

UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

THE RELATIONSHIP BETWEEN EXPOSURE TO HIGHER LEVELS OF  
MORALLY PRINCIPLED THINKING AND THE DEVELOPMENT OF MORAL  
DECISION MAKING COMPETENCIES OF STUDENT-ATHLETES

A DISSERTATION

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

Degree of

DOCTOR OF PHILOSOPHY

By

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Norman, Oklahoma

2011

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DECISION MAKING COMPETENCIES OF STUDENT-ATHLETES

A DISSERTATION APPROVED FOR THE  
DEPARTMENT OF EDUCATIONAL LEADERSHIP AND POLICY STUDIES

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## **Dedication**

This effort is dedicated to the man who has believed in me from the beginning. He has taught me what perseverance is, what determination is, and what unconditional love is. With my hand in his, my very first steps have turned into achieving lifelong goals. To Dr. John Winters, my father, I give my deepest appreciation and unending love.

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## **Abstract**

At intercollegiate athletics' most competitive level, NCAA Division I, student-athletes frequently experience national attention from media outlets, increased pressure to perform from coaches, celebrity status from society, and extreme demands of time that leave little room for student error or exploration. As media coverage of student-athlete crime expands, the question of how participation in intercollegiate athletics effects student-athlete development, specifically moral development, emerges. From student development theory, it is known that one way to influence the growth of moral development is to expose students to higher levels of morally principled thinking. The purpose of this study was to examine the relationship between the exposure to higher levels of morally principled thinking and the development of moral decision making competencies. Through quantitative methodology, participants ( $n = 178$ ) completed two study instruments: a self-made questionnaire measured the possible exposure to higher levels of morally principled thinking and Georg Lind's Moral Judgment Test, which measured the participants' abilities to make moral decisions. Multiple regression analyses revealed that the family's involvement in the pre-collegiate years is most influential on the development of moral decision making competencies. During collegiate years, coaches are most influential in the lives of student-athletes.

## Chapter One

“The function of education is to teach one to think intensively and to think critically. . . Intelligence plus character – that is the goal of true education.”

Martin Luther King, Jr.

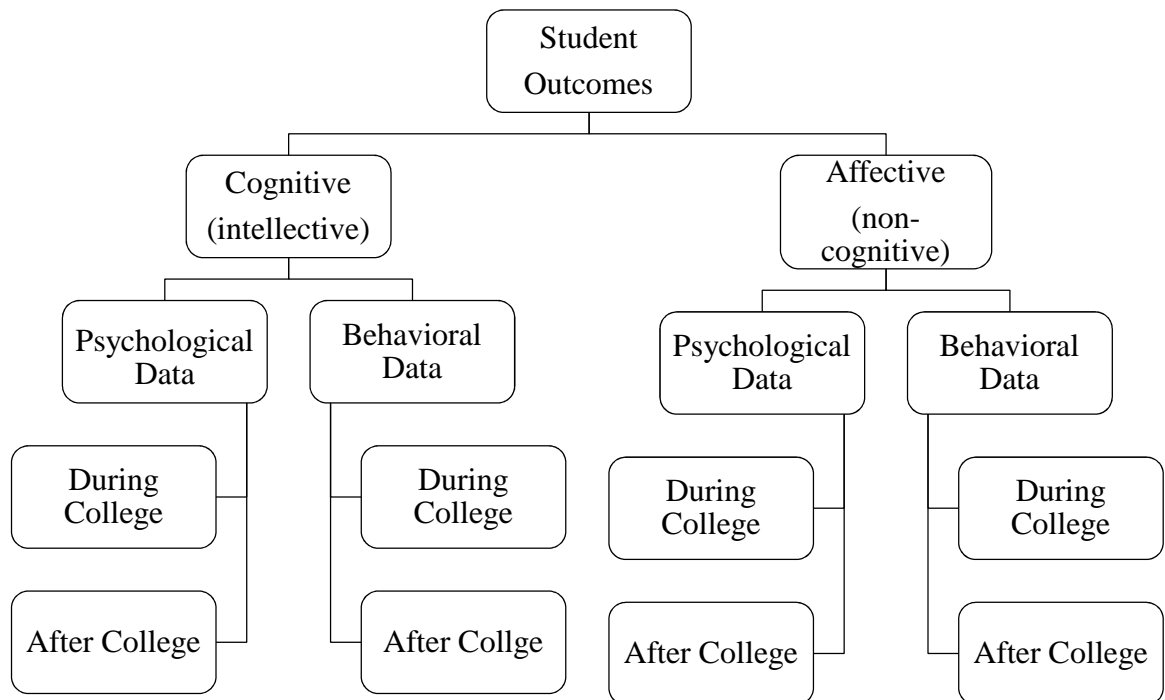
Each year, students enroll in universities with the hope of obtaining a meaningful college education. This educational process is expected to prepare them for satisfying professional careers, for high financial returns on their investment, and to become fully participating citizens of society. Research universities offer these opportunities to students through the central missions of teaching, research, and service. Faculty members, student affairs practitioners, and university administrators aim to provide the educational basis for this growth in knowledge and personal development. Through these avenues, students are prepared to become valuable members of society.

These types of changes that students undergo throughout their experiences in college have been well studied during the past 50 years. Astin (1977) provides a good theoretical framework for understanding college student experiences and potential outcomes. A summary of Astin’s theory can be found below in Figure 1.

His “Taxonomy of Student Outcomes,” based in the field of behavioral science, divides student experiences into the types of outcomes that are experienced, the type of data that reflect the experiential change, and the amount of time that this shift will remain in students’ lives following the completion of college (Astin, 1977). Astin’s student experiences are further divided into those that are cognitive and those that are affective. Cognitive outcomes include those that require a

sequence of thought, challenging students in the areas of reason and logic. Cognitive outcomes commonly measured in college student research include academic performance (as measured in GPA) or student retention (as noted through persistence). Affective outcomes include those that have indicated a change in students' attitudes, sets of values, or senses of self-esteem (Astin, 1977). These changes in psychological attitudes are strongly associated with changes in behavior; frequently, psychological change accompanies behavioral change. Affective outcomes commonly measured in college student research are usually captured through these behavioral changes, such as those during interaction with peers, in everyday habits, and displayed during extracurricular activities (Astin, 1977).

Figure 1. Astin's Taxonomy of Student Outcomes.



As indicated by Astin's taxonomy, the collegiate experience will not only result in a cognitive gain of academic ability, but also may result in affective

changes, shown through a broadening of the students' world views and the development of aptitude to examine critically conflict with different points of view (Pascarella & Terenzini, 1991). Moral development is an important aspect of the affective development of college students as former beliefs and perspectives are challenged during the college years. As these affective changes are critical to the development of college students, many students choose to participate in co-curricular activities aimed at enriching their collegiate experiences and developing both cognitive and affective aspects of their lives. These co-curricular activities range from fraternity and sorority membership, to participation in the marching band, or to participation in one of several college-sponsored clubs. It is within this group of student development activities that intercollegiate athletics began to grow into the enterprise it is today (Gerdy, 2006). For many students, participation in intercollegiate athletics will be a fundamental part of their collegiate experiences, with athletic scholarships frequently being their sole means to an education. For these students, life as collegiate student-athletes will introduce them to experiences and challenges not shared by the rest of the student body. The intermingling of student-athletes' collegiate experiences with sport participation presents a unique collegiate experience. Unique to the United States in scale, the inclusion of athletics within higher education has raised questions about how intercollegiate athletics complements the central missions of a university. In a report titled "A Call to Action: Reconnecting College Sports and Higher Education," issues involving the commercialization of intercollegiate athletics, the lack of focus on academics for student-athletes, and a general separation from the missions of the university are

among some of the points raised as areas in need of reform in college athletics (Knight Foundation, 2001). These concerns are magnified by media reports of student-athlete crimes, academic deficiencies, and a general feeling of skepticism regarding the integrity of big-time athletic departments (Hayes, 2006; Lumpkin, 2008; Marino, 2006). Faculty, parents, and the public frequently wonder how participation in intercollegiate athletics addresses the goal of granting incoming students the opportunity to gain an education and to develop themselves into respected members of society (Eberhardt, 2006; Lumpkin, 2008). It is within this notion of social preparation that the question of the beneficial or detrimental effects of participation in intercollegiate athletics exists.

In response to concerns such as those discussed by the Knight Commission, some feel that participation in intercollegiate athletics fits within the teaching responsibilities of a university. Originally placed on college campuses to help develop the moral character of its participants (Marino, 2006; Rudd, 2007) and to increase public support for colleges (Chu, 1989) research has indicated that student-athletes may gain valuable lessons in teamwork, leadership development, strategy formation, and critical thinking as a result of athletic participation (Marino, 2006; Rudd, 2007). Chu (1989) states that university administrators have also used intercollegiate athletics as a method of achieving the holistic personal development responsibilities that differentiate education in the United States from others in the world. Additionally, the reality of declining funding for higher education in the United States leaves university administrators with budgetary uncertainties, and hopes to find financial relief through intercollegiate athletics. Chu (1989) maintains



that administrators may look toward intercollegiate athletics as a possible remedy for these financial uncertainties, while others raise concerns regarding the well-being of the student-athletes when athletics are viewed as a revenue stream. The NCAA Division I classification of athletics is typically characterized by the large sport budgets that support powerhouse athletic programs. Examples of the larger budgeted athletic programs within this division are The Ohio State University with a fiscal year 2010 budget of \$128 million, and the University of Texas with a fiscal year 2009 budget of \$125 million. Concern for the well-being of student-athletes caught in a money-making enterprise is of primary concern at these Division I athletics programs. In support of this concern, it has been argued that the current culture of athletics, particularly in the traditionally-named “revenue sports” of football and men’s basketball, may potentially harm aspects of the student-athletes’ character development (Eberhardt, 2006; Reall, Bailey & Stoll, 1998; Wolverton, 2006). Team culture has been identified as a factor related to varying levels of character development (Loughead & Leith, 2001). This research suggests that an institution and, more specifically, coaches can play a major role in setting the tone of integrity and values among the student-athletes.

As media coverage of alleged crimes committed by student-athletes expands, a concern for the lack of character exhibited by student-athletes is gaining ground in this country (Marino, 2007). The debate surrounding the question of character in athletics is further complicated by a mixture of conflicting research results. The varied conclusions found in the literature are caused by multiple factors that include differing definitions of character, inadequate sample sizes, and problematic

instrumentation. There is a need for studies to correct the methodological problems found in previous research and to provide a foundation for universities to address discrepancies between athletics and their central mission of teaching, research, and service.

As noted in previous research on character, character development is a complex construct, which makes it difficult to obtain an accurate measurement (Gump, Baker & Roll, 2000; Marino, 2007). Multiple instruments have been designed to measure this construct. Some have tried to divide the idea of character into distinguishable components such as moral character and social character (Rudd & Stoll, 2004). Others find themselves in a battle with semantics using terms such as “character development,” “moral reasoning,” and “ethical standards” interchangeably (Marino, 2006; Stoll, 2006; Stoll & Beller, 1998). Although all are closely related, any change in an aspect of one’s “character” is certain to produce a chain reaction within the individual (Chickering, 1972). No single part of one’s character develops in a vacuum. The experiences and lessons that contribute to character development frequently affect students on multiple levels, causing a ripple effect. When capturing these changes, it is important to identify precisely the quality that is to be measured, not the subsequent reactions of other character aspects within students. As Pascarella and Terenzini (1991) state, moral reasoning is “an integral part of an interconnected and a mutually reinforcing network of developmental trends that characterize changes in college students” (p. 337). Others argue that the complexity of the construct of character prevents any accurate measurement. This researcher believes that while the changes are highly

interconnected, it is possible to measure the degree of change in a specific trait or construct, as long as that trait has been well defined. For this study, the focus is within the moral development aspect of students' character.

Perhaps the challenge in measuring one's growth in moral development rests with the numerous factors that could potentially affect the rate of change for this trait. As noted by Pascarella and Terenzini (1991), there are five main influences on the moral development of college students. The first of these influences occurs when students are exposed to divergent perspectives from people with whom they interact. The situation of being around others who approach or view issues from a different perspective, such as what is experienced when living with roommates or being away at college in a different part of the country, will broaden the ability to consider critical and moral dilemmas from alternate perspectives, thus enhancing the developmental level of thought (Evans et al., 1998). The second influence found to be active in facilitating moral development in students is the level of exposure to cognitive moral conflict (Pascarella & Terenzini, 1991). This is commonly found in collegiate courses that challenge students with materials that they were not previously exposed to, and which force them to consider additional information when making moral or ethical decisions. The third of the influences on moral development is the exposure to higher levels of morally principled thinking than students are normally exposed to in their collegiate lives. This exposure typically comes from interactions and conversations with faculty, staff, and upperclassmen regarding moral conflicts (Evans et al., 1998). The fourth influence on moral development is the demand that college students take on new social responsibilities.

Frequently, college students are asked to assume everyday responsibilities that they previously had not experienced. Examples of this might include the need to budget time for studying or feeling the direct effects of making inter-personal decisions such as conflict resolution with roommates or delegating academic responsibilities when working in small groups with classmates (Pascarella & Terenzini, 1991). The final influence on moral development is that of experiencing real world responsibilities and dealing with the consequences of personal and professional actions that are brought about by a myriad of college experiences. This moral balance between managing responsibilities and experiencing consequences may be illustrated by the decision among some students to participate in academic dishonesty, an act that can provide immediate reward, but could possibly have severe ramifications.

In order to attempt to address a portion of the complexities that measuring character carries with it, this study focuses solely on the relationship that the exposure to higher levels of morally principled thinking has on the moral judgment-making skills of student-athletes worthy of study. It can be argued that each of the five influences on the moral development of college students are experienced to some degree by all college students, regardless of participation in intercollegiate athletics. It is how student-athletes' experiences differ from those of the general student body that makes them a unique group of students. This influence of varying levels of exposure to higher levels of morally principled thinking was selected based on the opportunity for differences between student-athletes and the general student body in their collegiate experiences. Student-athletes have the opportunity to build

very close relationships with coaches, athletic administrators, athletic staff and fellow teammates that the rest of the student body is not typically afforded. It is within these relationships that the opportunity to educate student-athletes exists, thus helping to justify the inclusion of intercollegiate athletics in a university. This method of exposure to higher levels of moral development will act as the lens to examine the moral decision making abilities of student-athletes. These abilities can be considered a form of competency that people develop to a unique degree over the course of a lifespan. This aspect of character has been selected in an effort to explore one specific, measurable trait of those involved with the multiple dimensions of character development. The choice of addressing one aspect of character allows the research to focus on a manageable portion of the complex nature of character research. This study builds on previous research by addressing issues which have not been directly addressed in prior studies, such as consideration given for possible reading comprehension issues that may exist with participating student-athletes and carefully defining those who were asked to participate in the study, limiting the sample to active participants in Division I athletics.

The theoretical basis for concern regarding moral development in intercollegiate athletics is well described in Kleiver's (1998) chapter "Ethical Issues in Intercollegiate Athletics." Kleiver applied Kohlberg's theory of moral development to the arena of intercollegiate athletics. Although over the years, Kohlberg's theories have been criticized for containing potential sexist and cultural biases (Rest & Narvaez, 1994; Tod & Hodge, 2001), they still serve as the foundation for other, newly-developed measures of moral development (Gump et

al., 2002; Reall et al., 1998). Combined with the work of cognitive psychologists including Piaget, Kohlberg, Gilligan, and Rest, present day researchers look to apply the founding theories of moral development to new arenas with improved measures.

Georg Lind, a researcher and teacher in the area of moral and democratic development and education in the Psychology Department at the University of Konstanz, Germany, has continued Kohlberg's work of theorizing on moral judgment behavior. Lind has created his own Dual-Aspect Theory of moral judgment behavior. The first part of this theory includes Piaget's and Kohlberg's notion that one's cognition and affect are connected, but separately identifiable, aspects of making moral decisions (Lind, 2002). The second part of this theory is based on Kohlberg's views on moral judgment competence. Kohlberg defined this idea as "the capacity to make decisions and judgments which are moral (i.e., based on internal principles) and to act in accordance with such judgments" (Kohlberg, 1964, p. 425).

Based on his Dual-Aspect Theory, Lind (2002) created the Moral Judgment Test (MJT) in an attempt to measure both aspects of judgment behavior. Reflective of Astin's (1977) 2x2x2 taxonomy, Lind incorporated a measure for the cognitive changes, as applied to moral decision making, with the affective changes that would occur with changes in the level of ability in moral reasoning among college students. This test is different from other commonly used instruments because it measures both the cognitive and the affective components of moral reasoning at the same time, but gives separate scores for stages of each. The cognitive components

of moral reasoning are those that are internal mental processes such as critical thinking and problem solving. The affective components of moral reasoning are those that are related to the emotional responses made in connection to moral dilemmas. Measuring the two components together affords a unique picture into the thought processes that occur during a moral decision. In short, instead of a simple measurement of the attitude of the participant toward a moral decision, the MJT requires the participant to engage actively in moral decision making.

This study is significant to the field of higher education due to the obligation that institutions have to insure that their student-athletes are afforded full developmental and educational opportunities. If findings are consistent with detrimental effects on development, further research should be conducted to determine which factors are potentially responsible and how to best address them. If findings reflect a trend of moral developmental growth in the student-athletes, then additional research should be performed to determine which factors are the most instrumental in the facilitation of this growth. Individual universities and the student-athletes who attend them could benefit from the resulting information from either scenario.

### **Statement of the Problem**

The purpose of this study was to examine how exposure to higher levels of morally principled thinking affects the moral decision making competency of student-athletes.

## **Research Questions**

As discussed earlier, there are many factors that could potentially play a role in the moral decision making competency of student-athletes. There is support for the idea that the pre-collegiate environment which the students experienced before coming to college has a significant impact on the level of moral development attained prior to the start of college. Research on the collegiate experience of student-athletes suggests there are differences between revenue and non-revenue sports, contact and non-contact sports, and differences related to gender. Additionally, student-athletes are exposed to people and experiences that are not offered to the general student body, such as the controlling presence of a coach, required interaction with athletic department staff, and long hours of close involvement with teammates. It is within these experiences as athletes, in addition to those experienced as students, that the research questions were formed. A comprehensive review of each of these variables will be presented in a subsequent chapter.

In an effort to fulfill the purpose of this study, the following research questions were examined:

1. To what extent do the pre-collegiate experiences of student-athletes relate to the levels of moral decision making achieved?
2. To what extent do the collegiate experiences of student-athletes relate to the levels of moral decision making achieved?
3. To what extent does exposure to higher levels of morally principled thinking from coaches relate to the level of moral decision making achieved?



4. To what extent does exposure to higher levels of morally principled thinking from faculty relate to the level of moral decision making achieved?
5. To what extent does exposure to higher levels of morally principled thinking from teammates relate to the level of moral decision making achieved?
6. To what extent does exposure to higher levels of morally principled thinking from athletics department staff relate to the level of moral decision making achieved?
7. To what extent does the interaction of the set of possible exposures to higher levels of morally principled thinking relate to the combined score on the measure of moral judgment competence?

### **Limitations**

1. Although measures were taken to encourage participation, it was not possible to ensure a response from all student-athletes in every sport. As suggested by Instructional Assessment Resources (2007), acceptable response rates depend upon the purpose of the research, the type of analyses used, and the method of administration. For this study, a response rate of 50% was deemed a desirable goal to meet.
2. Due to the potential extraordinary number of possible variables, this type of research can never indicate a cause and effect relationship. In the best way possible, all relevant variables were included and their interrelationships taken into account in the exploration of this complicated phenomenon.

## **Assumptions**

1. It was assumed that participants fully comprehended the instruments and answered appropriately and accurately. Both the questionnaire and survey were reviewed for clarity and reading level.
2. It was assumed that participants answered the research questions carefully, honestly, and to the best of their abilities or recollection.
3. It was assumed that the instrument chosen provided an adequate measurement of the moral judgment abilities of the participants.
4. It was assumed that those responsible for providing exposure to higher levels of moral reasoning were actually operating at those levels themselves.

## **Definition of Terms**

1. Division I University—This classification is given by the National Collegiate Athletic Association (NCAA) to a university whose athletic department meets specified requirements. These institutions have athletic departments which represent the most competitive levels of intercollegiate athletics and typically have the largest operating budgets.
2. Moral Judgment Competence—“The capacity to make decisions and judgments which are moral (i.e., based on internal principles) and to act in accordance with such judgments” (Kohlberg, 1964, p. 425). Lind (in press) also describes moral judgment competency as one’s ability to make decisions regarding moral issues rather than one’s actual level of moral development. In this manner, moral judgment competency may be thought of as the ability of subjects to accept or reject arguments on a particular

moral issue consistently in regard to their moral quality even though they oppose the subject's stance on that issue.

3. Revenue Producing Sport–Refers to sports that commonly realize a profit in their operating budgets. The sports that are included in this category are football and men's basketball.
4. Student-Athlete – For the purposes of this study, a student-athlete is any student who is currently listed on a roster of any sport at the Division I university which provided subjects for this study.
5. Coach, Athletic Administrator, Athletic Staff – Any member of the athletic department who is officially employed by the university and whose job it is to have regular interaction with student-athletes from any team.
6. Contact Sport–Any sport in which full body contact is inherently necessary to fulfill the play of the game. These sports include: football, boxing, ice hockey, judo, karate, tae kwon do, rugby, soccer, and wrestling (Tommasone & McLeod, 2006). All other sports may be considered limited contact or non-contact. In this study, football, soccer, and wrestling were the only contact sports in which the student-athletes participated.

## **Chapter Two**

### **Literature Review**

The distinction between those who view sport as character-enhancing and those who view it as potentially character-damaging is an age-old debate. While the justification of the initial inclusion of athletics on college campuses in the United States was to help students to develop exemplary character (Hayes, 2006; Sage, 1998) and to help financially secure the university (Chu, 1989), sport was also viewed as a means to develop the values held dear by society and to instill social and moral character in the participants. General Douglas MacArthur described the importance of sport participation in our society as “. . . a vital character builder. It molds the youth of our country for their roles as custodians of the republic” (Gerdy, 2002, p.13). Nevertheless, as early as the 1800s, concern regarding high injury and death rates, poor behavior exhibited by athletes, and issues of sport culture and commercialism were being discussed by American society (Lumpkin, 2008). As the years progressed, there were continued debates regarding the same societal concerns as had previously taken place. As the field of cognitive psychology developed, new instruments were created to measure and study the moral and ethical concerns of society. Various populations found themselves subjected to a wide array of questionnaires. Resulting from this research is a literature base that builds foundations for, and provides critiques of, methodologies, conclusions, and assumptions held in these studies. Both sides of the argument on the influence of athletics on character have experienced support as well as contradictory findings. While most agree that character as a whole is difficult to define, making it difficult

to measure, others maintain that a way to measure character is to reduce the complexity of the construct into distinguishable parts that do not make up a whole (Stoll & Beller, 1998). It is within these observations that the possibility of accurately measuring character exists.

To provide the foundation for understanding the present study, this chapter explores previous research, identifying the uniqueness of student-athletes as a population, noting the rationale for the selection of the moral reasoning aspect of character, exploring previous difficulties encountered in research, and presenting the choices for instrumentation selection.

### **Character: Defined and Divided**

The construct of character is a complex trait that many researchers have attempted to define. Sage (1998) points out that many definitions can correctly fit the idea of character, it is in the lack of specification of which definition is used that problems arise. While some have labeled the term as “vague” (Sage, 1998), others have taken a classical approach with Aristotle’s definition as described in

Nicomachean Ethics II.7:

Excellence [of character], then, is a state concerned with choice, lying in a mean relative to us, this being determined by reason and in the way in which the man of practical wisdom would determine it. Now it is a mean between two vices, that which depends on excess and that which depends on defect. (1106b36-1107a3)

Here Aristotle defines having good character as being in a certain state of mind, meaning that it is a mental condition more than habitual actions which we have been taught (Homiak, 2007). Scholars may never agree on the exact definition of the construct of character, causing some to believe that this makes it impossible to

measure. To address this issue, some researchers feel that character may best be measured as a sum of its parts. Stoll and Beller (1998) believe that there are enough commonalities among the definitions to provide successful measurement. In an effort to do this, character development has recently been measured in student-athletes in terms of the creation of two distinct aspects: moral character and social character (Hayes, 2006; Rudd, 1998). This separation attempts to group together similar components of one's character that relate to each other. Character traits are classified into two groups of ideas that reflect a similar method of interaction with the student-athletes' environment: social character and moral character. Social character is described as a display of loyalty, a willingness to self-sacrifice for the good of the group, and acting courageously (Rudd, 1998). Moral character is described as holding strong to personal values regarding honesty, justice, and respect for others (Rudd, 1998). It is within the moral character elements of character that the focus of the present research occurs. Working within Astin's 2 x 2 x 2 typology, this research focuses on the psychological aspects of moral competence rather than the resulting behavioral aspects.

**Moral character.** Kleiver's (1990) essay *Ethical Issues in Intercollegiate Athletics* provides an in-depth discussion of his view of the world of intercollegiate athletics as related to basic moral and philosophical beliefs. Kleiver compared commonly-accepted practices in intercollegiate athletics with Kohlberg's six stages of moral reasoning that have served as the basis for theory in the field of moral psychology.

Based on Piaget's assumptions made during previous research with moral development in children, Kohlberg's studies led to the creation of a set of stages that he contended everyone passed through (Piaget, 1977). Kohlberg described his stages as invariant, hierarchical, and sequential (Kleiver, 1998). The six Kohlbergian stages are divided into three main phases. An illustration of Kohlberg's theory is provided following the discussion in Figure 2. These are the phases of pre-conventional thought, conventional thought, and post-conventional thought. A person is placed in a particular phase based on the point of view held regarding the person's reconciliation of personal moral beliefs and societal expectations (Evans, Forney, & Guito-DiBrito, 1998).

The first phase, pre-conventional thought, houses Kohlberg's first two stages of moral development. In this phase, the rules of society are not well understood by the individual and the point of view is concrete and focused on the self. The first stage, Heteronomous Morality, is thought of by Kleiver as the "punitive" stage. In this stage, one will obey the rules of society merely to avoid the resulting punishment (Evans et al., 1998; Kleiver, 1998). In the second stage, Individualistic, Instrumental Morality, actions are decided based on the point of view of creating an equal exchange of behavior. There is a realization that some of society's rules conflict with their personal wants, but in order to satisfy these wants, there is a compromise made (Evans et al., 1998). Kleiver mentions the phrase "You scratch my back and I'll scratch yours" to describe the personal incentive for making moral decisions (Kleiver, 1998, p. 106).

The second phase, conventional thought, is marked by a point of view that involves a moral identification of what family, friends, and society expect and a willingness to oblige. The third stage of moral development is that of Interpersonally Normative Morality. Kleiver calls the morality of this stage the “conformist” stage due to the fulfillment of societal expectation that normally occurs during this time (Kleiver, 1998). The motivation for moral behavior originates from the need to gain approval from others, still a self-serving source (Evans et al., 1998). The fourth stage of moral development is that of Social System Morality. This stage is marked by the point of view that being morally correct is to obey the laws set in place by society (Evans et al., 1998). Kleiver terms this stage the “authoritarian” stage due to the subordination of personal needs to the betterment of society (Kleiver, 1998).

The third phase, post-conventional thought, is marked by a separation of society’s principles from personal moral thought. Decisions are made for the greater good of society and are based on personal moral reasoning. It is noted that some individuals will never reach this stage of moral thought (Evans et al., 1998; Kleiver, 1998). The fifth stage of Kohlberg’s moral reasoning is the Human Rights and Social Welfare Morality. This stage is marked by a judgment of society’s laws based on personal moral beliefs. Kleiver terms this stage “utilitarian” due to the nature of the relationship with society. In this stage, it is acceptable to challenge the rules of society if it will benefit the good of all (Kleiver, 1998). The last of Kohlberg’s stages is the Morality of Universalizable, Reversible, and Prescriptive General Ethical Principles. A member of this stage will be able to equally consider



their own moral beliefs, those of society, and those of all involved in a moral dilemma. Decisions are based on humanistic principles that are widely accepted (Evans et al., 1998). For this very reason, Kleiver terms this stage the “universal ethical principle orientation,” noting that the principles of justice and equality are given consideration in all situations in a consistent manner (Kleiver, 1998).

*Figure 2.* Kohlberg’s Theory of Moral Development

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**Pre-Conventional Thought**

Point of View: Focused on the self

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1. Heteronomous Morality - obeying rules to avoid punishment
  2. Individualistic, Instrumental Morality - equal exchange of behavior
- 

**Conventional Thought**

Point of View: Will do what society expects

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3. Interpersonally Normative Morality - conforms to societal expectation
  4. Social System Morality - being morally correct is to obey society's laws
- 

**Post-Conventional Thought**

Point of View: Decisions are made for the greater good of society

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5. Human Rights and Social Welfare Morality - can challenge rules of society if all will benefit
  6. Morality of Universalizable, Reversible, and Prescriptive General Ethical Principles - can equally consider own moral beliefs with those of others and societal beliefs
- 

Kleiver maintains that the structure and common practices of intercollegiate athletics inhibit the natural passage of student-athletes through each of Kohlberg’s stages (Kleiver, 1998). For example, the practice of using physical punishment for

student-athletes when a rule is broken, is only enforcing thought in the first stage of reasoning. Consequently, student-athletes may learn to obey the rules just to gain playing time, or other benefits, thus the motivation used in the second stage of moral reasoning is evidenced. Kleiver's overall conclusion is that intercollegiate athletics operates most generally in the lowest levels of moral development, limiting the potential moral development of student-athletes. Although multiple criticisms of Kohlberg's theories exist, other tests of moral development have produced similar findings when administered to student-athletes (Gump et al., 2002; Reall et al., 1998). It may be that intercollegiate athletics programs are frequently structured to allow for the most control over student-athletes, which translates to using the lowest levels of moral development.

*Views of moral psychology.* Criticisms of Kohlberg's theories range from the containment of sexist (Gilligan, 1977) and cultural biases (Rest & Nevarez, 1994), to limitations in scope of measurement and theory (Lind, in press; Rest, 1979). These criticisms have provided an array of views on how one develops moral thought and how this thought process can best be measured. Each theorist offers a unique insight into the process of moral development.

James R. Rest based his ideas of moral reasoning on Kohlberg's theory but made several modifications (Evans et al., 1998). Rest focused on how societal rules are known and how the balance is made between these rules and personal values. Rest also questioned Kohlberg's separation of content of moral decision making and the structure of the process. He maintained that a person's level of moral reasoning may not be wholly in a particular stage but may show signs of being in multiple

stages at once (Evans et al., 1998). Rest presents multiple modifications to Kohlberg's model of development and focuses on the influences on moral behavior. He notes that the level of moral reasoning is paramount in the demonstration of one's moral behavior and explores other influences that exist in moral action such as age and level of education (Rest & Narvaez, 1994).

Carol Gilligan challenged Kohlberg's theories based on the notion that Kohlberg's research was gender-biased. As there were no women included in his research, Gilligan investigated what differences might exist when attempting to apply Kohlberg's instrument to women. Results of these studies revealed that on Kohlberg's test of moral development, women consistently scored lower than males (Evans et al., 1998). Gilligan maintains that these differences in scores are due to inherent flaws in the theory, not actual differences in levels of moral development. Her research concludes that women tend to emphasize relationships between people more than men do (Evans et al., 1998). She developed her own model of one's journey through moral development based on her idea of a "care" orientation which takes into account the relationships that need to be considered when making moral decisions. Although Gilligan's work has been criticized for making gender assumptions, Gilligan maintains that her idea of a "care voice" is applicable to both genders (Evans et al., 1998).

Georg Lind also based his ideas of measuring moral development on Kohlberg's theory, but took a slightly different philosophical approach. He points out what he has determined to be flaws in others' attempts at measurement and combines these with his own theory of moral behavior. Lind provides three

definitions of morality and explains how his theory is drawn out of the three (Lind, in press).

Lind's first definition is the behaviorist approach of rule conformity. Morality is absolute in nature, viewed as a list of things that should or should not be performed. Evidence dating back to biblical times, this "thou shall not kill" measure of morality is still common in moral measurement research and serves as the basis for "reward and punishment" approaches to moral education (Lind, in press).

The second definition is employed by Rest and others, and which Lind terms the "good intentions" definition (Lind, in press). This definition disagrees that morality can be evidenced through adherence to rules but looks to a person's moral intentions to determine moral behavior. This definition indicates that if one is to have morally good behavior, then this implies that morally good attitudes and values must exist at high levels of moral thinking. This definition carries with it the assumption that psychological change will most likely result in behavioral change. This definition is evidenced in research on the psychology of moral attitudes and in moral value education (Lind, in press).

The last definition provides the foundation for Lind's Dual-Aspect Theory of moral judgment behavior. This theory was born out of the commonalities shared by the previous two definitions of morality: the idea that morality can be taught and developed over the course of the lifetime; it is up to an external source of influence (teachers, religious leaders, parents) to help facilitate this improvement; the moral improvement effort needs societal influence; and that moral competency is different

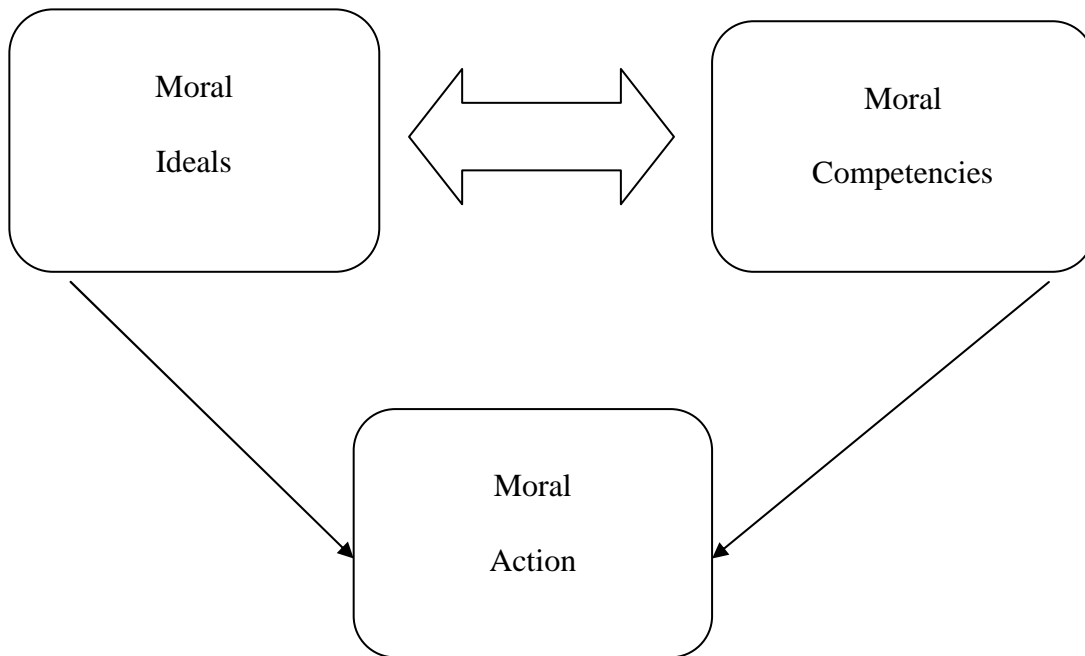
from cognitive abilities (Lind, in press). This separation of moral behavior from cognition was so strongly believed that in the 1950s, the American Psychological Association (APA) and the American Educational Research Association (AERA) created separate classifications in which to place educational competencies and labeled them the “cognitive domain” and the “affective domain” (Lind, in press). In the years that followed, this complete separation began to be challenged through research. Pittel and Mendelsohn (1966) noted difficulties in the subjects’ abilities to “conceptualize the nature of moral values and their relation to behavior.” The research of Krebs (1982) was one of several that found difficulty in the separation of the two domains.

To address these challenges while incorporating the work of others, Lind created the dual-aspect theory of morality and moral development. This theory is the third definition of morality: moral behavior consists of “. . . two inseparable, yet distinguishable aspects: a person’s affection for certain moral ideals or principles and his or her ability to reason and act according to these ideals and principles. . . .” (Lind, in press).

The first part of this theory is based on Piaget’s and Kohlberg’s notion that one’s cognitive abilities and affective abilities are both an integral part of the moral decision making process (Lind, 2002). The second part of this theory is based on Kohlberg’s views on moral judgment competence. The idea is that one is able to make moral judgments and have these judgments lead to moral behavior. It is noted by Stoll and Beller (1998) that high levels of moral development do not imply that equally high levels of moral behavior will be observed. It is the connection between

the two distinct processes that have the greatest influence on moral action (Lind, 2002). This interaction is the basis of Lind’s Dual-Aspect Model as summarized in Figure 3.

*Figure 3.* Lind’s Dual Aspect Model.



This illustration shows the interaction of different aspects of behavior (moral ideals and moral competencies). Lind’s summary includes the statement that “. . .to be moral, a behavior needs to be guided by moral ideals or principles, yet in order to be morally mature, a behavior must also be informed by developed reasoning competencies. . .” (Lind, in press).

### **How Student-Athletes are Unique**

Multiple studies on college students have included or focused specifically on student-athletes for a variety of reasons. Especially at universities with big-time athletic programs, the lives and experiences of college student-athletes are often

markedly different from those of the general student body. Social isolation, public scrutiny, and the demands of a strenuous physical workload are just some of the ways that the daily lives of student-athletes result in maturational and developmental differences.

Termed “vectors” of development, Chickering (1972) identifies seven separate areas in which college students change during their collegiate experiences. Within these vectors lie specific examples of instances in which athletic participation has been found to affect the development of college students. Each of the vectors addresses various areas of student development. Ideas most related to moral development are mentioned in Chickering’s first vector, developing competence, the second vector, managing emotions, and the seventh vector, developing integrity (Chickering, 1972).

Chickering’s ideas on developing competence include those of an intellectual nature, physical and manual nature, and of an interpersonal nature. Chickering maintains that participation in athletics leads to an increased awareness of emotions commonly experienced in a competitive atmosphere. This awareness lends itself to developing the ability to, manage these emotions (Chickering, 1972). Chickering credits athletic participation with this honing of emotional skill in that it legitimizes the free and direct expression of emotion which in other environments must be muted. He continues to say that extreme emotions such as “rage and delight are expected reactions” (p. 29) and that experiencing these freely leads to improved interpersonal relationships.

The discussion around Chickering's second vector, that of managing emotions, continues where the first vector leaves off. This vector outlines the development of emotions to a point of mastery. These ideas include the emotional development of experiences of aggression and emotional sexual maturity. Chickering credits the sub-cultures of college, such as those created when being in a dorm or on a team, with creating opportunities to practice emotional management (Chickering, 1972).

Chickering's ideas on his final vector, that of developing integrity, also plays a role in the moral development of college students. Chickering believes that integrity is affected by students' interests, occupational plans and life-styles. As these areas are generally influenced by a lifetime of training for sport and preparation to participate at the collegiate level, athletics participation could potentially impact the development of integrity. Chickering (1972) considers integrity as a set of beliefs that is true for the individual, held consistently, and serves as a guide to the actions and attitudes of students. If indeed affected by interests and lifestyle, then the actions and attitudes of students who participate in athletics would be affected as well.

According to Chickering (1972) "a student's most important teacher is another student" (p. 253). This statement emphasizes the value of interactions with peer groups, friends, and subcultures as one of the foremost influences in college student development (Chickering, 1972). As a result of his research, Astin (1977) puts forth a maturation hypothesis in regard to athletics. This hypothesis states that the intense participation that characterizes intercollegiate athletics isolates student-



athletes from peers with contrasting interests. This acts to decrease the overall impact that other, non-athletic peer groups might have on the development of values, as compared to non-athletes (Astin, 1977). Surrounding student-athletes with like-minded student-athletes may serve to decrease the exposure to differing ideas. Evidence of peer and social isolation has been noted in other studies, such as Reimer, Beal, and Schroeder (2000) who list separate living arrangements and the perception of not being received well in the classroom by faculty as contributing circumstances.

According to Chickering (1972), athletics can promote increased awareness of personal feelings and an increased capacity to manage them. Their observations suggest that athletics offers an environment which is accepting of the free and direct expression of emotions that elsewhere would not be accepted. The expression of extreme emotions such as rage and delight are both expected and accepted. Additionally, Chickering (1972) determined that collegiate subcultures, to include intercollegiate athletics, frequently act as key influences in learning how to manage emotions such as aggression and sexual feelings. Astin's (1977) findings on the management of emotions for student-athletes are linked to the characteristic nature of interactions during intercollegiate athletics. Astin maintains that these exchanges are usually highly disciplined and not likely to involve "discussion of political concepts or values" (page 46). Overall, Astin's observation is that the time that student-athletes have to discuss these types of issues with a network of non-athletic-related people is greatly diminished. Other research on identity foreclosure, the idea that someone settles on an identity early in life and excludes the possibility of

change (Evans, Forney, & Guido-DiBrito, 1998), lists college student-athletes as having overall lower than expected levels of psychosocial maturity due to the focus on athletic activities at the expense of other developmentally-beneficial activities (Brewer, Petitpas, Van Raalte, & Mahar, 1993). These findings suggest that participation in intercollegiate athletics changes multiple aspects of student-athletes' developmental courses. As moral development is closely intertwined with these aspects of one's identity, it stands to reason that there would be expected changes in moral development, as well.

As applied to the development of integrity, different from moral development, yet deeply intertwined, Chickering (1972) has determined that even a most basic guide to behavior is heavily influenced by students' main interests, vocational plans, and life-style considerations. For student-athletes, these interests are frequently wrapped around aspects of athletic participation and achievement. As reported by Petipas and Champagne (1988) student-athletes often find themselves stuck in a system that "overprotects and overindulges" them ( p. 456). As a result of this, an ensuing sense of entitlement may deter work ethic in areas outside of athletics, consequently hindering the advancement of necessary life skills (Petipas & Champagne, 1988).

After reviewing the existing literature on student development, it becomes apparent that college students naturally experience several developmental changes during the course of their collegiate years. Theorists, directly as well as indirectly, acknowledge that participation in intercollegiate athletics plays a role in the various ways these developmental changes occur. When considering moral development

specifically, there remains a theorized connection between developmental changes and the experiences of students who prepare for and participate in college athletics. When setting out to study these experiences affecting moral development, one should distinguish those experiences relating to the preparation of college life (those experiences held prior to college enrollment) and those events which occur during the college experience.

**Pre-college differences.** Every student sets foot on campus with an individualized combination of experiences. The formation of most aspects of character begin early in life and shape the young adults who make up freshman classes every fall on campuses across the country. Attempting to measure any form of development on a group of people without taking into consideration the level on which each participant began could result in an inaccurate interpretation of data and the drawing of inaccurate conclusions. When making the determination of influence on the level of skill of moral decision making for student-athletes, it is necessary to determine if any factors might have had an influence on this ability prior to student-athletes' entrances to college.

In a study of first-year students, Biggs, Schomberg and Brown (1977) noticed that students who entered the university with a specified set of experiences tended to score higher on tests of moral judgment than students with a separate given set of experiences. This study clearly illustrates the importance of the pre-college experiences on the development of moral judgment. According to Biggs, Schomberg, and Brown (1977), students who lived a culturally rich life, exposed to art, music, and people of differing viewpoints, as determined by scores on measures

of Contemporary-Cultural, Artistic, Literary, and Academic-Conceptual Experiences, scored significantly higher than those students who did not. This observation is supported by Rest (1979) who concluded that the level of score on a principled morality measure directly corresponds to the richness of the intellectual environment. For those students entering college who have lived in an intellectually rich environment, it is expected that their scores on a moral judgment test would be higher.

Additionally, Biggs, Schomberg, and Brown (1977) noticed a gender difference within their findings. It was found that for female first-year students, the score on the artistic measure had the highest correlation with the principled morality score, in that the more artistic female students were, the higher they would score on the measure of principled morality. For male freshman students, the literary measure had the highest correlation with the principled morality score in that the more books the male students had read or were familiar with, the higher they would score on the measure of principled morality. Pascarella and Terenzini (1991) agree that the richer the intellectual environment experiences with which students entered college, the more they participated in academic undertakings, cultural events, and social interaction. This stands to reason that the pre-collegiate environment in which students were raised has an effect on the types of experiences in which students will engage during college.

*Pre-collegiate experiences and student-athletes.* The overall findings of this research are that the more cultural, artistic, and intellectual environments in which students are raised, the higher the scores are on a measure of moral development.

This is important to take into consideration when setting out to study student-athletes. As noted previously, the college lives of student-athletes are frequently socially isolated and overcome with athletic responsibility at the sacrifice of other activity (Astin, 1977; Petipas & Champagne, 1988; Reimer, Beal, & Schroeder, 2000). To imagine that the sacrifices made for athletics begin at the collegiate level would be discounting the years of discipline and practice that are required for the necessary skill attainment to win a collegiate athletic scholarship. Student-athletes at times report being “passed along” through high school, along with feelings of poor academic accomplishment (Outside the Lines, 2002). Alternative admissions decisions for student-athletes who are lacking academic preparation are becoming increasingly commonplace at universities across the country, again rewarding the focus on athletics at the expense of diversification of interests (Gurney, Tan, & Winters, 2010). In fact, some student-athletes are reporting to college only to discover for the first time that they have a learning disability or reading deficiency that has been undetected their entire lives (Clark & Parette, 2002). When studying student-athletes, these pre-college factors must be taken into consideration. Incoming freshman student-athletes bring a much different set of experiences to college than the general, freshman student body, and the effects of this different experience will shape the course of their ensuing college years.

**Collegiate experiences.** Differences in moral development have been noted in several studies of students by virtue of their membership in sport type, nature of the sport, or gender classification. Concern for the well being of student-athletes, particularly those in contact sports or the traditionally-termed “revenue sports” of

football and men's basketball has been expressed and supported through research (Eberhardt, 2006; Reall, Bailey & Stoll, 1998; Wolverton, 2006). Research conducted by Storch, Werner, and Storch (2003) suggests that exhibitions of aggressive behavior are directly linked to specific team membership, in addition to having a significant relationship to gender. This research suggests that those student-athletes who participate in contact sports are more likely to exhibit aggressive behavior and approve of aggressive behavior. Additionally, males have shown more aggressive behavior than females (Storch, Werner, and Storch, 2003). Additional research conducted by Keller (2007) highlights the difference between contact and non-contact sports as it applies to levels of aggression in both athletic and non-athletic settings. In addition, the culture of a team has been identified as a factor related to varying levels of character development (Loughead & Leith, 2001). Frequently determined by the coach, a team's culture can include the manner of communication, the dedication to academics, the level of acceptance of poor behavior, and other seemingly-approved activities. Often, media attention plays a role in the reflection of the team culture or the perpetuation of culture. The research of Loughead and Leith (2001) suggests that a direct relationship exists between the acceptance of aggressive behavior and the level of intensity of play for student-athletes. Further supporting these findings is the research of Benedict (1997) which indicates that participation in contact sports breeds sexually aggressive behavior often exhibited by student-athletes. Benedict's research has relied on the campus police reports of student-athletes as compared to the student body on reported

offenses. These studies provide a foundation for the need for research regarding the moral development of student-athletes.

### **Potential Influences on the Moral Development of Student-Athletes**

Previously, five main methods of fostering moral development in students were identified. As noted by Pascarella and Terenzini (1991), the first of these influences occurs when students are exposed to perspectives that differ from those to which they are accustomed. The act of being around others who approach issues from a different perspective, such as what is experienced when living with roommates or away at a school in a different part of the country, will broaden the ability to consider critical and moral dilemmas from alternate perspectives, thus enhancing the level of thought (Evans et al., 1998). Chickering (1972) discusses this interaction as the educational value of the “dormitory bull sessions” (p. 40). Astin (1977) states that the most important characteristic associated with persistence in college is living in a dormitory during the first year of college. The developmental effects from these living relationships have influence in all areas of student development. As discussed, student-athletes are frequently grouped together in housing, or choose to live with teammates, thus surrounding themselves with people of similar experiences and isolating themselves from potential moral conflict (Reimer, Beal, & Schroeder, 2000).

The second influence found to be active in facilitating moral development in students is exposure to cognitive moral conflict (Pascarella & Terenzini, 1991). This is commonly found in collegiate courses that challenge students with material to which they were not previously exposed and force students to consider additional

information when making moral or ethical decisions. Although student-athletes enroll in courses and work toward graduation as do other students, Petipas and Champagne (1988) discuss the over-identification of being an athlete that frequently dominates student-athletes' lives as students and potential career paths. In addition, Reimer, Beal, and Schroeder (2000) discuss reported feelings from student-athletes of disapproval from faculty in courses, which could result in disengagement from class discussion.

The third of the influences on moral development is the exposure to higher levels of morally principled thinking than students currently use. This exposure comes from interactions and conversations with faculty, staff, and upper classmen regarding moral conflict (Evans et al., 1998). Coaches and other athletic support staff are repeatedly added to the list of influential people in the lives of student-athletes, lending a unique opportunity for education as compared to the student-body (Petipas & Champagne, 1988). In studies regarding the importance of mentoring and leadership for student-athletes, the role of the coach has been reported to be paramount in the areas of career counseling, academic motivation, and adjustment to college (Frederick & Morrison, 1999; Lough, 2001). It would follow that these relationships with coaches would influence other areas of student-athletes' lives, to include moral reasoning.

The fourth influence on moral development is the demand that college students take on new social responsibilities. Frequently, college students are asked to assume every day responsibilities that they previously had not experienced. Examples of this might include the need to be disciplined about how their time is



spent or feeling the direct effects of making inter-personal decisions with roommates or classmates (Pascarella & Terenzini, 1991). As Astin (1977) points out, enrolling in college or living in the dorms might be students' first exposures to illegal substances, illicit behavior, and political activism. Students are faced with decisions that will need to be considered, possibly for the first time. Gerdes and Mallinckrodt (1994) discuss the importance of social adjustment into college and the difficulties of handling the new freedoms that accompany this adjustment.

The final influence on moral development is that of experiencing real world responsibilities and dealing with the consequences of personal and professional actions that are brought about through college experiences. In a study focusing solely on football student-athletes, Nishimoto (1997) noted that athletes are expected to represent the university in a positive manner at all times, adding this responsibility to them as students, and leading to another layer of segregation from the rest of the student body.

As previously noted, it can be argued that each of the five influences on the moral development of college students are experienced to some degree by all college students, regardless of participation in intercollegiate athletics. Also as discussed, student-athletes have a variety of ways in which their experiences in college vary from the general student body. Perhaps the most unique aspect of student-athletes' collegiate journeys is the opportunity for coaches and athletic staff to influence strongly students' choices in life. For this reason, the present study focused solely on the relationship that the exposure to higher levels of morally principled thinking has on the moral judgment making skills of student-athletes.

Student-athletes have the opportunity to develop a relationship with coaches, people whose jobs depend upon an individual student's success while at college. This situation of having a staff member at the university act as a stake holder in the student's success helps to distinguish the uniqueness of student-athletes' situations. Many have reported the influence of the coach in the lives of student-athletes is unparalleled as compared to any other student's life (Petipas & Champagne, 1988). It is within these relationships that the opportunity to educate student-athletes exists, thus helping to justify the inclusion of intercollegiate athletics in a university. This method of exposure through athletics activities to higher levels of moral development will provide a lens to examine the moral decision making abilities of student-athletes.

### **Instrumentation for the Study**

Based on theorists in the fields of student affairs and moral psychology, two instruments were used to help produce a measure of the effect that exposure to higher levels of morally principled thinking has on student-athletes' abilities to make moral decisions. The goal of the first instrument, a questionnaire, measured the relationship that the different areas of possible exposure to higher morally principled thinking had on student-athletes, while accounting for the pre-collegiate environment and collegiate experiences. This questionnaire has been constructed by this researcher based on the discussion found in student affairs literature and on prior research on collegiate student-athletes. The questionnaire can be found in Appendix B.

The goal of the second instrument was to provide a measure of the student-athletes' moral decision making abilities, the dependent variable in this research. A variety of instruments that measure moral development exist, however, after careful consideration of each of these instruments, George Lind's *Moral Judgment Test (MJT)* was chosen for its ability to measure the competency of making a decision, not only the attitude of the participant toward the decision. As choosing an instrument which would produce a valid measure is essential to the success of this research study, a thorough examination of other commonly used instruments was included. The MJT can be found in its entirety in Appendix C.

Several theorists, including those discussed, have created instruments based on their particular definitions of morality. Each instrument lends insight into capturing the measure of morality within the scope of the definition with which the theorist has chosen to frame the construct. For this section, this researcher will provide an overview of some of the most commonly-used instruments, ultimately choosing the measure thought best suited for the current research.

**Kohlberg's MJI.** Kohlberg created the Moral Judgment Interview (MJI) to test his theories of moral reasoning. The instrument is a structured interview format that may be completed as a face-to-face interview, or as a written test. It is composed of three hypothetical dilemmas followed by roughly 10 questions that are designed to attempt to reveal the interviewee's level of moral reasoning. It is up to the participant to develop a response on his own, as no options are provided from which to choose. The interviews are scored using the Standard Issue Scoring system, which is meant to provide more objectivity and clearer stage membership

(Evans et al., 1998). The test-retest reliability was reported to be in the high .90s, alternate form reliability was reported to be .95 and interrater reliability was reported to be .98 (Colby et al., 1987).

Criticisms of the MJI lie in the theory on which it is based. Aside from the previously-discussed criticisms of gender and cultural bias, the MJI reports only mixed indices for the affective and cognitive aspects, and does not provide any measure of the two aspects independently (Lind, 1989). In addition, the MJI findings typically reflect the highest level of moral reasoning of a participant's capabilities. It might be more useful for researchers to determine the typical level of moral reasoning used by a participant to gain insight into the daily levels of moral decision making (Lind, in press). Therefore, it can be argued that the interview situation itself does not challenge the participant to use Kohlberg's highest levels of moral reasoning, thus biasing the scoring of the stage scale (Lind, in press).

**Rest's DIT.** Rest's Defining Issues Test (DIT) bears resemblance to Kohlberg's MJI in that there are hypothetical situations presented for the participant to consider. The DIT differs from the MJI in that the participant is presented with options and is asked to choose which response is most appropriate. Each response is connected to a stage in Rest's theory and is scored according to the percentage of principled reasoning, giving a *p* score (Evans, et al., 1998). Test-retest reliability and measures of internal consistencies are reported in the .70 and .80 range.

Criticisms of the DIT include its design of simply asking a participant to recognize the response, rather than to reason through the moral dilemma (Evans, et al., 1998). Because of this, Lind (in press) deems it valid for assessing moral

attitudes, not moral judgment capabilities or moral behavior. An additional criticism is that it is possible for participants to obtain an increased score simply by choosing options that are representative of higher levels of development, without any process of rationalizing through the dilemma (Lind, in press) or being willing to act on them.

**Sport-specific measurements.** Due to recent attention to the area of moral and character development in intercollegiate athletics, researchers have developed instruments specifically to measure the moral development of student-athletes both during and outside athletic competition. One such instrument is the Rudd-Stoll-Beller-Hahm Value Judgment Inventory (RSBH Value Judgment Inventory). The RSBH Value Judgment Inventory presents 20 scenarios, 10 in which student-athletes are faced with a dilemma in a non-athletic situation, and 10 in which student-athletes are faced with a dilemma in an athletic situation. A 5-point Likert scale follows each scenario for the participant to indicate agreement or disagreement with the given scenario (Rudd, 1998). Cronbach alphas have been reported in the .70 and .80 range for the test.

Criticisms for this test range from sample selection to theoretical weakness. No concern for reading level had been discussed during the development of the instrument. There was no discussion regarding measures taken to ensure comprehension of the dilemmas. As this might not be a factor in other instruments, the specific population for which this instrument was created warrants this concern. Specifically, since 2003, changes made by the NCAA have increased access to higher education for student-athletes through a change in initial eligibility

legislation. As a consequence of this legislation, student-athletes are reporting to college campuses often underprepared for the academic rigors of college, frequently presenting with deficiencies in areas of basic skills. Also, the dilemmas created for the student-athletes to reason through are not realistic in the realm of competitive sport. An example of this is the task of deciding whether or not to self-report a foul to a referee during competition. This situation is problematic due to the environment in which the particular athletic competition is played. The established rules of the sport determine that the fouls are to be determined by the referee, changing what may be the normal set of moral reasoning employed by student-athletes. This notion is further supported by research that directly supports the utilization of a different group of moral principles during competition (Reall et al., 1998). Using situations which are not universal in nature seems to create problems when interpreting the results.

**Lind's MJT.** Based on his Dual-Aspect Theory, Lind created the Moral Judgment Test (MJT). This test is different from other commonly-used instruments because it requires the participant to actively engage in moral decision making, thus providing a measure of the participant's level of competence. The MJT provides two dilemmas that are each followed by a series of 12 responses for the participant to rate on a Likert scale. Six of the responses are arguments in favor of the dilemma's moral decision, and six of the responses are counter arguments to the dilemma's moral decision (Lind, 2007). Whereas the MJI and DIT measured the attitudes of the participants, the MJT is a measure of the attitude in addition to the level of competence exhibited in the task (Lind, 2007).

The MJT is suitable for the student-athlete population. It is one of the shortest instruments that has been validated, with only 24 items. Also, the test has been validated on participants as young as 10 years of age, accounting for a wide range of reading comprehension levels (Lind, 2007).

The MJT seems to be the best instrument to measure moral judgment competence of student-athletes by challenging them with a morally difficult task. Based on the strength of the supporting literature for this instrument, the theoretical foundation on which it is based, and the compensation for criticisms on the other scales, the MJT was chosen to be the instrument used in this research.

### **Summary**

Intercollegiate athletics, by virtue of their inclusion in a collegiate environment should be educationally beneficial to the student-athletes. As the number of media reports of poor moral decisions made by student-athletes increases, the public confidence in intercollegiate athletics decreases. The collegiate experiences of student-athletes vary in many ways from those of the student body. These differences, coupled with an increase in public concern, may lead one to question the moral development of student-athletes and the ways in which this development is affected.

Through an examination of the experiences which student-athletes bring with them to college, and taking into consideration their collegiate experiences, the present research aimed to identify the ways in which the moral decision making abilities of student-athletes are influenced and how they are affected.

## **Chapter Three**

### **Methodology**

#### **Methodology**

The purpose of this study was to examine how exposure to higher levels of morally principled thinking affected the moral decision-making competency of student-athletes. This was accomplished through an analysis of opportunities for exposure to higher levels of morally principled thinking and how the exposure related to moral judgment development. Student-athletes were scored on George Lind's Moral Judgment Test, used in its totality, to determine their current level of moral judgment. These scores were then compared with the information collected on a questionnaire regarding pre-collegiate environments and collegiate variables.

#### **Research Questions**

As discussed, there are many factors that could potentially play a role in the development of the moral decision-making competencies of student-athletes. Among these factors is the environment the student-athletes experienced before coming to college, possibly indirectly impacting the level of competency developed. Additionally, research on the collegiate experiences of student-athletes suggests there are differences between student-athletes who participate in revenue and non-revenue sports, contact and non-contact sports, and by gender. Student-athletes are exposed to people and experiences that are not encountered by the general student body, such as the influential presence of coaches, required interaction with athletic department staff, and long hours of close involvement with teammates. It is within these unique experiences that research questions were formed. Based on the



theories presented, a review of previous literature and this researcher's experience in intercollegiate athletics, hypotheses were formed for each research question.

These hypotheses served as the basis for the proposed model of research. This model is summarized in Figure 4.

1. To what extent did the pre-collegiate experiences of student-athletes relate to the levels of moral decision making achieved?

H<sub>1</sub>: Pre-collegiate experiences of student-athletes were directly related to the levels of moral decision making achieved.

2. To what extent did the collegiate experiences of student-athletes relate to the levels of moral decision making achieved?

H<sub>2a</sub>: Collegiate experiences of student-athletes were directly related to the levels of moral decision making achieved.

3. To what extent did exposure to higher levels of morally principled thinking from coaches relate to the level of moral decision making achieved?

H<sub>2b</sub>: Exposure to higher levels of morally principled thinking from coaches was directly related to the level of moral decision making achieved.

4. To what extent did exposure to higher levels of morally principled thinking from faculty relate to the level of moral decision making achieved?

H<sub>2c</sub>: Exposure to higher levels of morally principled thinking from faculty was directly related to the level of moral decision making achieved.

5. To what extent did exposure to higher levels of morally principled thinking from teammates relate to the level of moral decision making achieved?

H<sub>2a</sub>: Exposure to higher levels of morally principled thinking from teammates was directly related to the level of moral decision making achieved.

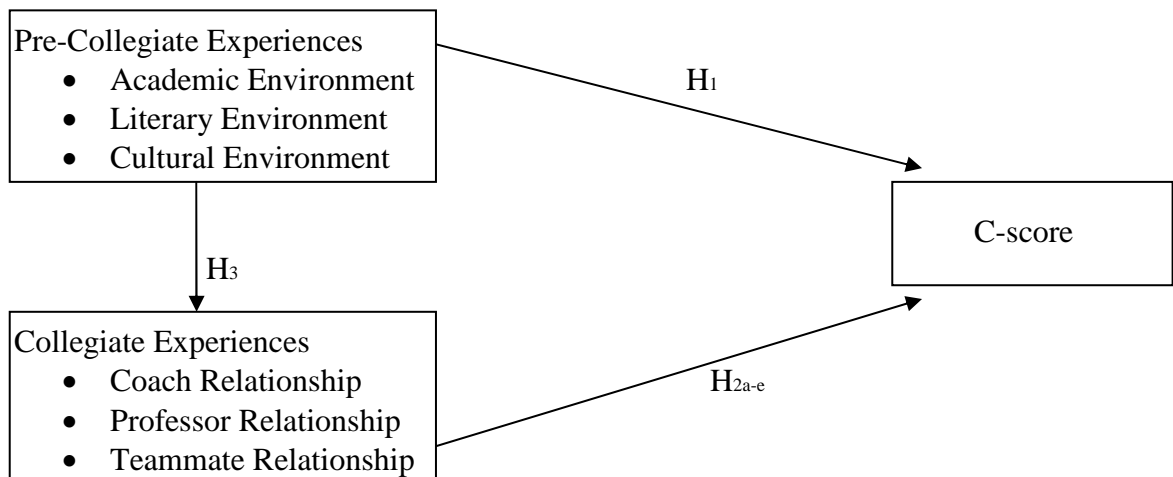
6. To what extent did exposure to higher levels of morally principled thinking from athletics department staff relate to the level of moral decision making achieved?

H<sub>2e</sub>: Exposure to higher levels of morally principled thinking from athletics department staff directly related to the level of moral decision making achieved.

7. To what extent did the set of pre-collegiate experiences of student-athletes mediate the collegiate experiences relating to the level of moral decision making achieved?

H<sub>3</sub>: The pre-collegiate experiences of student-athletes were directly related to the collegiate experiences of student-athletes.

Figure 4. Proposed Research Model.



The research questions were explored quantitatively, using the information gathered by a questionnaire designed to determine the pre-collegiate environment, collegiate experiences, exposure to higher levels of morally principled thinking from coaches, faculty, and athletics department staff, and the quality of interaction with teammates. These variables were analyzed as potential predictors of the participants' scores on the criterion measure, Lind's Moral Judgment Test (MJT), which was used to obtain a current level of moral decision making ability.

Participants were asked to complete a short section of demographic inquiry prior to the two data collection instruments (see Appendix A). The questionnaire and the MJT instrument were administered at the same time. Once an adequate sample had been obtained, the tests were then scored and statistically analyzed for significance on each of the stated research questions. The end result became a description of the nature in which student-athletes' moral decision making competencies were influenced. Additional information provided by the completion of the questionnaire reflected the influence of the pre-collegiate and collegiate environments on the moral judgment competence of student-athletes.

### **Sample**

The participants for this study were NCAA Division I student-athletes. A Division I university was selected due to its participation in what is commonly referred to as "big-time" sport. This is the area that receives the greatest number of accusations of over-commercialism and scandal within the realm of intercollegiate athletics. It is within Division I that participation in intercollegiate athletics is often thought of as a "job" for student-athletes, as extreme time commitments and high

levels of visibility frequently bleed into every aspect of student-athletes' daily lives. All student-athletes who are presently on a roster of an intercollegiate sport at this Division I university were approached to take part in this study. To encourage participation, administration in the athletic department of the university was approached for support of the study. The administrator gave suggestions as to ideal data collection times for student-athletes, and contacted the teams' coaches to encourage participation. In an effort to gather the most complete data, the entire population of student-athletes was targeted. If there was 100% participation, over 500 student-athletes would participate in the study. According to the Instructional Assessment Resources (2007), it has been suggested that a response rate of 50% or greater is considered "good" if the survey is administered in a supervised setting by paper, therefore a goal of 50% response rate was set. Since participation was less than 50%, this researcher needed to re-examine the listed research questions and verified that analyses resulted in enough statistical power to make a sound conclusion based on the limited data. In previous survey research with student-athletes, sample sizes of 200 – 400 participants have been regarded as acceptable (Duquin & Schroeder-Braun, 1996). The actual sampling unit was those student-athletes within the respective sport categories of revenue production and level of contact. Grouping the student-athletes by sport allowed for comparisons within collegiate experiences as indicated in research question 2. Therefore, it was possible to compare the revenue-producing sports of football and men's basketball with the rest of the sports as a whole, provided easy comparison of contact and non-

contact sports, and provided gender separation by team for male and female comparison.

### **Instrumentation**

Based on a thorough review of previous research on college students and student-athletes, this researcher developed an instrument which collected information about the significant pre-collegiate experiences and collegiate influences that are potentially likely to be related to the moral judgment of student-athletes. The pre-collegiate experiences were divided into a series of 10 questions representing the presence and richness of an academic environment, a literary environment, and a culturally-enriched environment during life prior to college. It was these three pre-collegiate factors that were found to have significant effects on the level of moral development of entering college students (Biggs, Schomberg & Brown, 1977). Participants in the present research study answered questions on a 5-point scale depicting the nature of an activity that describes an academic environment, a literary environment, or a culturally enriched environment. It was inferred that the more extensive the activities listed on the questionnaire are reported to have been, the stronger the presence of the specified environment in which the students were raised.

The collegiate influences on student-athletes that are measured in the questionnaire are those that previous literature, previous research, and personal experience are determined to be paramount in the daily lives of student-athletes. These influences represent people who have the opportunity, through direct interaction with student-athletes, to expose them to higher levels of morally

principled thinking. The people who are included on the questionnaire are the student-athletes' coaches, faculty members, fellow teammates, and athletic department staff such as academic advisors, housing resident assistants, team athletic trainers, and learning specialists. The questionnaire has a 5-point scale measuring the degree to which student-athletes agree with the statement provided. The questionnaire asked the participant to reflect on the constructs of trust, comfort, and ease of relationship with each of the influential people in their lives. Exploring these three main constructs revealed people with whom student-athletes felt most comfortable, whom they were most likely to look up to, and to whom they would turn for advice. These main ideas would most likely be in place when a person models higher morally principled thinking by those whom student-athletes observe and desire to emulate.

This questionnaire was submitted for review by a reading specialist with Master's level training in reading programs and a state reading specialist certification to evaluate for reading level in order to ensure it was written for all levels of comprehension, including those who may have a reading deficit. Additionally, the questionnaire was submitted for expert review by a panel of experienced athletic academic professionals, including an academic advisor for student-athletes with more than 20 years of experience and a counseling psychologist specializing in working with a student-athlete population. This review helped to provide a level of validity to ensure the instrument was measuring the correct constructs to explore the research questions. Following data collection, a Cronbach's alpha test was performed on the questionnaire to determine the level of

internal consistency of the questionnaire. This measure produces a number between 0 and 1 which indicates the reliability of an instrument. As reported by Santos (1999), a measure of 0.70 and above is considered acceptable. The resulting measure for this researcher's questionnaire was that of 0.809, indicating an acceptable level of internal consistency.

The second instrument, Georg Lind's Moral Judgment Test (MJT) was chosen after careful consideration and comparison with other commonly-used instruments such as Kohlberg's Moral Judgment Interview, Rest's Defining Issues Test, and the Rudd-Stoll-Beller-Hahm Value Judgment Inventory. The MJT was selected based on its ability to reflect participants' judgments made on given tasks based on their own values, in addition to providing a measure of moral reasoning originally based on Kohlberg's stages. Other benefits of using the MJT exist in the accommodation of reading level that it uses, and the user-friendliness of the test. The MJT's applicability has been validated on children as young as 10 through senior citizens in many countries around the world and has been translated into 29 languages. This validation of the instrument using various populations fits the ethnic and cultural diversity that commonly marks the demographics of the student-athlete population. The validation on a wide range of populations is a point for which other instruments have been criticized for lacking. Lind has suggested some minor modifications to the instrument that will assist in the comprehension of the moral tasks without altering the validity. Some of these modifications adopted by this researcher were adding smiles or frowns to the appropriate end of the scale, to reduce the scale to -2 through +2 range from -4 to a +4 range, and to increase the

size of the font. These modifications may be helpful for increasing the amount of reading comprehension for those with learning disabilities or other possible reading deficits.

### **Reliability**

Reliability in a data collection instrument is the degree to which the instrument lacks measurement error. Reliability encompasses the precision of construct measurement, consistency of test score, and stability of score following different test form administrations (Abrami, Cholmsky, & Gordon, 2001). Two main methods of improving an instrument's reliability and reducing measurement error are through standardization and aggregation. Standardization practices are those that control, to the extent possible, the testing conditions such as interviewer variance or environmental distraction. This is done in an effort to reduce sources of error beyond those in the instrument which could alter scores. Aggregation is the idea that multiple questions which measure the same true score will result in a reduced amount of random error on the score. Asking multiple questions on a concept allows the potential causes of random error to cancel out and provide a more reliable measure (Strube, 2004).

The reliability of the MJT has been discussed in multiple ways. Much effort has been aimed at the standardization of the instrument. The claim is made that since there is no interview process, no researcher bias can interfere with the results. There is not a situation when the test instruction or administration will change, granting all participants a very good chance at getting the same experience each time the MJT is taken. The test is said to be "independent from the sample" studied



(Lind, 2007). The scores do not change from sample to sample based on the fact that it is a measurement of the response pattern as a whole, and not an individual response. Previously referred to as an experiment of  $N = 1$  for each subject, the score is based not on the actual responses, but on the pattern of response throughout the instrument. For this reason, Lind himself disagrees with subjecting the test to classic reliability measures, which are designed to measure the standard error of the sample, preferring to focus on controlling for measurement conditions so potential outside sources of variance become constants and have little to no influence on the obtained score.

The MJT also uses concepts of aggregation on which to build the scored response pattern. The moral dilemma is followed by a series of questions that offer participants a chance to respond to the situation when presented with oppositional viewpoints. For instance, one would expect that strongly agreeing with one statement would result in strongly disagreeing with the opposite statement.

Though Lind maintains that his MJT should not be subject to traditional reliability testing, some researchers who have used the MJT have subjected it to reliability testing. Lerkiatbundit et al. (2006) reported a reliability coefficient of .90 for the MJT (Lind, 2007).

In this researcher's opinion, given the wide range of populations in previous studies, and efforts toward standardization and aggregation, Lind's MJT provides a reliable measure of moral judgment competency for the student-athletes in the present study.

## **Validity**

To determine that any data collection instrument is valid is to conclude that the test is measuring the intended construct for which it was designed (Mertens, 2005). Lind's MJT has been submitted to and passed a rigorous validation process. Lind described this validation process as particularly demanding due to the testing necessary to provide the cross-cultural validity in each of the translations used around the world. In order to establish validity, Lind decided that the MJT had to meet five empirical criteria that are found within the Dual-Aspect theory and cognitive-developmental theories of morality (Lind, in press). According to Lind, the five criteria that were met are: the preferences for Kohlbergian stages are ordered in a predictable way (higher stages are favored over lower stages); the correlation between neighboring stages of Kohlberg's theory is higher than the correlation between stages that are farther apart (stages 1 and 2 are more highly correlated than 1 and 6); the better-developed a participant's moral judgment competence is, the clearer the acceptance is of higher stage arguments; there is equivalency in the "pro" and "con" argument profiles; and that the instrument itself is a difficult moral task resulting in a score that is reflective of a measure of moral competency, not attitude. The 12 arguments that follow each dilemma are designed to represent each of Kohlberg's 6 stages of reasoning. To ensure that all stages were represented, an expert rating was performed by a group of 8 experts, and then empirically tested (Lind, in press). Additionally, these experts were asked to comment critically on each of the arguments.

It is this researcher's conclusion that, given the multiple methods of testing, scores on Lind's MJT provide a valid measure of one's moral decision making competence.

### **Data Analysis**

**Scoring the MJT.** The design of the MJT intentionally reflects the belief that levels of moral judgment cannot be measured based on a single response, but must be placed in context. Following this thought, it would be incorrect to draw a conclusion regarding a participant's membership in a Kohlbergian stage based on a single act, but must be made based on a whole pattern of acts. It is within this context that one sees that the basic unit of measurement of the MJT is the whole response pattern of each participant and the within-subject response variance (Lind, in press).

The MJT provides two sets of scores, as described in the Dual-Aspect Model. In keeping with this model, there is a score for the cognitive aspect of moral competency in addition to the affective aspect of moral competency (Lind, in press). The C-score reflects the moral judgment competence of the participant. This C-score takes into account the participants' own moral judgments in regard to the arguments presented in the instrument. It only represents consistency in moral competency if the subject has answered consistently with their personal moral principles (Lind, in press). The C-score can range from 1 to 100. The classifications within this range are: very low (1 to 9); low (10 to 19); medium (20 to 29); high (30 to 39); very high (40 to 49); and extraordinary high (50 and higher) (Lind, in press).

Lind (2000) describes the MJT as an “experimental questionnaire,” with  $N=1$  in each experiment. It is necessary to interpret the overall pattern as a “moral structure” rather than submit the individual scores to classical statistical analysis. According to the author, the dependent variable is the amount of approval reflected on the Likert scale following each dilemma. The independent variables are the moral stage of reasoning, the task factor, and the dilemma type (Lind, in press). This score will reflect a measurement of the response pattern of the individual, allowing the researcher to make inferences regarding the moral judgment competence of the participant. This will result in a single composite score for each of the respondent’s moral decision making competence.

***Author-Directed Scoring.*** The aforementioned C-score is computed in a manner that is similar to a MANOVA technique. This researcher used the mathematical formulas in Microsoft Excel to program the scoring of the data, according to the directions below. To perform this calculation by hand, Lind (2008) suggests the following steps:

1. Calculate the Mean Sum of Squares ( $SS_M$ ) from the collected raw data.
2. Calculate the adjusted Total Deviation Sum of Squares ( $SS_{Dev}$ ) by squaring all the raw data, adding it together, and subtracting it from the  $SS_M$ .
3. Calculate the adjusted Stage Sum of Squares ( $SS_{Stage}$ ) by adding up the four items belonging to a chosen stage and squaring the sum. After this has been performed for all six stages, add the squared sums together and

divide by four. Subtract the Mean Sum of Squares from the result to acquire the adjusted Stage Sum of Squares.

4. Divide the  $SS_{\text{Stage}}$  by the  $SS_{\text{Dev}}$  which will result in the coefficient of determination  $r^2$ . Multiply the number by 100 to obtain the C score.

### **Analyses of Research Questions**

The data collected from the questionnaire, demographic information, pre-collegiate variables, and exposure to higher levels of morally principled thinking were rated according to the self-reported responses, in addition to being grouped into a grand mean for each variable. The MJT was then scored for a measure of moral decision making competency. Mainly using the statistical technique of regression, the research questions were individually analyzed for statistical significance, therefore guiding a conclusion to the posed hypothesis. Multiple regression is an analysis of two or more predictor (independent) variables on a criterion (dependent) variable (Abrami et al., 2001). The purpose is to explain the variability in the dependent variable by combining the predictors in one mathematical process. The resulting relationship is one of mathematical prediction, as the technique results in predicting a criterion variable from a set of predictors (Stevens, 1999). For the first six research questions, the statistical software package SPSS was used for analysis. The seventh research question called for the use of the structural equation modeling software, LISREL.

Research question one asked, “to what extent did the pre-collegiate experiences of student-athletes relate to the levels of moral decision making achieved?” The pre-collegiate experience variables that were collected in the

questionnaire are those of: the parent's highest level of education, participant's gender, the presence of a rich academic environment, the presence of a rich literary environment, and the presence of a rich cultural environment. Measured continuously, each variable was scored based upon self-reported response. Next, these predictor variables were regressed on the MJT C-scores for mathematical significance.

Research question two asked, "to what extent did the collegiate experiences of student-athletes relate to the levels of moral decision making achieved?" The collegiate experience variables that were collected in the questionnaire are the categorical variables of: classification of playing a contact sport, the classification in college, and the collegiate dormitory arrangements. Much like research question one, each predictor variable was scored on the self-reported responses, then regressed on the MJT scores for mathematical significance.

Research question three asked, "to what extent did exposure to higher levels of morally principled thinking from coaches relate to the level of moral decision making achieved?" There are three items on the questionnaire (questions 1, 2, and 3) which served as three distinct, continuously-measured variables for the regression equation. These three items, along with the grand mean, were regressed on the MJT scores for mathematical significance.

Research question four asked, "to what extent did exposure to higher levels of morally principled thinking from faculty relate to the level of moral decision making achieved?" There are three items on the questionnaire (questions 4, 5, and 6) which served as three distinct variables entered into the regression equation. The

continuously measured variables and their grand mean were regressed on the MJT scores for statistical significance.

Research question five asked, “to what extent did exposure to higher levels of morally principled thinking from teammates relate to the level of moral decision making achieved?” There are four variables that were considered for this question. The first is that of the collegiate dormitory arrangements, specifically the number of roommates who are actively on a collegiate sport team. The other three are from the questionnaire (questions 7, 8, and 9). The four continuous variables were regressed on the MJT scores for statistical significance.

Research question six asked, “to what extent did exposure to higher levels of morally principled thinking from athletics department staff relate to the level of moral decision making achieved?” There are two items on the questionnaire (the second and third part of question 10) that served as variables in the regression equation on the MJT scores. The first part of question 10 is the identification of the exact role of the athletics department staff member. An open-ended question regarding this person is asked at the end of the questionnaire. The responses to this question were grouped according to like responses and analyzed for frequency, lending qualitative insight into the lessons received regarding moral decision making. This insight brought depth to the quantitative data collected and provided insight into future directions of research.

Research question seven asked, “to what extent did the interaction of the set of possible exposures to higher levels of morally principled thinking relate to the combined score on the measure of moral judgment competence?” This research

question took into account all measured variables in the questionnaire. Path analysis was used to create a causal model. A model of this type depicts a predictive ordering of variables representing causal effects (Klem, 2004). In essence, a path diagram model of all the measured predictor variables was mathematically constructed based on their predictive relationship with the scores on the MJT. A hypothesized path diagram that was explored in this research is found previously in Figure 4.

Finally, there are three multiple choice questions at the end of the questionnaire. Participants were asked to select which person (potential form of exposure to higher levels of morally principled thinking) best fits the statement. The choices are: coach, professor, teammate, and athletic staff. These last pieces of information provided additional depth to the previously described regression equations. By gathering the data through several approaches, one can hope that multiple statistical results support each of the findings.

### **Limitations**

The main limitations in this study lie in the scope of the potential variables involved and the response rate. As previously discussed, the idea of measuring the potential influences on one's moral decision-making ability is complicated due to the complexity of measurement. Due to the extraordinary number of possible variables, this type of research can never address causation. In this researcher's opinion, based on previous literature and personal experience, all relevant variables were included and accounted for during the exploration of this complicated phenomenon.



Although measures were taken to encourage participation, it was not possible to ensure a response from all student-athletes in every sport. As suggested by Instructional Assessment Resources (2010), acceptable response rates depend upon the purpose of the research, the types of analyses used, and the method of administration. For this study, a goal of a response rate of 50% had been established.

### **Assumptions**

There are several assumptions that existed in this research study. Although measures had been taken to try to limit the chance of a poor assumption, the risk must be acknowledged. First, it is assumed that participants comprehended the instruments and answered appropriately and accurately. Although both the questionnaire and survey were reviewed for clarity and reading level by a reading specialist, there was still a chance that the instrument was misunderstood or that the participant did not take the time to accurately complete the forms. The next assumption was that participants answered the research questions carefully, honestly, and to the best of their abilities or recollection. The best way to enhance this possibility was to make sure the participants had adequate time in their schedules to complete the instruments.

It is assumed that the Moral Judgment Test provided adequate measurement of the moral judgment abilities of the participants. Based on the provided discussion of the reliability and validity of the MJT, this researcher feels confident that an accurate measure of moral decision-making competency was obtained.

Finally, it is the assumption that those responsible for providing the exposure to higher levels of moral reasoning are actually operating at those levels themselves. This is the assumption with the least amount of researcher control. With this in mind, the questionnaire was designed to show influence on a student-athlete. If the participants are not being exposed to actual higher levels of moral reasoning, this would be reflected in lower scores on the MJT with high scores on the influence variables.

## Chapter Four

### Data Analysis

The results of the data collected and analyses performed in the investigation of the present study's seven research questions are detailed in the following section. In addition to describing the analyses directly related to the seven identified research questions, additional analyses were performed to test a theoretical framework.

**Respondents.** A total of 400 surveys were distributed to roughly 525 student-athletes at a Division I university. These surveys were a pencil-and-paper format, with an IRB stamped informed consent coversheet, a brief demographic information page, a self-made questionnaire, and Georg Lind's Moral Judgment Test (MJT). In all, there were 60 questions for which participants were asked to provide an answer. Surveys were distributed prior to the start of a student-athlete convocation event, during the annual beginning of the year team meetings, and in the athletic department's academic center. In all, 180 surveys were collected or returned to the researcher. Two survey packets had little more than demographic information completed and thus removed from the dataset. Thirty-four survey packets had complete information up to, but not including, the MJT. The researcher decided to keep those cases in the dataset as the questionnaire portion still held valuable information. Clearly, these cases were not included in any analyses in which a C-score was necessary. After examining the demographic information of the surveys to ensure a representative sample was obtained, and reviewing the specifications set forth by the research questions, it was determined that enough

cases were collected for meaningful analyses. Table 1 provides a detailed description of the cases collected as compared to the goal sample of 50% of 525.

Table 1

*Summary of Respondents*

	<u>Population</u>		<u>Goal Sample</u>		<u>Respondents</u>	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
<b>Gender</b>						
Males	333	62.6%	167	62.6%	101	56.7%
Females	199	37.4%	99	37.4%	77	43.3%
Total	532	100%	266	100%	178	100%
<b>Revenue</b>						
Revenue	152	28.6%	76	28.6%	64	36.0%
Non-Revenue	380	71.4%	190	71.4%	114	64.0%
Total	532	100%	266	100%	178	100%
<b>Contact</b>						
Contact	161	30.3%	81	30.3%	77	44.8%
Non-Contact	371	69.7%	185	69.7%	95	55.2%
Total	532	100%	266	100%	178	100%

As provided by Lind (in press), the resulting C-score of the MJT can be categorized into four groups: low (1 – 9), medium (10 – 29), high (30 – 49), and very high (50+). The respondents' C-scores were grouped by these ranges to determine the distribution. As might be expected for college age students, the majority of respondents fell into the medium category (51.8%). The next largest group was that of the low category (32.4%). Table 2 provides a summary of all C-score results.

Table 2

*C-score Rank*

	n	Valid Percent
Low	45	32.4
Medium	72	51.8
High	20	14.4
Very High	2	1.4
Total	139	100.0

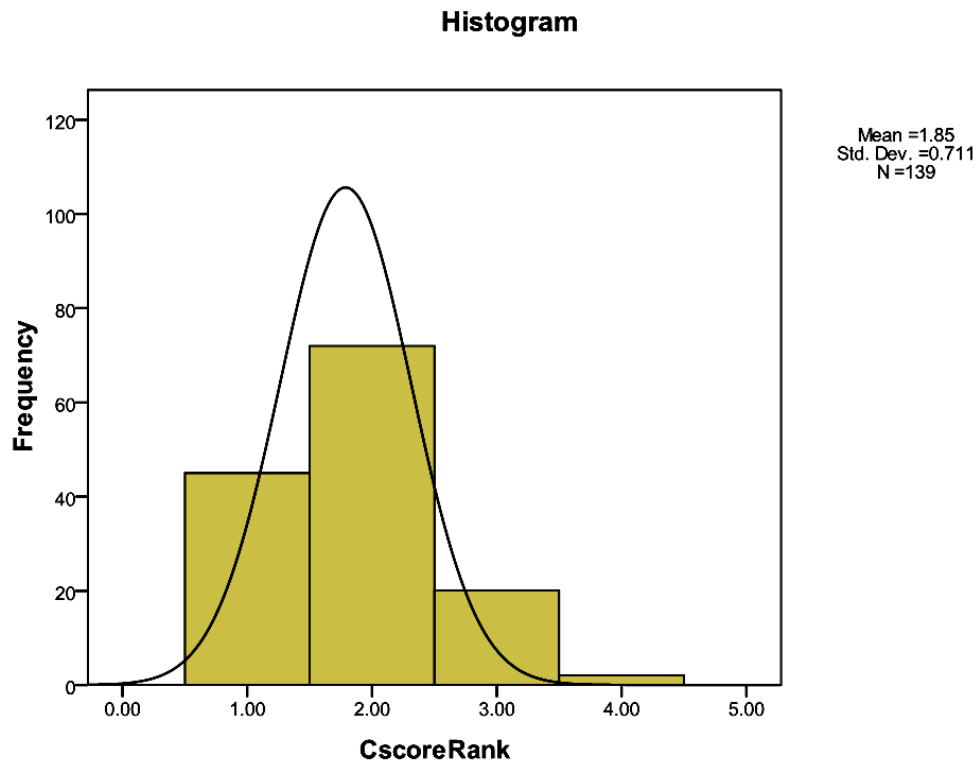
Note. The *SD* = .71133; mean = 1.8489; median = 2.000.

The distribution has a positive skew of .472, indicating that more participants scored on the lower end of the scale. As the skewness statistic departs from zero, a positive number is indicative of more frequent scores on the low end of the scale. Conversely, a negative skew statistic is indicative of more frequent scores on the high end of the scale (Lomax, 2001). The standard error of skewness (*ses*) for this distribution is .206. Skew values departed from zero of 2 *ses* or greater indicate a large degree of skew. The implication of skewness is dependent upon the test. In this case, it would be contradictory to developmental theory for college students to be normally distributed across all levels.

Illustration 1 is the histogram of C-score distribution depicting the skew of the C-score rank data collected.

## Illustration 1

*Histogram of C-score data.*



### **Analyses of Research Questions**

The overarching purpose of this research was to determine the existence and nature of the relationship between exposure to higher levels of morally principled thinking and the development of moral decision-making competencies of student-athletes. Seven research questions were designed to examine the purpose of the study. Through analysis of each question, certain aspects of the relationship were revealed.

*Research Question 1.* To what extent did the pre-collegiate experiences of student-athletes relate to the levels of moral decision making achieved?

This question was addressed by testing the hypotheses H<sub>1</sub>: pre-collegiate experiences of student-athletes were directly related to the levels of moral decision making achieved. An initial ANOVA procedure was performed testing for group differences between the categorically measured C-score rank and the grand mean of variables related to the presence of an academic environment in the student-athlete's pre-collegiate life (*acad10, acad11, acad12*). This analysis, using the categorical form of the dependent variable was performed as a preliminary analysis to screen for significance. Although considered an extra step to complete prior to the regression analysis, this researcher wanted to get a general idea of the relationships at hand. This information helped to inform the regression analysis by variable grouping and hierarchical method. The ANOVA model met the requirements for the Levene's Statistic, testing for homogeneity of variances. Although the model was approaching significance, no significant findings were presented for the main effect of academic environment on resulting C-score ( $p = .091$ ). A second ANOVA procedure was performed to test for a difference of means between the categorically measured C-score rank and the grand mean of variables related to the presence of a literary environment in the student-athlete's pre-college life (*lit13, lit14, lit15*). The ANOVA model met the requirements for the Levene's Statistic of homogeneity of variances but was not significant for the overall effect ( $p = .615$ ). A third ANOVA procedure was performed to test for a difference of means between the categorically measured C-score rank and the grand mean of variables related to the presence of a cultural environment in the student-athlete's pre-collegiate life (*cult 16, cult17,*

*cult18, cult19*). The model met the requirements for the Levene's Statistic of homogeneity of variances but was not significant, overall ( $p = .436$ ).

In all, there were no significant mean differences between C-score rank and the grand means of academic environment, literary environment, and cultural environment. The closest to significance was that of the presence of an academic environment ( $p = .091$ ).

Multiple regression statistics were executed to determine the effect of a student-athlete's pre-collegiate environment (measured through the presence of an academic environment, a literary environment, and a cultural environment) on the resulting C-score.

To determine the effect of the presence of an academic environment on the resulting C-score, the set of three continuously measured variables *acad10*, *acad11*, and *acad12* were regressed simultaneously onto the continuously measured C-score. In this regression, the *acad* variables served as the independent predictor variables while the C-score served as the dependent criterion variable.

The variables (*acad10*, *acad11*, *acad12*) as a set accounted for approximately 5.2% of the variance as noted by the regression coefficient ( $R^2 = .052$ ) in the criterion variable C-score. The test of the regression coefficient for the set of variables was not statistically significant for the model  $F(3,139) = 2.519$ ,  $p = .061$ . The overall judgment for this hypothesis was that the set of predictors did not account for significant variation in resulting C-score.

When considered as separate variables, the variable *acad10* accounted for approximately 4.0% of the variance as indicated by the regression coefficient ( $R^2 =$



.040). The test of the regression coefficient for *acad 10* was statistically significant for the model  $F(1,141)=5.799, p<.05$ . This variable was a statistically significant negative predictor of C-score in the model in that the unstandardized regression coefficient indicated that for every one unit increase on *acad10*, raw scores of C-score decreased by 4.549. The variable *acad11* was not a statistically significant predictor ( $p>.05$ ) of C-score in the model. The unstandardized regression coefficient indicated that for every one unit increase on *acad11*, there was a .678 increase on C-score. The variable *acad12* was also not a statistically significant predictor ( $p>.05$ ) in the model. The unstandardized regression coefficient indicates that for every one unit increase on *acad12*, there was a 2.564 decrease on C-score.

The relative contribution of the predictors can be judged by the sizes of the standardized regression coefficients. The effect of the variable *acad10* was the strongest at  $\beta = -.199$ , which was still considered a small effect. The variable *acad12* was the next strongest at  $\beta = -.120$ , a small and non-significant effect. The variable *acad11* was the weakest contributor at  $\beta = .070$ , another very small and non-significant effect.

The overall judgment regarding the variables related to the presence of an academic environment was that, based on the observed p-values and the direction of the unstandardized regression coefficients, it appears that little support was obtained for the hypotheses regarding the individual predictors.

To determine the effect of the presence of a literary environment on the resulting C-score, the set of three continuously measured variables *lit13*, *lit14*, and *lit15* were regressed onto the continuously measured C-score. In this regression, the

*lit* variables served as the independent predictor variables while the C-score served as the dependent criterion variable.

The variables (*lit13*, *lit14*, and *lit15*) as a set accounted for approximately 1.7% of the variance as noted by the regression coefficient ( $R^2 = .017$ ) in the criterion variable C-score. The test of the regression coefficient for the set of variables was not statistically significant for the model  $F(3,139) = .803, p = .494$ . The overall judgment for this hypothesis was that the set of predictors does not account for significant variation in resulting C-score.

When considered as separate variables, the variable *lit 13* accounted for approximately 2.4% of the variance as indicated by the regression coefficient ( $R^2 = .024$ ). The test of the regression coefficient for *lit13* was not statistically significant for the model  $F(1,141) = .083, p > .05$ . The unstandardized regression coefficient indicates that for every one unit increase on *lit13*, raw scores of C-score decrease by .293. The variable *lit14* was not a statistically significant predictor ( $p > .05$ ) of C-score in the model. The unstandardized regression coefficient indicates that for every one unit increase on *lit14*, there was a 1.245 increase on C-score. The variable *lit15* was also not a statistically significant predictor ( $p > .05$ ) in the model. The unstandardized regression coefficient indicates that for every one unit increase on *lit15*, there was a 1.317 decrease on C-score.

The relative contribution of the predictors can be judged by the sizes of the standardized regression coefficients. The effect of the variable *lit15* was the strongest at  $\beta = -.120$ , which was a small and non-significant effect. The variable *lit14* was the next strongest at  $\beta = .103$ , a small and non-significant effect. The

variable *lit 13* was the weakest contributor at  $\beta = -.024$ , another very small and non-significant effect.

The overall judgment regarding the variables related to the presence of a literary environment was that, based on the observed p-values and the direction of the unstandardized regression coefficients, it appeared that there was no overall support that a presence of a literary environment has a direct effect on C-score, however exposure to varying degrees of a literary environment made a significant difference in C-score response.

To determine the effect of the presence of a cultural environment on the resulting C-score, the set of four continuously measured variables *cult 16*, *cult17*, *cult18*, and *cult19* were regressed onto the continuously measured C-score. In this regression, the *cult* variables served as the independent predictor variables while the C-score served as the dependent criterion variable.

The variables (*cult 16*, *cult17*, *cult18*, *cult19*) as a set accounted for approximately 1.8% of the variance as noted by the regression coefficient ( $R^2 = .018$ ) in the criterion variable C-score. The test of the regression coefficient for the set of variables was not statistically significant for the model  $F(4,137) = .638$ ,  $p = .636$ . The overall judgment for this hypothesis was that the set of predictors does not account for significant variation in resulting C-score.

When considered as separate variables, the variable *cult16* accounted for no variance in C-score as indicated by the regression coefficient ( $R^2 = .000$ ). The test of the regression coefficient for *cult16* was expectedly not statistically significant for the model  $F(1,140) = .016$ ,  $p > .05$ . The unstandardized regression coefficient

indicates that for every one unit increase on *cult 16*, raw scores of C-score increase by .132. The variable *cult17* was not a statistically significant predictor ( $p > .05$ ) of C-score in the model, and only accounts for .20% of the variance in C-score as indicated by the regression coefficient ( $R^2 = .002$ ). The unstandardized regression coefficient indicates that for every one unit increase on *cult17*, there was a .515 increase on C-score. The variable *cult18* was also not a statistically significant predictor ( $p > .05$ ) in the model. The unstandardized regression coefficient indicates that for every one unit increase on *cult18*, there was a 1.339 decrease on C-score. The variable *cult19* was not a statistically significant predictor ( $p > .05$ ) in the model. The unstandardized regression coefficient indicates that for every one unit increase on *cult19*, there was a .992 decrease in C-score.

The relative contribution of the predictors can be judged by the sizes of the standardized regression coefficients. The effect of the variable *cult 18* was the strongest at  $\beta = -.104$ , which was a small and non-significant effect. The variable *cult17* was the next strongest at  $\beta = .071$ , a very small and non-significant effect. The variable *cult19* was the third weakest contributor at  $\beta = -.067$ , another very small and non-significant effect. The variable that contributed least to the explained variance in the model was that of *cult16* at  $\beta = .008$ .

The overall judgment regarding the variables related to the presence of a cultural environment was that, based on the observed p-values and the direction of the unstandardized regression coefficients, it appears that there was no support that a presence of a cultural environment has a direct effect on C-score in any degree.

Information was collected regarding the pre-collegiate environment of the student-athletes in the form of additional variables. The variable *right.wrong* was included in regression analyses with the cultural environment variables as the information collected by this variable seemed to be best matched with that category. Upon analysis, the variable *right.wrong* accounted for approximately 3.2% of the variance in C-score as indicated by the regression coefficient ( $R^2 = .032$ ). The test of the regression coefficient for *right.wrong* was statistically significant for the model  $F(5,137) = 1.317, p < .05$ . The unstandardized regression coefficient indicates that for every one unit increase on *right.wrong*, raw scores of C-score decrease by 5.890. The effect of the variable *right.wrong* was small at  $\beta = -.184$ .

The overall judgment regarding the variable *right.wrong* was that, based on the observed p-value and the direction of the unstandardized regression coefficient, it appears that there was mixed support for parental influence's effect on C-score. Table 3 is a summary of significant findings for H<sub>1</sub>.

Table 3

<b>Significant Predictors</b>	<b><math>\beta</math></b>	<b><i>p</i></b>
<i>Acad10</i>	-0.199	<i>p</i> = .017
<i>Right.wrong</i>	-0.184	<i>p</i> = .034

*Research Question 2.* To what extent did the collegiate experiences of student-athletes as a whole relate to the levels of moral decision making achieved? This question was addressed by testing the hypotheses H<sub>2a</sub>: the collegiate experiences of student-athletes as a whole were directly related to the levels of

moral decision making achieved. An initial ANOVA procedure was performed testing for group differences between the categorically measured C-score rank and the grand mean of variables related to the measures of influence of coaches, professors, teammates, and athletic staff (*grandcoach*, *grandprof*, *grandmate*, *grandother*). The ANOVA model met the requirements for the Levene's Statistic, testing for homogeneity of variances. There were no relationships of significance found in these analyses (*grandcoach*  $p = .234$ ; *grandprof*  $p = .501$ ; *grandmate*  $p = .847$ ; *grandother*  $p = .412$ ).

In all, there were no significant mean differences between C-score rank and the grand means of influence of coaches, professors, teammates, and athletic staff. The closest to significance was that of the influence of a coach on the rank of C-score ( $p = .234$ ).

Multiple regression statistics were executed to determine the effect of a student-athlete's collegiate environment. In addition to the influences experienced by student-athletes, variables relating to the participant's year in college, number of roommates, and the number of roommates that participate in sport were also included in the regression as independent predictor variables.

This analysis produced 13 separate models within the variables, none of which was statistically significant. Of the 13 models, two were approaching significance. The first was that of the variable *mates.sport*, which accounted for approximately 1.3% of the variance as noted by the regression coefficient ( $R^2 = .013$ ) in the criterion variable C-score. The test of the regression coefficient for this variable was not statistically significant for the model  $F(1,130) = 1.737, p = .190$ .

The second model that was approaching significance was that of the variable *coach20* which accounted for approximately 1.6% of the variance in C-score with a regression coefficient ( $R^2 = .016$ ). The test of the standardized regression coefficient for this variable was not statistically significant for the model  $F(1,130) = 2.106, p = .149$ .

The overall judgment for this hypothesis was that the set of collegiate predictors does not account for significant variation in resulting C-score.

*Research Question 3.* To what extent did exposure to higher levels of morally principled thinking from coaches relate to the level of moral decision making achieved? This question was addressed by testing the hypotheses  $H_{2b}$ : exposure to higher levels of morally principled thinking from coaches was directly related to the level of moral decision making achieved. An initial ANOVA procedure was performed testing for group differences between the categorically measured C-score rank and the grand mean of influence of coaches (*grandcoach*). The ANOVA model met the requirements for the Levene's Statistic, testing for homogeneity of variances. The model was not significant at  $F(3,135) = 1.227, p = .302$

A multiple regression was performed to determine the effect of the influence of coaches on the resulting C-score.

To determine the effect of the influence of coaches on the resulting C-score, the set of three continuously measured variables *coach20*, *coach21*, and *coach22* were regressed onto the continuously measured C-score. In this regression, the

coach variables served as the independent predictor variables while the C-score served as the dependent criterion variable.

The variables (*coaches20*, *coach21*, *coach22*) as a set accounted for approximately 2.1% of the variance as noted by the regression coefficient ( $R^2 = .021$ ) in the criterion variable C-score. The test of the regression coefficient for the set of variables was not statistically significant for the model  $F(3,137) = .973$ ,  $p = .408$ . The overall judgment for this hypothesis was that the set of predictors does not account for significant variation in resulting C-score.

When considered as separate variables, the variable *coach20* accounted for approximately 1.3% of the variance as indicated by the regression coefficient ( $R^2 = .013$ ). The test of the regression coefficient for *coach20* was not statistically significant for the model  $F(1,139) = 1.835$ ,  $p = .178$ . The variable *coach21* was not a statistically significant predictor ( $p > .05$ ) of C-score in the model  $F(2,138) = 1.241$ ,  $p = .292$ . The variable *coach22* was also not a statistically significant predictor in the model  $F(3,137) = .954$ ,  $p = .416$ .

The relative contribution of the predictors can be judged by the size of the standardized regression coefficients. The effect of the variable *coach21* was the strongest at  $\beta = -.128$ , which was still considered a small effect. The variable *coach20* was the next strongest at  $\beta = -.069$ , a small and non-significant effect. The variable *coach22* was the weakest contributor at  $\beta = .077$ , another very small and non-significant effect.

The overall judgment regarding the variables related to the influence of a coach on the resulting C-score was that, based on the observed p-values and the



direction of the unstandardized regression coefficients, it appears that the hypotheses regarding the individual predictors were not supported, however there are varying effects from exposure on C-score response.

*Research Question 4.* To what extent did exposure to higher levels of morally principled thinking from faculty relate to the level of moral decision making achieved? This question was addressed with hypothesis H<sub>2c</sub>: exposure to higher levels of morally principled thinking from faculty was directly related to the level of moral decision making achieved. An initial ANOVA procedure was performed testing for group differences between the categorically measured C-score rank and the grand mean of influence of professors (*grandprof*). The ANOVA model met the requirements for the Levene's Statistic, testing for homogeneity of variances. The model was not significant at  $F(3, 135) p = .610$ .

A multiple regression was performed to determine the effect of the influence of professors on the resulting C-score. To determine the effect of the influence of professors on the resulting C-score, the set of three continuously measured variables *prof23*, *prof24*, and *prof25* were regressed onto the continuously measured C-score. In this regression, the *prof* variables served as the independent predictor variables while the C-score served as the dependent criterion variable.

The variables (*prof23*, *prof24*, *prof25*) as a set accounted for 1.6% of the variance in the criterion variable, C-score, as noted by the regression coefficient ( $R^2 = .016$ ). The test of the regression coefficient for the set of variables was not statistically significant for the model  $F(3,139) = .761, p = .518$ . The overall

judgment for this hypothesis was that the set of predictors does not account for significant variation in resulting C-score.

When considered as separate variables, the variable *prof24* accounted for approximately .6% of the variance as indicated by the regression coefficient ( $R^2 = .006$ ). The test of the regression coefficient for *prof24* was not statistically significant for the model  $F(1,141) = .882, p > .05$ . For both remaining predictor variables of *prof23* and *prof25*, the  $R_2$  value was equal to 0, indicating that those variables had no relationship to accounting for variability in the criterion of C-score.

The overall judgment regarding the influence from professors on C-score was that, based on the observed p-values, it appears that no support was obtained for the hypotheses regarding the individual predictors.

*Research Question 5.* To what extent did exposure to higher levels of morally principled thinking from teammates relate to the level of moral decision making achieved? This research question was addressed with hypothesis H<sub>2d</sub>: exposure to higher levels of morally principled thinking from teammates was directly related to the level of moral decision making achieved. An initial ANOVA procedure was performed testing for group differences between the categorically measured C-score rank and the grand mean of influence of teammates (*grandmates*). The ANOVA model met the requirements for the Levene's Statistic, testing for homogeneity of variances. The model was not significant at  $F(3, 135) p = .624$ .

A multiple regression was performed to determine the effect of the influence of teammates on the resulting C-score. To determine the effect of the influence of teammates on the resulting C-score, the set of three continuously measured variables

*mates26*, *mates27*, and *mates28* were regressed with the continuously measured C-score. In this regression, the *mates* variables served as the independent predictor variables while the C-score served as the dependent criterion variable.

The variables (*mates26*, *mates27*, and *mates28*) as a set accounted for approximately 0.5% of the variance in the criterion variable, C-score, as noted by the regression coefficient ( $R^2 = .005$ ). The test of the regression coefficient for the set of variables was not statistically significant for the model  $F(3,139) = .228$ ,  $p = .877$ . The overall judgment for this hypothesis was that the set of predictors does not account for significant variation in resulting C-score

The overall judgment regarding the influence from teammates on C-score was that, based on the observed p-values, it appears that no support was obtained for the hypotheses regarding the individual predictors.

*Research Question 6.* To what extent did exposure to higher levels of morally principled thinking from athletics department staff relate to the level of moral decision making achieved? This research question was addressed by hypothesis H<sub>2e</sub>: exposure to higher levels of morally principled thinking from athletics department staff was directly related to the level of moral decision making achieved. An initial ANOVA procedure was performed testing for group differences between the categorically measured C-score rank and the grand mean of influence of athletics department staff (*grandother*), in addition to variables collected in which the participant identifies a particular person in each question. These variables include *most29*, *moralperson*, *mentor*, and *difficult*. The ANOVA model met the requirements for the Levene's Statistic, testing for homogeneity of

variances. None of the models were significant as follows: *grandother*,  $F(3,124) = .795, p = .499$ ; *most29*,  $F(3,124) = 1.788, p = .153$ ; *moralperson*,  $F(3,124) = 1.130, p = .340$ ; *mentor*,  $F(3, 124) = 1.039, p = .378$ ; *difficult*,  $F(3,124) = 1.203, p = .311$ ).

A multiple regression was performed to determine the effect of the influence of athletic department staff on the resulting C-score. To determine the effect of the influence of athletic staff on the resulting C-score, two continuously measured variables, *mostA* and *mostB*, were regressed with the continuously measured C-score. In this regression, the most variables served as the independent predictor variables while the C-score served as the dependent criterion variable.

The variables (*mostA* and *mostB*) as a pair accounted for approximately 0.1% of the variance in the criterion variable, C-score, as noted by the regression coefficient ( $R^2 = .001$ ). The test of the regression coefficient for the set of variables was not statistically significant for the model  $F(2,134) = .086, p = .918$ . The overall judgment for this hypothesis was that the pair of predictors does not account for significant variation in resulting C-score.

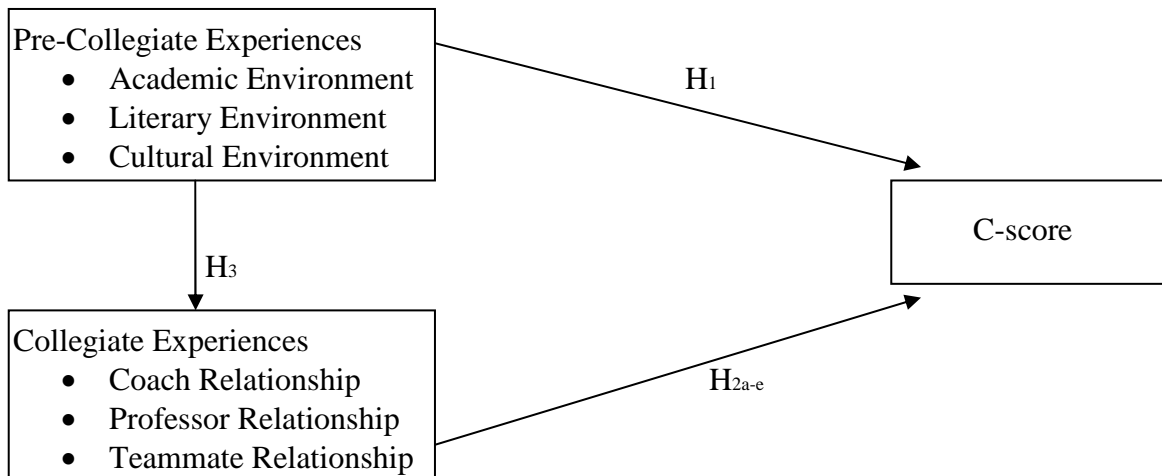
The overall judgment regarding the influence from athletic staff on C-score was that, based on the observed p-values, it appears that no support was obtained for the hypotheses regarding the individual predictors.

*Research Question 7.* To what extent did the set of pre-collegiate experiences of student-athletes mediate the collegiate experiences relating to the level of moral decision making achieved? This question was addressed in hypothesis H<sub>3</sub>: the pre-collegiate experiences of student-athletes were directly

related to the collegiate experiences of student-athletes. A path analysis was performed to test both direct and indirect effects of the pre-collegiate environment and collegiate environment on the resulting C-score. Path analysis can be thought of as an extension of multiple regressions but it includes more than one dependent variable (Klem, 2004). In path analysis, there are two kinds of variables, endogenous and exogenous. Endogenous variables are explained by one or more other variables in the model. All dependent variables are now considered endogenous. In this model, the endogenous variables are: Collegiate Experiences and C-score. Exogenous variables are not attempted to be explained in the model. They are the starting data points in the model (Klem, 2004). For example, the  $R^2$  reported in previous multiple regression calculations was the amount of variance explained in the endogenous variables by the exogenous variables that are directly related (Klem, 2004). The resulting picture was an overall test of the sum of hypotheses presented in the proposed research model in Figure 4. Figure 4 is repeated below. This model emerged from a review of previous literature and is based on moral development and student development theories. Initial analysis of previous research questions indicated some hypothesized relationships may not be present in the present study's data set, and, as found when performing the path analysis, the proposed model did not have enough significant relationships to build a path analysis. The "goodness of fit" index was far out of range (RMSEA = 0.112), indicating a very poorly fitting model (Klem, 2004). This researcher supposes that there are unaccounted relationships with latent variables in the analysis.

Figure 4

*Proposed Research Model*



**Other Relationships of Note**

In an effort to collect complete information aimed at understanding the research questions posed, additional data were gathered in the demographic section and in the researcher-created questionnaire, in addition to Lind's Moral Judgment Test. Following the analysis of data directed to answering the seven research questions, additional analyses were performed to determine the existence of other relationships within the data collected.

At the end of the questionnaire, three items were included, which asked the participant to select the person who best fits the description. The categories from which to choose were: *coach*, *professor*, *teammate*, *athletic staff* and *other*. When selecting the *other*, participants had an opportunity to write in the person they believe answered this question. When asked who was most likely to make a correct choice regarding a moral decision, the 40.1% of participants indicated they believed

their coach would make the correct choice. This was followed in number by 34.5% of participants indicating they believed their teammates would make a good moral decision. Table 4a is a listing of each category and the number of respondents who selected them. Table 4b is a frequency description of the people listed in the other category. Please note that some participants selected more than one person, although the directions indicated to select only one.

Table 4a

*Person to Make a Good Moral Decision*

Moral Decision	<i>n</i>	%
Coach	71	40.1%
Teammate	61	34.5%
Athletic Staff	18	10.2%
Other	18	10.2%
Professor	9	5.1%
	177	100.0%

Table 4b

*Other to Make a Good Moral Decision.*

Other	<i>n</i>	%
Parents/family	12	66.7%
Other	3	16.7%
Friend	2	11.1%
Self	1	5.6%
	18	100.0%

When asked who the participants most considered to be their mentors, 44.3% of participants indicated they regarded the coaches as their mentors. This was followed by 24.7% of participants selecting their teammates as their mentors. Table 5a is a listing of each category and the number of respondents who selected the person as a mentor. Table 5b is a frequency description of the people listed in the other category.

Table 5a

*Person Most Considered a Mentor*

Mentor	<i>n</i>	%
Coach	77	44.3%
Teammate	43	24.7%
Other	29	16.7%
Athletic Staff	15	8.6%
Professor	10	5.7%
	174	100.0%

Table 5b

*“Other” Person Considered a Mentor*

Other	<i>n</i>	%
Parents/family	22	75.9%
Pastor	4	13.8%
Other	2	6.90%
Friend	1	3.7%
	29	100.3%



When asked from whom the participants have learned the most about how to handle difficult situations, 33.1% indicated they have learned the most from their teammates. Coaches were the next largest category with 30.3% of respondents' selection. Table 6a is a listing of each category and the number of respondents who selected the person as a mentor. Table 6b is a frequency description of the people listed in the *other* category.

Table 6a

*Lessons in Difficult Situations*

Difficult	<i>n</i>	%
Teammate	58	33.1%
Coach	53	30.3%
Other	50	28.6%
Professor	7	4.0%
Athletic Staff	7	4.0%
	175	100.0%

Table 6b

*“Other” Lessons in Difficult Situations*

Other	<i>n</i>	%
Parents/family	39	78.0%
Own experiences	4	8.0%
Other	4	8.0%
Pastor	3	6.0%
	50	100.0%

The next section of the study’s questionnaire was a portion with two open-ended questions. The first question asks the participants to report the biggest moral lessons that they have learned. These responses were frequently a few simple words or phrases describing a lesson or action. Examples of these phrases include “honesty,” “don’t give up,” and “easy right – hard wrong.” Reviewing these phrases revealed several main themes. These phrases were coded by likeness and assigned an appropriate title for the theme. The largest theme reported was that of the necessity to “think a decision through” before making it and to “consider the consequences.” This was provided in 21.9% of the responses. The next most popular thought expressed by the participants was that of “learning from your experiences.” This was reported by 19.8% of participants. Table 7 provides a listing of the themes as reported by the participants.

Table 7

*Biggest Moral Lessons*

<u>Biggest Moral Lessons</u>	<u><i>n</i></u>	<u>%</u>
Think it through/consequences	21	21.9%
Experiences	19	19.8%
Work Ethic	17	17.7%
Value Terms	15	15.6%
Do what is right	12	12.5%
Other	8	8.3%
Religious	4	4.2%
	96	100.0%

The second question in the open-ended portion asked the participants to write anything else that they felt contributed to their moral development. Only five participants responded to this question, none of which can be properly grouped together. One participant took the opportunity to express disappointment with the university, while another said that the high school coach was the biggest influence on moral development. One participant simply wrote the word “sports” in this area. One participant wrote the words “biblically based” while another wrote that it was “all right to break rules for good”. A few of these statements echo themes already determined in previous questionnaire items, but none that can be added solely due to this item.

### **Differences by demographics**

Demographic information was included in the questionnaire to assist with describing the influences on moral development in people with different backgrounds and situations. The demographic variables that were considered in this study were that of: participation in a revenue sport (*revenue*), participation in a contact sport (*contact*), gender of participant (*gender*), the level of parent education (*ParentEd*), the setting of the participant’s hometown (*hometown*), the number of roommates the participant has (*roommates*), and how many roommates the participant has that also participate on a sports team (*MatesSport*).

**Revenue Sports.** Participants were binary coded as to whether they participated in the revenue-producing sports of men’s football and men’s basketball (0), or other, non-revenue-producing sport (1). Through univariate analysis, significant ( $p \leq .05$ ) differences based on membership of revenue or non-revenue

sports appeared in four variables: *lit13*, *cult19*, *mates28*, and *mentor*. Student-athletes participating in non-revenue sports were significantly more likely to report higher measures on the *lit13* variable of literary environment than those participating in revenue sports,  $F(3,174) = 2.908, p = .036$ . Student-athletes participating in non-revenue sports were significantly more likely to report higher measures on the *cult19* variable of cultural environment than those participating in revenue sports,  $F(3,173) = 4.543, p = .004$ . Those participating in non-revenue sports were significantly more likely to report higher measures on the variable *mates28* measuring the influence of teammates on decisions,  $F(3,170) = 4.664, p = .004$ . Those participating in revenue sports were significantly more likely to select coaches as their mentors than those participating in non-revenue sports,  $F(1, 167) = 6.180, p = .014$ .

**Contact Sports.** As above, participants were binary coded as to whether they participated in the contact sports of football, wrestling, and women's soccer (0) or other, non-contact sport (1). Through univariate analysis, significant ( $p \leq .05$ ) differences based on membership of contact or non-contact sports appeared in seven variables: *cult19*, *coach 21*, *coach22*, *mates27*, *mates28*, *moralperson*, and *mentor*. Student-athletes participating in non-contact sports were significantly more likely to report higher measures on the *cult19* variable of cultural environment than those participating in contact sports,  $F(3,167) = 3.833, p = .011$ . Those participating in non-contact sports were significantly more likely to report higher measures on the variables *coach21* and *coach22* than those participating in contact sports,  $F(3,167) = 5.067, p = .002$ , and  $F(3,167) = 4.377, p = .005$ , respectively. Those participating in

contact sports were significantly more likely to report higher measures on the variable *mates27*, measuring the influence of teammates on decisions,  $F(3,167) = 3.2569$ ,  $p = .023$ , however those participating in non-contact sports were more likely to report higher measures on the variable *mates28* than those participating in contact sports,  $F(3,165) = 3.183$ ,  $p = .025$ . Those participating in contact sports were significantly more likely to select a coach as their mentor than those participating in non-contact sports,  $F(1, 162) = 12.226$ ,  $p = .001$ . Those participating in contact sports were significantly more likely to select their coach as making good moral decisions than those participating in non-contact sports,  $F(1,165) = 4.568$ ,  $p = .034$ .

**Gender.** Participants were binary coded as to whether they selected male (0) or female (1) in the demographic section of the questionnaire. Through univariate analysis, significant ( $p \leq .05$ ) differences based on identification of male or female gender appeared in eight variables: *lit13*, *lit14*, *lit15*, *coach21*, *prof23*, *mates27*, *mates28*, and *mostB*. Females were statistically more likely to report a higher rating on all three variables measuring the presence of a literary environment than males, *lit13*,  $F(3,174) = 4.163$ ,  $p = .007$ ; *lit14*,  $F(3,173) = 8.229$ ,  $p = .000$ ; and *lit15*,  $F(3,174) = .957$ ,  $p = .034$ . Females were significantly more likely to report a higher rating on the *coach21* variable measuring the influence of coaches on participants than males,  $F(3,172) = 2.749$ ,  $p = .044$ . Males were significantly more likely to report higher measures on the *prof23* variable of influence of professors than females,  $F(3,171) = 2.935$ ,  $p = .035$ . Females were significantly more likely to report higher measures of influence from teammates in the variables of *mates27* and

*mates* 28 than males,  $F(3,172) = 3.535, p = .016$  and  $F(3, 170) = 9.498, p = .000$  respectively. When asked to consider the person with whom the participant feels the most comfortable going to with a personal problem, females indicated greater feelings of comfort with the individual that was selected,  $F(3,159) = 3.298, p = .022$ .

**Parent's Education.** Participants were asked to identify the level of their parent's education. These responses were categorically put into: I don't know (1), some high school education (2), graduated from high school (3), some college education (4), graduated from college (5), and graduate school (6). Univariate analysis indicated that parental education had an overall significant effect on level of C-score of the participants,  $F(4,134) = 3.337, p = .012$ . Pairwise comparisons among the levels of education reported showed significant relationships between those who graduated from high school and those who had some college ( $p = .023$ ), those who had some college and those who graduated from college ( $p = .001$ ), and finally, those who had some college and those who went to graduate school ( $p = .030$ ). In all relationships of significance, the level of C-score increased with the level of parental education.

In addition to the overall significant effect on C-score, univariate analysis revealed significant relationships with one other variable: *cult18*. Participants with parents who completed a higher level of education were statistically more likely to report a higher rating on the *cult18* variable measuring the presence of a cultural environment,  $F(5,170) = 2.252, p = .05$ .

**Hometown.** Participants were asked to identify the setting of their hometown. These responses were categorically put into: rural (1), suburban (2),

and urban (3). Univariate analysis indicated that the hometown setting in which a participant was raised had a significant relationship to the *right.wrong* variable, which asks the participant to rate how well the parent tried to teach them right from wrong. Those students raised in a rural setting reported significantly higher levels of parental intervention than those raised in an urban setting,  $F(1,175) = 7.088, p = .008$ .

**Roommates.** Participants were asked to identify the number of roommates who currently live with them. This answer was continuously measured and aimed at exploring the influence of peers on moral decision making. A follow-up item asked the participant to indicate how many of the roommates participated in college athletics and was also continuously measured. Although the number of roommates reported did not have an overall significant effect on C-scores, the number of roommates who participated in college athletics was significantly related to C-scores,  $F(4,132) = 2.561, p = .041$ . The more roommates who participated on athletic teams, the greater the C-scores.

### **Summary**

Seven research questions were formed to determine the relationship between exposure to higher levels of morally principled thinking and the moral decision making competencies of student-athletes. Research question one asked about the role of pre-collegiate experiences of student-athletes in relation to the levels of moral decision making achieved. The independent variables in this analysis were *acad10, acad11, acad12, lit13, lit14, lit15, cult 16, cult17, cult18, cult19*, and

*right.wrong*. Through multiple regression analyses with the dependent variable, C-score, the variables *acad10* ( $p < .05$ ) and *right.wrong* ( $p < .05$ ) had statistically significant relationships. Research question two asked about the role of the set of collegiate experiences of student-athletes in relation to the levels of moral decision making achieved. The independent variables in this analysis were *coach20*, *coach21*, *coach22*, *prof23*, *prof24*, *prof25*, *mates26*, *mates27*, and *mates28*.

Through multiple regression analysis with the dependent variable, C-score, the set of independent variables was not overall statistically significant. Research question three asked about the exposure to higher levels of morally principled thinking from coaches in relation to the level of moral decision making achieved by student-athletes. The independent variables in these analyses were *coach20*, *coach21*, and *coach22*. Through multiple regression analysis with the dependent variable, C-score, the overall judgment regarding the variables related to the influence of a coach on the resulting C-score was that, there is no significant relationship.

Research question four asked about the exposure to higher levels of morally principled thinking from faculty in relation to the level of moral decision making achieved by student-athletes. The independent variables included in these regressions were *prof23*, *prof24*, and *prof25*. It appears that there are no significant relationships between the influence of professors on student-athletes and resulting C-score. Research question five asked about the extent of exposure to higher levels of morally principled thinking from teammates in relation to the level of moral decision making achieved. The independent variables included in these regressions were *mates26*, *mates27*, and *mates28*. Through regression analyses with



the dependent variable C-score, it appears that no statistically significant relationships exist. Research question six asked about the extent of exposure to higher levels of morally principled thinking from athletics department staff in relation to the level of moral decision making achieved. The independent variables included in these regression analyses were *most29*, *moralperson*, *mentor*, and *difficult*. It appears that there are no significant relationships between the influence of athletic department staff and resulting C-score. Research question seven asked about the mediation effect of pre-collegiate experiences of student-athletes on their collegiate experiences and resulting C-score. Due to the large amount of non-significant relationships in this study, it was not possible to obtain a path analysis with good fit.

In summary, analyses indicated significant differences in C-score in some areas as suggested by theory, such as that of an academic pre-collegiate environment, influence of peers, influence of coaches, and the presence of mentors. Support for additional theories in areas such as participation in contact sports, revenue sports, and of gender was provided by an in-depth analysis of information collected by the questionnaire, yet not directly related to the seven research questions.

## **Chapter Five**

### **Discussion of Findings**

The purpose of this study was to examine how the exposure to higher levels of morally principled thinking affected the moral decision making competency of student-athletes. To fulfill this goal, seven research questions were constructed exploring aspects of the exposure to higher levels of morally principled thinking of student-athletes. A quantitative study was designed using an original questionnaire coupled with Lind's Moral Judgment Test of decision making competency. Analysis of the survey data included the statistical techniques of multiple regression, analysis of variance, and path analysis. Findings were supported or clarified by open-ended information collected by the survey.

In this chapter, the results of the data analysis will be discussed along with relevant theories. Speculations related to the study's findings, recommendations for future research, and recommendations for athletic departments and their respective universities are also provided.

When interpreting the data, this researcher found it important to understand and apply the concepts of statistical significance and practical significance. Statistical significance is found when, mathematically, any differences in group means on a dependent variable are not likely due to sampling error (Lomax, 2001). For all analyses in this study, the alpha level was set at  $\alpha = .05$ . This means that it is 95% likely that any significant findings are not due to chance. Practical significance is an idea of significance that may be used to frame the interpretation of statistical significance (Lomax, 2001). For example, in studies with large numbers of

subjects, statistical significance may be mathematically present, but overall the findings may not be meaningful in daily application. Practical significance must also be considered when statistical significance is not present. If findings do not indicate that an outcome is strong enough to qualify as statistically significant, but still may hold meaningful insight into application, practical significance may be assigned (Lomax, 2001). Additionally, relationships that do not reach statistical significance but possess a large effect size and statistical power should be taken into consideration. Effect size is a measure of the statistical strength of a relationship between variables (Lomax, 2001). Having a large effect size does not always accompany significance, but may serve as an additional descriptor when evaluating relationships for significance. As statistical power increases, the likelihood of correctly rejecting the null hypothesis also increases (Lomax, 2001). Without enough statistical power, the likelihood of making a Type I error, incorrectly rejecting a null hypothesis, increases. Both effect size and power are important to consider when considering a relationship for statistical or practical significance.

### **Results of the Data Analysis**

The process of data analysis included a complete review of the data collected. This data included information directly related to seven hypotheses as well as secondary information which provided details to assist with understanding the complete issue. Although a thorough review of analyses is provided in Chapter 4, a summary of findings for each research question is now provided.

**Research Question 1.** To what extent did the pre-collegiate experiences of student-athletes relate to the levels of moral decision making achieved?

In summary, the variables *acad10* and *right.wrong* had a statistically significant, negative relationship with C-score.

This question was addressed by testing the hypotheses H<sub>1</sub>: pre-collegiate experiences of student-athletes were directly related to the levels of moral decision making achieved. The pre-collegiate environment of the student-athlete was considered in three realms: the presence of an academic environment, the presence of a literary environment, and the presence of a cultural environment.

**Academic Environment.** The variable *acad10*  $F(1,141)=5.799, p<.05$ , was a statistically significant negative predictor of C-score. The variable *acad10* represented the statement “My parents/guardian encouraged me to get good grades in school.” This researcher expected the relationship to be a positive one, as suggested by literature affirming that raising a child in an academically charged environment would result in greater levels of moral reasoning (Rest, 1979). The presence of a negative correlation between this question and resulting C-score suggested the need for additional review. Upon further analysis, those participants who selected a 3 (on the scale anchored from 1 to 5) had the largest average score on the MJT. The realization that the students who chose the “neutral” answer had the highest C-score indicated that this neutral attitude toward academics might be more revealing of my survey and population than previously intended. Speculation as to why this relationship exists is discussed below.

The use of a self-reporting questionnaire is always subject to the participants’ individual perspectives, especially when asked to reflect to an earlier period of time (Cogswell, Alloy, Karpinski & Grant, 2010). Self-reporting tools are

useful methods of data collection, especially when there is an interest in capturing the overall perception of a particular event or experience. The question “My parents/guardian encouraged me to get good grades in school” was intended to ask one basic question regarding the attitude toward academics in the home (focused on the student) and may have actually asked another question regarding the perception of encouragement (possibly simultaneously viewed as “nagging”) of the parent. The idea of a “helicopter parent” is one that has gained significant attention in education and in the field of student affairs in the recent past. A helicopter parent is an overly-involved, consistently present parent who is said to “hover” around their child’s educational experiences (Cleaver, 2008). With regard to moral development, Kohlberg’s first stage of Heteronomous Morality states that one will obey rules to avoid punishment. It is possible that, in this item on the survey, students were reporting a stifling “helicopter” approach by the parent, which they learned to obey for fear of punishment. Kohlberg’s first stage is said to take the most control out of the subject’s hands and places the power almost entirely with the “controller” (Evans et al., 1998). In this case, the parent is playing the part of the controller and the student is learning to obey, using the most basic level of reasoning.

An additional consideration must be given to the population. Student-athletes, regardless of academic preparation, have an additional motive to attend college other than to earn a degree. It is possible that the students who were already motivated intrinsically with regard to academics did not need the additional prompting from the parent regarding their academic work. In this case, those who

did not need as much encouragement, or perhaps were already highly motivated academically might not have judged the parent's support to be as extreme as someone who had an emotionally negative response when occasionally reminded.

The variable *acad12* represented the statement "I believe college graduation will improve my life." Although the relationship between this statement and resulting C-score was not significant, there was an effect size and statistical power to support the existence of a noteworthy, perhaps practically significant, relationship. Similar to the variable *acad10*, this relationship had a negative correlation with the resulting C-score. It is this researcher's opinion that the word "improve" may have been applied to each individual's point of reference. Of the respondents, the majority (120 out of 143) responded with the maximum amount of agreement, a 5 out of 5. Only 17 respondents responded with the sub-maximal agreement a 4 out of 5. These 17 scored significantly higher on the C-score than any other group. It is this researcher's supposition that these 17 might have taken the word "improve" and made it relevant to their home life. One looks to a college education as a source of social mobility and financial security. It is possible that these 17 students already have a financially secure life and do not see as much potential for gain as the other respondents who see a large potential for gain. This interpretation is supportive of the research indicating that a better home life environment, overall, will lend itself to higher levels of moral reasoning.

***Literary Environment.*** The variable *lit14* is not a statistically significant predictor of C-score in the model, however this variable's proximity to significance ( $p = .054$ ) coupled with a moderate effect size and large amount of statistical power

indicated a relationship of importance was present. The variable *lit14* represented the statement “I enjoy reading books or magazines in my free time.” The intent of the statement was to capture the attitude toward reading that had been instilled in the student. Additional review determined that the fewest number of respondents selected option 5, and that these few did not score as well as those who selected the moderately positive response (4 out of 5). This might be due to the timing of the semester for the population that was questioned. It is well known that student-athletes have long, heavily-structured days (Petipas & Champagne, 1988). The questionnaire was administered in the first month of the semester. This time period is marked by multiple sports having twice daily practice schedules, several sessions of orientation, multiple team meetings, and a re-adjustment into their course schedules and tutoring schedules. It is possible that some would rather not read in what little free time they might imagine having without necessarily being reflective of their overall attitude toward reading. In this case, the qualification of “free time” in the statement might have produced responses more indicative of the rigidly scheduled days of student-athletes.

***Cultural Environment.*** The variable *right.wrong* was statistically significant for the model  $F(5,137) = 1.317, p <.05$ . The effect of the variable *right.wrong* was a small, negative correlation. This variable represented the statement “I believe my parents/guardian did their best to teach me right from wrong.” This variable was analyzed with interest, as a brief conversation was had between the researcher and a participant during the data collection process. Upon completion of the survey, a male student-athlete who participated in a revenue,

contact sport made some comments regarding this item. The student remarked about how anyone could pick any ranking other than 5 (strongly positive) regarding this question. His comments are summed up with the statement “of course your parents teach you right and wrong.” This conversation is reflected in the frequency of responses in that 131 respondents of 144 selected a 5 out of 5 ranking for this variable. Although it is an overall positive situation that so many student-athletes would give their parent/guardian credit for trying their best at teaching morals, the negative correlation with scores on the MJT suggest that students may have answered this question with thoughts of love and loyalty to their parents/guardians rather than an honest assessment.

**Research Question 2.** To what extent did the collegiate experiences of student-athletes as a whole relate to the levels of moral decision making achieved?

In summary, as a set, the collegiate predictors were not significantly related to C-score.

This question was addressed by testing the hypotheses  $H_{2a}$ : the collegiate experiences of student-athletes as a whole were directly related to the levels of moral decision making achieved. The collegiate experiences of student-athletes were grouped into the set of influences of coaches, teammates, professors, and athletic staff. This research question asked the question regarding the influences of the collegiate experiences as summed together. The overall judgment for this hypothesis was that the set of collegiate predictors did not account for significant variations in resulting C-score, as no statistically significant or practically



significant relationships were discovered. More details regarding each individual influence are discussed in research questions 3 through 6 that follow.

**Research Question 3.** To what extent did exposure to higher levels of morally principled thinking from coaches relate to the level of moral decision making achieved?

In summary, there were no significant relationships between the possible exposure from coaches and C-score.

This question was addressed by testing the hypotheses  $H_{2b}$ : exposure to higher levels of morally principled thinking from coaches was directly related to the level of moral decision making achieved. This question looked critically at the influence of a coach on the levels of moral decision making achieved.

The variable *coach21* was not an overall statistically significant predictor of C-score, but had a negative correlation. Perhaps practically significant, this researcher believes this relationship is worth discussing due to the moderate effect size and a large amount of statistical power present.

The variable *coach21* represented the statement “On average, how much do you trust the opinions of your coach with regard to moral decisions?” This question was directly investigating the degree to which student-athletes saw the coach making moral decisions with which they agreed. It is interesting to note that the response with the highest frequency was the strongest response (5 out of 5), indicating the participant fully trusted the coach’s opinion. Although that was the most common response, those who were somewhat judgmental of the coach’s opinion (selected less than fully trusting) were better able to make moral decisions,

as indicated by a greater mean C-score. This finding seems to be in line with the existing literature. Pascarella and Terenzini (1991) have studied the developmental changes of college students. They theorize that the collegiate experience increases students' levels of critical thinking and ability to reason for themselves, with the moral reasoning process being one of the many areas affected by a student's experiences in college (Pascarella & Terenzini, 1991). The analysis of the *coach21* variable illustrates Pascarella and Terenzini's theory. Some students are able to use their own set of moral reasoning skills to filter their observations of their coaches' actions. Kohlberg's theory (Evans et al., 1998) can also be applied to this situation with the shift of looking outward for solutions to moral decisions (doing what is told) to the realization that this could come from within the student's own set of judgments. This is representative of reasoning within Kohlberg's Conventional phase (Evans et al., 1998).

The variable *coach22* represented the statement "Overall, how comfortable would you feel going to your coach with a personal problem?" This statement's purpose was to determine if the coach was the person selected by student-athletes to gain advice regarding matters the students did not feel comfortable dealing with alone. Additional analysis into these relationships revealed that those who selected the neutral rating (3 out of 5) had the highest mean C-score. This might indicate that, for those who were the best at making moral decisions, there was someone else that they turned to instead of their coaches for advice. It was also interesting to note that those who strongly agreed that they feel comfortable going to their coaches with a personal problem scored the lowest on the test of moral decision making

competency. This researcher supposes that these students would be grouped into Kohlberg's lowest pre-conventional phase of moral reasoning as they accept the authority of the coach without question, and apply this to other aspects of life (Evans et al., 1998).

**Research Question 4.** To what extent did exposure to higher levels of morally principled thinking from faculty relate to the level of moral decision making achieved?

In summary, there were no statistically significant relationships between exposure from faculty and resulting C-score.

This question was addressed with hypothesis H<sub>2c</sub>: exposure to higher levels of morally principled thinking from faculty was directly related to the level of moral decision making achieved. The variable *prof23* represented the statement "On the whole, how much do you think your professors like you?" This question was included as part of the set of questions asked for each influence aimed at determining the student-athlete's perception of the nature of the relationship. In this variable, those who determined the relationship to be slightly positive (4 out of 5) had the highest C-scores of all groups. In fact, only 6 of 143 respondents selected a slightly negative perception of the relationship with their professors and no respondents selected the strongly negative perception. This observation makes a statement regarding the student-athletes on this particular campus. Many studies have shown that faculty have a negative bias with regard to student-athletes (Engstrom, 1995; Thomas, Weber & Tegano, 1988). These studies indicated that faculty had biases toward student-athletes, especially males, regarding their

academic abilities. In this case, the nature of the self-reporting measure indicates that if those biases exist on this campus, it is not perceived by the student-athletes as such. This thoughtful group who selected a slightly positive relationship with their faculty members did so after consideration of that interpersonal relationship with an authority figure, demonstrating a higher level of reasoning. As such, their scores on the MJT were correspondingly high.

**Research Question 5.** To what extent did exposure to higher levels of morally principled thinking from teammates relate to the level of moral decision making achieved?

In summary, there were no statistically significant relationship between exposure from teammates and resulting C-score.

This research question was addressed with hypothesis H<sub>2a</sub>: exposure to higher levels of morally principled thinking from teammates was directly related to the level of moral decision making achieved. Although the overall judgment regarding the influence from teammates on C-score is that it appears that no support was obtained for the hypotheses regarding the individual predictors, the role of teammates is present and discussed during analyses of additional data collected by the instrument.

Chickering (1972) supports the theory that relationships with peers are one of the main influences in college student development. The present research focused on the exposure to higher levels of morally principled thinking on decision making competency. The lack of a significant relationship between the influence of teammates and decision making skills may indicate that the peer groups are not

operating at a higher level of morally principled thinking. This would account for not having a significant change in the level of decision making ability.

**Research Question 6.** To what extent did exposure to higher levels of morally principled thinking from athletics department staff relate to the level of moral decision making achieved?

In summary, there were no statistically significant relationships between exposure from athletics department staff and resulting C-score.

This research question was addressed by hypothesis H<sub>2c</sub>: exposure to higher levels of morally principled thinking from athletics department staff directly related to the level of moral decision making achieved. The overall judgment regarding the influence from athletic staff on C-score is that, based on the observed p-values, it appears that no support was obtained for the hypotheses regarding the individual predictors. Although influences of athletic staff on the lives of the respondents is reported in the supporting information collected by the questionnaire, there are not any statistically significant instances where the influence is strongly present.

The influence of athletic staff was reported when participants were given the opportunity, although not in comparable numbers as other influences. When asked to identify a mentor, only 8.6% reported athletic staff as such (refer to Table 5a). When asked who would make a good moral decision, 10.2% of participants selected athletic staff (refer to Table 4a). Perhaps making the relationship most clear, when asked who was the person that they learned the most from regarding making difficult moral decisions, only 4% of participants selected athletic staff (refer to Table 6a). This last question indicates that not too many participants ( $n = 7$ ) are

being influenced by athletic staff in regard to moral decisions. This may be indicative of the comparably smaller amount of time that student-athletes spend with athletic staff. Additionally, most of the time spent with staff is directed to specific purposes, such as tutorial sessions, rehabilitative sessions, and specific programming.

Another point of consideration for not finding a significant relationship between the influence of athletic staff and moral development competency is that the questions asked the participants to select one person above all others. It is possible that athletic staff exerts an influence on moral decision making, but the influence is not as strong as those exerted from other sources, such as coaches and the “other” category.

**Research Question 7.** To what extent does the set of pre-collegiate experiences of student-athletes mediate the collegiate experiences relating to the level of moral decision making achieved? This question was addressed in hypothesis H<sub>3</sub>: the pre-collegiate experiences of student-athletes were directly related to the collegiate experiences of student-athletes. A path analysis was attempted to test both direct and indirect effects of the pre-collegiate environment and collegiate environment on the resulting C-score. The proposed research model, a sum of hypotheses examined in this study, was tested for significant relationships. The proposed model emerged from a review of previous literature and is based on moral development and student development theories. Although the data have been widely supportive of such theories, the proposed model did not have enough significant relationships to build a path analysis. The “goodness of fit” index was

far out of range (RMSEA = 0.112), indicating a very poorly fitting model (Klem, 2004). It appeared that there were additional variables that were not accounted for that were preventing the path analysis from confirming the proposed model. This researcher returned to the data collected by the questionnaire to identify which variables were suggested by other parts of the instrument.

**Participant-identified variables.** At the end of the questionnaire, there were several questions that offered an opportunity for the participant to provide additional information that was not listed as an option in the survey. Each time the participant was offered the opportunity to select “other” and fill in a blank, the response of family was widely reported. According to the questions, participants reported family members as people who they knew would make good moral decisions, people who they most considered to be a mentor, and people from whom they had learned the most regarding the handling of difficult moral situations. Because the questionnaire was set to distinguish student-athletes from the general student body with the considerations of the unique influences of coaches, athletic staff, and daily demands of collegiate athletic participation, a variable as basic as a familial influence was not taken into consideration, as all college students have some sort of family unit. It appears that the influence of the family is central to the overall development of the student-athlete. Measuring parental/familial influence and the effects it has on moral development might have allowed a new model to emerge, as this influence is something that shapes the student in each phase of life.

Although not nearly as frequently, there were a few participants who reported a religious figure (such as a pastor) as being influential in their moral

development. For the present study, religion was intentionally omitted to provide a clearer delineation of research focus. For many, it is difficult to distinguish religious ideals from beliefs of spirituality, actual religious practices, and emotional ties to religion. These constructs are separate from moral reasoning and their inclusion in the study would have added significantly to the length and scope of the questionnaire. It was this researcher's fear that adding to the length of the questionnaire would decrease the response rate. Information regarding the religious influence on moral reasoning is useful, however not central to the purpose of this study.

**Putting findings into context.** The data analysis revealed several relationships that hold implications for those involved in the education of student-athletes. It is important to note that within demographic groups of student-athletes, significant differences exist. Understanding these differences will help to frame the results of the research questions and lead to a greater ability to draw conclusions and make recommendations regarding the moral decision making of student-athletes.

**Revenue Sports.** There were statistically significant differences in four variables based on student-athletes' participation in the revenue sports of football and men's basketball. These variables and the statements they represented are: *lit13* "I can remember my parents/guardian reading books to me when I was little", *cult19* "I enjoy listening to many different types of music", *mates28* "Overall, how comfortable would you feel going to your teammates with a personal problem?", and *mentor* "In my opinion, the person I would most consider to be my mentor is\_\_\_\_\_." For the first three variables, those participating in revenue sports were



significantly less likely to remember having books read to them, significantly less likely to enjoy listening to a variety of music, and significantly less likely to feel comfortable going to a teammate with a personal problem. These three differences reflect a difference in pre-collegiate and collegiate culture between football and men's basketball and every other sport. It seems likely that reading was not made a part of revenue sport students' upbringings, potentially reflecting the differences in literary environment (Biggs, Schomberg & Brown, 1977). In much the same way, appreciating different cultures, as might be shown through music, can be said to influence the moral reasoning skills of college students (Pascarella & Terenzini, 1991; Rest, 1979). Perhaps representative of the revenue sport culture is the machismo of not being able to share with a teammate a personal struggle. This might lead to feelings of alienation or isolation from the team, and a tendency to create negative attention as a distraction from the struggle.

Perhaps the most important finding in the analyses of revenue sports was that the members of football and men's basketball were significantly more likely to consider the team's coach as their mentor. This places an additional responsibility on the coaches of these sports to provide the guidance and leadership that the students are expecting of them. These coaches should realize that the lessons they are teaching on the field will carry over into other aspects of their team's lives.

***Contact Sports.*** In this study, the sports that were considered contact sports were: football, wrestling, and women's soccer. The responses of the participants of these sports were compared to the responses of those participants in all other sports (non-contact). In all, there were statistically significant differences in seven

variables based on student-athletes' participation in a contact sport. The variables and the statements on which those who participated in contact sports scored lower than non-contact sports are: *cult19* "I enjoy listening to many different types of music", *coach21* "On average, how much do you trust the opinions of your coach with regard to moral decisions?", *coach22* "Overall, how comfortable would you feel going to your coach with a personal problem?", *mates28* "Overall, how comfortable would you feel going to your teammates with a personal problem?"

These differences were mainly related to collegiate experiences, which could be telling of a culture change at the collegiate level for those who participate in contact sports. The two variables of: *moralperson* "In my opinion, when faced with a difficult moral decision my \_\_\_\_\_ is going to make the correct choice", and *mentor* "In my opinion, the person I would most consider to be a mentor is my \_\_\_\_\_", members of contact sport teams were significantly more likely to identify the coach again as a mentor and as a person to make good moral decisions. The variable *mates27* "On average, how much do you trust the opinion of your teammates with regard to moral decisions" was the only variable that those who participated in a contact sport scored significantly higher than those who participated in a non-contact sport. This is indicative of student-athletes on contact sports and the ability to build trust with one another. It is this researcher's opinion that the trust formed between teammates of contact sports may be related to the potentially dangerous nature of the activity. During practices and games, student-athletes are taught to sacrifice their bodies for the good of the team. This may lead to a bond of trust that each person is going to make the same safety sacrifice for the whole team's benefit.

**Gender.** As could be expected, significant differences as indicated by gender were found throughout the dataset. In all there were eight variables with significantly different answers. The variables which the females selected ratings higher than males are: *lit13* “I can remember my parents/guardian reading books to me when I was little”, *lit14* “I enjoy reading books or magazines in my free time”, *lit15* “I can remember going to my school library or the public library to check out books before I came to college”, *coach21* “On average, how much do you trust the opinions of your coach with regard to moral decisions”, *mates27* “On average, how much do you trust the opinion of your teammates with regard to moral decisions”, *mates28* “Overall, how comfortable would you feel going to your teammates with a personal problem”, and *mostB* “Overall, how comfortable would you feel going to this person with a personal problem?”. The one variable that males reported higher ratings than females was in that of *prof23* “On the whole, how much do you think your professors like you?”

These gender differences can give a general description of experiences that student-athletes bring with them to college and the habits they grow into during their college years. For example, females scored significantly higher on all measures of being raised in the presence of a literary environment than males. In most cases, females on average are better students than males. This may be due in part to the focus on reading and books in the pre-collegiate years. Females were significantly more likely to be trusting of their coaches and teammates than males, and more likely to feel comfortable seeking help for a personal problem. This may be a socio-cultural phenomenon. It was interesting to this researcher that males

reported higher levels of professors liking them. This may be reflective of female student-athletes being more modest or more critical of themselves than male student-athletes who may be displaying a machismo confidence (Heatherington, Daubman, Bates, Ahn, Brown & Preston, 1993).

*Other findings.* When additional comparisons were made within the data, a few more trends emerged. A statistically significant relationship was determined between the level of parental education and C-score. The greater the parent's level of education, the higher the resulting C-score. This finding is supportive of theories on providing an environment rich in what one would gain in college (academic skills, literary skills, and cultural knowledge) as being related to moral reasoning (Pascarella & Terenzini, 1991; Rest, 1979). As Pascarella and Terenzini (1991) maintain, this difference shows that having a parent who went to college has an effect on the development of moral reasoning. They posit that "with college comes an upward shift in moral stage" (Pascarella & Terenzini, 1991, p. 337). In this case, it appears that exposure to higher levels of morally principled thinking from parents can be partly attributed to the increase in moral reasoning that accompanied the parent's experience of attending college.

Additionally, a significant relationship was found between the resulting C-score and the number of roommates who participated on athletic teams. The more roommates who were reported to participate in athletics, the higher the C-score. This finding supports Chickering's theory (1972) that "a student's most important teacher is another student" (p. 253). Chickering's beliefs were that the peer groups students form in college are instrumental in the development of the student. The

finding that student-athletes with roommates who were also collegiate athletes tended to score higher on the MJT suggests that the influence of the athletic peer group plays a role in the development of moral reasoning.

**Theoretical framework.** When setting out to study the influences of the exposure to higher levels of morally principled thinking on the moral decision making abilities of student-athletes, many theorists guided the development of the research questions. These theories must also be applied to the practical application and interpretation of the study's finding. Astin (1977) studied college student development and divided the series of changes into two main types: cognitive and affective. Cognitive changes are those that appear in areas such as reason and logic. Affective changes include those that have indicated a change in students' attitudes, sets of values, or senses of self-esteem (Astin, 1977). These changes in psychological attitudes are strongly associated with changes in behavior. It is the hope that, as student-athletes experience the influences related to moral decision making skills, these changes in attitude would be likely to result in behavior reflective of higher levels of morally principled thinking. Astin's theory maintains that affective outcomes in college student research are usually captured through these behavioral changes, such as those during interaction with peers, in everyday habits, and displayed during extracurricular activities (Astin, 1977). Of the observed influences during student-athletes' collegiate experiences, it seems as if the influence of the coach is of the greatest importance. This is particularly true for male student-athletes who participate in revenue sports. Using Astin's theory on affective change fostering behavioral change, the role of the coach in the exposure

to higher levels of morally principled thinking is perhaps the most important relationship presented in this study. It would stand to reason that the stronger the coach can positively influence the moral reasoning abilities of student-athletes, the better the behavior will be.

The coaches' influences on student-athletes are among the many experiences that separate student-athletes from the student body. These experiences unique to student-athletes are some of the reasons why universities need to continue research specific to this population. As part of the fundamental basis for the present study, student-athletes have the opportunity to build very close relationships with coaches that the rest of the student body is not typically afforded. These relationships begin several years prior to collegiate enrollment with the recruiting process. Coaches typically visit the prospective student-athlete in their homes, meet with their families, and study their habits prior to offering an athletic scholarship. Prospective student-athletes may weigh the recruiting relationship with coaches when making the decision as to which college to attend. Once the student-athletes are enrolled, coaches are incentivized to see to the academic and athletic successes of their team members. Coaches set the schedules of the daily lives of student-athletes. Coaches reward successes with praise, recognition and possibly an increase in playing time. Coaches can punish wrongs with physical punishment, extra responsibility, a decrease in playing time, and even a loss of scholarship. The relationships with coaches may be considered *in loco parentis* for the duration of student-athletes' collegiate careers. These influential relationships afford coaches the opportunities to educate student-athletes, a shared responsibility across college campuses.

Chickering's research on college student development resulted in the formulation of seven vectors of development (Chickering, 1972). Of the seven vectors, there were three that directly related to this study's focus on collegiate participation in athletics. The first vector, that of developing competence; the second vector, that of managing emotions; and the seventh vector, that of developing integrity (Chickering, 1972) are discussed in relation to the present study's findings.

Chickering's ideas on developing competence include those of a cognitive nature, physical and manual nature, and of an interpersonal nature. Chickering's theory supports the belief that participation in athletics creates a need for the management of emotions, especially as experienced in a competitive setting. Chickering credits athletic participation with providing a setting in which to practice managing the emotions which in other environments must be muted. Extreme emotions such as "rage and delight are expected reactions" (p. 29) and experiencing these freely leads to improved interpersonal relationships.

A continuation of the first vector, Chickering's second vector, that of managing emotions, is the practice of honing the skills of managing one's emotions to a point of mastery. This includes the emotional development of aggression and emotional sexual maturity. Chickering gives credit for the opportunities to practice emotional management to the sub-cultures of college such as those created through living in a dorm or being on an athletic team (Chickering, 1972). It may be these first two vectors at work within the results of the findings regarding contact sports and having roommates that play sports. A challenge for student-athletes in contact

sports is to learn to handle the aggression that is necessary for competitive play. Not only must student-athletes be able to produce this emotion, but also learn to apply it in a physical manner, then learn to subdue it once finished on the playing field. This opportunity to practice the management of emotions with fellow teammates may provide the opportunity for student-athletes to develop together, as they experience the challenge of emotional development. This researcher can understand how experiencing these challenges as a team would connect the teammates, building a trusting relationship. A continuation of this bond might be part of the positive relationship between having student-athlete roommates and resulting C-score. Perhaps the challenges faced during practice are best understood by someone who has also experienced them – the roommate who knows first-hand. This exchange of ideas regarding the daily struggle and management of emotions may help the student to empathize with another, directly affecting the ability to make moral decisions.

Chickering's final vector, that of developing integrity, states that integrity is effected by students' interests, occupational plans and life-styles. For some student-athletes, these areas are generally influenced by a lifetime of training for sport and preparation to participate at the collegiate level. Chickering (1972) considers integrity as a set of beliefs that is true for individuals, held consistently, and serves as a guide to the actions and attitudes of students. Through examination of the pre-collegiate influences on student-athletes, it was determined that male student athletes are exposed to significantly less rigorous literary environment and cultural environment. When taking this final vector into consideration, this relationship with



the pre-collegiate environment is likely compounded when many male student-athletes have career goals of playing their sport professionally. The lack of variety of occupational plans is another area of importance within this vector. When taking the findings of the present study into consideration with Chickering's outline of this final vector, it would follow suit that the majority of those student-athletes with difficulties of integrity development would more frequently be male than female.

### **Limitations**

As with any social research, there will be limitations in the design and execution of the research study. Appropriate measures were taken to reduce the effects of the limitations and to maximize efficiency in research. The following limitations for the present research study were faced.

1. Measures were taken to encourage participation in the present study, and appropriate response rates were obtained. Although the 50% response rate goal was not met, the number of responses was large enough to execute statistical analyses. Although more surveys might have been collected with additional distributions, due to the statistical power obtained in the analyses, it does not seem as if the findings would change. Statistical power lends confidence with which to reject the null hypothesis for each research question. The level of statistical power present in an analysis accounts for the likelihood that the non-respondents would differ from the sample. The higher the amount of statistical power present in the analysis, the lower the likelihood that the non-respondents would differ from the sample.

2. Due to the potential extraordinary number of possible variables, this type of research can never indicate a cause and effect relationship. In the best way possible, all relevant variables were included and their interrelationships taken into account in the exploration of this complicated phenomenon. Although the variable of the family's influence on moral decision making competency was not originally included in the study, the design of the questionnaire with the incorporation of open-ended questions allowed the participants the opportunity to submit this information.
3. In order to collect the most information, Lind's Moral Judgment Test was coupled with a self-made questionnaire for data collection. Upon receipt of the instrument packet, some participants were discouraged by the length of the survey and chose not to complete it. Others completed the first portion, the questionnaire, then did not accurately complete the MJT instrument. Although a shorter survey might have increased the participation rate, some questions would have needed to be removed. For the purposes of this study, the variety of information collected was of interest, with the understood cost to participation.

## **Conclusions**

Based on the review of the literature, findings of the analyses, and the theoretical framework on which the present study was formed, several conclusions may be drawn.

The first is that, aside from the occasional influence of the coach, it is this researcher's best judgment that very little from the collegiate experience seems to

influence the moral decision making abilities of student-athletes. This may account for the lack of statistical significance from the influence of all other collegiate variables. This does not completely contradict the theories presented by Pascarella and Terenzini, Astin, and Chickering, who have studied the development during collegiate experiences at great length. Although several explanations may exist, in the opinion of this researcher, these findings point to the unique experiences of student-athletes as compared to the student body. For example, it is possible that student-athletes experience developmental changes of moral decision making through a method other than exposure to higher levels of morally principled thinking, as was examined in this study. Although the influence of the coach is greater among various populations, specifically males in revenue sports, this source of influence is by far the most significant during the collegiate experience.

It seems that the pre-collegiate experiences of student-athletes are central to the development of moral decision making skills. These experiences so strongly influence student-athletes that the skills of reasoning learned in the pre-collegiate years may noticeably be applied to the collegiate years. This is illustrated in the varied levels of trust in coaches and teammates, as discussed in the collegiate analyses.

As indicated directly by study participants, during the pre-collegiate years of a future student-athlete, the family is the single most important influence. Although this variable was not originally included in this study, participants felt so strongly that family was influential on their moral reasoning, this variable was written in at every opportunity possible. The formative years that students spend with family,

prior to departure for college were what seemed to be most important to the overall development of moral reasoning abilities and application of skills.

As reported by Pascarella and Terenzini (1991), the pre-collegiate experiences in the areas of the academic, literary, and culturally enriched environments is significantly and positively related to moral reasoning ability. It is this researcher's supposition that the present study captured these three areas in the latent variable of *family*. As the families determine the types of environment in which student-athletes develop, these three areas may form the family construct. This might explain why there were not more statistically significant relationships in pre-collegiate variables, but why the notion of family was so strongly reported.

The next conclusion that can be formed from the findings pertains to the role of the coach in revenue sports. Those student-athletes participating in the revenue sports of football and men's basketball were significantly more likely to consider the team's coach as their mentor. This places an additional responsibility on the coaches of these sports to provide the guidance and leadership that the students are expecting of them. A coach who also serves as a mentor has a great deal of importance placed upon on the actions and decisions of the coach. These leaders are being carefully watched by their teams, perhaps more than they realize. These coaches need to be informed of the influential role they play in the lives of student-athletes. They should realize that they are not only teaching lessons on the field, but for life.

The third conclusion that may be made from this study's findings is the existence of sport cultures surrounding both revenue sports and contact sports.

Based upon the analyses, these cultures are a culmination of the influences of the coaches, the participating student-athletes' pre-collegiate experiences, and this researcher supposes influences from the surrounding society and media attention with which the students live. Both cultures need to be recognized for the differences they have from other sports, and the context in which the student-athletes are operating. Understanding the culture of these sports, or any organization, is helpful to imparting lessons and providing assistance. Learning to work within the context of specific groups of student-athletes is an important first step to take when assuming the responsibility of their care, development, and education.

### **Implications**

In this country, intercollegiate athletics is woven into the fabric of our universities, our society, and for some, our daily lives. The expectations of intercollegiate athletics and those who participate in them are great both financially and morally. At a time when the inclusion of athletics within higher education is questioned based on the central missions of a university, it is important to understand the developmental processes that accompany the experiences of student-athletes and look for opportunities for enhancement.

**Student-athletes and families.** For many prospective students, the decision to become a student-athlete is one that was made numerous years prior in youth sports. The dedication and sacrifice required to work toward this goal shapes the pre-collegiate environment and in turn, the student-athlete. Parents should realize that although their child's body is working toward a serious goal, the mind is still

that of a child and needs to be stimulated and challenged. Spending time with the student reading or simply experiencing different cultures will satisfy the natural curiosities and ensure the development of cognitive and affective traits. The exposure to different world views through literature, through their studies at school, or through the foods and music of another culture plays a valid role in the future success and, possibly, behavior of their student.

Additionally, it is important for families to realize how influential they are in the life of the child. The participants in this study displayed great appreciation for the roles that their families played in their lives and for the lessons that were taught. The child is constantly learning and growing, and the most important role a parent can play is be present in the life lessons that will happen along the way and provide guidance along with education.

**Athletic departments and universities.** In the present day, athletic departments are increasingly burdened with the tasks of generating revenue and positive publicity for the university. It should be noted that these revenue generators and publicity agents are 18 to 22 year old college students. These student-athletes came to college for the promise of a better life. Their sacrifices for the university are great, matched only by the amount of pressure that is placed upon them.

With regard to the present study, it is important for athletic departments and universities to educate their coaches on the important roles they assume when working with their student-athletes. The role of a mentor is a large task to complete, especially when one is considered a mentor by so many. Coaches should be given

guidance on how to convey meaningful messages within the framework of their present duties.

The implications for coaches may be most visible during recruiting processes. According to the present study, the role of the family in the pre-collegiate years is paramount to the development of moral decision making abilities. When universities agree to allow a student-athlete to join an intercollegiate athletic team, they are accepting a responsibility to educate the student and the student is accepting the responsibility to represent the university well. To this end, coaches should be encouraged to weigh additional factors when recruiting aside from athletic talent. Coaches should invest the time and resources necessary to determine the amount of familial support in which the student was raised. This researcher feels strongly that there are plenty of single mothers who are more vested in their child's life than some two parent homes. Caution should be taken to not judge these pre-collegiate experiences at face value and to determine the true experiences of the young student.

It is this researcher's observation that the families of student-athletes are involved on a very limited basis, mostly during recruiting periods and as recognized on senior night. Knowing the importance of the role of the family in the development of the student-athlete, it would stand to reason that opportunities to increase familial involvement should be sought. Ideas such as dedicating the season opener to mothers by wearing a special colored arm band or for coaches to encourage student-athletes to call a sibling to tell them about college reinforce the presence of family while allowing the student independence to continue to grow.

Using the coach to reinforce the importance of family helps to connect the influence of all those considered mentors by student-athletes.

The implications for athletic departments and universities are far-reaching. The athletic department needs to serve the university in helping to create students who are prepared to be good citizens in a global society. Student-athletes need guidance reconciling the lessons that sports hold, along with serving in the business enterprise that Division I athletics has become. In addition to developing athletic skills, student-athletes need to become equipped with the critical thinking skills necessary to promote their growth as a whole person. The ability to think critically will serve them well when making moral decisions or other decisions impacting their futures. Imparting the importance of education as a means to a better life will always benefit student-athletes, even if remembered at the conclusion of a professional career.

**Society.** Student-athletes in today's society are different and need to be different from those of previous years. Today's student-athletes need to be bigger, faster, and stronger on the field and more technology-savvy, ecologically concerned, and financially aware than in any other period in the history of intercollegiate athletics. Arguably, society expects more from our student-athletes than arguably any other group of college students. The increased pressure on student-athletes, particularly in revenue sports, has heightened the consequences of poor decisions. As media coverage of alleged crimes committed by student-athletes expands, a concern for the lack of character exhibited by student-athletes is gaining ground in this country (Marino, 2007). What is frequently forgotten is that this group of



college students is living in an over-exposed world in which too much is expected of them too early in their lives. Astin, Chickering, Pascarella and Terenzini, and Kohlberg have made careers from studying the development that occurs during college. Part of this developmental process is to make mistakes, be corrected, and learn from the consequences. In present day society, an error on the part of a student-athlete is commonly front-page news. The lives of young students are being held to impossible standards at a time when, developmentally, they should be exploring the perspectives of others and trying to mold their personal world view. This researcher encourages the members of society to be mindful of this when reading the newspaper and to judge lightly with the hope that one more college student has learned a lesson.

### **Assumptions**

1. It was assumed that participants would fully comprehend the instruments and would answer appropriately and accurately. Both the questionnaire and survey were reviewed for clarity and reading level. No participants reported any difficulty with comprehension during data collection.
2. It was assumed that participants would answer the research questions carefully, honestly, and to the best of their abilities or recollection.
3. It was assumed that the instrument chosen would provide an adequate measurement of the moral judgment abilities of the participants. Due to the distribution of scores, it appears that the instrument gave accurate measurement.

4. It was assumed that those responsible for providing exposure to higher levels of moral reasoning are actually operating at those levels themselves.

### **Future research**

The conclusions from this study provide a strong first glimpse into the many ways that student-athlete development is influenced by experience. Perhaps the biggest recommendation for future research is to explore the role of the family in the lives of student-athletes to determine the unique aspects of this relationship. More research should be conducted on those who participate in revenue sports and in contact sports as it appears that those two groups develop a culture that distinguishes them from their counterparts. The culture that surrounds these frequently scrutinized groups of student-athletes fosters unique collegiate experiences that create developmental differences in the lives of its members. Understanding this culture may provide context into the frequently highly publicized challenges with which these student-athletes are faced.

Finally, with a broad understanding of the issues at hand, one might consider the challenge of making athletics a form of moral education intervention. This would entail incorporation of the relationships explored in this research along with a basic understanding of the cultures of each sport. Perhaps this type of intervention would be most efficiently conducted in youth leagues or high school sports.

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## Appendix A

### Student-Athlete Demographic Information

Please mark with an "X" to the left of the appropriate response to each section.

**1. Right now, this describes the team(s) I am on:**

	Revenue (Football, Men's Basketball)		Non-Revenue (All other Sports)
--	--------------------------------------	--	--------------------------------

**2. Right now, this also describes the team(s) I am on:**

	Contact (Football, Women's Soccer)		Non-Contact (All other Sports)
--	------------------------------------	--	--------------------------------

**3. This best describes me:**

	I am a male.		I am a female.
--	--------------	--	----------------

**4. Right now, I consider myself to be a:**

	Freshman		Sophomore
	Junior		Senior
	5 <sup>th</sup> Year Senior		6 <sup>th</sup> Year Senior

**5. The highest level of education of either of my parents/guardian is:**

	I don't know.
	Some high school.
	Graduated from high school.
	Some college.
	Graduated from college.
	Graduate school.

**6. The place I consider to be my hometown is best described as:**

	Rural (in the country)
	Suburban (nearby a city)
	Urban (city)

**7. Currently, I have \_\_\_\_\_ number of roommates.**

**8. Of my roommates, \_\_\_\_\_ of them participate on a collegiate sport team.**

Appendix B

Student-athlete Questionnaire

*Please circle the number that best answers these questions on your life BEFORE you came to college. If you do not know or if the item does not apply to you, please leave blank.*

**9. I believe my parents/guardian did their best to teach me right from wrong.**

No belief				Strongly Believe
1	2	3	4	5

**10. My parents/guardian encouraged me to get good grades in school.**

No Encouragement				A Lot of Encouragement
1	2	3	4	5

**11. I understood that it was important to get good grades in high school if I wanted**

Unclear				Very Clear
1	2	3	4	5

**12. I believe college graduation will improve my life.**

Don't Believe				Strongly Believe
1	2	3	4	5

**13. I can remember my parents/guardian reading books to me when I was little.**

No Memories				Many Memories
1	2	3	4	5

**14. I enjoy reading books or magazines in my free time.**

I Don't Enjoy				I Always Enjoy
1	2	3	4	5

**15. I can remember going to my school library or the public library to check out**

books before I came to college.				
No Memories				Many Memories
1	2	3	4	5

**16. I can remember going to the museum, to see live theater performances, or other cultural festivals before I came to college.**

No Memories				Many Memories
1	2	3	4	5

**17. I learned about other people's religions, traditions, or beliefs before I came to college.**

No Knowledge				A Lot of Knowledge
1	2	3	4	5

**18. My family has traditions at holidays that are from my culture.**  
 No Traditions 1 2 3 4 5 Many Traditions

**19. I enjoy listening to many different types of music.**  
 I Don't Enjoy 1 2 3 4 5 I Always Enjoy

*Please circle the number that best answers these questions on your present life in college.*

**20. On the whole, how much do you think your coach (that you most closely work with) likes you?**

Very Little 1 2 3 4 5 Very Much

**21. On average, how much do you trust the opinions of your coach with regard to moral decisions?**

Very Little 1 2 3 4 5 Very Much

**22. Overall, how comfortable would you feel going to your coach with a personal problem?**

Very Little 1 2 3 4 5 Very Much

**23. On the whole, how much do you think your professors like you?**

Very Little 1 2 3 4 5 Very Much

**24. On average, how much do you trust the opinions of your professors with regard to moral decisions?**

Very Little 1 2 3 4 5 Very Much

**25. Overall, how comfortable would you feel going to your professors with a personal problem?**

Very Little 1 2 3 4 5 Very Much

**26. On the whole, how much do you think your teammates like you?**

Very Little 1 2 3 4 5 Very Much

**27. On average, how much do you trust the opinion of your teammates with regard to moral decisions?**

Very Little  
1                      2                      3                      4                      Very Much  
5

**28. Overall, how comfortable would you feel going to your teammates with a personal problem?**

Very Little  
1                      2                      3                      4                      Very Much  
5

**29. The person in the athletics department staff with whom I feel the most comfortable with is my:**

Circle One: Academic Advisor    Learning Specialist    R.A. in housing  
Athletic Trainer  
Other (list job title, not person's name) \_\_\_\_\_

• **On the whole, how much do you trust the opinion of this person with regard to moral decisions?**

Very Little  
1                      2                      3                      4                      Very Much  
5

• **Overall, how comfortable would you feel going to this person with a personal problem?**

Very Little  
1                      2                      3                      4                      Very Much  
5

*For the following questions, please select the person you think best fits the description.*

**30. In my opinion, when faced with a difficult moral decision my \_\_\_\_\_ is going to make the correct choice.**

Coach                      Professor                      Teammate                      Athletic Staff

Other: \_\_\_\_\_

**31. In my opinion, the person I would most consider to be a mentor is my:**

Coach                      Professor                      Teammate                      Athletic Staff

Other: \_\_\_\_\_

**32. In my opinion, I've learned the most about how to handle difficult situations from my:**

Coach                      Professor                      Teammate                      Athletic Staff

Other: \_\_\_\_\_





Appendix C

Lind's Moral Judgment (MJT) Instrument

Dear Participant,

On the following pages, you will find two little stories. In both stories, someone has to make a decision. You will be asked: What do you think about that decision?

After each decision, you will find reasons for and against this decision. You will be asked: Do you agree with these reasons or reject them?

There is no time limit.

Please do not write down your name anywhere.

Now you will find the two stories. (Please turn over).

Thank you.

Appendix D

Author Permission

Dear Carla,

Thank you for using the Moral Judgment Test. Please find the scoring code and other useful things on these web-sites:

You will be asked for a User-ID and password:

To prevent abuse, please do not pass on the test and the password but refer people interested in the MJT to me.

Using and interpreting the MJT requires proficiency in the *Dual Aspect Theory* of moral behavior and experimental psychology.

See my recent paper:

Lind, G. (2008). The meaning and measurement of moral judgment competence revisited - A dual-aspect model. In: D. Fasko & W. Willis, Eds., *Contemporary Philosophical and Psychological Perspectives on Moral Development and Education*. Cresskill, NJ: Hampton Press, pp. 185 - 220.

The MJT has been constructed on the basis of an elaborated psychological theory and very rigorously validated using well corroborated several theoretical criteria. The MJT is based on Lind's Dual-Aspect Theory of moral behavior. Its methodology breaks new grounds. It is a psychological N=1 experiment with a multivariate design. The MJT's main index is a competency measure (C-score). Because of this, conventional criteria of test analysis ("test reliability", "test consistency") do not apply, even though Lerkiatbundit et al. (2006) report a test-retest correlation of  $r = 0.90$ . For studies founding or using the MJT, please visit this site: The MJT is especially useful for research and for evaluating educational methods and programs. **Note, however, that the MJT must not be used for high stakes testing or selection of individuals or institutions.** In research studies, the smallest unit of analysis should be a sample of at least 15 participants because otherwise the results are not reliable enough for interpretation.

The MJT can be used freely by teachers and researchers for non-profit use. All others need a *written permission*.

If you do studies with the MJT, I would appreciate very much if you could let me have your raw data for my MJT data base after you have used them.

Best regards

Prof. Dr. Georg Lind  
University of Konstanz  
Department of Psychology

Appendix E

IRB Approval of Study



The University of Oklahoma

OFFICE FOR HUMAN RESEARCH PARTICIPANT PROTECTION

IRB Number: 13072
Approval Date: August 05, 2010

August 05, 2010

Carla Winters
College of Education
104 Mountain Oaks Drive
Norman, OK 73071

RE: The Relationship Between Exposure To Higher Levels Of Moral Principled Thinking and The Development Of Moral Decision Making Competencies Of Student-Athletes

Dear Ms. Winters:

On behalf of the Institutional Review Board (IRB), I have reviewed and granted expedited approval of the above-referenced research study. This study meets the criteria for expedited approval category 7. It is my judgment as Chairperson of the IRB that the rights and welfare of individuals who may be asked to participate in this study will be respected; that the proposed research, including the process of obtaining informed consent, will be conducted in a manner consistent with the requirements of 45 CFR 46 as amended; and that the research involves no more than minimal risk to participants.

This letter documents approval to conduct the research as described:

- Other Dated: August 03, 2010 Recruitment Script
Survey Instrument Dated: August 03, 2010 Moral Judgement Test (MJT) Survey
Consent form - Other Dated: August 03, 2010 Information sheet for consent to participate
Protocol Dated: August 03, 2010
IRB Application Dated: August 03, 2010
Consent form - Other Dated: July 14, 2010 Information sheet
Other Dated: July 14, 2010 Recruitment Announcement

As principal investigator of this protocol, it is your responsibility to make sure that this study is conducted as approved. Any modifications to the protocol or consent form, initiated by you or by the sponsor, will require prior approval, which you may request by completing a protocol modification form. All study records, including copies of signed consent forms, must be retained for three (3) years after termination of the study.

The approval granted expires on August 04, 2011. Should you wish to maintain this protocol in an active status beyond that date, you will need to provide the IRB with an IRB Application for Continuing Review (Progress Report) summarizing study results to date. The IRB will request an IRB Application for Continuing Review from you approximately two months before the anniversary date of your current approval.

If you have questions about these procedures, or need any additional assistance from the IRB, please call the IRB office at (405) 325-8110 or send an email to irb@ou.edu.

Cordially,
[Handwritten signature]

E. Laurette Taylor, Ph.D.
Chair, Institutional Review Board



## INFORMATION SHEET FOR CONSENT TO PARTICIPATE IN A RESEARCH STUDY

My name is Carla Winters, and I am a graduate student in the College of Education at the University of the Oklahoma. I am requesting that you volunteer to participate in a research study titled The Relationship between Exposure to Higher Levels of Moral Principled Thinking and the Development of Moral Decision Making Competencies of Student-Athletes. You were selected as a possible participant because of your status as a student-athlete. Please read this information sheet and contact me to ask any questions that you may have before agreeing to take part in this study.

**Purpose of the Research Study:** The purpose of this study is to determine how good student-athletes are in making moral decisions and to identify some of the influences on these decisions.

**Procedures:** If you agree to be in this study, you will be asked to complete a short survey and questionnaire on making moral decisions. Both forms should take you a total of 10 – 20 minutes to complete. There is nothing further for you to do.

**Risks and Benefits of Being in the Study:** The study has the following risks: you will be asked to reflect on some interpersonal relationships in the survey. This may make you feel a little upset. If you get too uncomfortable and wish to stop filling out the forms, you may do so at any time. Care has been taken in the design of the survey to make it almost impossible for anyone, myself included, to identify you based on your answers. At this time, you, personally, will not see any benefit to your participation.

**Compensation:** You will not be compensated for your time and participation in this study.

**Voluntary Nature of the Study:** Participation in this study is voluntary. Your decision whether or not to participate will not result in penalty or loss of benefits to which you are otherwise entitled. If you decide to participate, you are free not to answer any question or discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled.

**Length of Participation:** The completion of the forms for this study should not take you longer than 20 minutes, however you may take as long as you need to complete them. There is no time limit.

**Confidentiality:** The records of this study will be kept private and no coaches or Athletic Department staff will have access to your responses. In published reports, there will be no information included that will make it possible to identify you as a research participant. Research records will be stored securely in a locked filing cabinet in my home. Please do NOT write your name on any of the forms. Once I have entered your answers into my personal computer, I will shred your papers. Only approved researchers will have access to the records.

**Contacts and Questions:** If you have concerns or complaints about the research, the researcher(s) conducting this study can be contacted at: Carla Winters 325-3884; cwinters@ou.edu or my advisor, Dr. David Tan 325-5986; dtan@ou.edu. In the event of a research-related injury, contact the researcher(s). You are encouraged to contact the researcher(s) if you have any questions. If you have any questions, concerns, or complaints about the research or about your rights and wish to talk to someone other than the individuals on the research team, or if you cannot reach the research team, you may contact the University of Oklahoma – Norman Campus Institutional Review Board (OU-NC IRB) at (405) 325-8110 or irb@ou.edu.

*Please keep this information sheet for your records. By completing and returning this questionnaire, I am agreeing to participate in this study.*

APPROVED APPROVAL  
AUG 05 2010 AUG 04 2010  
OU NC IRB EXPIRES