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ACADEMIC SUPPORT OF DIVISON I HEAD COACHES:
PERCEPTIONS OF STUDENT-ATHLETES

DISSERTATION

A dissertation submitted in partial fulfillment of the
requirements for the degree of Doctor of Philosophy in the
College of Education
at the University of Kentucky

By

Mikaela Marie Raddatz

Lexington, Kentucky

Director: Dr. Kelly D. Bradley, Associate Professor of Education

Lexington, Kentucky

2013

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ABSTRACT OF DISSERTATION

ACADEMIC SUPPORT OF DIVISION I HEAD COACHES: PERCEPTIONS OF STUDENT-ATHLETES

Intercollegiate athletics in the United States have continuously become more commercialized, pressuring athletics departments and coaches to produce winning teams. The commanding expectations for successful programs have been thought to take away from the academic mission of colleges and universities, focusing efforts on athletics over academics. This phenomenon has been examined, but the role head coaches play in support of student-athlete academics has yet to be explored.

The purpose of this study is to measure student-athlete perception of academic support from Division I head coaches. Current literature demonstrates the strong influence of coaches on student-athletes, but the effect in the area of academics is unknown. Therefore, the research presented aims to evaluate the connection between student-athletes and the academic support of head coaches.

KEYWORDS: Intercollegiate Athletics, Academic Support, Head Coach,
Student-Athlete, Rasch

Mikaela Marie Raddatz
Student's Signature

November 25, 2013
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ACADEMIC SUPPORT OF DIVISION I HEAD COACHES:
PERCEPTIONS OF STUDENT-ATHLETES

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ACKNOWLEDGEMENTS

I feel very lucky to have been surrounded by supportive people my entire life. First and foremost I would like to acknowledge the abundant love and support my mom and dad have continuously offered me. Through them, I learned to be passionate, confident, and above all, hardworking. I was also fortunate to grow up in an environment where intelligence was encouraged and celebrated. My sister Jessica was one of my biggest influences in this sense and throughout my educational experiences. I always have, and always will, look up to my brilliant older sister.

I am privileged to have had phenomenal professors that uniquely contributed to my education and every day life. My undergraduate statistics professor, Melody Sadler, made statistics fun and encouraged me to build upon my interest. The professors in my Master's program influenced me more than I am able to effectively acknowledge. Mark and Morrie inspired me to go outside of my comfort zone and challenged me to expand my limits. They also made it "cool" to be a nerd which I now proudly embody.

Last, but certainly not least, I would like to acknowledge my chair. Kelly continuously encouraged and supported me throughout my doctoral studies and was there to comfort me through my meltdowns. She is also a great role model through her compassion, leadership, and enthusiasm for her field. Kelly headed my exceptional committee who pushed me to investigate unexplored ideas. I am grateful to have had a committee that supported my work and provided valuable suggestions to strengthen my research.

My acknowledgements would not be complete without recognizing my extended family and friends who have always been supportive of my goals and dreams and were there for me when I needed them.

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Chapter One:

Introduction

Policies and regulations of academic standards for student-athletes have continuously evolved since the inception of intercollegiate sport in the United States. The relationship between the fundamental mission of institutions and intercollegiate athletics has influenced progressive changes in these standards. It seems inherent that the modifications made were to promote prioritization of academics over athletics, but this was not always the case.

In 1930, W.H. Cowley summarized a report written by Howard Savage of the Carnegie Foundation challenging the marriage between higher education and athletics. The report asked, “can it [the university] concentrate its attention on securing teams that win, without impairing the sincerity and vigor of its intellectual purpose?” (Cowley, reprinted in 1999, p. 495). The pressure placed on athletic departments and coaches to produce winning teams can have inverse effects on academic success for student-athletes. It would seem as if coaches assume the responsibility of following the academic mission of colleges and universities because they are employed by and represent the respective institutions. However, existing literature illustrates that the current operation of intercollegiate athletics is misaligned with the institutional mission and core values of colleges and universities (Bowen & Levin, 2003; Comeaux, 2007; Comeaux, 2011; Eitzen, 2009; Knight Commission on Intercollegiate Athletics, 2010). For example, until the 1970s, athletic scholarships were guaranteed for four years. In 1973, the NCAA implemented year-to-year renewal of athletic scholarships, enabling coaches to make award renewal contingent upon athletic performance (Sack, 2001). This influences

student-athletes to concentrate on athletics over academics to ensure they receive scholarship money.

Student-athletes face great responsibility from both the academic as well as the athletic arena, but often do not receive adequate support to combat these pressures. The role of the coach has been shown to be a strong influence on school choice, athletic endeavors, as well as the overall well-being and self-confidence of student-athletes (Bowen & Levin, 2003; Kavussanu, Boardley, Jutkiewicz, Vincent, & Ring, 2008; NCAA, 2010b; Shulman & Bowen, 2001), but the effect on academics is unknown.

Statement of the Problem

Research has been done on the perceptions and self-conceptualizations of student-athletes, time commitments of intercollegiate athletics, support provided to student-athletes by academic centers, and the head coach's role as perceived by the academic support staff, but little has been done to recognize the impact of the head coach on student-athletes' academics.

There exists an "athletic culture" on college campuses that is created by student-athletes, coaches, faculty, and anyone who acknowledges the divide between academics and athletics. Today's coaches are one of the main contributors to the athletic culture. They are less focused on overall college life and more focused on their sport. There is little interaction between coaches and faculty, even though the goal of both groups is to teach students effectively in order to maximize learning. In fact, coaches have begun to have less interest in academics than in the past. As cited in Bowen and Levin (2003), an anonymous athletic director describes how "fewer and fewer coaches have a real interest in education as broadly defined...Not many have a background in educational

methodology, and more and more of them are focused just on their own sport” (p. 183). Many coaches have lost sight of the academic mission of colleges.

The debate regarding the role of the coach and academics raises the question: Is it appropriate to hold coaches responsible for reducing the current underperformance of student-athletes? The authors of *Reclaiming the Game* suggest that an awards-based system or penalties may help to encourage coaches to change the focus of intercollegiate athletics back to academics. However, this is a tall order when significant emphasis is still placed on winning and the time and effort of coaches is devoted to recruiting and training student-athletes to contribute to a successful team. It is unclear how much emphasis is actually placed on academics in any given Division I program.

Currently, when a student-athlete performs poorly in the classroom, they are individually penalized. The only repercussion the coach experiences is that the student-athlete may not be eligible to practice or compete which affects the team as a whole. It is, of course, the student-athlete’s responsibility to do well in coursework, but the coach should show support and concern for academics as well. If coaches follow the academic mission (after all, they are employed by the college or university), they should do well to ensure student-athletes are performing in the classroom.

Student-athletes often look to their coaches for guidance in everyday life activities. Coaches may not realize the effect they have on student-athletes and/or how they can influence the college experience. Student-athletes are required to maintain a certain GPA and complete a set number of classes in their major in order to stay eligible. These requirements are typically presented by compliance officers and the academic support center, not coaches. Student-athletes are aware of academic requirements and

their progress is monitored, but coaches often do not actively participate in the maintenance of obligations. The level of attention to academic matters varies: The coach may be completely absent from the process, emphasize maintenance of eligibility, or show support by receiving progress reports distributed by the academic support center. However, showing concern for upholding eligibility requirements is far different than a genuine interest in student-athlete academic success.

Therefore, it is the goal of the current study to measure student-athlete perception of the academic support provided by head coaches. The results will give insight into the academic focus, or lack thereof, encouraged by Division I coaches.

Purpose and Significance

Student-athletes require extra support beyond that of the general student body because of their demanding schedules. A substantial amount of research has been done on student-athlete academic success by means of performance in the classroom and explanations of why underperformance may occur (Comeaux & Harrison, 2011). However, there exists a gap in attention to possible solutions to the phenomena of underperformance. Understanding the role of the coach is complex, therefore the purpose of this study is to initiate discussion about coaches' support of academics and provide groundwork for future research on this topic.

Responses to the survey will offer insight into how student-athletes feel about the level of academic support they receive from their head coach. Often, coaches leave academic issues to the athletic academic support center. Even though this is the purpose of these centers, the influence of the coach may make an even bigger impact on academic success. My experience as a Division I student-athlete as well as a current Division I

coach has presented numerous examples of the wide variety of support provided by head coaches. In many cases, head coaches are merely concerned that student-athletes remain eligible and offer “academic support” in the form of checking-up on minimum GPA requirements. Given that head coaches have a great influence on student-athletes (Bowen & Levin, 2003; Kavussanu, Boardley, Jutkiewicz, Vincent, & Ring, 2008; NCAA, 2010b; Shulman & Bowen, 2001), this study could significantly impact the academic policies enforced by the NCAA and/or athletic departments and individual teams. Currently, pressure is not placed directly on head coaches to ensure student-athletes have successful academic careers. The addition of this study to existing studies on coaching influence and the coach/student-athlete relationship, the student-athlete academic experience, and academic support systems in athletic departments will develop a well-rounded and strong base for policy discussion.

Objectives and Research Question

This study will use a survey constructed using previous literature examining perceived supervisor support as well as the relationship between and influence of coaches and student-athletes. The Rasch Rating Scale Model (RRSM) will be used to measure student-athlete perception of head coaches’ academic support. Specifically, the research question being used to guide the current study is as follows:

- To what degree do student-athletes feel they receive academic support from their head coach?

Study Type and Data Analysis

The survey will be distributed to student-athletes in large Division I institutions. It is the goal to gather information from many different sports. This study is exploratory in

nature and will use Rasch measurement analyses (Rasch, 1960) to evaluate the survey data. A pilot study will be conducted to complete item analysis and survey validation.

The survey will then be sent out to various institutions for data collection.

Contributions of the Study

This study will provide contributions to the existing literature about the unique population of student-athletes. Current research explores the role of the coach in general and the relationship with student-athletes, but does not focus on the affect a coach may have on academics. Also, there exists a body of literature on the great demands of student-athletes, how they perform in the classroom as compared to students at large, and support for student-athletes through academic support centers, but once again does not cover the academic support from coaches. This study will be valuable as it builds on current research and adds to the field in a unique way.

Results may be used by the NCAA as they continuously revise policies on student-athlete eligibility, coaching responsibilities, and institutional control. Respective colleges and universities, athletic departments, and coaches may also use this study to adjust the way their programs are run. Individually, coaches may change the way they interact with student-athletes and support academics. Various results will lead to different conclusions and useful information for collegiate athletics overall.

Summary

This study serves as investigative research into the influential power of the head coach on student-athlete academics. Chapter 1 presented an overview of the research, including the purpose of the study, objectives and research methods, the design of the study, and contributions. Chapter 2 will cover the relevant literature associated with the

present study. The historical background of intercollegiate athletics and academic standards will be reviewed, followed by the effect of commercialization of intercollegiate athletics on the institutional mission of colleges and universities. Chapter 2 will also discuss the demands and underperformance of student-athletes, and finally the synthesis of information regarding the role of the coach in intercollegiate athletics. Chapter 3 will present the measure that will be used in this study as well as the proposed process to distribute the survey and analysis of the resulting data.

Chapter Two:

Literature Review

Development and Evolution of Academic Standards in Intercollegiate Athletics

The balance between academics and athletics in higher education has been a concern from the very first intercollegiate competition in 1852 to the highly commercialized and competitive nature of sport today. Though extracurricular activities first took the form of literary societies, debating clubs, and other intellectually focused groups, they were still thought to take away from the academic mission of the college. Still, these early extracurriculars were far more accepted by the faculty than the athletic clubs that would later form (Smith, 1988).

In the mid to late 1800s, extracurricular activities, including athletics, were developed and run by students. The students in charge of athletic teams, typically a team captain and manager, were not held responsible for academic matters. Athletics were unrelated to the institution from an organizational standpoint and students who participated did so on a voluntary basis outside of academics. Athletics were seen as a separate entity entirely from higher education institutions. Faculty opposed intercollegiate athletics and discouraged participation as it was believed to disrupt academic integrity. Nevertheless, unfavorable opinions from faculty did not prevent students from expanding intercollegiate athletics throughout the nineteenth century (Smith, 1988; Shulman & Bowen, 2001).

In response to the increasing time allocated to athletics and the lack of attention to academics, faculty concern grew and led to the movement toward faculty control. Faculty involvement in intercollegiate athletics developed from sports teams petitioning to play away games that disrupted class attendance. It was not that faculty desired extracurricular

activities to be abolished; they were merely concerned that student-athletes maintained their academic scholarship and attended class, which was being compromised by demanding practice and competition schedules. This concern led to the first faculty athletic committee formed at Princeton called the Committee on Athletics and the Musical Clubs. However, it was quickly learned that the faculty did not have the time, interest, or the knowledge to oversee athletics. Thus, in 1881, the faculty appointed a three-member committee to regulate intercollegiate athletic teams (Smith, 1988).

Small committees comprised of faculty members, alumni, and occasionally students, similar to the group at Princeton, increased in popularity through colleges and universities in order to combat the problem of student-athlete mismanagement of athletic teams. Despite the attempt for balanced control between students and faculty, the institutional mission of colleges and universities was still being overlooked. As noted in the Brown University Faculty minutes, representatives from colleges that currently comprise the Ivy League met with the purpose of fixing problems that had spanned decades, forming the Brown Conference of 1898 (as cited in Smith, 1988). For the first time, regulations were put in place to ensure that those participating in athletics were students first and athletes second. The Brown Conference required that:

- 1.) only students in good academic standing would be eligible to participate; 2.) special or part-time students could not participate until they had attended college for one year; 3.) students deficient in studies in one university department could not participate in athletics if they transferred to another department in the same university; and 4.) no student admitted without passing the university entrance

examination, or convincing governing authorities that he was capable of doing a full year's work, would be eligible for athletics. (p. 143)

Even though official regulations were finally put in writing and agreed upon, reluctance was still met by those colleges who did not want to take away governance of extracurricular activities from the students (Smith, 1988).

By the early 1900s, there was an increasingly strong need for uniform eligibility rules because of the battle for control between students and faculty stemming from the rejection of the Brown Conference regulations and colleges opting to retain small committee control of intercollegiate athletics. In 1905, following a wave of brutality and unethical practices in intercollegiate football, 13 eastern college presidents met with President Theodore Roosevelt and formed the Intercollegiate Athletic Association of the United States (IAAUS; later became known as the National Collegiate Athletic Association (NCAA)). Originally, the support involved the protection of intercollegiate football players because of the increasing number of injuries occurring (Shulman & Bowen, 2001). However, even though this group initially came together to discuss the safety of student-athletes in intercollegiate football (Smith, 1981), two other issues came forward: Commercial pressure on intercollegiate athletics and threats to academic integrity.

In addition to safety issues, the introduction of professional coaches in intercollegiate athletics was addressed by the IAAUS in 1905. The issue was brought to the table because faculty associations continued their attempts to take over intercollegiate athletics while student-athletes were bringing professional coaches on board. The job of professional coaches was to devise ideal methods of training and coaching to win, not to

encourage studying and academic success. Because of this, the increasing number of professional coaches being hired complicated control of intercollegiate athletics even more. The small faculty appointed committees had control of intercollegiate athletics at most schools, so professional coaches were limited in their recruiting and coaching practices. The limitations caused controversy because the professional coaches were hired to produce winning teams, but were unable to recruit and coach in their ideal capacity. Bill Reid Jr., Harvard's football coach in the early 1900s, described that the pressure to win and academic achievement became a contradiction (Smith, 1988). What began as support for student-athletes through physical protection, academic integrity, and practical organization of intercollegiate athletics, quickly turned into demand for winning by professional coaches and consequently, disparity in the focus of athletics and academics. As Thelin (1994) points out, the intended reform of colleges and the NCAA were more focused on rules of the game instead of eligibility and the integration of athletics into academics. Even with the introduction of the NCAA, controversy about institutional control and the regulation of intercollegiate sports continued to exist.

Throughout the early 1900s, faculty sustained control over intercollegiate athletics. However, this control was continuously challenged. In 1929, Howard J. Savage published a study commissioned by the Carnegie Foundation for the Advancement of Teaching. In the Carnegie report, Savage made clear that faculty-run athletics would not be a successful venture.

The final tests for the presence or absence of true faculty control would seem to be these: First, is the guiding influence that of a man whose chief activities and interests lie in academic fields, or of one to whose income athletics contribute

directly or indirectly? Secondly, are the coaches immediately responsible to a faculty representative whose principle concerns are academic, or are they subordinate to another or former coach now elevated to faculty status, or to a former business manager or an alumni secretary who is under academic appointment for the sake of the good that may accrue to athletics from his connection with them? Certainly, in the institutions where faculty control exists as its best there appears to be little trucking to special interests or privileged groups, because the director is not in any way dependent upon athletics for success in his professional career.

If faculty were to control intercollegiate athletics, there would be little accountability for the success of teams because salary would not be contingent upon wins and losses.

Athletic coaches do not receive bonuses or higher pay for athletes achieving high GPAs; they are paid to win (Finley & Fountain, 2010). Even though a closer relationship with athletics and faculty is ideal, opinions from existing literature maintain that intercollegiate sports are best kept to athletic departments and faculty members to academics.

From the time the Carnegie report was published until the mid-1950s, students' athletic focus over academics was recognized, but not considered a dire problem. The vast difference that exists today between the academic success of student-athletes and students at large was not apparent in the early 1900s. Academic trends throughout the nineteenth century were analyzed by Bowen and Levin (2003) in the book *Reclaiming the Game*. The authors described how the data and testimonies were evaluated and did not indicate any considerable academic disparities between student-athletes and students at

large in the mid-1950s. Strict regulations were not apparent at this time, so Bowen and Levin tracked temporal developments with academic measures instead of social-cultural trends. For example, “In the ivies, the typical male athletes in the 1951 entering cohort had a cumulative grade point average (GPA) that placed him precisely in the middle of his class; in the coed liberal arts colleges, the typical male athlete actually ranked slightly higher than the average male student at large” (Bowen & Levin, 2003, p. 179). Until the 1970s, student-athlete academic patterns did not look much different than students at large. When marked disparities began to come to attention, associations were formed to assist student-athletes with the athletic-academic balance.

One of the first support systems for student-athletes was the National Association of Advisors for Athletes (N4A), created in 1975. It was developed as “an educational, service and professional organization dedicated to support and enhancement of the academic achievement of intercollegiate athletes” (N4A, 2012). The N4A was a jump start to assist student-athletes in balancing academics and athletics and offsetting any disadvantages they may experience. The development of the N4A was a step in the right direction as its members offered advising and counseling specific for student-athletes.

Since 1975 and the inception of the N4A, the NCAA has taken academic support one step further and mandated tutoring services and academic counseling for all Division I student-athletes (Meyer, 2005). Athletic departments have expanded, adding academic facilities and including more specialized personnel. There has been a growing interest in counseling and advising needs of student-athletes, so specialized personnel are trained to address concerns of student-athletes beyond class scheduling and maintenance of eligibility (Broughton & Neyer, 2001). Even though many colleges and universities

provide academic support for student-athletes in the form of advisors and counselors, significant technological resources and study hall space are lacking. Jolly (2008) reports that few schools have specific academic centers for student-athletes, so the academic practitioners often rely on other support systems throughout campuses. These resources are available to non-athletes as well, so the support is inadequate for student-athletes who take on additional demands. Campus support staff available to the general student population have limited or no knowledge about extra responsibilities of student-athletes. As Broughton and Neyer (2001) point out:

...college student-athletes are a special and unique student population requiring support for their academic, personal, and athletic needs and issues. Unlike other college students, student athletes face an additional set of complex demands, stresses, and challenges arising from their involvement in a competitive sport. (p. 47)

Therefore, it is imperative that adequate support systems are available for student-athletes for academic, emotional, developmental, clinical, and other issues that may arise.

The support systems that do exist are comprised mostly of academic advisors, trained to coordinate ideal schedules for student-athletes and ensure they maintain eligibility. In fact, The Knight Foundation reports that “The academic support and tutoring athletes receive is too often designed solely to keep them eligible, rather than guide them toward a degree (Knight Foundation, 2001). However, student-athletes need more than just someone to help them with scheduling and reminding them of minimum GPA standards needed to participate in athletics. Broughton and Neyer (2001) discuss the need for four advising and counseling areas: academic advising, life skills development, clinical

counseling, and performance enhancement. Providing these four support systems would satisfy what the NCAA's core values promise, but few schools actually have the resources and personnel for successful programs. Most importantly, colleges and universities need support practitioners that instill self-motivation in student-athletes and the value of education, not just a goal of maintaining eligibility.

Until the mid-1970s, eligibility standards for student-athletes were lacking with the exception of instituting a minimum high school GPA of 2.0 for college admission, athletic scholarship, and competition. Finally in 1983, Proposition 48 was passed which set minimum standards for eligibility. In order to be academically eligible for collegiate athletics, high school student-athletes were required to maintain a minimum GPA of 2.0 on a 4.0 scale in 11 academic courses, including three years of English, two years of mathematics, two years of social science, and two years of natural or physical science. Student-athletes were also required to achieve a combined SAT score of 700 or a 15 composite score on the ACT. The new standards were a good foundational benchmark for incoming freshmen; however, they did not ensure the continued support of educational focus and goals throughout college. Furthermore, it was unclear if these regulations would actually help student-athletes on the path to graduation (Shulman & Bowen, 2001). Standards similar to those set in 1983 are still in place and are adjusted slightly year-by-year. For example, in 2003 a sliding scale was introduced that allowed college coaches to recruit high school student-athletes with an SAT score as low as 400 if their GPA was a 3.55 or above (Meyer, 2005).

Beginning in 2016, initial eligibility standards require that 16 core courses are completed before enrolling in college. These core courses include English, math,

natural/physical science, social science, and additional courses that could include foreign language or comparative religion/philosophy. The NCAA has also implemented a new sliding scale for initial eligibility which uses student-athletes' core GPA and SAT or ACT to determine if they are able to receive athletics aid and participate in practice and compete during their first year. The change in this sliding scale from the one prior to 2016 is the differentiation between eligibility for aid and practice and eligibility for competition. With an SAT score of 400, an incoming freshmen is eligible to receive aid and can practice if they earned a 3.55 GPA in high school. However, to be eligible for competition with a 400 SAT, they must have earned a 4.00 high school GPA (NCAA, 2011). Although this may seem like a small step forward, it is promising that the NCAA is making advancements in regulating initial eligibility.

With new standards in place, the NCAA continues to advertise support for student-athletes, but resources are scarce and little has been done to directly assist in the academic success of student-athletes. Some of the core values that the NCAA boasts are "To help student-athletes keep a good balance between sports, education, and social life" and "To help student-athletes achieve excellence in both sports and academics" (NCAA, 2011). The NCAA also claims to be a resource for parents and guardians:

By serving student-athletes, the NCAA also serves parents and guardians. The organization doesn't just help your child realize the dream of playing college sports. It also helps prepare for the reality of life after college. After all, the vast majority of college student-athletes will become professionals in something other than sports.

The problem is that even though this sounds comforting to student-athletes and parents or guardians, academic support from the NCAA does not exist beyond eligibility standards and regulations. The NCAA could be a powerful guiding hand, but leaves institutional control up to individual colleges and universities.

Recently, the NCAA developed a process for controlling academic integrity of participating athletic programs. It created the Academic Progress Rate (APR) which is a “term-by-term measure of eligibility and retention for Division I student-athletes that was developed as an early indicator of eventual graduation rates” (NCAA, 2010). The APR is essentially an accountability measure for the academic performance of student-athletes. It is calculated by allotting each student-athlete that receives athletically related financial aid one eligibility point for staying academically eligible and one retention point for staying in school. These points are then added up and divided by the total number of points possible and multiplied by one thousand. In order to compete in championships, teams must earn a minimum of 930, averaged over the past four years.

There are also regulations specific to individuals. Student-athletes must remain eligible in order to contribute positively to the APR. Certain benchmarks must be met after each academic year to meet the standards and remain eligible. At the end of the second year, student-athletes must have completed 40 percent of coursework required by their degree. At the end of the third year, 60 percent must be complete and 80 percent by the end of the fourth year. Student-athletes must also pass six credits per semester in order to be eligible for the following term and be enrolled in 12 hours at any given time. GPA requirements have shifted from a set standard by the NCAA to institutional control of the minimum level. The new condition is that per institutional guidelines, student-

athletes must achieve 90 percent of the minimum overall GPA necessary to graduate. For example, if the institution has a minimum GPA of 2.0 to be permitted to graduate, a student-athlete must meet 90 percent of that, or earn a 1.8, by the beginning of their second year, 95 percent, or a 1.9, by the beginning of the third year, and 100 percent by their fourth year.

The APR, coursework, and GPA requirements ensure that student-athletes are on pace to graduate, but along with retention, the NCAA has also begun to regulate the graduation rate of athletic programs. The Graduation Success Rate tracks student-athletes on a particular team and compares how many should have, and successfully did, graduate with a degree (NCAA, 2011).

Athletic departments, and more specifically coaches, are responsible for the student-athletes they recruit and the academic successes and failures they experience (Comeaux, 2011). However, the APR does not offer guidelines or regulations as to how to make educational achievement happen, it simply tracks the trends of eligibility and retention. The NCAAs' attempts to keep student-athletes accountable and assist practitioners are great resources, but it is possible that there are some missing links in the potential support for the academic achievement of student-athletes.

The NCAA cannot work alone. Reform of intercollegiate athletics is an involved process that must include participation from many facets of colleges and universities. It will not be an overnight process and changes will come, but presidents and trustees, national higher education associations, conferences and the NCAA, faculty, athletic directors and coaches, and alumni must come together to create an environment for

reform (Knight Foundation, 2001). The current study aims to complete an evaluation of the perceived mission of one of these institutional groups: the coaches.

Commercialization of Intercollegiate Athletics

The first prevalent intercollegiate sport was crew, which consequently introduced the first intercollegiate competition. However, the popularity of crew was quickly overtaken by football when sponsorship of competitions and media coverage began to grow (Watt & Moore, 2001). Beginning in the early 1900s, intercollegiate athletics became commercialized and a source of income for colleges and universities. The interest of society in the form of revenue and support of teams essentially shaped how collegiate sports were organized and operated. Athletic departments, coaches, and student-athletes were heavily pressured to produce winning teams in order to provide entertainment to the public. However, the focus on success and reputation of athletic programs has led to difficulty in maintaining balance between athletics and academics (Thelin, 1994; Watt & Moore, 2001). Emphasis was put on winning records and postseason play which involved spending copious amounts of time in the practice arena and weight room in order to ensure victorious seasons. This may suggest that academics were pushed to the wayside for student-athletes in order to concentrate on athletics. This created a dilemma because the primary mission of colleges and universities was to provide an education to students in order to earn a degree, not to provide entertainment to society through athletic performance.

Athletic programs do offer benefits to colleges and universities in many ways. Successful and popular teams assist in attracting students to attend schools. They also provide incentive for alumni to give back to colleges and universities with such things as

money and gifts. Many big-time colleges have state-of-the art facilities purchased by alumni. Support from alumni can also come in the form of donations for scholarships and general budgetary items. Furthermore, the overall image of the university is improved with thriving and/or popular sports teams. Great programs attract media coverage which translates into the commercialization of athletic teams and revenue for the college or university (Watt & Moore, 2001). Colleges and universities as well as conferences often have large contracts with television stations. By doing this, both the school and the station bring in money.

As a result, reason to produce winning teams creates a divergence with the academic objectives of the school. As Thelin (1994) discusses, “Intercollegiate athletics have been a perennial source of opportunity and temptation as the American campus has worked and reworked its relations with American culture” (p.11-12). The demands of the public for entertainment by means of collegiate sports teams and the increasing concern of the quality of education in the United States create an ongoing conflict (Massey, 2003). Collegiate athletics have been institutionalized into higher education, but how they fit into the structure of colleges and universities has yet to be determined.

As young adults, student-athletes face many challenges when entering a college or university and participating in Division I athletics. Athletic departments and coaches share the pressure to win, but it is ultimately the athletes who need to perform. On top of this, student-athletes are in school to receive an education, so they are required to balance athletic and academic demands. It seems that with such strenuous schedules there would be ample support for student-athletes, but this is not always true. Research has been conducted on support through professors and academics advisors and counselors, or

student affairs practitioners (Comeaux, 2011), but little has been done on the support of academics through coaches. Coaches are an influential part of the college experience for student-athletes so it is imperative that the effectiveness a coach could have on academic success is examined.

Demands of Student-Athletes

The majority of student-athletes enter college with the same goals as any other non-athlete – they want to receive a quality education, earn a degree, and have a little bit of fun in the process. However, student-athletes are a special breed because of the athletic demands placed on them on top of the typical academic responsibilities. The average academic load of a student-athlete is reported to be 35 hours per week for males and 39 hours per week for females. This includes time spent in the classroom as well as studying, writing papers, and doing other class-related activities (NCAA, 2010b). These numbers are generally the same for student-athletes and students at large as they take the same courses and earn the same degrees. However, the athletic demands of student-athletes are what create the heavy load that has widely been studied and discussed (Comeaux, 2011; Watt & Moore, 2001; Wolverton, 2008). A recent study by the NCAA (2010b) found that male and female student-athletes spend about 40 and 35 hours per week on athletic-related activities, respectively. Therefore, between academic and athletic demands, student-athletes spend approximately 80 hours per week fulfilling their responsibilities. This is twice as much as a full-time job, and leaves only about four and a half hours per day for student-athletes to relax, participate in social activities, and do things normal 18-22 year olds like to do. Even with this four and a half hour break, the mental and physical exhaustion that athletic and academic demands generate does not

leave much motivation to do anything else but recuperate (Upthegrove, Roscigno, & Zubrinsky, 1999). Collegiate athletics are also a year-round commitment. For student-athletes, there is no summer or winter break to relax from training. Classes may be out, but like a full-time job, work continues throughout the year (Oriard, 2009). This means that while other students have a mental and physical break from responsibilities, student-athletes are continuously hard at work.

Student-athletes are celebrated, idolized, and occasionally treated as celebrities, but are often misunderstood. Research has shown that non-athlete peers and professors hold negative stereotypes of student-athletes. They are viewed as unintelligent, unqualified, and enrolled in college solely to play sports (Jolly, 2008; Watt & Moore, 2001). This creates a large problem as student-athletes need as much support from professors as possible. It is a requirement for professors to work with student-athletes because of their busy schedules by rescheduling examinations and assignments when necessary. Still, some professors are resistant to doing so (Jolly, 2008). Student-athletes are not allowed to miss class for practice, but they do miss class for competitions. Professors not willing to discuss optional plans for success in the course perpetuate poor relationships between athletics and academics. In a study done by Potuto and O'Hanlon (2006), student-athletes were asked about support of professors. It was found that approximately one-half felt discrimination from professors because they were athletes. Although this is self-reported, even if a student-athlete perceives they are not being supported, this can affect how they perform in the classroom and how they view relationships with other professors. Also, if the discrimination manifests in being unable to reschedule examinations and assignments, student-athletes automatically receive lower

grades because they are participating in a collegiate sport. Professors should be supportive of extracurriculars instead of punishing student-athletes for being involved in university-sponsored activities.

Stereotypes of student-athletes do not only come from their non-athletes peers and professors as previously discussed, but they often have weak self-images themselves. In fact, a study done at the University of Maryland found that compared to their non-athlete counterparts, student-athletes were less confident about being able to achieve good grades (which was defined as a “B” average) (Eiche, Sedlacek, & Adams-Gaston, 1997). Having a support practitioner who is able to combat intrinsic self-defeat like this could greatly help student-athletes achieve academic success. Without the belief that they are able to do well in school, student-athletes tend to focus on maintaining eligibility with a minimum GPA instead of maximizing their educational experience.

It is also perceived that students at large are required to coordinate their own schedules, balancing academics, work, and social activities whereas student-athletes have their schedules managed for them (Martens & Lee, 1998). As previously described, student-athletes have undeniably demanding schedules and although they are assisted with organizing their class schedules in order to work around athletic responsibilities, they are required to manage their lives on their own. As a result, they constantly need extra support because of their unique commitments. On top of athletic and academic endeavors, student-athletes balance five major aspects of college life while participating in a sport: 1.) Physical health and injuries with the accountability to keep participating in their respective sport, 2.) Social activities with the isolation of athletic pursuits, 3.) Athletic success or lack thereof with attempting to maintain mental equilibrium, 4.)

Dealing with the termination of an athletic career from injury or other occurrence, and 5.) Balancing the demands of coaches, parents, family, friends, and other relationships (Parham, 1993). Therefore, there are many parts of student-athletes' collegiate careers including mental, physical, and emotional aspects where they can use as much support as possible.

Underperformance of Student-Athletes

There is no clear or easy way to evaluate academic performance of student-athletes as compared to students at large, but Shulman and Bowen (2001) attempted to tackle the assessment by measuring underperformance in college. As calculated, a significant difference in underperformance means that with all other things being equal, student-athlete rank in class is lower than students at large. In 1989, after controlling for pre-collegiate underperformance as well as differences in SAT scores, college major, and socioeconomic status, there is not a significant difference between student-athletes and students at large enrolled in public universities. In other words, student-athletes who underperformed in high school continue to underperform in college and those who excelled in high school continue to excel in college. This is true for both males and females.

However, in private and Ivy League schools, there is a significant difference. This means that student-athlete rank in class is significantly lower than students at large. Student-athletes with the same high school achievements, the same college major, and the same socioeconomic background as students at large perform significantly worse in college. The analysis of underperformance of student-athletes in Ivy League schools in 1995 shows the same results. Controlling for race, field of study, and SAT scores, High

Profile male student-athletes earned a percentile rank approximately 20 points lower than students at large. Female student-athletes were about 13 percentile point below students at large. The underperformance in 1995 for both male and female student-athletes is more pronounced than in 1989 (Shulman & Bowen, 2001).

The implications of these findings are that even though differences in academic achievements in high school account for much of the underperformance of student-athletes, they do not account for the entire gap. Other variables associated with intercollegiate athletics account for the remaining part of the achievement gap. Shulman and Bowen (2001) suggest that time commitments, the role of the faculty and of coaches, the culture of sport, and the field of study of student-athletes account for the residual differences. The role of faculty has been explored in recent research, but there is a lack of literature examining the role of the coach as a significant influence in student-athlete academic achievement.

Role of the Coach

Along with the pressure to win for athletic departments and student-athletes, coaches have a great responsibility to produce successful teams. Moreover, without winning seasons coaches' jobs are at risk. This becomes an even bigger conflict for schools as they try to maintain educational integrity. Coaches are never rewarded for good grades or stellar graduation rates, only for number of wins and postseason play (Finley & Fountain, 2010). As Eitzen (2009) describes, "many head coaches in big-time college sports feel enormous pressures to produce winning teams, and as such they tend to devalue the academic obligations and goals of their student-athletes" (as cited in Comeaux, 2011). As much as this is a pressure for coaches, it creates even more of a

challenge to balance athletics and academics for student-athletes because of the influence of the coach. Athletes' behavior, performance, and psychological and emotional well-being are influenced by coaches (Kavussanu, Boardley, Jutkiewicz, Vincent, & Ring, 2008). This means that what a coach says and does can ultimately shape the collegiate experience of student-athletes.

It is important for student-athletes to have positive mentors as they proceed through college. From 1951 to 1989, the trend of student-athletes reporting faculty members versus coaches as mentors at Ivy League schools has reversed. In 1951, 33% of High Profile student-athletes had a faculty mentor whereas in 1989, only 26% did. However, 29% of students at large had faculty mentors in 1951 which jumped to 48% in 1989 (Bowen & Levin, 2003). These numbers show that from the mid to the late twentieth century, student-athletes were less likely to have a faculty mentor and students at large were more likely.

In comparison, the percentage of student-athletes with a coach as a mentor has increased. In 1951, 21% of student-athletes reported having a coach as a mentor whereas in 1989, 30% did. This means that a higher percentage of student-athletes now have a coach as a mentor than a faculty member. This trend can be concerning because it has been shown that students with close relationships with professors are more likely to perform better academically. With a decreasing number of student-athletes choosing professors or faculty members as mentors, academic performance may suffer. On the other hand, these numbers also confirm that the role of coaches as mentors is increasing for student-athletes. This could be a positive or negative trend. If the coach does not support academics, but is a mentor to 30% of student-athletes, academics will be pushed

to the wayside. Student-athletes also report that they learn life lessons from coaches (Bowen & Levin, 2003). As a result, it is imperative that these lessons encourage the importance of academics in a student-athlete's collegiate life and beyond.

Students at large may choose a college for any number of reasons, but student-athletes have added influential variables based on athletic departments, coaches, team atmosphere, and other aspects associated with sports in higher education. Coaches do whatever they can to convince recruits that their program is right for the student-athlete. In fact, 73% of male and 29% of female student-athletes reported that being recruited was a "very important" influence in choosing the college they attend. For students at large, these percentages are 13% and 2%, respectively (Shulman & Bowen, 2001). Often times, recruits will choose a school based solely on the coaching staff because they understand the time commitment of an intercollegiate sport and how much time they will be spending with a coach. In another study, 60% of student-athletes reported that it was unlikely they would have chosen the same school as there was a different coach (NCAA, 2010b). Therefore, it is important for coaches to realize how much influence they have on student-athletes. If coaches used their influence to help student-athletes grasp how learning through coursework and earning a degree would lead to a career of their interest, student-athletes may become more engaged in school. Student-athletes have advisors and professors reminding them of the importance of doing well in classes as a pathway for a career, but the influence of the coach in this situation can assist tremendously. Furthermore, the majority of student-athletes "strongly agree" that their head coach can be trusted (NCAA, 2010b). Although there is no context to this question so student-athletes may respond to this item in terms of trusting their coach in skills, conditioning,

or some other aspect of coaching knowledge, it is likely that they will trust the coach in every aspect of the college athletic experience. This includes academics.

Two recent studies were conducted by the NCAA in the spring of 2010. The first was the Study of College Outcomes and Recent Experiences (SCORE) for student-athletes. These items were meant to assess influences on academics and long-term academic outcomes. The second was used in order to evaluate Growth, Opportunities, Aspirations, and Learning of Students in college (GOALS). Items investigated student-athlete time demands, recruitment and college choice, and leadership subject matter. In the SCORE study, student-athletes were asked if the goal of graduation was important to their college coaches. Of those who graduated from college, approximately 61% of men and 79% of women agreed that the goal of graduation was important to their college coach. Of those who did not graduate from college, approximately 37% of men and 52% of women agreed that the goal of graduation was important to their college coach (NCAA, 2010b). These numbers as well as the differences between graduates and non-graduates could mean a couple of things. First, it seems imperative that graduation is the goal of 100% of coaches. If coaches genuinely care about education and the future of student-athletes, it should be apparent that they want their athletes to graduate. Second, the numbers drop quite a bit between graduates and non-graduates. For men, it may seem logical that for those student-athletes who are good enough to play professionally, graduation may not be the goal for the coach or the athlete and consequently the observed lower percentage. However, the percentage of women also dropped a great amount. Women are much less likely to play professionally, so the explanation for this decrease is not as simple. It is possible that student-athletes who do not have the goal of graduating

themselves reflects on their perception of the coach's goal. Then again, this idea is not supported by the next finding of the study.

Many coaches see student-athletes as mere revenue generators and are used for commercial value. When student-athletes are no longer producing for coaches, they are thrown to the wayside. This not only affects their athletic experience, but their academic experience as well. Coaches promise degrees, whether genuinely important to them or not, so when they discard athletes for injury or other career ending reasons it is clear that coaches no longer support academic endeavors (Upthegrove, Roscigno, & Zubrinsky Charles, 1999). This could also explain the drop in the percentage of college graduates who perceived support from their coach in the goal of graduation as compared to those who did not graduate.

The next item on the SCORE survey asked if the goal of graduation was important to the student-athlete themselves and to their family. Approximately 94% of student-athletes reported that graduation was important and 91% said it was important to their family (NCAA, 2010b). If this is the case, it would not matter whether an athlete was talented enough to play professionally (or believed they were talented enough), 94% wanted to graduate and had the support and/or expectation of their family to earn a degree. This makes the difference between graduate's and non-graduate's perception of their coach's goal of graduation rather irrelevant as far as the goal of the athletes themselves. Speculation would explain that coaches no longer care about graduation if they do not believe it is necessary or possible, and this is evident to the student-athletes. It is also important to take into account those student-athletes that consider themselves as more athlete-students and those that come to college without specific academic direction

and/or intellectual enthusiasm. These student-athletes are lost in the structure of athletic support because there is no initial interest in academics, only athletics (Oriard, 2009). Coaches could play a large role in reshaping these student-athletes and guide them in a direction that will benefit them and prepare them for life after collegiate athletics. Seeing as there is trust in coaches, what coaches believe and support is powerful because of the effect on student-athletes.

The behavior of a coach is very influential in the performance and psychological experience of athletes as well as the main medium through which a coach is influential (Bartholomew, Ntoumanis, and Thøgersen-Ntoumani, 2010; Kavassanu et al., 2008). In a study done with the intent to develop and validate the Controlling Coach Behaviors Scale (CCBS), autonomy supportive and controlling coaching styles were examined from the perspective of self-determination theory. An autonomy supportive style assists in self-endorsement, where athletes experience a sense of choice and volition. It also supports self-initiated motivation and strivings as well as acknowledges feelings and offers rationale. For example, if a coach used an autonomy supported coaching style, athletes would endorse behaviors because they are fully engaged and interested in them. For the purpose of this study, support in academics would lead to an athlete whose motivation for doing well in academics is self-determined. That is, according to self-determination theory, coaching support could result in positive outcomes such as performance, effort, self-esteem, persistence, vitality, and well-being (Ryan & Deci, 2002). This would be largely important as student-athletes are often on their own when it comes to academics, so being self-motivated and engaged in coursework could change the way education is viewed in athletics.

As previously discussed, student-athletes often feel less confident about their academic abilities. Using an autonomy supportive coaching style could help to resolve this weak self-image. Self-determination theory classifies three main psychological needs: autonomy (responsibility of behavior), competence (belief in the ability to achieve desired outcomes and goals), and relatedness (connection to peers in social context) (Deci, & Ryan, 2000). In this case, a coach could influence the way student-athletes felt about academics through self-motivation, confidence that they can be successful, and support through relationships. It is important that student-athletes have just as much confidence of and belief in being great students as being great athletes.

On the other hand, the influence of a coach can be negative if they exert a controlling coaching style. Controlling coaching is authoritative and coercive and uses a great deal of pressure to impose a specific way of behaving and thinking. While autonomy supportive style instills internal motivation, controlling style induces a change in locus of control to external pressures. Athletes begin to believe the pressure by the coach is the foundation of their own behavior (Bartholomew, Ntoumanis, & Thøgersen-Ntoumani, 2010). Using this coaching style, the three psychological needs are not met. Student-athletes are not autonomous and the responsibility of behavior is no longer self-determined, but lies in the beliefs of the coach (Blanchard, Amiot, Perreault, Vallerand, & Provencher, 2009). Also, competence is regulated by external forces and a sense of obligation. Student-athletes feel less engaged and interested in academics if the coach uses demands, rewards, and a controlling style. The difference between internal and external motivation can largely affect student-athletes' academic experiences. Self-motivation and confidence instead of coercive stipulations can shape the education a

student-athlete receives and the knowledge and skills carried with them the rest of their lives.

It is this balance, between athletics and academics, which is the problem in collegiate athletics. People go to school in order to learn and to earn a degree. Therefore, when did the goal of succeeding in classes and graduation become less important to coaches and student-athletes? The amount of influence a coach has on student-athletes can assist in the concentration of academics. In revenue sports, this could be a long and difficult process. With the way the public demands winning teams and colleges and universities depend on the attention and money, this may not even be possible. Nevertheless, it is important to receive an education and even the smallest support for student-athletes in their academic endeavors can make a difference. A number of possible solutions are covered in books such as *The Game of Life* and *Reclaiming the Game* and will be valuable to the evaluation of coaches' academic support of student-athletes. Bowen and Levin (2003) reemphasize a statement made by Shulman and Bowen (2001) that goes as follows:

Faculty often remark that the most discouraging aspect of teaching is encountering a student who just does not seem to care, who has to be cajoled into thinking about the reading, who is obviously bored in class, or resists rewriting a paper that is passable but not very good. Such students are failing to take full advantage of the educational opportunities that these colleges and universities are there to provide...It is not good enough, we believe, just to get by. Respect for core academic values and the educational mission of these schools requires more than that. (p. 270-271)

It is a coach's responsibility to seek out, recruit, maintain, and mold student-athletes who are motivated to take advantage of educational opportunities and leave college having accomplished goals in both academics and athletics. Athletics are, and should be, a large part of a student-athlete's college life, but it is important for the coach to help maintain focus on the core academic mission.

Summary

Chapter 2 illustrates the importance of this study by exploring several avenues of literature. The history of academic standards in intercollegiate athletics was examined as well as the effect of commercialization on the academic mission of colleges and universities. Literature on the demands of intercollegiate athletics and trends of student-athlete underperformance were addressed. This background information lead to the discussion of the role of the coach and the importance of exploring academic support from coaches. The next section, Chapter 3, will cover the methodology that will be used to create a survey intended to measure perceptions of student-athletes of coaches' academic support. In this chapter, the instrumentation will be identified as well as proposed instrument validation, data collection, and data analysis.

Chapter Three:

Methodology

Purpose and Significance

The purpose of this study is to measure student-athlete perception of academic support from Division I head coaches. Current literature demonstrates the strong influence of coaches on student-athletes, but not in the area of academics. Therefore, the research presented aims to evaluate the connection between student-athletes and the academic support, or lack thereof, of head coaches.

Instrumentation

The Academic Support of Head Coaches Survey (Appendix A) was developed by the researcher and was sent via email to athletic academic advisors to be distributed to student-athletes. The email included a link to the survey which was developed using SurveyMonkey. The survey consisted of 10 items that inquired about various aspects of perceived academic support, such as communication of expectations, support of goals, required assistance, and acknowledgement of achievement to name a few. Each item included a 1-6 Likert-type response scale where 1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Somewhat Disagree*, 4 = *Somewhat Agree*, 5 = *Agree*, and 6 = *Strongly Agree*.

The 10 survey items were followed by five demographic variables. Variables of interest include: year in school, sex, sport, GPA, and race/ethnicity. All demographic variables will be self-reported. There were also be three additional items addressing the respondent's perception of student-athletes as well as their athletic future. The first item read "Rate your identity as a student and/or athlete." The respondent was provided a Likert-type scale of 1-7 where 1 = *Student* and 7 = *Athlete*. Responding with a 4 would mean that they identified as being both a student and an athlete, equally. The next

question was open-ended and asked “What does it mean to be a student-athlete?” The final question was provided in hopes of comparing the perceptions of student-athletes who believe they will be professional athletes versus those who do not. The item read “How likely is it that you will become a professional athlete in your sport?” The Likert-type response scale was 1-4 where 1 = *Very Unlikely*, 2 = *Unlikely*, 3 = *Likely*, and 4 = *Very Likely*.

Instrument Pilot Test. The survey instrument was first tested using 51 student-athletes from a single university similar to the ultimate sample. The purpose of the pilot test was to examine the quality of the survey and identify any potential problems with items or the instrument as a whole prior to dissemination for the actual study. Analyses of the pilot data showed only a minor revision to the response scale of the 10 survey items. No major issues were found.

For the pilot test, the survey was sent to all student-athletes within the athletic department with the intention of having representatives from each sport providing responses. An initial email was sent with a short message indicating the purpose of the survey, a request for participation, a statement of confidentiality, and a link to the survey (Appendix B). Each student-athlete received the same email from the academic advisor. The survey was open for two weeks at which point a reminder email was sent out. The survey was open for one week following the reminder email.

Participants were assigned an identification number upon completion of the survey to ensure anonymity. There was no identifying information attached to the identification number; it was solely used to keep track of responses. By the closing date, 51 responses were collected from a group of 230 to whom the survey was sent for a 22%

response rate. Of the 51 respondents, 39 (76%) were White/Caucasian, eight (15%) were Black/African American, three (1%) were Mexican American/Chicano/Puerto Rican/Latino/Hispanic, and one was Asian American/Asian. Thirty two (64%) participants were female and all 16 sports were represented. The breakdown of GPAs was as follows: 52% ($n=26$) had a 3.5 or above, 34% ($n=17$) had between a 3.0 and 3.4, and 14% ($n=7$) had between 2.5 and 2.9. Of all 51 respondents, 18% ($n=9$) were sophomores, 16% ($n=8$) were juniors, 38% ($n=19$) were seniors, 4% ($n=2$) were in their fifth year of undergraduate work, 8% ($n=4$) were in graduate school, and 16% ($n=8$) were former student-athletes within one year of graduation from the undergraduate institution. Freshmen were not used in the pilot study because they had only been working with their head coach for a couple of weeks and did not yet have a developed perception of their head coach.

The researcher used WINSTEPS (Linacre, 2013) measurement software to assess summary and model fit statistics and rating scale quality by investigating the functionality of response categories. The construct was also evaluated by examining the hierarchy of item difficulties. All INFIT and OUTFIT statistics for items were between the recommended .6 and 1.4 range, except for Item 1. This means that the items were productive for measurement. Item 1 was slightly over the 1.5 limit for OUTFIT indicating that responses to this item are not predictable, but the item functioned well otherwise, so it was not cause for deletion.

Person and item reliability were also good. Person reliability (.90) and separation (2.96) and item reliability (.81) and separation (2.04) were all in the acceptable range. It should be noted that item reliability is a little low, which is remedied most notably by a

greater number of survey items and a more heterogeneous sample. Overall, the instrument functioned well for participants and construct measurement.

The only minor change made to the instrument was the rating scale. Analyses showed that respondents used the rating scale appropriately because each rating category functioned as a step “up” from the previous category. In other words, participants responded *Strongly Disagree* to *Strongly Agree* in the appropriate order. However, categories 2 and 3 (*Disagree* and *Somewhat Disagree*) were used infrequently. For this reason, it was decided to collapse categories into a four point Likert-type scale. The new scale read as follows: 1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Agree*, and 4 = *Strongly Agree* (Appendix C).

Final Instrument Distribution. After the pilot test was complete, the minor change to the survey response scale was made. The survey was then sent out to three large Division I athletic departments in order to gather data. Prior to dissemination, academic advisors and/or athletic directors were contacted and asked if they would distribute the survey to their student-athletes. All three schools were willing and eager to participate.

Similar to the pilot study, an initial email was sent with a short message indicating the purpose of the survey, a request for their participation, a statement of confidentiality, and a link to the survey (Appendix B). The survey was open for two weeks at which point a reminder email was sent out. The survey remained open for one week following the reminder email. Responses from the final instrument distribution were assigned a unique identifier, as done in the pilot study, in order to retain anonymity. Data were collected in

the fall of 2013 and were accessible only to the researcher. Survey validation was completed again on responses from the final instrument distribution.

Analysis

Survey responses were analyzed using WINSTEPS (Linacre, 2013) measurement software applying the Rasch Rating Scale Model (Andrich, 1978). The Rasch model is a family of logistic latent trait models that analyzes items and people independently and then expresses both the item difficulties and the person abilities on a single continuum. The Likert-type response categories, as utilized in this study, include ordered ratings. The ordinal data collected from the rating scale is transformed to an interval scale. This means that the steps from one response to the next, known as thresholds, are equal. This is necessary in order to meaningfully compare response categories.

The continuum of item difficulty and person ability in the rating scale model takes the form of difficulty as the likelihood an item is endorsed and the ability of a person to endorse an item. In other words, a “difficult” item on one end of the continuum would include many *Strongly Disagree* and *Disagree* responses. An “easy” item would include more *Strongly Agree* and *Agree* responses. Easier items have a higher probability of endorsement. In terms of person ability, a respondent would have less ability if they indicated many *Strongly Disagree* and *Disagree* responses whereas a person with higher ability would indicate more *Strongly Agree* and *Agree* responses. The more ability a person has, the higher probability he or she has of endorsing an item.

As stated before, item difficulty and person ability are placed on the same scale, used for meaningful comparisons. The Rasch model assumes that the logistic function of the relative distance between the person and the item on the continuum equals the

probability of a respondent agreeing with a particular item. The formula for this is as follows:

$$\ln\left(\frac{P_{nij}}{P_{ni(j-1)}}\right) = B_n - D_i - F_j$$

where, P_{nij} = the probability that person n encountering item i is observed in category j , B_n = the “ability” measure of person n , D_i = the “difficulty” measure of item i , (the point where the highest and lowest categories of the item are equally probable), F_j = the “calibration” measure of category j relative to category $j-1$ (the point where categories $j-1$ and j are equally probable relative to the measure of the item); and no constraints are placed on the possible values of F_j . Applying the Rasch Rating Scale Model in this study has several advantages. Placing the items of the survey and the student-athletes on the same continuum allowed the researcher to compare items and persons as well as evaluate the pattern of both items and persons separately.

Summary

Chapters 1 and 2 laid out the groundwork for the importance of a study evaluating head coaches’ support of academics in intercollegiate athletics. Chapter 3 presented the actual methods that were used to execute the study. In addition to providing details of the instrument, the procedures for validating the survey and collecting and analyzing the data were specified. The methodology was used to obtain meaningful data for insight into the perceived academic support of head coaches.

Chapter Four:

Analysis and Results

This chapter presents the results of the Academic Support of Head Coaches Survey distributed to investigate perceptions of Division I student-athletes. First, descriptive statistics are listed to provide insight into the demographic characteristics of the survey sample. Next, psychometric properties of the instrument are evaluated and survey validation is discussed. Lastly, results from the analysis are presented in relation to the research question of the study at hand:

- To what degree do student-athletes feel they receive academic support from their head coach?

Demographic Characteristics of Survey Sample

It was the intent of the researcher to gather survey responses from student-athletes that represented a variety of characteristics within demographic categories. Three large Division I Universities participated in the study. A total of 326 responses were collected from a total of 1,154 student-athletes to whom the survey was sent, providing a response rate of 28%. A summary of the demographic characteristics of the 326 respondents are provided below (Table 4.1).

Demographic characteristics of student-athletes surveyed included a variety of grade levels, but there was a strong majority of student-athletes with higher GPAs (82.3% with 3.0 or greater) as compared to lower GPAs. Females (63.5%) also responded at a greater rate than males (36.5%). There were 25 sports currently active at the participating universities (not all universities offered the same sports) and 24 of the sports had at least one respondent, providing a wide array of perceptions.

Table 4.1

Descriptive Statistics of Survey Sample

Variable	n	%
Gender		
Male	114	36.5
Female	198	63.5
Year in School		
Freshman	109	34.5
Sophomore	71	22.5
Junior	65	20.6
Senior	48	15.2
5 th Year	17	5.4
Graduate Student	4	1.3
Former Student-Athlete	2	0.6
GPA		
3.5 or above	129	41.5
3.0 – 3.4	127	40.8
2.5 – 2.9	43	13.8
2.0 – 2.4	11	3.5
1.5 – 1.9	0	0.0
1.4 or below	1	0.3

Table 4.1 (continued)

Descriptive Statistics of Survey Sample

Variable	n	%
Race/Ethnicity		
American Indian/Alaskan Native	5	1.6
Asian American/Asian	5	1.6
Black/African American	33	10.5
Mexican American/Chicano/ Puerto Rican/Latino/Hispanic	10	3.2
Native Hawaiian/Pacific Islander	4	1.3
White/Caucasian	280	89.5
Sport		
Baseball	7	2.2
Men's Basketball	12	3.8
Women's Basketball	13	4.1
Men's Cross Country/Track and Field	45	14.3
Women's Cross Country/Track and Field	52	16.6
Women's Field Hockey	9	2.9
Football	23	7.3
Men's Golf	8	2.5
Women's Golf	7	2.2
Men's Lacrosse	0	0.0
Women's Lacrosse	12	3.8

Table 4.1 (continued)

Descriptive Statistics of Survey Sample

Variable	n	%
Sport		
Women's Rowing	27	8.6
Men's Skiing	1	0.3
Women's Skiing	9	2.9
Men's Soccer	7	2.2
Women's Soccer	29	9.2
Softball	16	5.1
Men's Swimming and Diving	1	0.3
Women's Swimming and Diving	1	0.3
Men's Tennis	1	0.3
Women's Tennis	2	0.6
Volleyball	23	7.3
Wrestling	9	2.9

Psychometric Properties of Instrument

In order to be confident about the information provided by the survey, it is important to evaluate the quality of the instrument and reproducibility of results. The psychometric properties of reliability and separation, person and item measure quality, rating scale effectiveness, dimensionality, and the item hierarchy representing the construct are assessed in the following section.

Reliability and Separation. Reliability refers to the extent to which results are statistically reproducible. Low reliability estimates (less than .80) mean that the relative location of person or item measures is not stable. Separation refers to the extent to which statistically distinguishable levels of performance are discernible. When lower values of separation are present (less than 1.0), it suggests redundancy in items and less variability between persons in the ability or inability to endorse items (Green, 1996).

The reliability and separation estimates of both person and item measures for this instrument were stable (Table 4.2). Person reliability was .90 indicating high internal consistency. The person separation (3.00) indicated sufficient spread of student-athlete performance which means the instrument identified those who were likely to endorse items from those who were not. Item reliability was .94 suggesting reproducible results generated by the items. Item separation is used to verify the item hierarchy and therefore demonstrate construct validity. The item separation (4.08) indicated that items varied in difficulty and thus were able to discriminate student-athlete endorsement and confirm the item difficulty hierarchy. Therefore, the reliability and separation indices indicate reproducibility of relative measures for both persons and items and effective discrimination.

Table 4.2.

Reliability and Separation

	Reliability	Separation
Persons	.90	3.00
Items	.94	4.08

Person and Item Measure Quality. Person and item measure quality is typically evaluated by examining fit statistics and stability of measures (Table 4.3). Overall data-to-model fit is investigated by INFIT and OUTFIT mean square values. Mean square values of 1.00 are ideal, indicating the data fits what the model predicts (Wright & Linacre, 1994). Typically, values between 0.6 and 1.4 are acceptable for a non-high stakes examination or survey such as this. Person INFIT and OUTFIT statistics were .97 and .99, respectively, suggesting good overall fit. Of the 326 student-athletes who responded to the survey, 63 (19.3% of the sample) overfit and 51 (15.6% of the sample) underfit. Even though this appears to be a large portion of misfitting respondents, fluctuations such as these can be typical and do not distort measurement. A further look at results showed that the majority of the mean square values were not greater than 2.0 or below 0.5. Fit statistics exceeding these values may indicate degradation of measurement. Therefore, the fit statistics suggest adequate prediction of the data.

Table 4.3

Overall Data to Model Fit Statistics

	Measure	Model	INFIT	OUTFIT
		Error	MNSQ	MNSQ
Persons				
Mean	2.53	.73	.97	.99
SD	2.34	.14	.73	.81
Items				
Mean	.00	.13	1.00	.99
SD	.57	.00	.23	.32

Item measure quality was also evaluated by examining mean square fit statistics. Table 4.3 lists overall item statistics. The criteria used for person INFIT and OUTFIT mean square values as stated above were used for evaluating item INFIT and OUTFIT as well. The mean square values were near 1.0 signifying sufficient fit. The average standard error was .13 thus indicating measures were quite stable. Whereas Table 4.3 lists overall item statistics, Table 4.4 includes individual item statistics for each of the 10 survey items (complete item descriptions found in Appendix A). The statistics list the difficulty measure (D_i), standard error estimate, and INFIT and OUTFIT mean square values. Difficulty measures ranged from -.93 to .71 logits indicating adequate discrimination. All items fell within the recommended range for fit statistics of 0.6 to 1.4 (Wright & Linacre, 1994) except the first item. However, this item was still below the suggested 2.0 cutoff value that could lead to measurement distortion. Overall, person and item INFIT and OUTFIT mean square values were near 1.0, indicating nearly perfect data-to-model fit.

Table 4.4

Item Statistics

Item	D_i	SE	INFIT	OUTFIT
			MNSQ	MNSQ
Q1 Communicates Expectations	-.93	.14	1.62	1.89
Q2 Appreciates Efforts	.19	.13	.89	.84
Q3 Supports Goals	-.67	.14	.75	.69
Q4 Best Interests	.37	.13	.94	.92
Q5 Help Available	-.14	.14	1.08	1.03

Table 4.4 (continued)

Item Statistics

Item	D _i	SE	INFIT	OUTFIT
			MNSQ	MNSQ
Q6 Cares About Well-Being	-.66	.14	.90	.81
Q7 Notice Best Job	.71	.13	1.08	1.08
Q8 Pride in Accomplishments	-.09	.14	.94	.91
Q9 Keeps Motivated	.71	.13	.96	.96
Q10 Provides Support	.50	.13	.79	.75

Rating Scale Effectiveness. The quality of rating scales can be evaluated by appropriateness of response options, how the categories function, and the consistency of interpretation of items by respondents (Linacre, 2002). Table 4.5 lists the rating scale diagnostics produced by WINSTEPS. The frequency of responses in each rating category are found in the count and percentage columns. Results showed that collapsing the response categories suggested by the pilot test analyses was successful as respondents fully used each response option. Evaluation of the fit of response categories to the structure of the rating scale is performed by examining INFIT and OUTFIT mean square values. The range of INFIT and OUTFIT mean square values that suggest a productive rating scale is 0.6 to 1.4, with ideal values near 1.0 (Wright & Linacre, 1994). The fit statistics of each response category fell within this range, indicating adequate fit to the rating scale.

Response categories should also function as “step calibrations,” increasing in ascending order. In other words, the structure calibrations and category measures should increase in value, indicating respondents appropriately distinguished the ordinal pattern of response options (Linacre, 2002). Results showed that response categories functioned appropriately and were used in the correct pattern.

Table 4.5

Rating Scale Diagnostics

Rating Scale Category	<i>n</i>	%	INFIT	OUTFIT	Structure	Category
			MNSQ	MNSQ	Calibration	Measure
(1) Strongly Disagree	72	2	1.17	1.35	NONE	-4.61
(2) Disagree	338	11	.91	.88	-3.46	-2.07
(3) Agree	1462	46	.96	1.00	-.68	1.74
(4) Strongly Agree	1324	41	1.05	1.01	4.14	5.25

Dimensionality. In psychometrics, it is desirable that an instrument used to measure a construct is unidimensional. In other words, only one construct is measured at a time. In reality, it is difficult to develop an instrument that is perfectly unidimensional, but it is possible to construct a sufficiently unidimensional assessment tool (e.g., an examination or survey) for quality measurement.

To evaluate the dimensionality of this survey, a principal components analysis (PCA) of standardized residual correlations was performed. Results indicated that 56.6% of the variance was accounted for by the measures, with 45.9% and 10.7% of the variance accounted for by persons and items, respectively. The largest secondary dimension

accounted for 7.5% of the variance. The variance account for by the items is just over one times the variance accounted for by the largest secondary dimension, indicating there may be a second dimension. However, the minimum eigenvalue considered to be a dimension is 2.0 and the eigenvalue for the largest secondary dimension was 1.7; therefore there did not exist evidence of a second dimension. Collectively, the Rasch dimension was both sufficient in magnitude and detection to be discernible as the primary dimension, thus meeting the requirement for unidimensionality.

Item Hierarchy. One of the aforementioned advantages of the family of Rasch models is that they allow for person and item measures to be placed on the same scale for meaningful comparisons. If the data fit the model, the hierarchy of item difficulties represents the construct of interest. In this study, the hierarchy would denote the academic support of head coaches. All 326 student-athletes and the 10 survey items were placed on a scale illustrated by the construct map in Figure 4.1. The scale on the left side of the construct map is in the unit of logits. When student-athletes responded to each item, they rated their level of agreement with the statement using an ordinal rating scale. The ordinal data were then converted to their natural logarithm, thus producing logit values. These logit values are interval level measures. Figure 4.1 shows person and item logit values after using the Rasch Rating Scale Model.

Person ability measures are on the left half of the ruler and item difficulty measures are on the right. The higher up on the ruler a person is, the greater their logit value, and the more ability they have. In this case, greater ability means that a student-athlete has a higher probability of endorsing an item. The student-athletes on the bottom of the ruler, with negative ability measures, are less likely to endorse items. Note that on

the bottom of the construct map, the key indicates that the “#” symbol represents five student-athletes and the “.” represents one to four student-athletes. The items on the construct map range from the most difficult items on the top (positive logit values, to the easiest items on the bottom (negative logit values). Greater difficulty values mean that the items are more difficult to endorse. Easier items are easier to endorse. Brief summaries are listed to identify items (full item descriptions can be found in Appendix A or C).

The center of the construct map includes the letters M, S, and T, which represent the mean, standard deviation, and two standard deviations away from the mean for persons and items (on respective sides). The mean logit value for student-athletes is 2.53 with the majority within two standard deviations of the mean (the greater T is just above the span of the construct map with a value of 7.21 logits). The mean difficulty for items is 0.0, with all items falling around the mean and within two standard deviations. The cluster of items on the bottom end of the scale and persons toward the top means the items are very easy for respondents to endorse. If this were an examination, the researcher would report that the examination is not targeted well to examinees and items are too easy. For survey research, a tight cluster of easy items means that in general, student-athletes agreed with the 10 items. As illustrated by the construct map, the most difficult items to endorse were Items 7 and 9 (“Notice Best Job” and “Keeps Motived”). The easiest item to endorse was Item 1 (“Communicates Expect”). This will be discussed further as related to the research question.

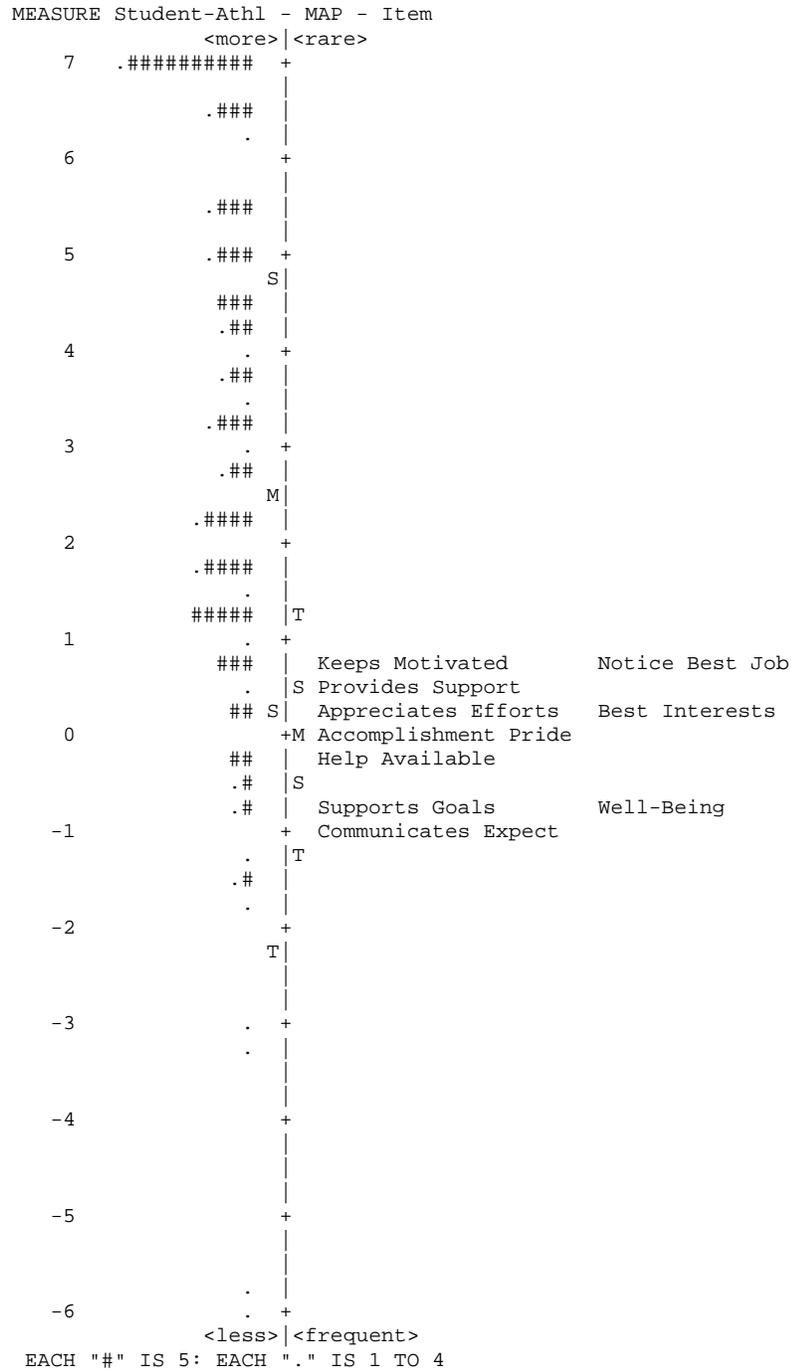


Figure 4.1 Construct Map

Results Related to Research Question

As previously stated, before results can be discussed, it is important to establish the validity of the information provided by the survey. To ensure validity, psychometric

properties of the instrument were evaluated and outcomes were reported in the preceding section. This evaluation resulted in information confirming the validity and reliability of the instrument and data. With this verification, results will be discussed in the following section in relation to the research question:

- To what degree do student-athletes feel they receive academic support from their head coach?

Lastly, the items not included in the Academic Support of Head Coaches Survey, but adding valuable information, will be discussed as related to the survey results.

Academic Support of Head Coaches Survey Results. The construct map (Figure 4.1) provides an illustration of the extent to which student-athletes feel supported by their head coach in academic endeavors. The location of the items on the scale exhibits how easy or hard the items are as compared to person ability measures. In this study, the items are located further down on the scale indicating, as a group, that they are relatively easy to endorse. In other words, overall, student-athletes more often either agreed or strongly agreed with the statements measuring academic support provided by head coaches. However, this is a general trend and as the evaluation of the rating scale effectiveness revealed, all response options were utilized. This means that not all student-athletes felt supported by their head coach in every aspect included in the survey. Furthermore, some items were easier to endorse than others.

The easiest item on the survey to endorse was Item 1 that read “My coach clearly communicates his/her expectations.” This is promising because student-athletes are at least aware of what their head coach expects, even if they may not abide by it. However, what is not clear in this item is what exactly the expectations are. Does the head coach

demand that academics always come first? Does the head coach simply mandate that players are eligible regardless of level of effort provided by student-athletes? A descriptions of expectations would be beneficial for future efforts in order to better understand the responses to this questions. Even so, it is a positive result that student-athletes know what is expected of them because at a minimum, academics are part of a conversation between the coaches and the team.

The next two items easiest to endorse seem to go hand-in-hand. Student-athletes perceive that their head coach supports their goals and values and cares about their well-being. This is assuring as student-athletes attend school in order to earn a degree, so head coaches should be supportive of focusing on academics over athletics. Concluding that all student-athletes place academics ahead of athletics may be an optimistic generalization, but based on a qualitative analysis of the open-ended item on the survey discussed later, this seems to be the trend.

The fourth easiest item to endorse was that help is available from the head coach when needed. In line with the aforementioned three items, student-athletes not only report that they are aware of what their head coach expects, but are also supported in their goals and values and are able to approach their coach and ask for help when necessary. The type of assistance provided is unknown, but student-athletes receive enough help from head coaches to report feeling supported.

Item 8 and Item 2 illustrated on the construct map indicate the fifth and sixth easiest items to endorse (going from easiest to most difficult) or the fifth and sixth most difficult items to endorse (going from most difficult to easiest). Thus, Items 8 and 2 are the middle items and separate the bottom (easiest) and top (most difficult) four items.

They also seem to be related. Student-athletes had about the same probability of agreeing that their head coach takes pride in academic accomplishments and appreciates their efforts. Here it seems that head coaches are supportive of academics as far as being up front with student-athletes about what is expected, but when the team actually does well, it is not necessarily noticed.

The remaining items are where the trend of probability of endorsement becomes more interesting. The item that is fourth most difficult to endorse is whether or not head coaches take the best interests of student-athletes into account (Item 4). This item is similar to Items 3 and 6 (supportive of goals and values and cares about well-being) which were much easier to endorse. A substantive evaluation of Item 4 indicates that head coaches are supportive of what student-athletes want and if they are happy with their academic endeavors, but ultimately care about the success of the team. In other words, head coaches may know the goals of student-athletes and are supportive of their values, but do not necessarily care as much about their best interests. As discussed in the literature review, the actual best interests of student-athletes are often different than what coaches think are the best interests of student-athletes.

The third most difficult item to endorse tells the same story. Item 10, which reads “My coach provides me with support I need,” is similar to Item 5. Item 5 was the fourth *easiest* item to endorse. The wording of these two items is what could have made the difference. Item 5 was easier to endorse head coaches help when called upon for assistance. Item 10 on the other hand indicates that the head coach provides support without being asked. Therefore, the difference in difficulty between these items lies in the

willingness for head coaches to help before assistance is requested. This trend leads to the next item which is the second most difficult to endorse on the survey.

Student-athletes had a difficult time agreeing with Item 9, as compared to other items, which reads “My coach helps to keep me motivated.” Following the pattern of moving from easiest to most difficult to endorse, it seems that head coaches lay out academic expectations for the team and generally care about student-athlete well-being, but do not proactively encourage academic success. Each of the items that were easier to endorse had to do with the focus of the student-athlete and the reaction from the head coach. The items that called upon the coach to be more proactive, keeping student-athletes motivated and providing support for example, were more difficult to endorse.

Of the 10 items on the survey, the most difficult item to endorse read “If I did the best job possible, my coach would be sure to notice.” A substantive evaluation of this item indicates that student-athletes do not feel their head coach goes out of their way to notice when individuals on the team excel in academics. This is not to say that if a student-athlete presents a notable paper, examination, or project to a head coach that they would not be proud and recognize the accomplishment, it is just not likely that the coach actively tracks academic successes and would notice without mention. Even though this item is similar to the two items in the middle of the ruler (Items 8 and 2), Item 7 is more difficult to endorse because it means the head coach acknowledging student-athletes going above and beyond, not just supporting good effort.

Overall, the items included in the instrument were easy to endorse as compared to student-athlete ability. However, the location of each item relative to the other items tells an important story. In order to answer the research question at hand, results were

reviewed and indicated that student-athletes, in general, feel they receive academic support for their head coach. Even so, there are clear areas that head coaches could improve upon to create the best support system possible for student-athletes. A discussion about demographic characteristics and how they relate to the aforementioned results as well as a qualitative evaluation of the open-ended item follows.

Additional Item Results. The items not included in the 10 item Academic Support of Head Coaches Survey provide valuable information about the student-athletes who responded to the survey. Three questions were asked after the demographic characteristics items. The first item read “Rate your identity as a student and/or athlete” and included a seven point Likert-type rating scale where 1 = *Student* and 7 = *Athlete*. Answering with a 4 indicated that the respondent felt they were equally a student and an athlete. A response less than 4 meant the respondent identified more as a student than an athlete and a response greater than 4 meant the respondent identified more as an athlete than a student. Frequencies of each response can be found in Table 4.6. While it is not surprising that the highest percentage of respondents identified as a student and an athlete equally, the percentage of respondents in other rating categories is interesting. Ignoring the 38.1% in category 4, 40.3% of respondents identified more as an athlete than as a student. This leaves just 21.4% who identify as students more than as athletes. These results will be discussed further in the next chapter.

Table 4.6

Frequencies of Student-Athlete Identity Continuum

Rating Scale	n	%
(1) Student	1	0.3
(2)	16	5.1
(3)	50	16.0
(4)	119	38.1
(5)	74	23.7
(6)	41	13.1
(7) Athlete	11	3.5

The next question asked after the 10 item survey and demographic information collection was an open-ended response question. This item read “What does it mean to be a student-athlete?” Even though it was not mandatory to answer this item (the entire survey was voluntary), 244 responses were collected. A qualitative analysis was performed on the open-ended item in order to find trends in the responses. After a thorough examination, seven trends were found. The trends describing what it means to be a student-athlete as well as the frequency of each are included in Table 4.7.

The trend that appeared most frequently was the balance between academics and athletics. This often went hand-in-hand with time management. Respondents also shared a sense of pride in representing their university. There were a few responses that did not seem to fit in the seven trends. One of these responses was “Reason I am in college is because of sports.” This respondent was likely one of the student-athletes who identified

more as an athlete-student. Overall, student-athletes responded that it is a great deal of work to balance academics and athletics, feeling responsibility, but also privilege to represent their school. Also, success in both areas is expected and requires dedicated time management.

Table 4.7

Frequencies of Qualitative Trends

Trend	n	%
(1) Responsibility	44	0.3
(2) Representation	46	5.1
(3) Time Management	37	16.0
(4) Success	18	38.1
(5) Privilege	14	23.7
(6) Balance	65	13.1
(7) Student First	28	3.5

The third item asked that was not part of the Academic Support of Head Coaches Survey nor was a demographic question read “How likely is it that you will become a professional athlete in your sport?” This item was added because of the results of a survey completed by the NCAA (2010b). One of the items asked former student-athletes if graduation was a goal of their coach. Results indicated a large difference in the responses provided by student-athletes who graduated (70% agreed) versus those who did not (45% agreed). In the current study, the perceived likelihood of becoming a professional athlete was added as an item to investigate a possible cause for this

discrepancy. It is possible that the respondents from the NCAA survey who did not graduate, went on to become professional athletes and therefore had different viewpoints than their degree-receiving peers. Table 4.8 lists the responses to item measuring the likelihood of becoming a professional athlete.

Table 4.8

Frequencies of the Likelihood of Becoming a Professional Athlete

Rating Scale	n	%
(1) Very Unlikely	104	33.8
(2) Unlikely	129	41.9
(3) Likely	52	16.9
(4) Very Likely	23	7.5

As predicted, the majority of student-athlete felt it is unlikely or very unlikely that they will become a professional athlete. Still, there are enough respondents who believe they will go professional that further analyses can be performed. Even though this is beyond the scope of this study and is speculative as an answer to the discrepancy in the NCAA study, the results are worth mentioning for future research.

For this analysis, respondents were split into two groups. The first group responded it was *Very Unlikely* or *Unlikely* that they will become a professional athlete. The second group responded it was *Likely* or *Very Likely* that they would become a professional athlete. The two groups were calibrated separately and item and person statistics were compared. In general, the location of the items as compared to persons on

the construct map are similar. Differences between the two groups of respondents lie in the ordering of the items by difficulty measure.

The most notable item that differed in ease of endorsement was Item 4 which read “My coach takes my best interests into account.” For those student-athletes on the path to competing professionally, this was the most difficult item to endorse. For those not likely to become professional, this item was third most difficult and had a much lower measure. This may indicate that student-athletes hoping to be professional do not have the same “best interests” as nonprofessional bound student-athletes. If so, head coaches holding all student-athletes to the same standards for grades would not indicate a match for the best interests of student-athletes with dreams of professionalism and coaches. It is important to note that this conclusion is based solely on the results from this study. The ease of item endorsement across all student-athletes indicates that in general, head coaches are supportive of academics. However, the student-athletes that believe they will compete professionally are less likely to agree that their best interests are accounted for.

The other notable item that differed in difficulty was Item 1 which read “My coach clearly communicates his/her expectations.” Following the same item hierarchy for all student-athletes, for those unlikely to be a professional this was the easiest item to endorse. The student-athletes likely to be professionals had a more difficult time endorsing this item as it was third easiest to endorse. This may not seem like a large change, but the difference between measures was over half of a logit. The discrepancy in difficulty measures for Item 1 and Item 4 may be related. As previously mentioned, student-athletes who plan to be professional athletes may not think they should be held to the same standards as student-athletes who plan to be a professional in an area other than

sport. If this is the case, the academic expectations of the head coach may not seem clear to the future professional athletes. To further investigate this phenomenon, more in depth and concentrated research is needed.

Summary

This chapter presented the results of the Academic Support of Head Coaches Survey distributed to Division I student-athletes. First, demographic characteristics of the survey sample were investigated using descriptive statistics. Then, psychometric properties of the instrument were evaluated and the importance of survey validation was discussed. Finally, results from the analysis were presented in relation to the research question. The final chapter will discuss the results as they pertain to the current study and ideas for future research will be proposed.

Chapter Five:

Summary, Discussion, and Recommendations for Future Research

The final chapter restates the research question, the purpose of the study, and reviews the methods used to investigate the research question. Next, a summary of the results is presented and discussed as related to the research question, providing implications of the study and recommendations for future research. Finally, limitations are offered followed by final conclusions.

Commercialization has changed the face of intercollegiate athletics. The increasing pressure to produce successful teams has long been feared to suppress the academic mission of colleges and universities within athletic teams. Head coaches are pressured by athletics departments, higher education institutions, as well as the public to produce winning records. For this reason, head coaches may not assign priority to education over athletics nor support the academic endeavors of student-athletes. On the other hand, head coaches may acknowledge the institutional mission of colleges and universities and uphold academic standards.

Participating in intercollegiate athletics involves extensive sport-related time demands on top of already vigorous academic responsibilities. Student-athletes are expected to perform at top levels in academics as well as athletics, assuming pressure from institutional staff both within and outside of the athletic department. Research has been completed on the perceptions and self-conceptualizations of student-athletes, time demands of intercollegiate athletics, and support of athletic academic centers to help manage the extensive responsibilities of student-athletes. Furthermore, the perception of athletic academic staff of the head coach's role in supporting academics has been investigated, but the actual support provided by head coaches has yet to be explored.

The purpose of this study was to measure the academic support of Division I head coaches perceived by student-athletes. The research conducted was an exploratory study applying survey research methods. A representative sample of Division I athletic departments across the country was obtained which included student-athletes from three large universities ($N=1,154$). The Academic Support of Head Coaches Survey was constructed in order to assist in answering the guiding research question:

- To what degree do student-athletes feel they receive support from their head coach?

Summary of Results

Sample. A total of 326 responses were collected from the 1,154 surveys sent out providing a response rate of 28%. The student-athletes surveyed were 36.5% male and 63.5% female. The majority was freshmen (34.5%) and sophomores (22.5%), but there were significant representatives from other grade levels including juniors (20.6%), seniors (15.2%), fifth years (5.4%), graduate students (1.3%), and former student-athletes (0.6%). Of the 25 active sports at the three participating universities, student-athletes from 24 of the teams responded to the survey. A greater number of responses came from student-athletes with higher GPAs as 41.5% earned a 3.5 or above and 40.8% earned between a 3.0 and 3.4. All races/ethnicities listed had representatives, but the majority of respondents were white/Caucasian (89.5%) or black/African American (10.5%).

Psychometric Properties of Instrument. Before survey results can be discussed, it is important to evaluate the quality of the instrument and reproducibility of results. Survey validation includes evaluating psychometric properties of the instrument including reliability and separation, person and item measure quality, rating scale

effectiveness, dimensionality, and the item hierarchy. A summary of the full psychometric properties evaluation completed in Chapter 4 is presented next.

Reliability and separation estimates were explored for both persons and items in order to ensure reproducibility of results and statistically distinguishable levels of performance. Reliability estimates for persons (.90) and items (.94) were high indicating reproducibility of results. Separation estimates for persons (3.00) and items (4.08) were also acceptable supporting effective discrimination. Data-to-model fit was evaluated using Rasch fit statistics. Person and item INFIT and OUTFIT mean square measures were all near 1.0, indicating good fit. Individual item statistics were also explored and conformed to Wright and Linacre's (1994) recommended range of 0.6-1.4. With the exception of one slightly misfitting item, overall data-to-model fit was confirmed.

Analysis of the rating scale demonstrated that student-athletes used the response categories appropriately and could distinguish the ordinal pattern of options. This was evaluated by exploring the structure calibrations and category measures. Next, a Principal Components Analysis (PCA) of standardized residual correlations was performed to determine the dimensionality of the instrument. Results indicated that the Rasch dimension was sufficient in both magnitude and detection to be discernible as the primary dimension. Thus, requirements for unidimensionality were met. Finally, the item hierarchy representing the construct was explored. As illustrated by the construct map, items were located lower on the scale relative to persons, indicating items were easy to endorse.

Survey Instrument. The Academic Support of Head Coaches Survey included 10 items intended to measure perceptions of student-athletes. Immediately following the 10

survey items were demographic characteristic questions, gathering information about gender, year in school, GPA, race/ethnicity, and the sport in which the respondent participates. After the demographics section, three items were included based on existing research. Results of the survey and three additional items are discussed in the following section.

Research Question and Selected Results

This section serves as a final summary and a presentation of key findings as related to the guiding research question. The purpose of this study was to look inside Division I athletics at a place that had yet to be explored: perceived academic support of head coaches. The first and most broad, yet possibly the most promising finding, was illustrated by the construct map (see Figure 4.1). The location of the items on the scale relative to persons indicates that in general, student-athletes feel supported in academics by their head coach. The lower down (decreasing logit values) on the scale an item is, the easier it is to endorse. The items were relatively close in range and were at the lower end of person ability measures. This means that each of the 10 items, combining to measure overall academic support, was relatively easy to endorse.

This finding is important as student-athletes, coaches, and athletic departments are criticized for suppressing the focus of academics at colleges and universities. According to this study, this is not the case for head coaches. Bowen and Levin (2003) quoted an athletic director who stated that a decreasing number of coaches have an interest in academics. This may be the case, but head coaches are showing enough interest that student-athletes feel supported in their academic endeavors. The overall location of items

on the construct map indicates general academic support, but exploring individual item measures tells an even greater story.

Items are calibrated and assigned a difficulty measure that indicates whether it is easier or more difficult to endorse relative to the other items. The order of the items in the current survey revealed a pattern that could be beneficial for coaches and athletic departments. The easiest item to endorse explained that student-athletes perceive their head coach clearly communicates his/her expectations (Item 1). If head coaches are part of a good academic support system, they should have comprehensible standards for student-athletes. According to this survey, student-athletes know what their head coach requires. The second and third easiest items to endorse dealt with the head coach supporting student-athlete goals and caring about their well-being (Items 3 and 6). These two items are more general and student-athletes can feel support from their coach indirectly. In other words, individual goals and personal well-being are controlled by the student-athlete and the head coach is more of an outside supporter.

This trend also comes into play with Item 5 which is the fourth easiest item to endorse. Item 5 indicates that head coaches are available for help when needed. This means that when student-athletes need assistance, they are comfortable approaching their head coach and the coach is willing to help. In line with Items 3 and 6, the coach is more of an outside support system as they will assist when called upon, but probably not on a constant basis. Furthermore, the head coach may not be helping the student-athlete themselves, but pointing them in the right direction.

Items 8 and 2 seem to be related and separate the aforementioned trend of indirect support from items that indicate more direct support. These two items are in the middle of

the scale, between the easiest and most difficult items to endorse, and are about pride in accomplishments and appreciation of effort. A substantive evaluation of these two items reveals that their meaning is similar. However, there is a .28 logit difference in the difficulty measures. Item 8 may be easier to endorse because it implies that as a head coach is notified of an accomplishment, they express pride. Item 2 may be more difficult to endorse because it involves a head coach showing appreciation for effort, not just congratulatory pride. The difference between Items 8 and 2 confirms the possible explanation of indirect and direct support for student-athletes. As more direct support from head coaches is involved, the most difficulty items are to endorse.

The fourth most difficult item to endorse is the perception that head coaches take the best interests of student-athletes into account (Item 4). Genuinely caring about student-athlete best interests would mean that head coaches first need to know and understand what their best interests are. If student-athletes believe that coaching decisions and opinions are not what is best for them, this item would be difficult with which to agree. The second and third most difficult items to endorse (Items 9 and 10, respectively) maintain the aforementioned trend. Items 9 and 10 indicate head coaches providing support and motivation for student-athletes. Both of these items imply a proactive approach to academic support. In order to endorse these items, a head coach would need to directly provide motivation and support to student-athletes; there is no indirect way to do this. Thus, the items easiest to endorse could be done so through perceived indirect support whereas the most difficult items to endorse require direct support.

Item 7, the most difficult to endorse, reads “If I did the best job possible, my coach would be sure to notice.” Once again, a head coach would need to proactively

notice the excellent effort and directly acknowledge it. The trend revealed in the five easiest and most difficult items to endorse tells a story beneficial for the implications of this study and groundwork for future research.

Additional Findings

In addition to the 10 item survey that guided exploration for the research question, three additional items were posed at the end of the total survey. Discussion of the results of these three items is beyond the scope of the current study, but includes valuable information worth mentioning. The first item asked respondents to identify themselves on a continuum of student to athlete. The Likert-type response scale had seven categories with 1 indicated a respondent identified only as a student and 7 indicated a respondent identified only as an athlete. A response of 4 indicated an identity of equally student and athlete. Results of this item were surprising (see Table 4.6).

While it is expected that the highest percentage of respondents identified as a student and an athlete equally, the percentage of respondents in other rating categories was unanticipated. The combined percentage of respondents who identified as an athlete more than a student (to any degree) outweighed the middle category. Equally balanced student-athletes accounted for 38.1% of responses while respondents who felt more like athletes than students accounted for 40.3% of responses. In other words, a higher percentage of student-athletes identified more as athlete-students. Furthermore, this leaves just 21.4% who identified as students more than as athletes. After revealing positive results in which student-athletes reported receiving academic support from their head coach, the outcome of this item was disheartening. However, analysis of the next item told a different story.

The second additional item was the only open-ended response question in the survey. This item asked “What does it mean to be a student-athlete?” Responses to this item were reviewed meticulously using qualitative analysis to identify common trends. Results showed seven trends that appeared continuously throughout responses: Responsibility, Representation, Time Management, Success, Privilege Balance, and Student First (see Table 4.7). Reading through responses, it was apparent that student-athletes were aware of the requirements to balance academics and athletics, the amount of time and effort it takes to be successful in both, but most importantly, that academics comes first. However, this is not in line with responses from the previous item. One possible explanation is that in the aforementioned item, respondents are asked about their own identity. In the open-ended response item, respondents were asked what it means to be a student-athlete, generally speaking. It seems that respondents were honest when reporting their own identity and provided a description of the ideal student-athlete for the general description.

The final item used for additional analysis was included in order to build on the results of a survey completed by the NCAA (2010b). One of the items on the NCAA survey asked former student-athletes whether or not graduation was a goal of their coach. Results indicated a large difference in the responses provided by student-athletes who graduated versus those who did not. Of the student-athletes who graduated, 70% responded that graduation was a goal of their coach. On the other hand, just 45% of student-athletes who did not graduate responded that graduation was a goal of their coach.

In order to investigate a possible cause for this discrepancy, an item exploring the perceived likelihood of becoming a professional athlete was added to the current study. This question read “How likely is it that you will become a professional athlete in your sport?” The purpose for this item was to consider the possibility that the respondents from the NCAA survey who did not graduate went on to become professional athletes; therefore, they had different viewpoints than their degree-receiving peers.

In the current study, results showed that the majority of student-athletes felt it is unlikely or very unlikely that they will become a professional athlete (see Table 4.8). Still, there were enough respondents who believe they will go professional that further analyses were performed. It should be noted that the results of the item in the current study provide speculative answers to the discrepancy in the NCAA study. However, some interesting trends emerged that lay groundwork for future research.

As mentioned in Chapter 4, respondents were split into two groups for this analysis. The first group responded it was *Very Unlikely* or *Unlikely* that they will become a professional athlete. The second group responded it was *Likely* or *Very Likely* that they would become a professional athlete. In general, the distribution and location of items as compared to persons were similar between groups. The notable differences found were in the ordering of the items by difficulty measure.

The two items that differed in location relative to the other items as well as in the difficulty measure were Items 4 (“My coach takes my best interests into account”) and 1 (“My coach clearly communicates his/her expectations”). For student-athletes who believe they will complete professionally, Item 4 was the most difficult to endorse. Responses from student-athletes not likely to become professional athletes indicated this

item was third most difficult to endorse. This may indicate that student-athletes hoping to be professional athletes do not have the same “best interests” as nonprofessional bound student-athletes. The best interests of a future professional athlete might be to focus on athletics, not academics. If this is not supported by the head coach, these student-athletes would find it difficult to endorse this item. However, this does not explain the discrepancy in the NCAA study. If the item in the current study provided an answer, it would mean that the best interests of future professional athletes were taken into account by head coaches; both would disregard graduation and focus on athletics. Even so, the difference found in the current study could lead to further research questions.

An evaluation of Item 1 lead to a similar conclusion as the analysis for Item 4. For those student-athletes unlikely to become professional athletes, this was the easiest item to endorse. The student-athletes likely to become professional athletes had a more difficult time endorsing this item. The difference between difficulty measures was over half of a logit. The discrepancy in difficulty measures for Item 1 and Item 4 may be related. As previously mentioned, student-athletes who plan to be professional athletes may not think they should be held to the same standards as student-athletes who plan to be a professional in an area other than sport. If this is the case, the academic expectations of the head coach may not seem clear to the future professional athletes. Once again, this does not provide a clear answer to the item on the NCAA survey. However, it could indicate that even though student-athletes who did not graduate agreed that graduation was not a goal of their coach, the expectations while in school were fuzzy. Therefore, unclear expectations would make Item 1 more difficult to endorse.

Implications for Future Research

This study served as an exploration into Division I athletics and the perceived academic support of head coaches. Results suggest that overall, student-athletes felt they were supported in academics by their head coach. However, there were clear aspects of academic support where head coaches were stronger and other aspects in which they could improve. Direct support, such as communicating expectations and supporting student-athlete goals, was a stronger area for head coaches. Indirect support that requires head coaches to be more proactive, noticing a job well done for example, could be improved. This study offers implications for further research that builds upon the current exploratory study and investigates supplementary aspects of academic support of coaches.

Additional findings suggest that there is a disconnect between the perceptions of support reported by student-athletes, how student-athletes identify with being a student and an athlete, and what it means to be a student-athlete. Results indicate that although student-athletes feel supported in their academic endeavors by their head coach, the majority identify more as an athlete than a student. Furthermore, student-athletes revealed that participating in intercollegiate athletics required a balance between academics and athletics and that academics should always come first. In other words, student-athletes recognize that they attend a higher education institution in order to focus on academics, but athletics still come first.

The results and findings depicted in this study could be elaborated on by surveying a greater number of student-athletes throughout the country. Even though the three participating schools were representative of large Division I universities, a larger

sample is more powerful. Measuring self-perceptions of head coaches and/or perceptions of other coaching staff could also be beneficial. It is possible that head coaches and other coaching staff members have different viewpoints of what is considered academic support and whether or not they provide it.

Lastly, exploring the difference in responses between student-athlete self-perceptions and identifying the ideal student-athlete could assist in developing a stronger athletic academic support system. It is known that athletics departments are working to improve athletic academic support and relationships with professors, but information guiding these improvements would be favorable for student-athletes, athletic departments, and higher education institutions overall. As the Knight Foundation (2001) described in a report, the current academic support and tutoring provided to student-athletes is more focused on maintaining eligibility. Further research focused on the needs of student-athletes can assist in providing the best possible support.

Final Conclusions

The focus of academics while participating in intercollegiate athletics has long been an involved discussion. Howard Savage questioned the reality of a true balance asking “can it [the university] concentrate its attention on securing teams that win, without impairing the sincerity and vigor of its intellectual purpose?” (Cowley, reprinted in 1999, p. 495). The current study adds a dimension to existing research that had yet to be explored. Investigating the impact of coaching support in academics could lead to potential answers this question, but further research needs to be done. It is imperative that student-athletes receive the support they need from all aspects of their higher education experience in order to be successful in both academics and athletics.

APPENDIX A

Academic Support of Head Coaches Survey

1. My coach clearly communicates his/her expectations.

1-----2-----3-----4-----5-----6
Strongly Disagree Somewhat Somewhat Agree Strongly
Disagree Disagree Disagree Agree Agree

2. My coach appreciates my efforts.

1-----2-----3-----4-----5-----6
Strongly Disagree Somewhat Somewhat Agree Strongly
Disagree Disagree Disagree Agree Agree

3. My coach is supportive of my goals and values.

1-----2-----3-----4-----5-----6
Strongly Disagree Somewhat Somewhat Agree Strongly
Disagree Disagree Disagree Agree Agree

4. My coach takes my best interests into account.

1-----2-----3-----4-----5-----6
Strongly Disagree Somewhat Somewhat Agree Strongly
Disagree Disagree Disagree Agree Agree

5. Help is available from my coach when I need it.

1-----2-----3-----4-----5-----6
Strongly Disagree Somewhat Somewhat Agree Strongly
Disagree Disagree Disagree Agree Agree

6. My coach cares about my well-being.

1-----2-----3-----4-----5-----6
Strongly Disagree Somewhat Somewhat Agree Strongly
Disagree Disagree Disagree Agree Agree

7. If I did the best job possible, my coach would be sure to notice.

1-----2-----3-----4-----5-----6
Strongly Disagree Somewhat Somewhat Agree Strongly
Disagree Disagree Disagree Agree Agree

8. My coach takes pride in my accomplishments.
- 1-----2-----3-----4-----5-----6
- Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree
9. My coach helps to keep me motivated.
- 1-----2-----3-----4-----5-----6
- Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree
10. My coach provides me with support I need.
- 1-----2-----3-----4-----5-----6
- Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree

Demographics

11. Year in School
1. Freshman
 2. Sophomore
 3. Junior
 4. Senior
 5. 5th Year
 6. Graduate Student
 7. Former Student-Athlete
12. GPA
1. 3.5 or above
 2. 3.0-3.4
 3. 2.5-2.9
 4. 2.0-2.4
 5. 1.5-1.9
 6. 1.4 or below
13. Sex
1. Male
 2. Female

14. Race/Ethnicity

1. American Indian/Alaskan Native
2. Asian American/Asian
3. Black/African American
4. Mexican American/Chicano/Puerto Rican/Latino/Hispanic
5. Native Hawaiian/Pacific Islander
6. White/Caucasian
7. Other (Please Specify)

15. Sport

1. Baseball
2. Men's Basketball
3. Women's Basketball
4. Men's Cross Country/Track and Field
5. Women's Cross Country/Track and Field
6. Women's Field Hockey
7. Football
8. Men's Golf
9. Women's Golf
10. Men's Lacrosse
11. Women's Lacrosse
12. Women's Rowing
13. Men's Skiing
14. Women's Skiing
15. Men's Soccer
16. Women's Soccer
17. Softball
18. Men's Swimming and Diving
19. Women's Swimming and Diving
20. Men's Tennis
21. Women's Tennis
22. Volleyball
23. Wrestling

Additional Items

16. Rate your identity as a student and/or athlete.

1-----2-----3-----4-----5-----6-----7

Student

Athlete

APPENDIX B

Dear Student-Athlete,

My name is Mikaela Raddatz and I am a doctoral student at the University of Kentucky. I am conducting research about the academic support of Division I head coaches and I would like to request your help in this endeavor by participating in a voluntary survey. The purpose of this survey is to measure your perception of the academic support provided by your head coach.

You were selected to be a participant in this study as you are currently or were recently a student-athlete in a Division I program. By doing this survey, you are consenting to participate in this research. There are no known risks to participating in this study, but if at any time during the survey you feel uncomfortable with responding to a particular question you may choose to skip the question or discontinue the survey altogether. **The survey should take approximately 2-4 minutes to complete.**

Your responses to the survey will be kept completely confidential to the extent allowed by law. When the researcher writes about the study, you will not be personally identified in any way. Your name will never be used as it will turn into an identification code using only numbers and your responses will be entered into a dataset and coded. This data set will be saved as a password protected file on an encrypted data storage device that will be kept under lock and key.

If you have questions about the study, please feel free to contact me directly. My contact information is provided below. If you have questions about your rights as a research volunteer, please contact the University of Kentucky Office of Research Integrity at 859-257-9428. You may contact my faculty advisor, Dr. Kelly Bradley (kdbrad2@uky.edu) with questions as well.

Thank you in advance for your assistance with this important project. To ensure that your valuable responses will be included, please complete the survey by **Tuesday, August 27, 2013.**

Click this link to access the survey:

<http://www.surveymonkey.com/s/5H8RGQW>

Sincerely,

Mikaela M. Raddatz
University of Kentucky
952-240-3420
mikaelaraddatz@hotmail.com

APPENDIX C

Academic Support of Head Coaches Survey

1. My coach clearly communicates his/her expectations.

1-----2-----3-----4
Strongly Disagree Agree Strongly
Disagree Agree

2. My coach appreciates my efforts.

1-----2-----3-----4
Strongly Disagree Agree Strongly
Disagree Agree

3. My coach is supportive of my goals and values.

1-----2-----3-----4
Strongly Disagree Agree Strongly
Disagree Agree

4. My coach takes my best interests into account.

1-----2-----3-----4
Strongly Disagree Agree Strongly
Disagree Agree

5. Help is available from my coach when I need it.

1-----2-----3-----4
Strongly Disagree Agree Strongly
Disagree Agree

6. My coach cares about my well-being.

1-----2-----3-----4
Strongly Disagree Agree Strongly
Disagree Agree

7. If I did the best job possible, my coach would be sure to notice.

1-----2-----3-----4
Strongly Disagree Agree Strongly
Disagree Agree

8. My coach takes pride in my accomplishments.

1-----2-----3-----4
Strongly Disagree Agree Strongly
Disagree Agree

9. My coach helps to keep me motivated.

1-----2-----3-----4
Strongly Disagree Agree Strongly
Disagree Agree

10. My coach provides me with support I need.

1-----2-----3-----4
Strongly Disagree Agree Strongly
Disagree Agree

Demographics

11. Year in School

1. Freshman
2. Sophomore
3. Junior
4. Senior
5. 5th Year
6. Graduate Student
7. Former Student-Athlete

12. GPA

1. 3.5 or above
2. 3.0-3.4
3. 2.5-2.9
4. 2.0-2.4
5. 1.5-1.9
6. 1.4 or below

13. Sex

1. Male
2. Female

14. Race/Ethnicity

1. American Indian/Alaskan Native
2. Asian American/Asian
3. Black/African American
4. Mexican American/Chicano/Puerto Rican/Latino/Hispanic
5. Native Hawaiian/Pacific Islander
6. White/Caucasian
7. Other (Please Specify)

15. Sport

1. Baseball
2. Men's Basketball
3. Women's Basketball
4. Men's Cross Country/Track and Field
5. Women's Cross Country/Track and Field
6. Women's Field Hockey
7. Football
8. Men's Golf
9. Women's Golf
10. Men's Lacrosse
11. Women's Lacrosse
12. Women's Rowing
13. Men's Skiing
14. Women's Skiing
15. Men's Soccer
16. Women's Soccer
17. Softball
18. Men's Swimming and Diving
19. Women's Swimming and Diving
20. Men's Tennis
21. Women's Tennis
22. Volleyball
23. Wrestling

16. Rate your identity as a student and/or athlete.

1-----2-----3-----4-----5-----6-----7
Student Athlete

APPENDIX D



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EXEMPTION CERTIFICATION

MEMO: Mikaela Raddatz
158 Louie Place Unit 2207
Lexington, KY 40511
PI phone #: (952)240-3420

FROM: Institutional Review Board
c/o Office of Research Integrity

SUBJECT: Exemption Certification for Protocol No. 13-0450-X4B

DATE: July 23, 2013

On July 16, 2013, it was determined that your project entitled, *Academic Support of Division I Head Coaches: Perceptions of Student-*, meets federal criteria to qualify as an exempt study.

Because the study has been certified as exempt, you will not be required to complete continuation or final review reports. However, it is your responsibility to notify the IRB prior to making any changes to the study. Please note that changes made to an exempt protocol may disqualify it from exempt status and may require an expedited or full review.

The Office of Research Integrity will hold your exemption application for six years. Before the end of the sixth year, you will be notified that your file will be closed and the application destroyed. If your project is still ongoing, you will need to contact the Office of Research Integrity upon receipt of that letter and follow the instructions for completing a new exemption application. It is, therefore, important that you keep your address current with the Office of Research Integrity.

For information describing investigator responsibilities after obtaining IRB approval, download and read the document "PI Guidance to Responsibilities, Qualifications, Records and Documentation of Human Subjects Research" from the Office of Research Integrity's Guidance and Policy Documents web page [<http://www.research.uky.edu/ori/human/guidance/html#PIresp>]. Additional information regarding IRB review, federal regulations, and institutional policies may be found through ORI's web site [<http://www.research.uky.edu/ori/>]. If you have questions, need additional information, or would like a paper copy of the above mentioned document, contact the Office of Research Integrity at (859) 257-9428.

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VITA

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- 2010 M.A. Xavier University, Cincinnati, OH
Industrial/Organizational Psychology
- 2007 B.A. University of Colorado, Boulder, CO
Psychology, Sociology

Professional Positions Held

- Psychometrician, American Board of Physical Medicine and Rehabilitation:
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- O'Neill, T. R., **Raddatz**, M. M., & Royal, K. D. (2011). Demonstrating the construct stability of a translated exam for family medicine residents. *The International Journal of Psychological and Educational Assessment*, 6(2), 31-41.
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- Raddatz**, M. M., Royal, K. D., & Pennington, J. (2012). Evaluating the systematic validity of a medical subspecialty examination. Paper presented at the annual meeting of the Mid-Western Educational Research Association: Evanston, IL.
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Professional Organizations

American Educational Research Association, 2009-present
National Council for Measurement in Education, 2009-present
Midwestern Educational Research Association, 2009-present

Mikaela Marie Raddatz
Student's Signature

November 25, 2013
Date