then, secondly, a state institution and a Christian college were selected.

The Christian college is a member the NAIA conference, and the state university is a member of the NCAA. The NAIA maintains the expectation of ethical behavior and formally teaches character development. The NCAA also shares a belief in and

commitment to the highest levels of integrity and sportsmanship. The state university maintains an Honor System.

The sampled athletes represented men and women's basketball, women's softball, men's baseball, women's soccer, men and women's golf, men and women's tennis, men and women's cross-country, and women's volleyball. Responses were obtained from 163 students (N=163) at both institutions. There were 109 respondents representing the Christian college and 54 respondents representing the state institution.

Due to the availability of teams, a purposive sample was selected. The purposive sample included undergraduate student athletes. Various ethnic groups and denomination affiliations were represented. Demographic information regarding the participants included gender, year in school, ethnicity, age, and religious affiliation. Table 1 depicts information regarding number of students surveyed in both of the institutions of higher education.

Table 1

Institutions and Number of Athletes Surveyed

Institution	Number of Participants
Christian	109
State	54
Total participants	163

Of the respondents, 61 were male while 102 were female. Sixty three percent of the total respondents were female, while males made up only 37% of the sample. The percentage of male respondents was lower at the Christian college and at the state institution. Demographic data related to gender of the respondents are shown in Table 2.

Table 2

Gender of Athletes by Type of Institution (N=163)

Gender of Respondents	Christian		State		Total	
	n	%	n	%	n	%
Male	37	34	24	44	61	37
Female	72	66	30	56	102	63
Total Participants	109		54		163	

There were 109 participants from the Christian institution. Of the 109 athletes, 48, 32, 18, and 11 students were represented in the class levels of freshman, sophomore, junior, and senior respectively. Regarding the students from the state institution, 54 students participated in the study. Of the 109 athletes, 25, 15, 8, and 6 students were represented in the class levels of freshman, sophomore, junior, and senior respectively. Nearly half of the sample was comprised of freshmen, while only 10% of the sample

represented seniors. The demographic data regarding the type of institution to class level are outlined in Table 3.

Table 3

Class Year of Athletes by Type of Institution (N=163)

Class Year	Christian		State		Total	
	n	%	n	%	n	%
Freshman	48	44	25	46	73	45
Sophomore	32	29	15	28	47	29
Junior	18	17	8	15	26	16
Senior	11	10	6	11	17	10
Total Participants	109		54		163	

In terms of ethnicity, Table 4 presents a total of 130 (80%) white, 12 (7%) black, 2 (1%) Asian, 4 (2%) Hispanic, 5 American-mixed (3%), 7 international (4%), and 3 (2%) other included in the study. The respondents at both institutions are represented in Table 4.

Table 4

Ethnicity/National Origin of Athletes by Type of Institution (N=163)

Ethnicity	Christian		State		Total	
	n	%	n	%	n	%
African American	2	2	10	19	12	7
Asian American	1	1	1	1	2	1
White/Caucasian	98	90	32	59	130	80
Latino/Hispanic	2	2	2	4	4	2
American-Mixed	3	3	2	4	5	3
International	2	2	5	9	7	4
Other	1	1	2	4	3	2
Total Participants	109		54		163	

The mean age for all athletes combined was 19 years old and median age was 19 years old (SD=2.3). At the Christian institution the mean age was 19 years old and the median age was 19 years old. At the state institution the mean age was 19 years old and the median age was 19 years old.

Table 5

Age of Athletes by Type of Institution (N=163)

Age	Christian		State		Total	
	n	%	n	%	n	%
18	27	25	4	4	31	19
19	34	31	26	48	60	37
20	25	23	10	16	35	21
21	13	12	8	15	21	13
22	7	6	4	7	11	7
23	3	3	2	4	4	2
Total Participants	109		54		163	

Lastly, religious affiliation was not widely varied in the Christian college. Eighty one percent claimed a Protestant background. Likewise, religious affiliation at the state institution was predominately of a Protestant background with 28% claiming to be Southern Baptist. However, there was a more widely varied sample at the state institution. Catholics represented 16% of the sample. Approximately 17% of the respondents at the state institution declared that “non-denominational” was most representative of their religious affiliation.

Table 6

Religious Affiliation of Athletes by Type of Institution (N=163)

Religious Affiliation	Christian		State		Total	
	n	%	n	%	n	%
Assembly of God	2	2	1	2	3	2
Church of Christ	--	--	4	7	4	2
Church of God	2	2	--	--	2	1
Independent Baptist	4	4	--	--	4	2
Methodist	3	3	4	7	7	4
Nazarene	1	1	--	--	1	<1
Non-denominational	14	13	9	17	23	14
Orthodox	--	--	1	2	1	<1
Presbyterian	60	55	4	7	64	39
Roman Catholic	1	1	8	16	9	5
Seventh Day Adventist	--	--	1	2	1	<1
Southern Baptist	17	16	15	28	32	20
Other	6	5	4	7	10	6
No Religion	--	--	2	3	2	1
Total Participants	109		54			163

All participants voluntarily participated in this study. To protect their anonymity, no participants were required to divulge any identifying information, including name, student identification number, or social security number.

Instrumentation

This non-experimental research design made use of McCabe's Academic Integrity Survey (M-AIS), the Santa Clara Strength of Religious Faith Scale (SCSORFS), and the Duke Religion Index (DRI) to accomplish the purpose of this study. The M-AIS measured academic dishonesty and the SCSORFS and DRI measured religiosity.

McCabe's Academic Integrity Survey

Donald McCabe, a professor at the Graduate School of Management of Rutgers University and founder for the Center for Academic Integrity designed the M-AIS to gather data concerning demographics, cheating attitudes, and cheating behaviors among college and university students (McCabe, 1992). The original scale was based on the seminal work of Bowers (1964) in his major study of academic dishonesty in college. McCabe has used the instrument in his own research. He calculated the reliability of the instrument at .82 based upon three studies, .79 in 1990, .84 in 1993, and .81 in 1995 (McCabe & Trevino, 1996). Those studies were later published in the *Journal of College Student Development* (McCabe & Bowers, 1994), *Journal of Higher Education* (McCabe & Trevino, 1993), *Research in Higher Education* (McCabe, 1993), and *Change* (McCabe & Trevino, 1996).

McCabe's instrument was utilized in Zimmerman's (1998) study that established a higher frequency of cheating among students who reported a low degree of compatibility with an institution as compared to students who reported higher degrees of

compatibility with an institution. This instrument was also used in Ward's (1998) study of students' perception of cheating and plagiarism. Ward indicated that the M-AIS survey has been the most widely used questionnaire on campuses in the United States on the topic of academic dishonesty. Additionally, the instrument was utilized in Lipson and McGavern's (1993) study of cheating among MIT students and in Clifford's (1996) study of students' perceptions of cheating and campus climates at small institutions.

The M-AIS is divided into two sections. The first section is designed to collect demographic information about the student respondents. The second section attempts to gather information regarding students' behaviors concerning cheating at their institution. The M-AIS includes Likert-type response items. There are 17 cheating behaviors listed on the M-AIS. Athletes were asked to circle one response for each question using the following Likert scale: 1 = Never, 2 = Once, 3 = A few times, 4 = Several times, and 5 = Many times.

McCabe's instrument is appropriate for this study for several reasons:

1. The use of McCabe's instrument promotes consistency between the present study and previous research.
2. McCabe's instrument was designed to focus on cheating behaviors among higher education students. The design of the self-reporting instrument assumes appropriate levels of student maturity, knowledge, socialization, and values. Few instruments, if any, were used in multiple studies.
3. The administration of McCabe's instrument is relatively forthright. It is versatile in that students in home or classroom settings could complete the survey.
4. The instrument can be completed in 10-15 minutes.

5. The instrument can be used to record demographic information.
6. Students are asked to record responses on a straightforward Likert-type scale.

Santa Clara Strength of Religious Faith Scale (SCSORFS).

Plante, Yancey, Sherman, Guertin, and Pardini (1999) developed this 10-item measure to assess strength of religious devotion. Plante and Boccacini (1997a) noted that most instruments measure dimensions of faith in persons who have already been categorized as being religiously faithful and thus tend to be theoretically complex. SCSORFS is designed to provide a quick measure of strength of religious faith, regardless of religious denomination or affiliation (Lewis, Shevlin, McGuckin, & Navratil, 2001).

Items are scored on a four-point Likert-type scale ranging from 1 (Strongly Disagree) to 4 (Strongly Agree). The SCSORFS produces scores that are related to, but not directly measured by, other commonly utilized indices of religiousness and religiosity (Plante & Boccaccini, 1997b). The SCSORFS has produced highly reliable scores, with Cronbach alpha coefficients of .94 and .97 and split-half reliability coefficients between .90 and .96 (Plante et al., 1999). Additionally, research has produced evidence for the convergent and divergent validity of the SCSORFS (Plante et al.).

Duke Religion Index

The Duke Religion Index (DRI) created by Koenig, Parkerson, and Meador (1997) was also administered to measure religiosity. The DRI was designed to measure three core dimensions of religiosity: the organizational, non-organizational, and subjective or intrinsic. It consists of five items rated on a five-point, Likert-type scale for frequency. It covers: attendance at church or other religious meetings; frequency of

prayer, meditation or Bible study; and experience of the divine and impact of religious beliefs on approach to life. One question in each section looks at the organizational and non-organizational factors, while three questions investigate intrinsic religiosity. These three items have been taken from Hoge's (1972) intrinsic religiosity scale and have good reliability ($\alpha = .75$). These items were also found to be strongly correlated ($r = .85$) with Hoge's full 10-item intrinsic religiosity scale. Additionally, this subscale has been moderately correlated with organizational ($r = .40$) and non-organizational ($r = .42$) religiosity. A person's score on each of the five items are summed and can range from 5 to 27, with higher scores being indicative of higher religiosity. It has been used with adults between the ages of 17-90 and has been translated into Lithuanian. The reliability of the intrinsic religiosity subscale is acceptable with a Cronbach's alpha values ranging from .70 to .75 in previous studies (Koenig, et al., 1997). In a study by Storch, (2002) the Cronbach's alpha was .90.

Procedures

Prior to the collection of the data, the researcher obtained approval from the Institutional Review Board for Human Subjects in Research at Liberty University. The Institutional Review Board for Human Subjects in Research from the Christian college and from the state university granted permission prior to administering the survey to the students. The researcher contacted athletic directors from both institutions by telephone and e-mail. The athletic directors established a time and place to administer the survey. The researcher administered the survey in Spring 2008 to the athletes enrolled at the college and university. The researcher was clear to coaches, athletic directors, and athletes that the information collected would remain confidential and anonymous.

Participants were informed and assured that there would be no identifiers on the instrument and that the formal consent process was utilized.

The researcher administered the survey to the athletes after brief instructions were given. The survey contained a cover letter highlighting the instructions. Students were informed that (1) responses would be anonymous, (2) there were no known dangers associated with the survey, and (3) the study was designed to provide a greater understanding of cheating behaviors and religiosity. Upon completion of the survey the researcher collected and recorded the data.

Direct administration of the survey as opposed to mailing questionnaires or online surveys was to promote uniformity in instruction and procedures, to protect student anonymity by eliminating unnecessary assistance and involvement by institution personnel, and to eliminate the necessity of follow-up visits. Rea and Parker (1997) confirmed the use of sample surveys by acknowledging that the primary advantage to the survey sample technique is the ability to generalize characteristics of an entire population by making inferences bases on data drawn from a small portion of the population.

The size of the purposive sample may negatively impact the results of the study. The geographical location of the college and university, the southeastern United State, may also affect the generalizability of the results. A threat to validity was the use of self-report measures to collect data. The external validity of the results was contingent upon the willingness of the participants to respond in an open and accurate manner (Ary, Jacobs, Razavieh, & Sorensen, 2006).

Analysis of Data

Data Organization

An evaluation occurred in which (a) *t*-tests determined if there was a significant difference in the level of religiosity (intrinsic, organizational, and non-organizational) comparing intercollegiate athletes attending a Christian college and a state university; (b) *t*-tests determined if there was a significant difference in the level of academic dishonesty comparing intercollegiate athletes at a Christian college and a state university; *t*-tests also determined if there were significant differences in specific cheating behaviors comparing the athletes at both institutions; (c) regression analyses examined the relationship between religiosity (intrinsic, organizational, and non-organizational) and academic dishonesty among intercollegiate athletes attending a Christian college; and, (d) regression analyses examined the relationship between religiosity (intrinsic, organizational, and non-organizational) and academic dishonesty among athletes at a state university. Survey data were entered into Microsoft Excel fields as categorical data. For analyses, the Microsoft Excel fields were exported to Minitab, a statistical data analysis software package application.

The analyses were used to report statistical measures of the research design. Several tables are used to present an evaluation of each null hypothesis.

Statistical Procedures

Demographic data were analyzed using percentage distributions and frequency counts to provide a descriptive profile of student respondents who attended both colleges during the spring semester of 2008.

Using the self-reported answers to the M-AIS, the SCSORFS, and the DRI, the means and standard deviations were calculated. In order to answer the four research questions and evaluate the null hypotheses, the following statistical procedures were conducted.

Research Question 1

To investigate the first question, “Are there differences in the level of religiosity between intercollegiate athletes at a private Christian college and a state university?” four independent *t*-tests were conducted. A critical value of .05 was used to determine the statistical significance.

The following null hypotheses were investigated to answer the first research question:

Hypothesis 1. There is no difference in the level of religiosity between intercollegiate athletes at a private Christian college and a state university.

To evaluate Hypothesis 1, the SCSORFS and DRI were utilized separately. Using SCSORFS, a mean score was calculated for the level of religiosity among intercollegiate athletes attending the Christian college. A mean score was then calculated for the level of religiosity among the athletes attending the state university. An independent *t*-test was utilized to determine if there was a significant difference in the level of religiosity between athletes at the Christian college and state university. The evaluation process was repeated using the DRI instrument to determine the level of religiosity. Again, an independent *t*-test was used to determine if there was a significant difference in the level of religiosity between the athletes at both institutions.

Hypothesis 2. There is no difference in the level of intrinsic religiosity between intercollegiate athletes at a private Christian college and a state university.

To evaluate Hypothesis 2, the DRI was utilized and a mean score was calculated for the level of intrinsic religiosity among intercollegiate athletes attending the Christian college. A mean score was also calculated for the level of intrinsic religiosity among the athletes attending the state university. An independent *t*-test was then utilized to determine if there was a significant difference in the level of intrinsic religiosity between athletes at the Christian college and state university.

Hypothesis 3. There is no difference in the level of organizational religiosity between intercollegiate athletes at a private Christian college and a state university.

To evaluate Hypothesis 3, the DRI was utilized and a mean score was calculated for the level of organizational religiosity among intercollegiate athletes attending the Christian college. A mean score was also calculated for the level of organizational religiosity among athletes attending the state university. A *t*-test was then evaluated to determine if there was a significant difference in the level of organizational religiosity between athletes at the Christian college and state university.

Hypothesis 4. There is no difference in the level of non-organizational religiosity between intercollegiate athletes at a private Christian college and a state university.

To evaluate Hypothesis 4, the DRI was utilized and a mean score was calculated for the level of non-organizational religiosity among intercollegiate athletes attending the Christian college. A mean score was also calculated for the level of non-organizational religiosity among athletes attending the state university. An independent *t*-test was then

utilized to determine if there was a significant difference in the level of non-organizational religiosity between athletes at the Christian college and state university.

Research Question 2

To investigate the second question, “Are there differences in the level of academic dishonesty between intercollegiate athletes at a private Christian college and a state university?” an independent *t*-test was performed to assess cheating behaviors. A critical value of .05 was used to determine the statistical significance.

The following null hypothesis was evaluated to answer the second research question:

Hypothesis 5. There is no difference in the level of academic dishonesty between intercollegiate athletes at a private Christian college and a state university.

To evaluate Hypothesis 5, the M-AIS was utilized and a mean score was calculated for cheating behavior among the athletes attending the Christian college and the state university. Cheating behavior was then analyzed utilizing an independent *t*-test to determine if there was a significant difference in the level of academic dishonesty between the athletes at the Christian college and state university.

Each of the 17 cheating behaviors listed on the M-AIS was then analyzed using frequency counts and percentages. Independent *t*-tests were conducted on each of the 17 cheating behaviors to determine if there was a significant difference in the level of academic dishonesty between the athletes at the Christian college and state university on any of the specific cheating behaviors.

Research Question 3

To investigate the third research question, “Is there a relationship between religiosity and academic dishonesty among intercollegiate athletes at a private Christian college?” simple regression was utilized to determine any correlations. Due to the multicollinear relationship between the predictor variables (intrinsic religiosity, organizational religiosity, and non-organizational religiosity), a separate regression analysis was used for each variable to determine if these three dimensions of religiosity are a good predictor of academic dishonesty (Howell, 2004). A critical value of .05 was used to determine the statistical significance.

The following null hypotheses were evaluated to answer the third research question using only private Christian college participants:

Hypothesis 6. Among intercollegiate athletes attending a private Christian college, there is no relationship between religiosity and academic dishonesty.

To evaluate Hypothesis 6, religiosity, as measured by the SCSORFS, was used as the independent variable. Academic dishonesty, as measured by the M-AIS, was used as the dependent variable. Simple regression analysis was utilized to determine if there is a significant relationship between religiosity and academic dishonesty among intercollegiate athletes attending a private Christian college.

For further evaluation, religiosity, as measured by the DRI, was used as the independent variable. Academic dishonesty, as measured by the M-AIS, was again used as the dependent variable. Simple regression analysis was used to determine if there is a significant relationship between religiosity and academic dishonesty among the athletes at both institutions.

Hypothesis 7. Among intercollegiate athletes attending a private Christian college, a measure of intrinsic religiosity is not a good predictor of academic dishonesty.

To evaluate Hypothesis 7, intrinsic religiosity, as measured by the DRI was used as a predictor variable. Academic dishonesty, as measured by the M-AIS was used as the criterion variable. A regression analysis was used to determine if intrinsic religiosity is a good predictor of academic dishonesty among intercollegiate athletes attending a Christian college.

Hypothesis 8. Among intercollegiate athletes attending a private Christian college, a measure of organizational religiosity is not a good predictor of academic dishonesty.

To evaluate Hypothesis 8, organizational religiosity, as measured by the DRI was used as a predictor variable. Academic dishonesty, as measured by the M-AIS, was the criterion variable. A regression analysis was used to determine if organizational religiosity is a good predictor of academic dishonesty among intercollegiate athletes attending a Christian college.

Hypothesis 9. Among intercollegiate athletes attending a private Christian college, a measure of non-organizational religiosity is not a good predictor of academic dishonesty.

To evaluate Hypothesis 9, non-organization religiosity, as measured by the DRI, was used as a predictor variable. Academic dishonesty, as measured by M-AIS was used as the criterion variable. A regression analysis was used to determine if non-organizational religiosity is a good predictor of academic dishonesty among intercollegiate athletes attending a Christian college.

Research Question 4

To investigate the fourth research question, “Is there a relationship between religiosity and academic dishonesty among intercollegiate athletes at a state university?” simple regression analyses were utilized to examine any significant correlations. Due to the multicollinear relationship between the predictor variables, (intrinsic religiosity, organizational religiosity, and non-organizational religiosity), separate simple regression analyses were conducted to determine if these three dimensions of religiosity are a good predictor of academic dishonesty. The critical value of .05 was used to determine statistical significance.

The following null hypotheses were evaluated to answer the fourth research question using only state university participants:

Hypothesis 10. Among intercollegiate athletes attending a state university, there is no relationship between religiosity and academic dishonesty.

To evaluate Hypothesis 10, religiosity, as measured by the SCORFS, was used as the independent variable. Academic dishonesty, as measured by the M-AIS, was used as the dependent variable. Simple regression analyses were utilized to determine if there is a significant relationship between religiosity and academic dishonesty among intercollegiate athletes attending a state university. The process was then repeated using religiosity, as measured by the DRI, as the independent variable.

Hypothesis 11. Among intercollegiate athletes attending a state university, a measure of intrinsic religiosity is not a good predictor of academic dishonesty.

To evaluate Hypothesis 11, intrinsic religiosity, as measured by the DRI, was used as a predictor variable. Academic dishonesty, as measured by M-AIS was used as

the criterion variable. A regression analysis was evaluated to determine if intrinsic religiosity is a good predictor of academic dishonesty among intercollegiate athletes attending a state university.

Hypothesis 12. Among intercollegiate athletes attending a state university, a measure of organizational religiosity is a not good predictor of academic dishonesty.

To evaluate Hypothesis 12, organizational religiosity, as measure by the DRI was used as a predictor variable. Academic dishonesty, as measured by M-AIS, was used as the criterion variable. A regression analysis was evaluated to determine if organizational religiosity is a good predictor of academic dishonesty among intercollegiate athletes attending a state university.

Hypothesis 13. Among intercollegiate athletes attending a state university, a measure of non-organizational religiosity is not a good predictor of academic dishonesty.

To evaluate Hypothesis 13, non-organization religiosity, as measured by the DRI was used as a predictor variable. Academic dishonesty, as measured by M-AIS, was used as the criterion variable. A regression analysis was conducted to determine if non-organizational religiosity is a good predictor of academic dishonesty among intercollegiate athletes attending a state university.

Summary

Chapter 3 has included a detailed description of the methodology and design utilized within this study. The population and sample that defined the participants for this study have been examined and identified. The instruments utilized in this study have been discussed. The operational definitions of religiosity and academic dishonesty have been addressed, as have the validity and reliability of the instruments. The research design that

guided the collection of data has been detailed; and finally, the strategies and statistical tests that were utilized to properly analyze the data have been outlined.

The information from this chapter provides the basis for the analysis of data reported in Chapter 4. A discussion of the findings, as well as implications for practice and recommendations for future research are presented in Chapter 5.

CHAPTER 4 – PRESENTATION AND ANALYSIS OF DATA

The purpose of this study was to explore the relationship between religiosity and academic dishonesty among intercollegiate athletes comparing a Christian and a state institution of higher education. In addition, a comparison of the level of religiosity among the athletes at both institutions was conducted. Finally, a comparison of the academic dishonesty level was studied. Specifically, this study addressed the following questions.

1. Are there differences in the level of religiosity (intrinsic, organizational, non-organizational) between intercollegiate athletes at a private Christian college and a state university?
2. Are there differences in the level of academic dishonesty between intercollegiate athletes at a private Christian college and a state university?
3. Is there a relationship between religiosity (intrinsic, organizational, non-organizational) and academic dishonesty among intercollegiate athletes at a private Christian college?
4. Is there a relationship between religiosity (intrinsic, organizational, non-organizational) and academic dishonesty among intercollegiate athletes at a state university?

This chapter presents the associated statistical analyses conducted and the statistical results obtained from the research data. Explanations of the results occur in the text and in tables when relevant. Additionally, a summary of the findings is included.

Data Analysis

Primary analyses were conducted to answer the research questions addressed in the present study.

Research Questions

Responses to the questionnaire were entered into Microsoft Excel. Data was then transported into the statistical package Minitab. Data were analyzed using independent *t* tests and simple regression analyses.

Research Question 1

The first research question was, “Are there differences in the level of religiosity (overall, intrinsic, organizational, non-organizational) between intercollegiate athletes at a private Christian college and a state university?” This question was addressed by conducting independent *t*-tests on each subscale of the questionnaire to determine if there were differences in the level of religiosity between the two types of institutions. The means of SCSORFS scores were compared for the two types of institutions to evaluate the Overall religiosity level. Significance at the .05 level was found within the Overall religiosity ($t(65) = 5.000, p < .001$) scale.

The means of DRI scores were also compared for the two types of institutions to evaluate the Overall religiosity level. Significance at the .05 level was found within the level of Overall religiosity ($t(62) = 6.84, p < .001$) scale.

The means of DRI Intrinsic religiosity scores were compared for the two types of institutions using a *t*-test analysis. Significance at the .05 level was found within the level of Intrinsic religiosity ($t(64) = 5.40, p < .001$) subscale.

The means of DRI Organizational scores were compared for the two types of institutions using a *t*-test analysis. Significance at the .05 level was found within the level of Organizational religiosity ($t(68) = 8.61, p < .001$) subscale.

Finally, the means of DRI Non-organizational scores were compared for the two types of institutions using a *t*-test analysis. Significance at the .05 level was found within the level of Non-organizational religiosity ($t(66) = 5.55, p < .001$) subscale.

This difference in the level of Overall religiosity indicates that intercollegiate athletes at the Christian college are more religious than students from the state institution. Furthermore, the level of the Intrinsic religiosity, Organizational, and Non-organizational religiosity subscales all reveal a significant difference in the religiosity of the athletes at both institutions. The *t*-test comparison chart is outlined in Table 7.

Table 7

t-Test Comparison of Level of Religiosity for a Christian and State Institution

Subscale	Type of Institution	n	Mean	Standard Deviation	Std. Error of Mean	<i>t</i>	df	<i>p</i> -value*
SCSORFS	Christian	109	36.20	4.68	0.45	5.00	65	0.000*
	State	54	29.31	9.57	1.3			
DRI	Christian	109	23.90	2.43	0.23	6.84	62	0.000*
	State	54	18.31	5.75	0.78			
DRI Intrinsic	Christian	109	13.64	1.57	0.15	5.40	64	0.000*
	State	54	11.04	3.37	0.46			
DRI Organizational	Christian	109	5.39	0.68	0.06	8.61	68	0.000*
	State	54	3.81	1.26	0.17			
DRI Non-Organizational	Christian	109	4.95	0.95	0.09	5.55	66	0.000*
	State	54	3.46	1.86	0.25			

*Significance is based on a 2-tailed test. *t*-test statistics based on the assumption of equal variances.

Research Question 2

The second research question was, “Is there a difference in the level of academic dishonesty among intercollegiate athletes at a Christian and a state institution?” The means of M-AIS scores were compared for the two types of institutions using a *t*-test analysis. No significance was found within the frequency of academic dishonesty ($t(75) = -0.99, p = .325$). This finding indicates that there is no significant difference in the level

of academic dishonesty among the intercollegiate athletes at the Christian college and the state university. The *t*-test comparison chart is presented in Table 8.

Table 8

t-Test Comparison of Level of Academic Dishonesty for a Christian and State Institution

Scale	Type of Institution	n	Mean	Standard Deviation	Std. Error of Mean	<i>t</i>	df	<i>p</i> -value*
Academic Dishonesty	Christian	109	24.82	7.80	0.75	-0.99	75	0.325
	State	54	26.60	12.1	1.7			

*Significance is based on a 2-tailed test. *t*-test statistics based on the assumption of equal variances.

To further determine the differences in the levels of academic dishonesty, each of the cheating behaviors were analyzed by percentages to determine which cheating behaviors were most prevalent at each institution. Approximately 85% of the student athlete respondents (N = 163) in this study said they had engaged in at least one or more of the 17 cheating behaviors listed in M-AIS. In contrast, only about 15% reported engaging in none of the cheating behaviors.

Approximately 94% of the intercollegiate athletes respondents attending the Christian college said they had engaged in academic dishonest behaviors at least once during the semester of the study. Only 6% reported they had never cheated. However, only 69% of the respondents at the state university reported they had engaged in academic dishonesty during the semester of the study. In contrast, 31% reported they had never participated in academic dishonesty during the studied semester.

Table 9 illustrates the frequencies and means as reported for each individual cheating statement. The statements asked the respondents to self-report the number of times they had committed the specific act of dishonesty during the Spring 2008 semester using a 5-point scale (1 = Never, 2 = Once, 3 = More than once, 4 = Several times, and 5 = Many times). This study examined the results as reported by an N = 163. Table 9 also illustrates the various cheating statements that students could have committed over the course of the semester. Although academic dishonesty was prevalent, it was not frequent. With the exception of Item 4, the preponderance of responses were in the “never” category with a much smaller percentage of participation in “many” or all other types of academic dishonesty. Indeed, these student athlete respondents reported cheating in the “many” category only about 2% of the time.

According to self-reported responses, students reported the highest level of commission in regards to “getting questions or answers from someone who has already taken a test (Item 4, M = 1.94). Other statements that received high responses included “copying a few sentences of material without footnoting them in a paper (Item 12, M = 1.91), and “working on an assignment with others when the instructor asked for individual work (Item 11, M = 1.87). These types of cheating behavior suggest the respondents are more likely to engage in collaborative cheating rather than individual cheating.

The least common cheating behaviors reported were “writing or providing a paper for another student” (Item 13, M = 1.26); “cheating on a test in another way” (Item 6, M = 1.27); and “turning in a paper based on information obtained from a term paper “mill” or website” (Item 14, M = 1.32).

Many respondents reported having engaged in several of the cheating behaviors a few times. “Getting questions and answers from someone who has already taken a test” (Item 4); “working on an assignment with others when the instructor asked for individual work” (Item 11); “copying a few sentences of material without footnoting them in a paper” (Item 12); and, “writing a paper for another student” (Item 13) were prevalent in the “few” category.

Table 9

Percentages of Type and Prevalence of Academic Dishonesty Behaviors

Cheating Behaviors (N = 163)	Never	Once	Few	Several	Many	Mean
1) Copying from another student during a test (or exam) <u>without</u> his or her knowledge.	67	17	10	4	2	1.58
2) Copying from another student during a test <u>with</u> his or her knowledge.	78	12	6	3	1	1.37
3) Using unpermitted crib notes (or cheat sheet) during a test.	72	15	9	2	2	1.45
4) Getting questions or answers from someone who has already taken a test.	47	20	26	6	<1	1.94
5) Helping someone else cheat on a test.	72	15	9	3	0	1.43
6) Cheating on a test in another way.	80	14	4	2	0	1.27
7) Copying material, almost word for word, from any source and turning it in as your own work	72	13	10	3	1	1.48
8) Fabricating or falsifying a bibliography.	79	13	6	2	1	1.34
9) Turning in work done by someone else.	79	13	6	2	1	1.34
10)Receiving substantial, unpermitted help on an assignment.	66	14	15	3	2	1.61
11)Working on an assignment with others when the instructor asked for individual work.	53	19	21	4	4	1.87
12)Copying a few sentences of material without footnoting them in a paper.	52	17	24	5	3	1.91
13)Writing or providing a paper for another student.	82	11	23	2	0	1.26
14)Turning in a paper based on information obtained from a term paper "mill" or website	83	9	5	1	2	1.32
15)Plagiarizing a paper in any way using the Internet as a source.	74	12	9	2	2	1.47
16)In a course requiring computer work, copying another student's program rather than doing your own work.	80	12	5	2	1	1.34
17)Falsifying lab or research data.	77	13	6	2	2	1.39

The frequency and percentages of cheating behaviors were then evaluated for only the Christian college athletes. The three most prevalent cheating behaviors student athletes at the Christian college participated in were “copying a few sentences of material without footnoting them in the paper” (Item 12, $M = 1.97$); “getting questions or answers from someone who has already taken the test” (Item 4, $M = 1.96$); and “working on an assignment with others when the instructor asked for individual work” (Item 11, $M = 1.92$).

The three least common cheating behaviors reported were “writing or providing a paper for another student” (Item 13, $M = 1.18$); “turning in a paper based on information obtained from a term paper mill or website” (Item 14, $M = 1.24$); and “cheating on a test in another way” (Item 6, $M = 1.21$). Specifically, on Items 13, (writing or providing a paper for another student), and 14 (turning in a paper based on information obtained from a term paper “mill” or website), the category “never” was selected by a large percentage (86.2% and 84.4% respectively) indicating over four-fifths of the respondents reported that they do not engage in these particular academic dishonest behaviors. Table 10 presents the types and prevalence of academic dishonest behaviors at the Christian college.

Table 10

Percentages of Type and Prevalence of Academic Dishonesty Behaviors in a Private Christian College

Cheating Behaviors (N = 109)	Never	Once	Few	Several	Many	Mean
1) Copying from another student during a test (or exam) <u>without</u> his or her knowledge.	62.4	23.9	9.2	3.7	0.9	1.57
2) Copying from another student during a test <u>with</u> his or her knowledge.	81.7	12.8	3.7	1.8	0	1.26
3) Using unpermitted crib notes (or cheat sheet) during a test.	78.9	12.8	6.4	0.9	0.9	1.32
4) Getting questions or answers from someone who has already taken a test.	45.9	18.3	29.4	6.4	0	1.96
5) Helping someone else cheat on a test.	74.3	17.4	6.4	1.8	0	1.36
6) Cheating on a test in another way.	82.6	13.8	3.7	0	0	1.21
7) Copying material, almost word for word, from any source and turning it in as your own work	69.7	18.3	9.2	1.8	0.9	1.46
8) Fabricating or falsifying a bibliography.	78	15.6	5.5	0.9	0	1.29
9) Turning in work done by someone else.	79.8	11.9	5.5	2.8	0	1.31
10)Receiving substantial, unpermitted help on an assignment.	65.1	16.5	13.8	2.8	1.8	1.60
11)Working on an assignment with others when the instructor asked for individual work.	46.8	23.9	22.0	5.5	1.8	1.92
12)Copying a few sentences of material without footnoting them in a paper.	45.9	22.0	23.9	5.5	2.8	1.97
13)Writing or providing a paper for another student.	86.2	9.2	4.6	0	0	1.18
14)Turning in a paper based on information obtained from a term paper “mill” or website	84.4	2.0	5.5	0	0.9	1.24
15)Plagiarizing a paper in any way using the Internet as a source.	72.5	14.7	9.2	1.8	1.8	1.46
16)In a course requiring computer work, copying another student’s program rather than doing your own work.	80.7	12.8	4.6	0.9	0.9	1.28
17)Falsifying lab or research data.	73.4	17.4	5.5	3.7	0	1.39

Table 11 illustrates the frequency and percentages of cheating behaviors for the state university athletes. Interestingly, the three most common cheating behaviors self-reported by the student athletes at the state university were the same three behaviors as reported by the Christian college athletes. The three cheating behaviors were “getting questions or answers from someone who has already taken the test” (Item 4, $M = 1.89$); “copying a few sentences of material without footnoting them in the paper” (Item 12, $M = 1.78$); and, “working on an assignment with others when the instructor asked for individual work” (Item 11, $M = 1.76$).

Although both institutions reported having the same three most common cheating behaviors, only one of the least common cheating behaviors was mutual. The least three common cheating behaviors among the state university athletes were “turning in work done by someone else” (Item 9, $M = 1.39$); “falsifying lab or research data” (Item 17, $M = 1.39$); and “cheating on a test in another way” (Item 6, $M = 1.39$). Specifically, the student athletes were frequently engaging in “getting questions or answers from someone who has already taken a test”, “receiving substantial, unpermitted help on an assignment”, “working on an assignment with others when the instructor asked for individual work”, and “copying a few sentences of material without footnoting them in a paper”.

With only minor differences, students at the private Christian college and the state university reported very similar cheating behaviors. Most of the responses were in the “never-once-few” categories. Students in both the Christian college and the state university responded in the “many” category infrequently.

Table 11

Percentages of Type and Prevalence of Academic Dishonesty Behaviors in a State University

Cheating Behaviors (N = 54)	Never	Once	Few	Several	Many	Mean
1) Copying from another student during a test (or exam) <u>without</u> his or her knowledge.	75.9	3.7	11.1	4	6	1.59
2) Copying from another student during a test <u>with</u> his or her knowledge.	70.4	11.1	9.3	6	4	1.61
3) Using unpermitted crib notes (or cheat sheet) during a test.	59.3	20.4	13.0	1	1	1.72
4) Getting questions or answers from someone who has already taken a test.	48.1	24.1	20.4	6	0	1.89
5) Helping someone else cheat on a test.	68.5	11.1	14.8	2	0	1.57
6) Cheating on a test in another way.	75.9	14.8	3.7	0	0	1.39
7) Copying material, almost word for word, from any source and turning it in as your own work	75.9	3.7	13.0	2	1	1.54
8) Fabricating or falsifying a bibliography.	79.6	7.4	5.6	1	0	1.43
9) Turning in work done by someone else.	75.9	14.8	5.6	3	0	1.39
10)Receiving substantial, unpermitted help on an assignment.	66.7	9.3	18.5	3	2	1.65
11)Working on an assignment with others when the instructor asked for individual work.	64.8	9.3	22	6	2	1.76
12)Copying a few sentences of material without footnoting them in a paper.	63.0	7.4	24	6	3	1.78
13)Writing or providing a paper for another student.	74.1	14.8	5	0	0	1.43
14)Turning in a paper based on information obtained from a term paper “mill” or website	79.6	7.4	6	0	1	1.48
15)Plagiarizing a paper in any way using the Internet as a source.	77.8	7.4	9	2	2	1.48
16)In a course requiring computer work, copying another student’s program rather than doing your own work.	77.8	9.3	5	1	1	1.44
17)Falsifying lab or research data	83.3	5.6	6	4	9	1.39

Finally, *t*-tests were conducted on each of the 17 specific cheating behaviors listed on the M-AIS to determine if there were significant differences in any of the self-reported cheating behaviors. Significance at the .05 level was found within the frequency of “copying from another student during a test without his or her knowledge” ($t(69) = -2.19, p < .05$), “using unpermitted crib notes or a cheat sheet during a test” ($t(77) = -2.49, p < .10$), and “writing or providing a paper for another student” ($t(71) = -1.96, p < .001$). Table 12 illustrates the comparisons of the 17 cheating behaviors.

Table 12

t-Test Comparison of M-AIS Cheating Behaviors

Behavior	Type of Institution	N	Mean	Standard Deviation	Std. Error of Mean	t	df	p-value*
1) Copying from another student during a test (or exam) <u>without</u> his or her knowledge.	Christian	109	1.57	0.875	0.084	-0.13	83	0.895
	State	54	1.59	1.17	0.16			
2) Copying from another student during a test with his or her knowledge	Christian	109	1.26	0.62	0.06	-2.19	69	0.032*
	State	54	1.61	1.11	0.15			
3) Using unpermitted crib notes (or cheat sheet) during a test	Christian	109	1.32	0.72	0.07	-2.49	77	0.015*
	State	54	1.72	1.07	0.15			
4) Getting questions or answers from someone who has already taken a test	Christian	109	1.96	1.01	0.094	0.43	102	0.665
	State	54	1.89	1.04	0.14			
5) Helping someone else cheat on a test.	Christian	109	1.36	0.69	0.066	-1.50	81	0.138
	State	54	1.57	0.94	0.13			
6) Cheating on a test in another way.	Christian	109	1.21	0.49	0.047	-1.48	72	0.143
	State	54	1.39	0.81	0.11			
7) Copying material, almost word for word, from any source and turning it in as your own work	Christian	109	1.46	0.811	0.078	-0.48	85	0.629
	State	54	1.54	1.04	0.14			
8) Fabricating or falsifying a bibliography.	Christian	109	1.29	0.61	0.059	-0.92	74	0.360
	State	54	1.43	0.96	0.13			

9) Turning in work done by someone else.	Christian	109	1.31	0.70	0.67	-0.58	91	0.561
	State	54	1.39	0.834	0.11			
10)Receiving substantial, unpermitted help on an assignment.	Christian	109	1.60	0.954	0.091	-0.31	98	0.758
	State	54	1.65	1.03	0.14			
11)Working on an assignment with others when the instructor asked for individual work.	Christian	109	1.92	1.04	0.099	0.82	92	0.414
	State	54	1.76	1.21	0.16			
12)Copying a few sentences of material without footnoting them in a paper	Christian	109	1.97	1.08	0.10	1.04	100	0.301
	State	54	1.78	1.14	0.16			
13)Writing or providing a paper for another student.	Christian	109	1.18	0.494	0.047	-1.96	71	0.053*
	State	54	1.42	0.838	0.11			
14)Turning in a paper based on information obtained from a term paper “mill” or website	Christian	109	1.24	0.637	0.061	-1.49	70	0.141
	State	54	1.48	1.11	0.15			
15)Plagiarizing a paper in any way using the Internet as a source.	Christian	109	1.46	0.877	0.084	-0.14	91	0.890
	State	54	1.48	1.04	0.14			
16)In a course requiring computer work, copying another student’s program rather than doing your own work.	Christian	109	1.28	0.682	0.065	-1.09	80	0.278
	State	54	1.44	0.965	0.13			
17)Falsifying lab or research data.	Christian	109	1.39	0.758	0.073	0.04	83	0.971
	State	54	1.39	1.02	0.14			

*Significance is based on a 2-tailed test. *t*-test statistics based on the assumption of equal variances.

Research Question 3

The third research question was, “Is there a relationship between religiosity and academic dishonesty among intercollegiate athletes at a Christian college?” This question was addressed by conducting a simple regression analysis. The criterion variable was M-AIS scores and the predictor variables were DRI, DRI Intrinsic, DRI Organizational, DRI Non-organizational, and SCSORFS scores. Each of the predictor variables was analyzed individually due to multicollinearity of the variables. The intercorrelations for all of the subscale scores are presented in the correlation matrix in Table 13.

Table 13.

Correlation Matrix of Religiosity Variables

Variable	DRI TOTAL	DRI INT	DRI ORG	DRI NON	SCORFS	M-AIS
1. DRI TOTAL	---	0.799	0.529	0.699	0.654	-0.463
		0.000	0.000	0.000	0.000	0.000
2. DRIINT	0.799	---	0.168	0.350	0.691	-0.264
	0.000		0.081	0.000	0.000	0.006
3. DRIORG	0.529	0.168	---	0.301	0.291	-0.347
	0.000	0.081		0.001	0.002	0.000
4. DRINON	0.699	0.350	0.301	---	0.386	-0.403
	0.000	0.000	0.001		0.000	0.000
5. SCSORFS	0.654	0.691	0.291	0.386	---	-0.290
	0.000	0.000	0.002	0.000		0.002
6. M-AIS	-0.463	-0.264	-0.347	-0.403	-0.290	---
	0.000	0.006	0.000	0.000	0.002	

Note. M-AIS = McCabe's Academic Integrity Survey. DRI = Duke Religion Index. DRIINT = Duke Religion Index Intrinsic. DRIORG = Duke Religion Index Organizational. DRINON = Duke Religion Index Non-organizational. SCSORFS = Santa Clara Strength of Religious Faith Scale. $p \leq .05$

Inspection of the correlation matrix reveals that the DRI subscales Intrinsic religiosity, Organizational religiosity, and Non-organizational religiosity are highly correlated with one another and statistically significant at $p < .01$. Also, the SCSORFS

and the DRI are highly correlated (.654) and statistically significant at $p < .01$. This indicates that these two scales are measuring a similar concept.

Five individual regression analyses, one for each subscale, were conducted to determine if any of the predictor variables made substantial contributions to the prediction of academic dishonesty. The first simple regression analyses examined the correlation between Overall religiosity and cheating behavior utilizing DRI scores as the predictor variable and M-AIS scores as the criterion variable. This regression yielded an r squared of 21.4% and an adjusted correlation coefficient of 20.7%. SCSORFS scores and M-AIS scores were then examined through simple regression to further determine the correlation between Overall religiosity and cheating behaviors. The regression yielded an r squared of 8.4% and an adjusted correlation coefficient of 7.5%.

Simple regression analyses were conducted to determine if Intrinsic religiosity is a good predictor of academic dishonesty. DRI scores were again used as the predictor variable and M-AIS scores as the criterion variable. This regression yielded a correlation coefficient of r squared = 7.0% and an adjusted correlation coefficient of 6.1%. Next, using DRI scores as the predictor variable and M-AIS scores as the criterion variable, simple regression analyses were conducted to determine if Organizational religiosity is a good predictor of cheating behavior. This regression produced an r squared of 12.1%.

Finally, using DRI scores as the predictor variable and M-AIS scores as the dependent variable, simple regression analyses were conducted to determine if Non-Organizational religiosity is a good predictor of academic dishonesty. This regression yielded an r squared of 16.2% and an adjusted correlation coefficient of 15.4%. Table 14

presents the *b* weights, *r* squared coefficients, and the standard error of the simple regression analyses.

Table 14

b Weights, *r* squared Coefficients, and Standard Error for Simple Regression Analysis

Variable	<i>b</i> Weight	<i>r</i> squared	Standard Error	<i>t</i>	<i>p</i>
(Constant)	60.371	21.4%	6.613	9.13	0.000
DRI TOTAL	-1.488		0.275	-5.40	0.000
a. Dependent Variable: M-AIS SCORE					
(Constant)	42.653	7.0%	6.349	6.72	0.000
DRIINT	-1.308		0.462	-2.83	0.006
a. Dependent Variable: M-AIS SCORE					
(Constant)	46.283	12.1%	5.645	8.20	0.000
DRIORG	-3.979		1.038	-3.83	0.000
a. Dependent Variable: M-AIS SCORE					
(Constant)	41.246	16.2%	3.675	11.22	0.000
DRINON	-3.3163		0.729	-4.55	0.000
a. Dependent Variable: M-AIS SCORE					
(Constant)	42.263	8.4%	5.622	7.52	0.000
SCSORFS	-0.4819		0.154	-3.13	0.002
a. Dependent Variable: M-AIS SCORE					

The b weights and r squared coefficients were inspected to determine the importance of the variables. From reviewing the b weights, all of the predictor variables made significant relationships based on the five individual equations. The most meaningful were DRI Overall religiosity (r squared = 21.4%) and DRI Non-Organizational religiosity (16.2%). Overall, results of this analysis suggest that each variable is moderately predictive of academic dishonesty among intercollegiate athletes at a Christian college.

Research Question 4

The fourth research question asked, “Is there a relationship between religiosity and academic dishonesty among intercollegiate athletes at a state university?” This question was evaluated by conducting a simple regression analyses. The criterion variable was M-AIS scores and the predictor variables were DRI, DRI Intrinsic religiosity, DRI Organizational religiosity, DRI Non-organizational religiosity, and SCSORFS scores. Each of the predictor variables was analyzed individually due to multicollinearity of the variables. The intercorrelations for all of the subscale scores are presented in the correlation matrix in Table 15.

Table 15.

Correlation Matrix of Religiosity Variables

Variable	DRI TOTAL	DRI INT	DRI ORG	DRI NON	SCORFS	M-AIS
7. DRI TOTAL	---	0.928	0.792	0.875	0.703	0.001
		0.000	0.000	0.000	0.000	0.994
8. DRIINT	0.928	---	0.575	0.668	0.668	0.041
	0.000		0.000	0.000	0.000	0.766
9. DRIORG	0.792	0.575	---	0.729	0.540	0.020
	0.000	0.000		0.000	0.000	0.887
10. DRINON	0.875	0.668	0.729	---	0.599	-0.085
	0.000	0.000	0.000		0.000	0.539
11. SCSORFS	0.703	0.668	0.540	0.599	---	-0.121
	0.000	0.000	0.000	0.000		0.383
12. M-AIS	0.001	0.041	0.020	-0.085	-0.121	---
	0.994	0.766	0.887	0.539	0.383	

Note. M-AIS = McCabe's Academic Integrity Survey. DRI = Duke Religion Index. DRIINT = Duke Religion Index Intrinsic. DRIORG = Duke Religion Index Organizational. DRINON = Duke Religion Index Non-organizational. SCSORFS = Santa Clara Strength of Religious Faith Scale. $p \leq .05$

Inspection of the correlation matrix reveals that the DRI subscales Intrinsic religiosity, Organizational religiosity, and Non-organizational religiosity are highly correlated with one another and statistically significant at $p < .01$. Also, the SCSORFS

and the DRI are highly correlated (.703) and statistically significant at $p < .01$. This indicates that these two scales are measuring a similar concept.

Five individual regression analyses, one for each subscale, were conducted to determine if any of the predictor variables made substantial contributions to the prediction of academic dishonesty. The first simple regression analyses examined the correlation between Overall religiosity and cheating behavior utilizing DRI scores and M-AIS scores. This regression yielded an r squared of 0% and an adjusted correlation coefficient of 0%. SCSORFS scores and M-AIS scores were then examined through simple regression to further determine the correlation between Overall religiosity and cheating behaviors. The regression yielded an r squared of 1.5% and an adjusted correlation coefficient of 0%.

Simple regression analyses were conducted to determine if Intrinsic religiosity is a good predictor of academic dishonesty. DRI scores and M-AIS scores were again examined. This regression yielded a correlation coefficient of r squared = 0.2% and an adjusted correlation coefficient of 0%. Next, using DRI scores as the predictor variable and M-AIS scores as the criterion variable, simple regression analyses were conducted to determine if Organizational religiosity is a good predictor of cheating behavior. This regression produced an r squared of 0%.

Finally, using DRI scores as the predictor variable and M-AIS scores as the dependent variable, simple regression analyses were conducted to determine if Non-Organizational religiosity is a good predictor of academic dishonesty. This regression yielded an r squared of 0.7% and an adjusted correlation coefficient of 0%. Table 16

presents the *b* weights, *r* squared coefficients, and the standard error of the simple regression analyses.

Table 16

b Weights, *r* squared Coefficients, and Standard Error for Simple Regression Analysis

Variable	<i>b</i> Weight	<i>r</i> squared	Standard Error	<i>t</i>	<i>p</i>
(Constant)	26.573	0.0%	5.612	4.73	0.000
DRI TOTAL	0.0021		0.2926	0.01	0.994
a. Dependent Variable: M-AIS SCORE					
(Constant)	24.965	0.2%	5.754	4.34	0.000
DRIINT	0.1492		0.4990	0.30	0.766
a. Dependent Variable: M-AIS SCORE					
(Constant)	25.881	0.0%	5.360	4.83	0.000
DRIORG	0.191		1.335	0.14	0.887
a. Dependent Variable: M-AIS SCORE					
(Constant)	28.542	0.7%	3.536	8.07	0.000
DRINON	-3.5576		0.9014	-0.62	0.539
a. Dependent Variable: M-AIS SCORE					
(Constant)	31.109	1.5%	5.377	5.79	0.000
SCSORFS	-0.1534		0.1745	-0.88	0.383
a. Dependent Variable: M-AIS SCORE					

The *b* weights and *r* squared coefficients were inspected to determine the importance of the variables. From reviewing the *b* weights, none of the predictor variables made significant relationships based on the five individual equations. The most meaningful was the SCSORFS (*r* squared = 1.5%).

Although the simple correlation coefficient was small, suggesting that the predictor variables only contribute slightly to the prediction of the criterion variable, *b* weights and *r* squared coefficients nonetheless were inspected to determine variable importance. From reviewing the *b* weights, none of the predictor variables substantially contributed to the prediction of academic dishonesty among the athletes at the state university. Inspection of the *r* squared coefficients also showed that none of the predictor variables made substantial contributions to the prediction of academic dishonesty at the state university. Overall, results of this analysis suggest that none of the religiosity variables are predictive of academic dishonesty among intercollegiate athletes at a state university.

Statement of Research Hypotheses

Research hypothesis 1. There is no difference in the level of religiosity between intercollegiate athletes at a private Christian college and a state university.

Based on the analysis and the data presented in Table 7, this hypothesis is rejected at the .05 level of significance. A significant difference was found in the level of religiosity between intercollegiate athletes at a Christian college and a state university.

Research hypothesis 2. There is no difference in the level of intrinsic religiosity between intercollegiate athletes at a Christian college and a state university.

Based on the analysis presented in Table 7, this hypothesis is rejected at the .05 significance level. A significant difference was found in the level of intrinsic religiosity between intercollegiate athletes at a Christian college and a state university.

Research hypothesis 3. There is no difference in the level of organizational religiosity between intercollegiate athletes at a Christian college and a state university.

Based on the analysis presented in Table 7, this hypothesis is rejected at the .05 significance level. A significant difference was found in the level of organizational religiosity between intercollegiate athletes at a Christian college and a state university.

Research hypothesis 4. There is no difference in the level of non-organizational religiosity between intercollegiate athletes at a Christian college and a state university.

Based on the analysis presented in Table 7, this hypothesis is rejected at the .05 significance level. A significant difference was found in the level of non-organizational religiosity between intercollegiate athletes at a Christian college and a state university.

Research hypothesis 5. There is no difference in the level of academic dishonesty between intercollegiate athletes at a Christian college and a state university.

Based on the analysis presented in Table 8, this hypothesis is retained at the .05 significance level. No significant difference was found in the level of academic dishonesty between intercollegiate athletes at a Christian college and a state university.

Research hypothesis 6. Among athletes attending a Christian college, there is no relationship between religiosity and academic dishonesty.

Based on the analysis presented in Table 14, this hypothesis is retained at the .05 significance level. Among athletes attending a Christian college, no significant relationship was found between religiosity and academic dishonesty.

Research hypothesis 7. Among athletes attending a Christian college, Intrinsic religiosity is not a good predictor of academic dishonesty.

Based on the analysis presented in Table 14, this hypothesis is retained at the .05 level of significance. Among athletes at a Christian college, Intrinsic religiosity is not a good predictor of academic dishonesty. Intrinsic religiosity is only a moderate predictor of academic religiosity.

Research hypothesis 8. Among athletes attending a Christian college, Organizational religiosity is not a good predictor of academic dishonesty.

Based on the analysis presented in Table 14, this hypothesis is retained at the .05 level of significance. Among athletes at a Christian college, Organizational religiosity is not a good predictor of academic dishonesty. Organizational religiosity is a moderate predictor of religiosity.

Research hypothesis 9. Among athletes attending a Christian college, Non-organizational religiosity is not a good predictor of academic dishonesty.

Based on the analysis presented in Table 14, this hypothesis is retained at the .05 level of significance. Among athletes at a Christian college, Non-organizational religiosity is not a good predictor of academic dishonesty. Non-organizational religiosity is only a moderate predictor of religiosity.

Research hypothesis 10. Among athletes attending a state university, religiosity is not a good predictor of academic dishonesty.

Based on the analysis presented in Table 16, this hypothesis is retained at the .05 level of significance. Among athletes attending a state university, religiosity is not a good predictor of academic dishonesty.

Research hypothesis 11. Among athletes attending a state university, Intrinsic religiosity is not a good predictor of academic dishonesty.

Based on the analysis presented in Table 16, this hypothesis is retained. Among athletes attending a state university, Intrinsic religiosity is not a good predictor of academic dishonesty.

Research hypothesis 12. Among athletes attending a state university, Organizational religiosity is not a good predictor of academic dishonesty.

Based on the analysis presented in Table 16, this hypothesis is retained. Among athletes attending a state university, Organizational religiosity is not a good predictor of academic dishonesty.

Research hypothesis 13. Among athletes attending a state university, Non-organizational religiosity is not a good predictor of academic dishonesty.

Based on the analysis presented in Table 16, this hypothesis is retained. Among athletes attending a state university, Non-organizational religiosity is not a good predictor of academic dishonesty.

CHAPTER 5 – SUMMARY AND DISCUSSION

The primary constructs of religiosity (organizational, non-organizational, and intrinsic) and academic dishonesty have been investigated in this research. This final chapter of the dissertation restates the research problem and the purpose of the study. This chapter also reviews the major methods and procedures utilized throughout the study. The major sections of this chapter summarize the results and discuss the implications of the study for practice. Finally, limitations and recommendations for further research are presented.

Statement of the Problem

Research indicates that academic dishonesty is prevalent among college and university campuses in this country. Cheating behavior is a threat to the integrity of higher education (Loftus & Smith, 1999). Intervention strategies have been implemented to curb cheating behaviors at institutions of higher learning, but academic dishonesty seems to remain a serious and disturbing issue. Research has also indicated that athletes cheat more than non-athletes (Haines et al., 1986; Wertheim, 1999). If research indicated that religiosity might thwart academic dishonesty, college and university administrators could use the research results to make informed decisions concerning religiosity on campuses across the country. This study was conducted with the purpose of determining the relationship between religiosity and academic dishonesty among intercollegiate athletes comparing a Christian and a state institution of higher learning. This study also intended to examine the impact religiosity has on the level of academic dishonesty.

Also of interest were the levels of religiosity and the levels of cheating behavior at each institution. The types and prevalence of cheating behaviors associated with academic dishonesty were also examined.

It can be inferred that academic dishonesty is a serious issue within institutions of higher learning. This study has provided insight into this issue and has offered strategies that may provide guidance into reducing this problem that exists on many college campuses across the country.

The research questions directing this study were as follows:

1. Are there differences in the level of religiosity (intrinsic, organizational, non-organizational) between intercollegiate athletes at a private Christian college and a state university?
2. Are there differences in the level of academic dishonesty between intercollegiate athletes at a private Christian college and a state university?
3. Is there a relationship between religiosity (intrinsic, organizational, non-organizational) and academic dishonesty among intercollegiate athletes at a private Christian college?
4. Is there a relationship between religiosity (intrinsic, organizational, non-organizational) and academic dishonesty among intercollegiate athletes at a state university?

The research questions and related hypotheses were composed after a review of literature related to academic dishonesty, intercollegiate athletes, and religiosity. The review of literature showed that academic dishonesty is prevalent across college campuses today. Academic dishonesty has been documented as an epidemic problem that

must be addressed in order to reduce or eliminate the threat it poses to higher education. It represents a severe threat to an institution's integrity. Furthermore, it contradicts the values and principles that students should obtain and strengthen while in college (Carnegie Council Report, 1979; Davis, Grover, Becker, & McGregor, 1992; Nuss, 1984).

The problem appears to center around the lack of institutional control regarding academic dishonesty (Aaron, 1992; Fass, 1986; Haines et al., 1986). Boundaries need to be established in order to preserve the values and integrity that have long been attributed to higher education (Fishbein, 1993; Kibler, 1993, 1994; Pavela & McCabe, 1993). Kibler & Kibler (1993) claimed, "colleges need a comprehensive approach to the problem of academic dishonesty" (p. B1).

The review of literature also revealed that intercollegiate athletes are a group that has long been present within higher education and have become embedded within American colleges and universities (Smith, 1988). In a 1997 study on academic dishonesty comparing intercollegiate athletes and non-athletes, McCabe and Trevino concluded that athletes engage in cheating behavior more frequently than non-athletes.

Very little research has been conducted to determine if religiosity may have a buffering effect on the level of academic dishonesty among intercollegiate athletes. According to Storch (2002), religiosity plays a role in the lives of many athletes. He noted that it is surprising that given its role in the lives of athletes, little empirical research has been conducted that has investigated the safeguarding effects of religiosity against academic dishonesty among intercollegiate athletes. Understanding this relationship is particularly important given the high incidence of academic dishonesty in

higher learning institutions among intercollegiate athletes (Gerdeman, 2000; Haines, et al., 1986).

Review of the Methodology

The sample in this study consisted of 163 undergraduate intercollegiate athletes enrolled at a private Christian college or a state university during the 2008 Spring semester. The Christian college was a member of the NAIA, and the state university represented the NCAA. Criteria for selection were: first, it was based on geographical location, and then, secondly, a state institution and a Christian college were selected.

The athletes represented men and women's basketball, women's softball, men's baseball, men and women's golf, men and women's tennis, men and women's cross-country, and women's volleyball. Responses were obtained from 163 students (N=163) at both institutions. There were 109 respondents representing the Christian college and 54 respondents representing the state institution.

Due to the availability of teams, a purposive sample was selected. The purposive sample included undergraduate student athletes. Various ethnic groups and denomination affiliations were represented. Demographic information regarding the participants included gender, year in school, ethnicity, age, and religious affiliation.

This non-experimental research design made use of McCabe's Academic Integrity Survey (M-AIS), the Santa Clara Strength of Religious Faith Scale (SCSORFS), and the Duke Religion Index (DRI) to accomplish the purpose of this study. The M-AIS measured academic dishonesty and the SCSORFS and DRI measured religiosity.

The athletic director at each institution established a time and place to administer the survey. The researcher administered the survey in Spring 2008 to the athletes enrolled

at the college and university. The researcher was very clear to coaches, athletic directors, and athletes that the information collected would remain confidential and anonymous. Participants were informed and assured that there would be no identifiers on the instrument and that the formal consent process was utilized.

The researcher administered the survey to the athletes after brief instructions were given. The survey contained a cover letter highlighting the instructions. Students were informed that (1) responses would be anonymous, (2) there were no known dangers associated with the survey, and (3) the study was designed to provide a greater understanding of cheating behaviors and religiosity. Upon completion of the survey the researcher collected and recorded the data.

The data were analyzed using Minitab. To determine differences in the level of religiosity (organizational, non-organizational, and intrinsic) between the two groups, several *t*-test computations were performed. Differences in the levels of academic dishonesty between both groups were also analyzed using *t*-tests, frequencies and percentages. A means report was utilized to further examine the various cheating behaviors. Simple regression analyses were performed to determine any relationships between the independent variables of religiosity and the dependent variable of academic dishonesty. A critical value of .05 was used to determine the level of significance for all statistical procedures.

Discussion of the Results

Findings of the Study

Previous researches have documented the threat that academic dishonesty poses on higher education (Boyer, 1990; Haines et al., 1986; Michaels & Miethe, 1989).

Reported rates of the incidence of academic dishonesty have been calculated as high as 95% (McCabe & Trevino, 1997). Consistent with these findings, this study found 85% of the respondents reported that they had committed an act of academic dishonesty at least one time over the course of the Spring 2008 semester. Approximately 94% of the intercollegiate athletes at the Christian college reported that they had committed an act of academic dishonesty at least one time over the Spring 2008 semester. In contrast, only 69% of athletes at the state university self-reported participation in cheating behavior.

Interestingly, students from the smaller Christian college admitted to the most frequent cheating while athletes from the larger state university self-reported cheating the least. This finding is inconsistent with past research studies. McCabe and Pavela (2000) claimed that smaller sized institutions are at an advantage in controlling academic dishonesty because these students feel they are more likely to get caught than students from larger universities.

In this study few significant differences were found in the overall level of student cheating between intercollegiate athletes at a Christian college and a state university. However, significant differences were found in three of the 17 cheating behaviors listed on the academic dishonesty survey. The incidence of cheating was examined by requesting respondents to self-report the frequency of specific cheating acts. These statements received the highest levels of frequency: “getting questions from someone who has already taken a test”, “copying a few sentences of material without footnoting them in a paper”, and “working on an assignment with others when the instructor asked for individual work.” These types of cheating behavior suggest the respondents were more likely to engage in collaborative cheating rather than individual cheating. These

findings are consistent with previous research (Hollinger and Lanza-Kaduce, 1996; Polding, 1995), where the specific forms of academic dishonesty involving plagiarism and the taking of information were found to be the most frequent.

The incidence of each cheating behavior was examined separately for each institution to compare the frequency levels of the Christian college athletes and the state university athletes. Ironically, both groups shared the same three prevalent cheating behaviors: “copying a few sentences of material without footnoting them in the paper”, “getting answers or questions from someone who has already taken the test”, and “working on assignments with others when the instructor asked for individual work.” All of these cheating behaviors indicate that students are tempted to take information and claim it as their own individual work. It also suggests that students are more involved in collaborative cheating than in individual cheating.

Each of the 17 specific cheating behaviors was examined to determine if there were significant differences in any of the self-reported cheating behaviors. Significance was found within the frequency of “copying from another student during a test without his or her knowledge” ($t(69) = -2.19, p < .05$), “using unpermitted crib notes or a cheat sheet during a test” ($t(77) = -2.49, p < .10$), and “writing or providing a paper for another student” ($t(71) = -1.96, p < .001$). These differences suggest that the athletes from the state institution engaged in copying from another student during a test without his or her knowledge significantly more often than those athletes at the Christian college. Also, the athletes at the state university self-reported that they engaged in using unpermitted crib notes or cheat sheets during a test significantly more often than the athletes at the Christian college. Finally, the athletes at the state institution reported they engaged in

writing or providing a paper for another student significantly more often than the athletes at the Christian college.

In this study significant differences were found in the level of religiosity between intercollegiate athletes at a Christian college and a state university. The level of overall religiosity was examined as well as each of the subscales of religiosity. The difference in the level of overall religiosity indicated that intercollegiate athletes at the Christian college were significantly more religious than students from the state institution.

Regarding the subscales of religiosity, there was a significant difference in the level of intrinsic religiosity, organizational religiosity, and non-organizational religiosity. The athletes attending the Christian college reported to be significantly more religious than the state university athletes in all subscales of religiosity.

Five simple regression analyses, one for each religiosity subscale, were conducted to determine if there is a relationship between religiosity and academic dishonesty among the athletes at the Christian college. The criterion variable was academic dishonesty and the predictor variable was religiosity. Each of the five predictor variables was analyzed individually due to multicollinearity of the variables. All of the predictor variables made significant relationships based on the five individual equations. The results of the analyses suggest that each religiosity variable is moderately predictive of academic dishonesty among intercollegiate athletes at the Christian college.

Five simple regression analyses, one for each religiosity subscale, were conducted to determine if there is a relationship between religiosity and academic dishonesty among the athletes at the state university. As in the previous analyses, the criterion variable was academic dishonesty and the predictor variable was religiosity. Each of the five predictor

variables was analyzed individually due to multicollinearity of the variables. None of the predictor variables made substantial contributions to the prediction of academic dishonesty at the state university suggesting that none of the variables are predictive of academic dishonesty among intercollegiate athletes at a state university.

The fact that there appeared to be no significant relationship between religiosity and academic dishonesty among the intercollegiate athletes at the state university could have resulted from the athletic director's failure to treat the study and the survey as an important research tool. At the Christian college, the athletic director encouraged the intercollegiate athletes to answer all items in the survey in a conscientious manner. He also stressed the importance of higher education and doctoral educational research. In contrast, the athletic director at the state university asked the athletes to fill out the survey just after the athletes had sat through a one-hour mandatory meeting. The athletes seemed anxious to leave the auditorium and partake of refreshments. Not many of the athletes seemed willing to voluntarily stay and to conscientiously complete the survey.

Implications for Practice

Academic dishonesty and religiosity (organizational, non-organizational, and intrinsic) were the constructs to be investigated for this study. These constructs were examined and compared individually to assess the level religiosity and the level of academic dishonesty among the intercollegiate athletes. These constructs were also investigated to determine if a relationship existed between religiosity and academic dishonesty.

This study found that athletes from the Christian college were indeed more religious than athletes from the state university. However, no significant difference in the

level of cheating between the athletes at each institution was found. Furthermore, the incidence of cheating reported was higher among the Christian college athletes (94%). In contrast, the incidence of cheating reported by the state university athletes was only 69%. It may be speculated that the higher rate of academic dishonesty among the Christian college athletes was due to a more honest confession of dishonesty. It may also be speculated that the Christian college athletes perceive specific cheating behaviors to indeed be cheating or deviant; whereas, the state university students may not feel as conscientious about cheating behaviors.

Even though the athletes at the state university self-reported less cheating behavior than the Christian college athletes, the frequency was still very high (69%). Perhaps many athletes possess a feeling that they are untouchable. This belief that their athletic ability or notoriety will prevent them from any form of punishment may facilitate the commission of deviant acts such as cheating. The overall incidence of cheating suggests that institutions are not effectively employing strategies to resist academic dishonesty. This problem should be addressed through adequate prevention measures and campus wide approaches.

Several prevention methods have been identified that professors and administrators could use to battle the issue of academic dishonesty. These measures include having smaller classes rather than auditorium sections, having computers scramble the items on an exam so that no two exams were the same, using more essays and fewer objective questions on tests, and having several proctors or monitors to watch for cheating. These prevention measures would specifically fight the acts of academic dishonesty, taking of information and plagiarism, which many respondents claimed they

had committed. Once these prevention methods have been identified and incorporated by professors, it is the responsibility of the institutions to foster an education environment in which cheating is deterred and academic honesty is encouraged. Models have been proposed that may effectively stifle the problem of academic dishonesty across college campuses (Jendrek, 1989; Kibler, 1993; Kibler, 1994; Pavela & McCabe, 1993). The common theme of these programs of intervention involved a clearly written policy detailing academic dishonesty, an adequate adjudication procedure, opportunities for discussion, worthy sanctions, and accordance throughout instructional settings.

McCabe and Trevino (1996) reported that campus size could be an influential factor to the level of academic dishonesty. They also found that the campus culture regarding academic integrity is one of the most influential factors to student cheating. Collison (1990) stated that smaller colleges with smaller classroom sizes have lower levels of student academic dishonesty. In contrast, this study found that students from the smaller campus with smaller classroom sizes self-reported more cheating than the students from the larger institution.

Promotion of academic integrity must not only be made at the policy level but must especially be made at the course level. Professors must exhibit through their actions and statements that they adhere to and promote the policies of academic integrity in their classroom and at their campuses.

Limitations, Assumptions, and Design Controls

Limitations

The limitations to this study were relative to geographical area and the design used by the researcher, and are indicated as follows:

1. The study was limited geographically to two institutions located in the southeastern United States. Results may not generalize to other areas of the United States.
2. The study was limited in size to the purposive sampling of intercollegiate athletes and selected higher education institutions.
3. The findings of this study may not be generalizable to athletes at other institutions.
4. The study was limited in its design through the use of self-reporting measures of academic dishonesty.
5. The study assumed the participants were honest in their responses and interpreted the instrument as intended. Scheers & Dayton (1987) suggested that the method of self-reporting might lead to underestimation. However, other researchers have maintained that self-reporting is an accurate method of data collection (Hindelang, Hirschi, & Weis, 1981; Hollinger & Lanza-Kaduce, 1996).

Assumptions

Due to the anonymity of the survey, it was assumed that the subjects would understand and provide honest responses to questions on a self-reporting survey of religiosity and academic integrity.

Design Controls

A correlational research design attempted to understand patterns of relationships among the variables of religiosity and academic dishonesty comparing athletes at a private Christian college and a state university. The study also included a descriptive research design through the use of a survey instrument to collect data. There are problems that may arise through the use of this inquiry method. A key problem to this inquiry

method can be the lack of response from subjects (Gay, 1996). The researcher in this study controlled the problem by traveling to the sampled college and university sites and manually gathering the instruments upon completion. Rea and Parker (1997) confirmed the use of sample surveys by acknowledging that the primary advantage to the survey sample technique is the ability to generalize characteristics of an entire population by making inferences based on data drawn from a small portion of the population. In this study, the researcher used a questionnaire composed of questions drawn from several valid and reliable survey instruments.

Recommendations for Future Research

The nature and behaviors of student athletes needs additional research because of the increasing number of recruited athletes, different competitive goals of athletic programs, and admissions preference for athletes. Additional research to analyze the mentality, beliefs, attitudes, and actions of intercollegiate athletes could be of great value to administrators, especially athletic administrators, in helping them to be better prepared to combat academic dishonesty.

A significant finding from the study that merits further research is the construct of collaborative cheating. The most common self-reported cheating behaviors among the intercollegiate athletes at both institutions in this study involved collaborative cheating.

World Wide Web access and expanding use of the Internet and communication technologies have created new and convenient means for students to engage in academic dishonesty methods. Due to this technology revolution in learning, further research needs

to be conducted to determine the pervasiveness of academic dishonesty among students using the Internet.

A study investigating the impact honor codes, fraternity or sorority membership, political action, and participation in other extracurricular activities have on cheating could prove to be very beneficial in gaining understanding of academic dishonesty. This examination could also be beneficial in assessing the factors of an honor code system or other extracurricular activity that have the most impact on positively influencing the campus culture relating to academic integrity.

Additional research on the campus culture relating to academic integrity may be useful to further reducing student cheating. Also, additional research on institutional size could be of value to curbing student cheating in the future, especially as it relates to organizational culture.

Several studies have recommended extending research to include a greater variety of institutions in multi-campus studies, including religious colleges and universities (Haines et al., 1986; Kibler, 1992). However, relatively little is known about behaviors and attitudes toward cheating among student athletes who attend Christian colleges. Replication of this study utilizing a larger sample size to determine the relationship between religiosity and academic dishonesty could bring more insight into relationships between these constructs. The results of this study lead one to consider whether or not a specific institution, and the beliefs of the institution, make a difference among the student athletes' attitudes and behaviors towards academic dishonesty. Additional research is needed to determine if it is reasonable to expect less cheating by student athletes in institutions that link Christian character and biblical principles to the curriculum. One

might inquire whether student athletes from Christian colleges located in the country's traditional "Bible Belt" would yield fewer incidences and greater disapproval of cheating than their counterparts who attend secular public and private institutions. One might also inquire if the theological framework and church affiliations of different Christian colleges would have a significant impact on the behaviors and attitudes towards cheating among student athletes. Furthermore, one might inquire whether church affiliation, or the professed new birth of Christian student athletes has the greater influence on cheating attitudes and behaviors. Further studies need to be conducted to enrich the limited body of knowledge on the topic.

Summary

Academic dishonesty research concludes that cheating behaviors and attitudes remain prevalent on college campuses today. Academic dishonesty is a serious issue and should continue to be studied and investigated for better understanding of the nature of the topic. This chapter has examined the implications of academic dishonesty as well as provided recommendations for future research regarding academic dishonesty.

In the United States intercollegiate athletics are embedded within the institutional structure of higher education. Athletes are often viewed as a subculture of the educational institution. They are a considerable sector of the student population, and therefore, need to be studied to understand how leaders in higher education can better accommodate these differences that may be associated with athletic programs. This study has focused on a the special population of intercollegiate athletes in the belief that by adding to the knowledge on the topic, those within collegiate communities can fully engage in continued dialogue and assist in remedying this serious concern.

The review of literature indicates that most studies have examined cheating only within the context of public, secular, and private institutions. The literature review further implies that little research has been conducted on academic dishonesty in Christian colleges and religious institutions. This study has attempted to include a Christian college in order to gain more understanding of this particular population and their level of participation in cheating behaviors.

The purpose of this study was to examine the level of religiosity and the level of academic dishonesty among intercollegiate athletes comparing a Christian and a state university. Also, the study sought to determine any relationships that might exist between religiosity (organizational, non-organizational, and intrinsic) and academic dishonesty. Organizational religiosity, non-organizational religiosity, and intrinsic religiosity were variables that were considered to determine if these constructs played any role in the level of student cheating on college campuses today. The primary finding was the collaborative type of dishonest behaviors frequent to both institutions: “copying a few sentences of material without footnoting them in a paper,” “getting questions or answers from someone who has already taken a test”, and “working on an assignment with others when the instructor asked for individual work.”

Significant differences were found regarding the religiosity level of the athletes. The Christian college athletes were more overall religious than the state university athletes. The Christian college athletes were also significantly more religious than the state university athletes in all three subscales of religiosity: organizational, non-organizational, and intrinsic.

No significant difference was found in the level of academic dishonesty as related to the Christian college or the state university. Even though no significant difference was found in the level of dishonesty, the frequency of cheating behavior is noteworthy. Overall, 85% of the respondents reported having engaged in cheating behavior. A disturbing 94% of the Christian college athletes reported participating in cheating behavior at least one time during the semester of the study. At the state university, 69% of the athletes reported engaging in cheating behavior.

No significant difference was found in the relationship between religiosity and academic dishonesty among the intercollegiate athletes at the Christian college. Religiosity was a moderate predictor of cheating behavior. Likewise, no significant difference was found in the relationship between religiosity and academic dishonesty among the athletes at the state university. Religiosity was not a predictor of cheating behavior.

This study could be useful in determining if the reported pressure to succeed in both academics and athletics has any bearing on the prevalence of academic dishonesty among athletes in both Christian and state institutions of higher learning. Finally, the results of this study could provide information for educational administrators so that intervention programs can be established and maintained at various educational institutions.

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Appendix A

*Cover Letter*Religiosity and Academic Integrity Survey

These teams have been selected to participate in a research study. The purpose of the study is to examine the relationship between religiosity and academic dishonesty among intercollegiate athletes.

Absolute and complete anonymity is ensured. Only collective data will be analyzed. Please do not put your name anywhere on the survey.

Participation is voluntary. Your views and honesty on these issues are critical to the success of this research study. By answering the following questions truthfully, you will be contributing to a better understanding of the research topic.

Completing the survey should take from 10-15 minutes. If you have questions about the survey or study, you may ask them now or after you have completed the survey.

Thank you for your cooperation.

Lori Robertson
XXX.XXX.XXXX

Appendix B

Religiosity and Academic Integrity Survey

The following survey will take 10-15 minutes to finish and is completely anonymous. Please make an effort to answer every question. Thank you very much for your participation.

Section 1 – Demographics

1. Gender (please check)
 - ☐ 1) Male
 - ☐ 2) Female

2. Class (please check)
 - ☐ 1) Senior
 - ☐ 2) Junior
 - ☐ 3) Sophomore
 - ☐ 4) Freshman

3. Ethnicity/National Origin (please check)
 - ☐ 1) African American/Black
 - ☐ 2) Native American
 - ☐ 3) Asian American
 - ☐ 4) White/Caucasian American
 - ☐ 5) Latino/Hispanic American
 - ☐ 6) American-mixed heritage
 - ☐ 7) International Student
 - ☐ 8) Other

4. What is your Age? (Please check)
 - ☐ 1) 17
 - ☐ 2) 18
 - ☐ 3) 19
 - ☐ 4) 20
 - ☐ 5) 21
 - ☐ 6) 22
 - ☐ 7) 23

5. What is your academic major (course of study)? _____

6. What is your church/religious affiliation?
 - ☐ 1) Assembly of God/Pentecostal
 - ☐ 2) Church of Christ
 - ☐ 3) Church of God
 - ☐ 4) Congregationalists
 - ☐ 5) Episcopal
 - ☐ 6) Independent Baptist
 - ☐ 7) Lutheran
 - ☐ 8) Methodist
 - ☐ 9) Mormon
 - ☐ 10) Nazarene
 - ☐ 11) Non-denominational
 - ☐ 12) Orthodox
 - ☐ 13) Presbyterian
 - ☐ 14) Roman Catholic

- ___15) Seventh Day Adventist
 ___16) Southern Baptist
 ___17) Unitarian
 ___18) United Church of Christ
 ___19) No religion (including atheist, agnostic)
 ___20) Other (please list) _____

Section 2 – Academic Integrity

Listed below are some questions about specific behaviors that some people might consider cheating. Please remember that this survey is completely anonymous. Please circle one response for each behavior using the following scale.

	Since coming to your school how often have you engaged in any of the following actions?	How serious do you consider this form of cheating?
	1= Never 2= Once 3=More than once 4=Several times 5= Many times	1= Not cheating 2= Trivial cheating 3= Serious cheating
1) Copying from another student during a test (or exam) <u>without</u> his or her knowledge.	1 2 3 4 5	1 2 3
2) Copying from another student during a test <u>with</u> his or her knowledge	1 2 3 4 5	1 2 3
3) Using unpermitted crib notes (or cheat sheet) during a test.	1 2 3 4 5	1 2 3
4) Getting questions or answers from someone who has already taken a test.	1 2 3 4 5	1 2 3
5) Helping someone else cheat on a test.	1 2 3 4 5	1 2 3
6) Cheating on a test in another way.	1 2 3 4 5	1 2 3
7) Copying material, almost word for word, from any source and turning it in as your own work	1 2 3 4 5	1 2 3
8) Fabricating or falsifying a bibliography.	1 2 3 4 5	1 2 3
9) Turning in work done by someone else.	1 2 3 4 5	1 2 3
10)Receiving substantial, unpermitted help on an assignment.	1 2 3 4 5	1 2 3
11)Working on an assignment with others when the instructor asked for individual work.	1 2 3 4 5	1 2 3
12)Copying a few sentences of material without footnoting them in a paper.	1 2 3 4 5	1 2 3
13)Writing or providing a paper for another student.	1 2 3 4 5	1 2 3
14)Turning in a paper based on information obtained from a term paper “mill” or website	1 2 3 4 5	1 2 3
15)Plagiarizing a paper in any way using		

- the Internet as a source. 1 2 3 4 5 1 2 3
- 16) In a course requiring computer work,
copying another student's program
rather than doing your own work. 1 2 3 4 5 1 2 3
- 17) Falsifying lab or research data. 1 2 3 4 5 1 2 3

Section 3 – Religiosity *Please mark the extent to which each statement is true of you.*

- (1) How often do you attend church or other religious meetings?
1. More than once a week
 2. Once a week
 3. A few times a month
 4. A few times a year
 5. Once a year or less
 6. Never
- (2) How often do you spend time in private religious activities, such as prayer?
1. More than once a day
 2. Daily
 3. Two or more times a week
 4. Once a week
 5. A few times a month
 6. Rarely or never

The following section contains 3 statements about religious belief or experience. Please mark the extent to which each statement is true or not true for you.

- (3) In my life, I experience the presence of the Divine (i.e., God).
1. Definitely true of me
 2. Tends to be true of me
 3. Unsure
 4. Tends *not* to be true
 5. Definitely *not* true
- (4) My religious beliefs are what really lie behind my whole approach to life.
1. Definitely true of me
 2. Tends to be true of me
 3. Unsure
 4. Tends *not* to be true
 5. Definitely *not* true
- (5) I try hard to carry my religion over into all other dealings in life.
1. Definitely true of me
 2. Tends to be true of me
 3. Unsure
 4. Tends *not* to be true
 5. Definitely *not* true

Please answer the following questions about religious faith using the scale below. Indicate the level of agreement (or disagreement) for each statement.

1 = strongly disagree 2 = disagree 3 = agree 4 = strongly agree

6. My religious faith is extremely important to me.	1	2	3	4
7. I pray daily.	1	2	3	4
8. I look to my faith as a source of inspiration.	1	2	3	4
9. I look to my faith as providing meaning and purpose in my life.	1	2	3	4
10. I consider myself active in my faith or church.	1	2	3	4
11. My faith is an important part of who I am as a person.	1	2	3	4
12. My relationship with God is extremely important to me.	1	2	3	4
13. I enjoy being around others who share my faith.	1	2	3	4
14. I look to my faith as a source of comfort.	1	2	3	4
15. My faith impacts many of my decision.	1	2	3	4

Appendix C

Academic Dean Information Letter

Dear [Academic Dean]:

I am a doctoral student at Liberty University in Lynchburg, Virginia and am currently completing my dissertation entitled, "A Comparison Between a Christian and a State Institution of Higher Education: The Relationship of Religiosity and Academic Dishonesty Among Athletes." As a part of the research, undergraduate intercollegiate athletes from a Christian college and a state university are being surveyed regarding their perceptions of religiosity and academic dishonesty at their institution. I desire to include xx College in this study. Your athletic director is receptive to my visit and is willing to help schedule times to administer a survey. The questionnaire should take 15-20 minutes to complete. I intend to prepare a summary of my findings and submit them to you, which could be of use to you and your institution by assessing the levels of religiosity and academic dishonesty at your institution among intercollegiate athletes and comparing this level to a state university in your geographic area.

I am writing to seek your permission to conduct the survey at your institution. I would truly appreciate your support because limited information is available on the relationship between religiosity and academic dishonesty. **The confidentiality of your institution and your student athletes will be protected throughout the study. No institution or individual student will be identified in the reported results.** While I do hope that you will allow me to conduct my study at your institution, participation by the students is completely voluntary. Participants may withdraw from the survey at any time without penalty. Individual responses to the survey are completely confidential and anonymous. Only aggregate data from the Questionnaire will be shared with you and the other institution along with the reported study results. Your signature on the enclosed form indicates your informed consent for me to conduct my study at your institution.

I am enclosing a copy of the questionnaire and a synopsis of the research study for your review. If you have any questions about this research project, please do not hesitate to contact me at xxx.xxx.xxxx or xxxxxxxxxxxxx.xxxx. You may also contact my Faculty Advisor, Dr. Leonard Parker, at xxxxxxxxxxxxx.xxxx.

I know you will have questions and I will need to arrange a time to visit; therefore, I will call you in the near future to discuss this with you. Thank you in advance for your assistance with this project.

Sincerely,

Lori Robertson
 Doctoral Candidate
 Liberty University

Appendix D

Informed Consent – Academic Dean

I, _____, of _____, on this ____ day of _____, 2008, consent to participate in this research project and understand the following:

PROJECT BACKGROUND: This project involves gathering data through the attached survey and assessing the relationship between religiosity and academic dishonesty among athletes at the college or university they are presently attending. The data will be collected for analysis and may be published. The students being surveyed must be at least 18 years of age to participate.

PURPOSE: The purpose of this study is to examine the relationship between religiosity and academic dishonesty among athletes comparing a Christian and a state institution of higher education.

VOLUNTARY: The survey is entirely voluntary. Participants may refuse to answer any question or choose to withdraw from participation at any time without any penalty.

BENEFITS: Your participation in this research project will enrich the information base. The research may present a clearer understanding of the relationship between religiosity and academic dishonesty. Added potential benefits might include a better understanding of the subculture of the student athlete. Also, benefits might include recommended preventative measures to reduce student cheating on college and university campuses.

RISKS: This project does not involve any risks greater than those encountered in everyday life.

CONFIDENTIALITY: Confidentiality will be maintained in that your college or university and the participant's name will not appear on the survey or in the published study itself. The data will only be reported in aggregate form.

Signature

Thank you for your assistance in providing current information regarding the possible relationship between religiosity and academic dishonesty among intercollegiate athletes. Your efforts are greatly appreciated. If you have any questions regarding this study, please contact me at xxx.xxx.xxxx or xxxxxxxxxxxxxxxxxxx.xxx. You may also contact my Faculty Advisor, Dr. Leonard Parker at xxxxxxxxx.xxxxxxx. Thank you in advance for your assistance with this project.

Sincerely,

Lori Robertson
 Doctoral Candidate
 Liberty University

Appendix E

Permission Request of Athletic Director

Lori Robertson
Street Address
City, State, Zip

Name of Athletic Director or Assistant Athletic Director
Name of College

Institution Address

City & State

I am writing this letter as a graduate student in the hope that you can assist me in surveying athletes from your institution for my dissertation research. I would like to examine the relationship between religiosity and academic dishonesty among the athletes at your college.

I am requesting permission to discuss my research project with a representative from the Athletic Department. I anticipate 15-20 minutes for athletes from fall, winter, and spring sports to fill out the anonymous survey sometime during the spring semester. I will make myself available day, evenings, and weekends to accomplish this task and not interfere with athletic contests or seasonal responsibilities.

Institution and student confidentiality will be maintained at all time. No student or institution will be identified at any time in this study. I am not requesting interaction with the athletes other than administrative instructions for filling out the survey.

I would appreciate meeting with an athletic department representative who could assist me in pursuing this research. If you have any questions please feel free to call me at xxx-xxx-xxxx or contact me by e-mail at xxxxxxxxxxxx. Thank you for your consideration.

Sincerely,

Lori A. Robertson
Graduate Student
Liberty University

Enclosure: Copy of Survey

Appendix F

Informed Consent – Athletic Director

I, _____, of _____, on this ____ day of _____, 2008, consent to participate in this research project and understand the following:

PROJECT BACKGROUND: This project involves gathering data through the attached survey and assessing the relationship between religiosity and academic dishonesty among athletes at the college or university they are presently attending. The data will be collected for analysis and may be published. The students being surveyed must be at least 18 years of age to participate.

PURPOSE: The purpose of this study is to examine the relationship between religiosity and academic dishonesty among athletes comparing a Christian and a state institution of higher education.

VOLUNTARY: The survey is entirely voluntary. Participants may refuse to answer any question or choose to withdraw from participation at any time without any penalty.

BENEFITS: Your participation in this research project will enrich the information base. The research may present a clearer understanding of the relationship between religiosity and academic dishonesty. Added potential benefits might include a better understanding of the subculture of the student athlete. Also, benefits might include recommended preventative measures to reduce student cheating on college and university campuses.

RISKS: This project does not involve any risks greater than those encountered in everyday life.

CONFIDENTIALITY: Confidentiality will be maintained in that your college or university and the participant's name will not appear on the survey or in the published study itself. The data will only be reported in aggregate form.

Signature

Thank you for your assistance in providing current information regarding the possible relationship between religiosity and academic dishonesty among intercollegiate athletes. Your efforts are greatly appreciated. If you have any questions regarding this study, please contact me at xxx.xxx.xxxx or xxxxxxxxxxxxxx.xxx You may also contact my Faculty Advisor, Dr. Leonard Parker at xxxxxxxx.xxxx Thank you in advance for your assistance with this project.