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ACADEMIC AND ATHLETIC MOTIVATION: PREDICTORS OF ACADEMIC  
PERFORMANCE OF COLLEGE STUDENT-ATHLETES  
AT A DIVISION III UNIVERSITY

by  
Kathleen L. Grillo

A Thesis

Submitted in partial fulfillment of the requirements of the  
Master of Arts in Higher Education Administration  
of  
The Graduate School  
at  
Rowan University  
May 3, 2011

Thesis Chair: Burton R. Sisco, Ed.D.

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## ABSTRACT

Kathleen L. Grillo

ACADEMIC AND ATHLETIC MOTIVATION: PREDICTORS OF ACADEMIC  
PERFORMANCE OF COLLEGE STUDENT-ATHLETES AT A DIVISION III  
UNIVERSITY

2010/2011

Burton R. Sisco, Ed.D.

Master of Arts in Higher Education: Administration

The purpose of this study was to determine the extent to which academic and athletic motivation can predict the academic performance of student-athletes at a Division III university. An additional purpose of this study was to explore the relationship between academic and athletic motivation in Division III student-athletes, as well as the motivational patterns across academic motivation, student athletic motivation, and career athletic motivation. Student-athletes at Rowan University, Glassboro, NJ were surveyed in order to obtain this data during the 2010-2011 academic year. Data were collected by means of a survey using 30 Likert-style items using a 6-point rating scale. Overall, participants indicated a proportionate balance of levels of motivation across the three motivation subscales. The data analysis also suggest that the correlation between academic and student athletic motivation and academic performance as measured by college GPA is statistically low. Additionally, there was a great deal of statistical significance in regards to academic and student athletic motivation. Overall, student-athletes are transferring their confidence and effort in the athletic domain to the academic domain.

## ACKNOWLEDGMENTS

This work is dedicated to my family, who has been nothing but supportive and motivational throughout this year long endeavor. Thank you for always finding ways to calm me down during my fits of frustration and for your endless words of wisdom. Without you, I would not have made it out of graduate school alive. Thank you from the bottom of my heart.

Bt, my soon-to-be husband, deserves a special note. Bt has been my sounding board throughout this entire process and has been nothing but supportive and encouraging, despite my working tirelessly through our precious weekends together. You are the world's greatest "table formatter." I would probably still be sitting at the dining room table formatting my tables if it were not for your help. There are no words to describe how amazing you have been, so I'll just leave it at that. I love you.

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## CHAPTER I

### Introduction

#### Statement of the Problem

When things are going right, there is nobody more popular on campus than the student-athlete – the talented athlete who comes up clutch in close games and the gifted student who can step into the classroom and hold his or her own against students with fewer extracurricular commitments. Although many student-athletes manage to expertly navigate life on and off the field, others struggle with the grueling challenge of being a student-athlete. The life of a college athlete is more structured than it used to be and many now come in several varieties (Holsendolph, 2006). Additionally, the academic expectations are challenging and require a concentrated effort just to maintain the minimum academic eligibility, and the time and energy obligations of their sport require student-athletes to make proper use of time management and study skills. Thus, college athletes, even those with strong academic skills and a developed academic identity, must respond to these heavy demands by making a more dedicated commitment to academics (Simons & Van Rheenen, 2000).

“The strong, independent predictive value of athletic-academic commitment and achievement motivation, so strongly related to academic performance, underscores perhaps the central problem facing student athletes . . .” (Simons & Van Rheenen, 2000, p. 177). Academic and athletic demands are often in conflict; therefore, the problem is

striking the proper balance between these dueling components. As a result, colleges and universities need to be committed to supporting and enhancing the athletic and educational experiences of college student-athletes. However, without an understanding of the factors that contribute to a student-athlete's academic performance, higher education administrators will have difficulty providing services to support and encourage the student-athlete population adequately (Shuman, 2009).

While many research studies emphasize the use of cognitive means to predict academic success among college athletes, other recent studies have begun to focus on the non-cognitive variables in determining academic performance. Student motivation as a non-cognitive variable has long been considered an important factor in predicting potential academic success (Geiger & Cooper, 1995). The finding that student motivation and the relative strength of athletic and academic identities account for a large portion of the variance in grade point average strongly suggests that non-cognitive factors play a critical role in student-athletes' academic performance. It is unlikely academic preparation and family background alone determines college athletes' academic successes and failures (Simons & Van Rheenen, 2000).

#### Purpose of the Study

The purpose of this study was to determine the extent to which academic and athletic motivation can predict the academic performance of student-athletes at a Division III university. An additional purpose of this study was to explore the relationship between academic and athletic motivation in Division III student-athletes. A guiding focus question was do the levels of motivation in the classroom similarly translate to the

athletic playing field? Also, motivational patterns will be explored across the three subscales of academic motivation, student athletic motivation, and career athletic motivation.

### Significance of the Study

The findings of this study may be helpful to athletic program administrators, student affairs professionals, and faculty in assisting student-athletes to be successful both in and out of the classroom. If the support staff can create opportunities for student-athletes to transfer their skills and motivation to the classroom, then student-athletes may increase their chances of academic success (Shuman, 2009).

This research, conducted at a public, Division III institution, will contribute to the review of related literature by examining relationships among non-cognitive variables and academic performance. The results from this study may warrant the implementation of programs and services which incorporate ways to increase academic motivation with the goal of improving academic performance among college athletes. Furthermore, the findings could be helpful in identifying student-athletes who exhibit lower levels of academic motivation (Shuman, 2009).

### Assumptions and Limitations

The scope of this survey was limited to intercollegiate student-athletes at Rowan University in Glassboro, NJ. Only those who returned the survey participated in this study. It was assumed that all student-athletes have previous knowledge of athletic and academic motivation. Findings for this study were limited to the self-reporting survey concerning the relationship between athletic and academic motivation and academic

performance in college student-athletes, in the 2010-2011 academic year. In several instances surveys were incomplete due to respondents not realizing that the survey was double-sided on the first page, despite efforts to make them aware of the layout of the instrument before being distributed. Another potential limitation exists in the form of the truthfulness of responses. The purpose of the survey was to elicit truthful responses from participants in order to accurately draw conclusions regarding the extent to which athletic and academic motivation are predictive in determining academic performance. However, respondents may not have answered each question accurately as they were more concerned with simply completing the survey. It is important to also note that the data collected represent only one institution. The characteristics are very different in size and location as well as traits of the student-athletes than in previous research conducted by Gaston-Gayles (2004) and Shuman (2009) using the *Student Athletes' Motivation toward Sports and Academics Questionnaire* (SAMSAQ). As a result of having the sample taken from a selective, public institution in the Northeast, the ability to generalize to other colleges and universities is limited. Additionally, administering the SAMSAQ at a single point in time does not consider the varying levels of motivation throughout the students' overall college experience (Shuman, 2009). Finally, researcher perspectives may have presented potential bias in the findings.

#### Operational Definition of Important Terms

1. Academic Motivation: A term used to refer to the amount of time and effort applied to the academic domain.

2. Academic Performance: A term used to describe the successes or failures of an individual in a classroom setting. This study measures academic performance based on college grade point average (GPA) after the fall 2010 semester.
3. Athletic Motivation: A term used to refer to the amount of time and effort applied to the athletic domain.
4. Intercollegiate Athletics: A term used to refer to varsity college athletic teams with NCAA membership.
5. NCAA Divisions: The National College Athletic Association (NCAA) is divided into three distinct divisions based on various requirements. These divisions include Division I, Division II, and Division III with further subdivisions within Division I football. This study will focus on student-athletes at a Division III university.
6. Non-Cognitive: “A term used to describe the skills, values, and attitudes that may not be directly associated with intellectual ability” (Shuman, 2009, p. 4).
7. Non-Revenue Sports: Athletic programs that do not bring money to the college or university.
8. Revenue Sports: Typically high profile Division I athletic programs (e.g. football and men’s basketball) that generate money for the institution.
9. Student-Athletes: A term used to describe college students who also participate and are members of a varsity athletic team during the 2010-2011 academic years.

#### Research Questions

This study addressed the following research questions:

1. What are the motivational patterns among the three subscales (academic motivation, student athletic motivation, and career athletic motivation) identified on the SAMSAQ survey?
2. Is there a significant relationship between academic and athletic motivation and academic performance in college student-athletes as measured by grade point average (GPA)?
3. Is there a significant relationship between academic and athletic motivation in college student athletes at a Division III university?

#### Overview of the Study

Chapter II provides a review of scholarly literature relevant to this study. This section includes a brief history of the NCAA organizational structure and the impact of athletics on higher education, in addition to a review of motivation as a non-cognitive variable for predicting academic performance. Furthermore, integrating athletics and academics and the areas in which athletic program administrators, student affairs professionals, faculty and coaches can help cultivate a successful student-athlete are also addressed in this section.

Chapter III describes the study methodology and procedures. The following particulars are included in this description: the context of the study, the population and sample selection, the data collection instruments, the data collection process, and an analysis of the data.

Chapter IV presents the findings of this study. The purpose of this chapter is to address the research questions posed in the introduction of the study.

Narrative and statistical analysis are used to summarize the data in this section.

Chapter V summarizes and discusses the major findings of the study, with conclusions and recommendations for further practice and research.

## CHAPTER II

### Review of Related Literature

#### Introduction to the Literature Review

Because this thesis focuses on Rowan University's student-athlete population, it is important to first understand the literature on academic and athletic motivation among college athletes as predictors of academic performance. Research on this topic has focused primarily on cognitive variables such as examining high school grade point average, class rank, standardized test scores, and parental education; however, current research has begun to study the non-cognitive variables that influence academic performance, specifically motivation. Thus, efforts to measure and predict the academic performance of college student-athletes through non-cognitive means, provides the conceptual framework for this research study. This chapter begins with a brief overview of the NCAA organization structure and the impact of athletics on higher education and how it has shaped society's perceptions of athletic achievement versus academic performance. Next, the chapter examines student motivation, the research on integrating athletics and academics, and the ways in which higher education administrators can cultivate a successful student-athlete. Finally, the chapter concludes with a brief summary of the literature review.

#### Brief History of the NCAA Organizational Structure

The National Collegiate Athletic Association (NCAA) is the dominant



organizational force in intercollegiate athletics as all colleges and universities which operate competitive intercollegiate athletic programs are members of this voluntary association (Koch & Leonard, 1978). Within the NCAA are three legislative divisions which were established in 1973: Division I, Division II, and Division III. Five years later, Division I football was further broken down into smaller subdivisions, I-A and I-AA. The most notable of these divisions is Division I membership which consists of schools operating big-time football and/or basketball programs. Although the NCAA is a powerful entity, its organizational structure and diverse membership pose major problems since it is difficult to unite in common interest upon any subject with so many members with such diverse interests (Koch & Leonard, 1978). The internal divisions within the NCAA go beyond the material interests of large and small schools as they encompass different symbolic orientations to the institution's role in society and to the purpose of athletics in the institution (Baxter & Lambert, 1990). It is important to understand the division structure within the NCAA in order to have a better sense of the athletic demands and the type of student-athlete that is often characteristic of each division. However, despite the apparent differences among the divisions and the lack of consensus achieved on any topic, the needs of their student-athletes transcend all divisions as do the problems that typically face most college athletes.

#### Impact of Athletics on Higher Education

A strong case can be made that the United States has lost sight of the role of athletics in society. Although much of what transpires in college athletics is positive, people tend to glorify athletic success far more than achievement in the classroom.

Furthermore, higher education practitioners have largely been responsible for allowing this glorification to evolve in this direction (Gerdy, 2002). It is evident that athletics reform is no longer about addressing the traditional concerns of student-athlete welfare, academic integrity, and presidential control but ensuring that as a society we reinforce the values of honesty, intelligence, and civility over athletic prowess.

Moreover, academic performance of college athletes continues to receive a great deal of attention in the literature and media. Despite the academic support services and resources that are strongly encouraged and provided to student-athletes, not all groups of athletes are graduating at the national rate (Gaston-Gayles, 2004). Poor graduation rates and academic performance among college athletes warrant investigation that goes beyond examining high school grade point average and standardized test scores on college GPA and graduation rates (Gaston-Gayles, 2004). The rationale for these eligibility standards is the assumption that standardized tests and high school GPA are reliable predictors of academic achievement (Simons & Van Rhee, 2000); however, it is also important to look more closely at the invisible variables, such as motivation to succeed in college, which may be a contributing factor to a college athlete's academic performance.

In order to establish a more balanced perspective regarding the proper relationship between sports and education and the connection between athletic and academic motivation, the higher education community will have to initiate the process (Gerdy, 2002). The issue is and will always be balance. Gerdy (2002) states, "Somewhere along the line, our cultural consensus regarding the importance of athletic performance versus intellectual achievement became grotesquely distorted. And the societal consequences of

our loss of perspective are becoming too great” (p. 36). History informs us that achieving change will not be easy, nor will it be a quick process as college athletics is an enormous and powerful enterprise that has altered the landscape of American higher education as well as that of the wider society (Gerdy, 2002). Even if we acknowledge that there are several other aspects within which a student-athlete must also live successfully, the contexts of academic and athletic pursuits are particularly complex and fascinating because they link together two different sets of motivations and perceptions to create a major part of the experiences of the student-athlete (Woodruff & Schallert, 2008).

### Motivation

The challenges to student-athletes’ athletic and academic pursuits perhaps allow for some interesting insights into motivational processes (Woodruff & Schallert, 2008). Motivation signifies an individual’s choice of and effort applied toward a given task or assignment. For example, student-athletes choose both to participate in their sport and pursue a college education, yet the amount of effort or intensity they apply to each domain may vary significantly. Related to this, those who are highly motivated and driven to approach success often exert a great deal of time and energy toward the successful completion of a chosen task (Gaston-Gayles, 2005). Individuals not only have different amounts, but also different kinds of motivation as well as varying levels of motivation (Ryan & Deci, 2000). In describing the motivational lives of student-athletes, I found Deci’s (1980) theory of self-determination to be most aligned with motivation (Woodruff & Schallert, 2008).

Clearly the strongest sense of self-determination is associated with the intrinsic motivational subsystem. People choose how to act and manage their motives, and their self-determination leads them to activities that they can master. On the other hand, the extrinsic motivational subsystem often tends to be associated with a lesser degree of self-determination as people operating out of this subsystem exhibit behaviors that are controlled by the environment and non-conscious motives (Deci, 1980). The most basic distinction between intrinsic and extrinsic motivation is doing something because it is inherently interesting or enjoyable (intrinsic) versus doing something because it leads to a separable outcome (extrinsic; Ryan & Deci, 2000).

Related to Deci's (1980) theory of self-determination as a form of motivation is Astin's (1999) theory of student involvement. According to Astin's (1999) theory of student involvement, "The involvement concept also resembles closely what the learning theorists have traditionally referred to as vigilance or time-on-task. The concept of *effort*, although much narrower, has much in common with the concept of involvement" (Astin, 1999, p. 518). Astin (1999) emphasized that involvement implies a behavioral component consisting of what the individual does and how he or she behaves in addition to personal motivation. As mentioned previously, motivation exists in varying levels and degrees depending on the amount an individual devotes to a specific task. In comparison, involvement refers to the investment of physical and psychological energy in either generalized or highly specific objects. Involvement occurs along a continuum; that is, different students manifest varying degrees of involvement in a given task, and the same student manifests varying degrees of involvement in different tasks at different times

(Astin, 1999). As a result, the amount of learning and personal development associated with any task or object is directly proportional to the amount of time and energy spent.

Although there are many forms of involvement, typically a highly involved student would devote much of his/her time to studying, socializing around campus with other students and faculty, and participating actively in clubs and organizations. Equally, an uninvolved student would spend little to moderate energy on devoting his/herself to the different facets of the college experience (Astin, 1999). Astin (1999) suggested that the most precious institutional resource may be student time because according to the theory, developmental goal achievement is related to the amount of time and effort that a student puts forth toward activities designed to produce these gains. Moreover, Astin (1999) noted that not only does a student's investment in family, friends, job, and other outside activities reduce the time and energy spent on their academic experience, but also institutional policies can affect the amount of effort a student devotes to academic pursuits. The theory of student involvement encourages educators to focus on how motivated the student is and how much time and energy the student devotes to the learning process. Thus, the construct of student involvement in certain respects resembles motivation and/or self-determination (Astin, 1999).

Examining Vroom's (1964) Expectancy Theory of Motivation can also help researchers measure and predict academic performance in college student-athletes. Vroom explained performance among workers performing the same task based on two different assumptions, ability and motivation. The second of these assumptions as described by Vroom is that the performance of an individual is to be understood in terms

of his/her motives; therefore, the more motivated the worker to perform effectively, the more effective his/her performance (Vroom, 1964). Vroom's (1964) model concluded that,

If the person desires to be successful...the amount of effort which he expends in a task should be directly related to the amount of difference between the strength of his expectancies that higher and lower amounts of effort will be followed by success. (p. 251)

To relate Vroom's theory back to motivation and performance of student-athletes, student-athletes can determine the value of a reward, such as obtaining a college degree, and then make a decision about whether to tackle the task depending on their apparent skills and the efforts needed to fulfill that task. Some student-athletes will be motivated academically because they believe they are capable of accomplishing their educational goals and are aware of the value of earning a college degree. However, other college athletes will express higher levels of motivation toward athletics. They are confident in their abilities to excel in the athletic domain and are motivated to pursue a task based on the perceived value. Conversely, college athletes who do not believe in their academic abilities, or who do not see the value and significance of completing a college degree may not be motivated to be academically successful, thus limiting their efforts in the classroom (Shuman, 2009). In sum, if we assume that people typically expect increased motivation to increase their level of performance, it follows the hypothesis that increases in the valence of effective performance will increase the level of effective performance (Vroom, 1964).

Woodruff and Schallert (2008) examined the motivational and self-processes that student-athletes experience in negotiating who they are and what motivates them in the domains of athletics and academics. Every student discussed working hard and putting in effort towards their athletic and academic pursuits in college, but they made different types of attributions for their success in each domain. Essentially, the combination of these different attributions undoubtedly related to both their academic and athletic motivation and sense of self (Woodruff & Schallert, 2008). The results of their analysis concluded that motivation and identity issues mutually influence each other and are inseparable. The idea of *sense of self* relates back to Deci's (1980) theory of self-determination as there is a critical distinction between behaviors that emanate from one's self of self and those that are accompanied by the experience of pressure and control and are not representative of one's self (Ryan & Deci, 2000). Ryan and Deci (2000) noted,

Intrinsically motivated behaviors, which are performed out of interest and satisfy the innate psychological needs for competence and autonomy, are the prototype of self-determined behavior. Extrinsically motivated behaviors—those that are executed because they are instrumental to some separable consequence—can vary in the extent to which they represent self-determination. (p. 65)

In a second study conducted by Shuman (2009) which examined athletic, academic, and career motivation as predictors of academic performance at a Division I institution, it was found that academic motivation improves the prediction of GPA over and above SAT scores and other familial background variables. Overall, student-athletes at this university who believed it was important to do well in their studies and were

interested in learning often had a higher GPA than those who were not as engaged or interested in being successful in the classroom. In other words, students who exhibited higher levels of academic motivation performed better academically than students who showed lower levels of academic motivation (Shuman, 2009). Shuman used the *Student Athletes' Motivation toward Sports and Academics Questionnaire (SAMSAQ)* to survey 275 student-athletes from 9 varsity sports teams at a Division I university in the Southeast which was originally developed and used in a study conducted by Gaston-Gayles (2004). Gaston-Gayles (2004) investigated the relationship between athletic and academic motivation as a key variable in predicting academic performance in a sample of 211 student-athletes at a Division I institution in the Midwest. However, she further explored whether differences existed as a result of gender or whether the sport had a professional counterpart in the U.S. (Shuman, 2009). The most interesting result from her study was the significance of academic motivation in determining future academic success. She concluded that a students' level of academic motivation does play a role in determining how successful one will be in the classroom. On the other hand, athletic motivation as well as career athletic motivation was found to be insignificant (Gaston-Gayles, 2004).

Although the findings of both Shuman and Gaston-Gayles concluded that academic motivation was predictive in determining one's academic success, they are contrary to earlier studies. According to Sellers (1992) who conducted a study regarding race differences in the predictors of college grade point average for student-athletes participating in revenue generating sports, academic motivation does not predict academic performance among college athletes. Sellers' findings suggested that cognitive



background variables such as high school GPA, parent's education level, and SAT/ACT scores are more influential on college academic performance between black and white student-athletes. However, the gap found between their grade point averages cannot be attributed to deficiencies in motivation or effort as black student-athletes stated the same level of importance for getting a degree and spent no less amount of time studying than their white counterparts (Sellers, 1992). As stated by Sellers (1992), "deficiency in preparation does not necessarily mean a deficiency in motivation or effort" (p. 54). These findings further complicate the literature about what factors are in fact predictive of academic performance, as well as the usefulness of academic motivation in determining academic performance.

Furthermore, it is important for readers to understand that universities place a heavy burden on student-athletes since they are required to be both successful in the classroom as well as in the athletic domain. They must meet the same academic requirements as other students with only minimal accommodations while devoting much of their time to their sport (Simons, Bosworth, Fujita, & Jensen, 2007). While it typically seems that student-athletes have more responsibilities than they can handle, many still succeed (Shuman, 2009). In fact, it would seem that student-athletes *should* be academically successful if the characteristics associated with athletic success such as hard work, self-discipline, determination, and concentration, transitioned to the academic domain (Simons, Van Rheenen, & Covington, 1999).

A less recognized obstacle faced by many college athletes is the negative perceptions of faculty and peers about their academic ability and motivation to succeed.

The perception is that student-athletes do little work and are advised to take easy courses in order to remain academically eligible to compete (Simons et al., 2007). As a result, one common negative coping mechanism in response to the athlete stigmatization is for student-athletes to believe at some level that they lack the intellectual ability to succeed academically. Self-handicapping behaviors such as poor attendance or disengagement in class are common indicators for when an athlete has surrendered to the athlete stereotype (Simons et al., 2007). On the other hand, others may have the reverse effect in response to being stigmatized. They may reject the stereotype by working hard to obtain good grades, engage in class discussions, and show interest and motivation to be successful (Simons et al., 2007). Essentially, they push themselves to be academically successful in an attempt to disprove the non-believers.

Overall, student aspirations or motivation to achieve in college can be seen as a non-cognitive dimension of academic performance. If such aspirations can be viewed as a strong desire for achievement, then it follows that individuals can reach greatness through enhanced desire. Desire may be the key missing link for marginal performers (Allen, 1999).

#### Integrating Athletics and Academics

The strained relationship between the athletic participation and academic performance of college athletes has become a much discussed topic of concern as the literature has often been inconsistent in its findings (Adler & Adler, 1985). Some studies have concluded that college athletes fare better academically in college than their non-athlete counterparts due to the additional advising and support services they receive. On

the other hand, most studies have found a negative relationship between the dueling components of a student-athlete's college experience, as student-athletes enter college unmotivated to perform well in the classroom yet overly eager and willing to advance their athletic careers. The historically problematic relationship between athletics and academics is the case because the belief that sports is anti-intellectual encompasses academic culture. The "dumb jock" stereotype, combined with the intrinsic and extrinsic satisfaction student-athletes receive for their athletic participation, makes it easier for many student-athletes to place athletics above academics (Simons & Rheenen, 2000).

It is important to remember that student-athletes are extraordinarily passionate and driven when it comes to their sports, and that is why they have chosen, in many cases, to attend a particular institution (Hamilton, 2004). According to the summary of the findings from the 2010 GOALS and SCORE Studies of the Student-Athlete Experience, a study of approximately 20,000 current student-athletes (GOALS) and over 7,000 former student-athletes who entered college in 1996 (SCORE), the majority of the sport groups studies reported that athletics participation was the most-often reported reason for choosing a college. However, Division III student-athletes generally reported academics and athletics as equally important factors in college choice (National Collegiate Athletic Association Athletic Research Committee, 2011). Because of this reason, college athletes must consistently integrate personal athletic passion with the goals of learning in a higher education culture. Being a successful student and athlete requires the same set of skills and abilities. It demands discipline and focus, and it requires goals and meeting those goals in addition to being able to face adversity and

meeting challenges aggressively and with integrity (Hamilton, 2004). Successful student-athletes have found ways to transition the confidence and skills they possess on the athletic field to their studies and degree progress. Dr. Ruth Darling, president of the National Academic Advising Association and member of the National Collegiate Athletic Association (NCAA) academic, eligibility, and compliance cabinet on issues concerning U.S. college athletics asserts,

I keep trying to tie it back to what they have to do to be successful as an athlete and successful in life. You can't have someone lift your weights for you. You can't have someone else go in and memorize the playbook for you. You've got to go to class and fulfill your responsibilities as a student-athlete with integrity and pride. The bottom line is that connection: If you're not a student, you can't be a student-athlete. (Hamilton, 2004, p. 31)

The NCAA has also taken significant strides in the integration of sport and education with the establishment of a new set of initiatives that were implemented starting with the fall 2003 freshman class. At the end of every year there are benchmarks that students must meet in satisfying academic progression requirements, and these requirements are much more rigorous than they had been in the past and will certainly present challenges to all involved in collegiate athletics (Hamilton, 2004). This academic reform package seeks to improve the academic performance of college students by making campuses responsible for the academic progress of their student-athletes. In other words, if institutions cannot maintain high academic performance across their athletic teams, as measured by GPA, retention, and graduation rates, they are penalized

through scholarship restrictions and less recruiting opportunities (National Collegiate Athletic Association, 2010). More importantly, this academic initiative is an attempt to change the culture of college athletics and the mindsets of those who play a major role in the lives of student-athletes. On the other hand, these negative consequences do not necessarily motivate individual student-athletes toward academic success (Shuman, 2009).

#### Cultivating a Successful Student-Athlete

Student-athletes face an additional set of complex demands, stresses, and challenges arising from their involvement in a competitive sport, unlike other college students (Broughton & Neyer, 2001), but at many institutions, advising college student-athletes focuses on only maintaining academic eligibility and graduation rates rather than on enhancing the academic, personal, and athletic development of the student-athlete. However, this concentration on academic eligibility and retention does not sufficiently meet the needs of the student-athletes (Broughton & Neyer, 2001). There are numerous ways higher education administrators and advisors can help student-athletes increase their level of academic motivation. Motivated students are willing to go above and beyond to be successful in a given task domain; therefore, it is important to find ways for student-athletes to transfer their energy and skills on the athletic field to academic related tasks and out-of class learning experiences. Encouraging student-athletes to become engaged in the academic domain results in stimulating the creation of a balance between academics and athletics. On the other hand, some student-athletes already exhibit high academic aspirations, yet they lack academic self-confidence in their ability to be

successful in academic related tasks (Gaston-Gayles, 2005). Gaston-Gayles (2005) believes, “Lack of confidence in academic ability can deter even the most motivated student from approaching success” (p. 325). As such, support staff can help student-athletes increase their confidence by making better use of their time, specifically how much time they devote to academics.

Furthermore, faculty can also play a significant role in the academic reform of college athletes. Because of the amount of interaction and time that faculty spends with their students and the impact that they have on their success or failure in the classroom, they can no longer afford to ignore the presence of intercollegiate athletics (Krebs, 2004). Most student-athletes fly under the radar since most faculty members never realize they are athletes from the moment they first step foot into their classrooms; therefore, that opportunity to integrate both sides of their lives, athletics and academics, never presents itself. It is important for student-athletes to be proactive in addressing their athletic commitment to faculty just as it is equally important for faculty to be proactive in how they approach and breakdown the divide between the two sides of campus (Krebs, 2004).

Student-athletes, even in Division III, are under a great deal of pressure to make athletics a priority (Krebs, 2004). Of course, when playing an intercollegiate sport, student-athletes should be willing to do their best to make that team competitive and successful. The problem is that because students-athletes are taking a heavy course load, four or five classes each semester, their stake in one class is never as high as their stake in their sport. They will sometimes tell themselves that doing poorly in one class is no big deal; however, they forget to realize that one poor grade can have a significant impact on

their GPA and athletic eligibility. Therefore, coaches can go a long way in helping student-athletes get their priorities straight. Coaches are the primary authority figures among their student-athletes. They are a constant presence in their lives such that they spend countless days with them both in-and-out of season (Krebs, 2004).

Similarly, faculty members should establish coach-like bonds with student-athletes, not to compete with hearts and minds, but to acknowledge the students' dual identities and make that work to their academic advantage. It is important for student-athletes to know that they have more than one person in their corner rooting for them to succeed and graduate college. Faculty can be that advocate for student-athletes and show them that their coaches are not the only ones who care. Additionally, faculty members need to work collaboratively with coaches in an effort to keep them abreast of their athletes' progress in the classroom as well as make them aware when issues arise.

Along the same line, student-athletes should be encouraged to take responsibility and ownership for their academic successes and failures. In the same way that athletes analyze game tapes and critique poor performances, they should search for causes for academic failures. Gaston-Gayles (2005) states, "Lack of effort, ineffective studying, and test anxiety should be discussed with students who experience academic failure to avoid reliance on self-disabling excuses and the continued development of poor academic self-concept" (p. 325).

#### Summary of the Literature Review

Student-athletes are a unique population of students such that their athletic commitments and limited time pose a threat to their success or failure in the academic

domain. However, previous literature shows that student-athletes have the capability of being just as successful in the classroom as their non-athlete peers, but somewhere along the way their confidence and academic motivation has severely deteriorated. As a result, their lack of effort and energy has negatively affected their performance in the classroom as well as their progress toward degree completion. The most common predictors of academic performance include high school GPA, class rank, standardized test scores, and parental education, but student motivation may be the non-cognitive variable that also greatly impacts how athletes approach the learning experience and what they get out of it. It is essential that academic mentors and other support staff work closely with student-athletes in terms of integrating both sides of their lives in addition to practicing methods that will assist them in developing confident attitudes in the classroom in the same way they learn to feel confident about their skills in their sport. The ability to transfer skills from the athletic field to the academic domain can make a significant difference in how student-athletes approach academics (Gaston-Gayles, 2004). Therefore, it is important that higher education practitioners continue to study the relationship between academic and athletic motivation and academic performance in college student-athletes, in addition to assessing the degree to which college athletes transfer their levels of motivation in the academic domain to the athletic domain.



## CHAPTER III

### Methodology

#### Context of the Study

The study was conducted at Rowan University, in Glassboro, NJ. The university is a selective, medium-sized public institution located in southern New Jersey between Philadelphia and Atlantic City. Rowan consists of approximately 11,000 undergraduate and graduate students from the Mid-Atlantic States and foreign countries. Additionally, there is 402 faculty and 860 full and permanent part-time administrative staff employed at Rowan. Rowan consists of eight colleges including: Business, Communication, Education, Engineering, Fine & Performing Arts, Liberal Arts & Sciences, Graduate & Continuing Education, and Medicine (being developed), all of which make up the academic framework of the university. Furthermore, admission statistics consist of an average high school class rank of top 20% and an average SAT I total of 1,173 (571 in Critical Reading and 602 in Mathematics). The degrees awarded in 2009 included 2,047 undergraduate degrees and 329 graduate degrees (“Rowan Fast Facts,” 2010-2011). The Rowan University Department of Athletics consists of eight men’s and 10 women’s NCAA Division III varsity sports who have compiled a total of 11 national championships in five different sports (“Rowan Fast Facts,” 2010-2011). Although other students could be categorized as student-athletes due to their participation in club and/or

intramural sports, this study only focuses on the student-athletes who are members of Rowan's intercollegiate, varsity athletic teams with NCAA Division III membership.

#### Population and Sample Selection

The target population for this study was New Jersey college student-athletes during the 2010-2011 academic years. The available population was all intercollegiate student-athletes at Rowan University, approximately 425 non-duplicated individuals, in Glassboro, NJ, Gloucester County. The 11 varsity sports teams include the following: football, basketball, swimming & diving, track & field, cross country, field hockey, soccer, lacrosse, volleyball, softball, and baseball. All team members from the 11 varsity sports were asked to participate in the study. Their involvement was voluntary.

#### Instrumentation

The survey instrument, *Student Athletes' Motivation toward Sports and Academics Questionnaire* (SAMSAQ; Gaston-Gayles, 2004) was used to assess levels of athletic and academic motivation. For this study, approximately 425 Rowan student-athletes were solicited to participate in a 30-item survey. The instrument used was developed by Gaston-Gayles (2004) and used in a study examining the relationship between athletic and academic motivation and academic performance at a Division I university. The survey was not changed or altered in any way as the instrument fits the objectives of the research questions. A copy of the SAMSAQ is included in Appendix A. Additionally, an email (Appendix B) confirming approval to use the SAMSAQ in this research was obtained from Dr. Joy Gayles.

The 30-item instrument which was constructed using an expectancy-value theoretical framework, measures responses on a 6-point Likert-type scale. The scale ranges from 1 (*very strongly disagree*) to 6 (*very strongly agree*) and includes three subscales, academic motivation (AM) (8 items), student athletic motivation (SAM) (16 items), and career athletic motivation (CAM) (5 items). The function of the subscales is to assess the extent to which student-athletes are motivated toward related tasks. For example, an item on the AM subscale is, “I am confident that I can achieve a high GPA this year (3.0 or above)” (Gaston-Gayles, 2004, p. 78). An example of an item on the SAM subscale is, “Achieving a high level of performance in my sport is an important goal for me this year” (Gaston-Gayles, 2004, p. 78). Finally, the CAM subscale measures how motivated student-athletes are toward pursuing a professional career in athletics. An example of this item is, “My goal is to make it to the professional level or Olympics in my sport” (Gaston-Gayles, 2004, pp. 78-79). Although this research focuses on athletic and academic motivation, career athletic motivation may add another unique dimension to this study such that it may help researchers to better understand the overall athletic and academic experiences of college athletes (Gaston-Gayles, 2005). Scores for each subscale were obtained by summing the responses for each subscale and then calculating the mean score. Essentially, a higher score correlates to a higher degree of motivation. Examining the mean scores for each motivation subscale gives the reader an illustration of how balanced or unbalanced student-athletes are in reference to their levels of academic and athletic motivation (Gaston-Gayles, 2005).

Additionally, Cronbach's alpha coefficients were computed by Gaston-Gayles to measure the internal consistency of the items on each subscale to determine whether the instrument was acceptable as well as reliable (Gaston-Gayles, 2005). The alpha values for each subscale were as follows: student athletic motivation subscale (SAM) was .86, career athletic motivation subscale (CAM) was .84, and academic motivation (AM) was .79. Based on the knowledge that alpha coefficients range from 0 to 1 with coefficients closer to 1 indicating a high level of consistency among the items on the scale indicates that the SAMSAQ is a reliable instrument (Shuman, 2009). A Cronbach Alpha was also calculated for this survey and returned coefficients at the following rate for each of the three motivation subscales: AM (.46), SAM (.75), and CAM (.61). Alpha coefficients with a value of .70 and above typically indicate internal consistency or a reliable instrument which is true of the items on the SAM subscale, however not for the items on the AM and CAM scales. Furthermore, Gaston-Gayles (2005) examined the predictive validity of the SAMSAQ and found that Academic Motivation (AM) was a significant predictor of college GPA or academic performance; however, no validity information was provided for student athletic motivation or career athletic motivation. Shuman (2009) also found academic motivation to be a significant predictor in measuring academic performance as measured by college GPA which further enforces the validity of the survey instrument. On the other hand, Shuman, like Gaston-Gayles, did not find athletic motivation or career athletic motivation to be predictive of academic performance. It is important to note that the SAMSAQ is still a relatively new assessment tool.

Following approval from the Institutional Review Board at Rowan University (Appendix C), a pilot test of the survey was conducted. Athletic department staff at Rowan were given the survey in order to test its readability and reaffirm its validity. None of the staff mentioned any problems understanding the survey statements.

#### Data Collection

The student-athletes selected to receive the survey were all student-athletes who are members of a varsity athletic team at Rowan University. The survey (Appendix A) was then administered in January, 2011. A disclaimer was included at the top of the survey stating that participation in the survey was strictly confidential and no identifiable information would be collected. The paper-based survey was distributed to all student-athletes on Sunday, January 30, 2011 at the NCAA Rutgers SCREAM Life Skills Event held in the Chamberlain Student Center Ballroom, a mandatory event for all student-athletes. Permission to distribute the survey was received by the Assistant Athletic Director. All student-athletes were contacted via email by the Assistant Athletic Director and asked to arrive to the event early in order to provide sufficient time to complete the survey accurately. Completed surveys were collected and given to the researcher. A total of 239 surveys were returned from this event. Surveys were then also distributed on February 9, 2011 at strength and conditioning practice for the softball team. A total of 13 surveys were returned from this practice. Furthermore, three more attempts were made to collect survey responses from student-athletes on February 23<sup>rd</sup> (track & field practice), February 25<sup>th</sup> (football senior meeting), and March 2<sup>nd</sup> (athletic training room).

Permission from head coaches and athletic trainers was obtained prior to collecting data from participants. A total of 25 additional surveys were collected from these efforts.

### Data Analysis

The independent variables in this study were the three motivation scores calculated from the SAMSAQ, and the dependent variable of academic performance was cumulative college grade point average (GPA). Cumulative grade point averages were acquired via Banner Self-Service. Although students were not asked to record their current cumulative GPA after the completion of the fall 2010 semester on the survey instrument, an accurate account of all student-athletes who participated in the study was tracked through the use of sign-in sheets at the commencement of the life skills event. Additionally, a follow up email was sent out to all student-athletes asking those who participated in the survey to respond “yes” if they had completed the survey at the January 30<sup>th</sup> Rutgers SCREAM event or at another moment in time. This method of collecting GPA’s ensured the anonymity of each of the participants as there was no way to tie any of the student-athletes to a particular survey. Demographic data were also collected and included in the profile of the population sample. These demographic questions focused on identifying background variables and included parents’ educational levels, gender, race/ethnicity, and year in college. Variations in motivation were explored using Predictive Analytic Software (PASW) Version 18.0. Data were analyzed using frequency tables. Correlations (Pearson product-moment calculations) and descriptive statistics (frequency distribution, percentages, and measures of central

tendency and dispersion) were used to examine the data in regards to the research questions.

## CHAPTER IV

### Findings

#### Profile of the Population/Sample

The subjects for this study were comprised of student-athletes at Rowan University. Surveys were primarily distributed during a mandatory life skills event for all student-athletes. Of the surveys distributed, 245 completed surveys were returned; however, an additional 19 surveys were started but returned incomplete, yielding a return rate of 62%. As shown in Table 4.1, 132 of the surveys were completed by males and 129 from females. Additionally, Table 4.1 shows the number of respondents based on race and ethnicity. Members of the student-athlete population who participated in the survey identified with one of the following race/ethnic groups: White/Caucasian (83.9%), Black/African American (8.4%), Hispanic/Latino (3.4%), Multiracial (1.9%), Other (1.5%), and Asian/Pacific Islander (.8%). Furthermore, the number of respondents based on class standing is also displayed below. Members of the freshman class (29.9%) made up the largest portion of the responses for this survey, although sophomores (26.4%) and juniors (26.1%) were not far behind in terms of percentage. The limited number of surveys from those participants in their fourth (13.8%) and fifth (2.3%) years was not a surprise as many student-athletes with senior standing do not typically attend these mandatory events. Table 4.2 illustrates father and mother's education levels for each participant in order for the reader to get a better sense of some of the background



characteristics of the student-athletes who attend Rowan University. It is also important to mention that the mean cumulative GPA of the survey participants is a 3.04 compared to a 3.01 mean cumulative GPA of all Rowan student-athletes, therefore showing a strong representation of the overall student-athlete population.

Table 4.1

*Demographics: Gender; Race and Ethnicity; Year in College (N=264)*

Gender	<i>f</i>	%
Male	132	50.6
Female	129	49.4
Race/Ethnicity		
White/Caucasian	219	83.9
Black/African American	22	8.4
Hispanic/Latino	9	3.4
Multiracial	5	1.9
Other	4	1.5
Asian/Pacific Islander	2	.8
Year in College		
First	78	29.9
Second	69	26.4
Third	68	26.1
Fourth	36	13.8
Fifth	6	2.3
Other	4	1.5

Table 4.2

*Demographics: Father and Mother's Highest Education Level (N=264)*

Father's Level of Education	<i>f</i>	%
College degree	109	42.1
High school degree	57	22.0
Some college	41	15.8
Advanced graduate degree	25	9.7
Some graduate work	12	4.6
Some high school	9	3.5
Less than high school	6	2.3
Mother's Level of Education		
College degree	97	37.3
High school degree	66	25.4
Some college	46	17.7
Advanced graduate degree	30	11.5
Some graduate work	13	5.0
Less than high school	5	1.9
Some high school	3	1.2

## Analysis of the Data

Research Question 1: What are the motivational patterns among the three subscales (academic motivation, student athletic motivation, and career athletic motivation) identified on the SAMSAQ survey?

Table 4.3 illustrates the number of responses, mean responses, standard deviations, frequencies, and percent values for the survey statements. In some cases, individuals who completed the survey failed to indicate a response to certain questions. Questions without a response were omitted from the data. In addition, the survey items were organized into factor groupings based on the three motivation subscales (AM, SAM, and CAM), as well as one group which includes three statements that were eliminated from the model created by Gaston-Gayles (2005) because of low item-to-total correlation,

low reliability, and low factor loading. These factor groupings will help the reader to identify the various statements included within each subscale and what type of motivation they were created to measure. Also, the survey items included in each group were arranged from highest level of agreement to lowest level of agreement. It is also important to mention that two items on the survey instrument measured both academic motivation as well as student athletic motivation: (a) “I get more satisfaction from earning an “A” in a course toward my major than winning a game in my sport,” and (b) “I get more satisfaction from winning a game in my sport than from getting an “A” in a course toward my major. However, only the latter statement was shown twice in Table 4.3 since AM was reverse coded (range from 6 [high] to 1 [low]) and SAM was not. An overall look at the survey data collected regarding Rowan student-athletes’ levels of motivation in the academic and athletic domains indicate moderate to moderately strong levels of motivation across the three motivation subscales. According to the data analysis, participants demonstrated the highest level of motivation towards athletics ( $M = 4.46$ ); however, similarly strong levels of academic motivation ( $M = 3.94$ ) and career athletic motivation ( $M = 3.33$ ) were present as well. Table 4.4 illustrates the means and standard deviations for the predictor and criterion variables in the study.

Table 4.3

*Student Athletes' Motivation toward Sports and Academics Questionnaire (SAMSAQ)*  
*Very Strongly Disagree (VSD)=1, Strongly Disagree (SD)=2, Disagree (D)=3, Agree (A)=4, Strongly Agree (SA)=5, Very Strongly Agree (VSA)=6*

Statement	VSD		SD		D		A		SA		VSA	
	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>
I am confident that I can earn a college degree. ( <i>n</i> =257, <i>M</i> =5.30, <i>SD</i> =.918) Missing=7	1	.4	1	.4	4	1.6	53	20.6	54	21.0	144	56.0
The most important reason why I am in school is to earn a degree. ( <i>n</i> =261, <i>M</i> =5.06, <i>SD</i> =.957) Missing=3	-	-	1	.4	6	2.3	88	33.7	48	18.4	118	45.2
I chose (or will choose) my major because it is something that I am interested in as a career. ( <i>N</i> =264, <i>M</i> =5.06, <i>SD</i> =1.043) Missing=0	1	.4	6	2.3	9	3.4	62	23.5	67	25.4	119	45.1
I am confident that I can achieve a high grade point average this year (3.0 or above). ( <i>N</i> =264, <i>M</i> =4.94, <i>SD</i> =1.048) Missing=0	2	.8	4	1.5	8	3.0	85	32.2	60	22.7	105	39.8
It is important for me to learn what is taught in my courses. ( <i>n</i> =263, <i>M</i> =4.95, <i>SD</i> =1.010) Missing=1	2	.8	3	1.1	7	2.7	82	31.2	70	26.6	99	37.6
I am willing to put in the time to earn excellent grades in my courses. ( <i>n</i> =263, <i>M</i> =4.96, <i>SD</i> =.942) Missing=1	1	.4	2	.8	3	1.1	91	34.6	70	26.6	96	36.5
I will be able to use what is taught in my courses in different aspects of my life outside of school. ( <i>n</i> =262, <i>M</i> =4.60, <i>SD</i> =.984) Missing=2	-	-	7	2.7	14	5.3	116	44.3	65	24.8	60	22.9

Statement	VSD		SD		D		A		SA		VSA	
	f	%	f	%	f	%	f	%	f	%	f	%
The content of most of my courses is interesting to me. ( <i>n</i> =261, <i>M</i> =4.39, <i>SD</i> =.929) Missing=3	-	-	6	2.3	22	8.4	137	52.5	55	21.1	41	15.7
I get more satisfaction from earning an “A” in a course toward my major than winning a game in my sport. ( <i>n</i> =254, <i>M</i> =3.78, <i>SD</i> =1.231) Missing =10	10	3.9	15	5.9	89	35.0	77	30.3	32	12.6	31	12.2
Earning a high grade point average (3.0 or above) is not an important goal for me this year. ( <i>n</i> =263, <i>M</i> =2.50, <i>SD</i> =1.660) Missing=1	107	40.7	48	18.3	43	16.3	23	8.7	18	6.8	24	9.1
The most important reason why I am in school is to play my sport. ( <i>N</i> =264, <i>M</i> =3.17, <i>SD</i> =1.103) Missing=0	11	4.2	16	6.1	54	20.5	129	48.9	35	13.3	19	7.2
I get more satisfaction from winning a game in my sport than from getting an “A” in a course toward my major. ( <i>n</i> =255, <i>M</i> =3.47, <i>SD</i> =1.232) Missing=9	22	8.6	26	10.2	69	27.1	101	39.6	21	8.2	16	6.3
It is not important for me to perform better than other students in my courses. ( <i>n</i> =257, <i>M</i> =3.31, <i>SD</i> =1.327) Missing=7	29	11.3	35	13.6	80	31.6	69	26.8	28	10.9	16	6.2
I have some doubt about my ability to earn high grades in some of my courses. ( <i>n</i> =257, <i>M</i> =2.99, <i>SD</i> =1.245) Missing=7	37	14.4	49	19.1	82	31.9	67	26.1	13	5.1	9	3.5
It is not worth the effort to earn excellent grades in my courses. ( <i>n</i> =261, <i>M</i> =2.42, <i>SD</i> =1.329) Missing=3	86	33.0	57	21.8	67	25.7	34	13.0	8	3.1	9	3.4

Statement	VSD		SD		D		A		SA		VSA	
	f	%	f	%	f	%	f	%	f	%	f	%
During the years I compete in my sport, completing a college degree is not a goal for me. ( <i>n</i> =257, <i>M</i> =2.19, <i>SD</i> =1.317) Missing=7	112	43.6	42	16.3	67	26.1	21	8.2	7	2.7	8	3.1
Achieving a high level of performance in my sport is an important goal for me this year. ( <i>N</i> =264, <i>M</i> =5.14, <i>SD</i> =.989) Missing=0	2	.8	4	1.5	3	1.1	60	22.7	73	27.7	122	46.2
I am willing to put in the time to be outstanding in my sport. ( <i>n</i> =257, <i>M</i> =4.82, <i>SD</i> =.936) Missing=7	1	.4	1	.4	7	2.7	103	40.1	68	26.5	77	30.0
It is worth the effort to be an exceptional athlete in my sport. ( <i>n</i> =257, <i>M</i> =4.81, <i>SD</i> =.943) Missing=7	1	.4	-	-	11	4.3	100	38.9	68	26.5	77	30.0
It is important to me to learn the skills and strategies taught by my coaches. ( <i>n</i> =263, <i>M</i> =4.72, <i>SD</i> =.967) Missing=1	1	.4	6	2.3	6	2.3	106	40.3	78	29.7	66	25.1
The time I spend engaged in my sport is enjoyable to me. ( <i>n</i> =256, <i>M</i> =4.60, <i>SD</i> =1.005) Missing=8	1	.4	7	2.7	9	3.5	122	47.7	55	21.5	62	24.2
It is important for me to do better than other athletes in my sport. ( <i>n</i> =257, <i>M</i> =4.35, <i>SD</i> =1.051) Missing=7	5	1.9	4	1.6	27	10.5	123	47.9	55	21.4	43	16.7
I get more satisfaction from winning a game in my sport than from getting an "A" in a course toward my major. ( <i>n</i> =255, <i>M</i> =3.53, <i>SD</i> =1.232) Missing=9	16	6.3	21	8.2	100	39.2	70	27.5	26	10.2	22	8.6

Statement	VSD		SD		D		A		SA		VSA	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
I am confident that I can be a star performer on my team this year. ( <i>n</i> =257, <i>M</i> =4.27, <i>SD</i> =.977) Missing=7	2	.8	5	1.9	32	12.5	139	54.1	41	16.0	38	14.8
I chose to play my sport because it is something that I am interested in as a career. ( <i>n</i> =263, <i>M</i> =3.60, <i>SD</i> =1.209) Missing=1	17	6.5	17	6.5	92	35.0	85	32.3	32	12.2	20	7.6
I am confident that I can make it to an elite level in my sport (Professional/Olympics). ( <i>n</i> =257, <i>M</i> =2.97, <i>SD</i> =1.343) Missing=7	49	19.1	38	14.8	79	30.7	67	26.1	11	4.3	13	5.1
My goal is to make it to the professional level or the Olympics in my sport. ( <i>n</i> =257, <i>M</i> =2.82, <i>SD</i> =1.308) Missing=7	56	21.8	33	12.8	101	39.3	48	18.7	6	2.3	13	5.1
I have some doubt about my ability to be a star athlete on my team. ( <i>n</i> =263, <i>M</i> =2.99, <i>SD</i> =1.119) Missing=1	31	11.8	42	16.0	111	42.2	63	24.0	9	3.4	7	2.7
I will be able to use the skills I learn in my sport in other areas of my life outside of sports. ( <i>n</i> =257, <i>M</i> =4.83, <i>SD</i> =1.016) Missing=7	1	.4	5	1.9	7	2.7	97	37.7	61	23.7	86	33.5
Participation in my sport interferes with my progress towards earning a college degree. ( <i>n</i> =257, <i>M</i> =3.00, <i>SD</i> =1.120) Missing=7	28	10.9	38	14.8	123	47.9	52	20.2	5	1.9	11	4.3
The amount of work required in my courses interferes with my athletic goals. ( <i>n</i> =261, <i>M</i> =3.32, <i>SD</i> =1.009) Missing=3	9	3.4	28	10.7	135	51.7	58	22.2	22	8.4	9	3.4

Table 4.4

*Means and Standard Deviations of the Predictor and Criterion Variables (N=264)*

Variables	<i>M</i>	<i>SD</i>
College GPA	3.04	0.54
AM	3.94	1.14
SAM	4.46	1.04
CAM	3.33	1.19

AM = Academic Motivation; SAM = Student Athletic Motivation; CAM = Career Athletic Motivation

Research Question 2: Is there a significant relationship between academic and athletic motivation and academic performance in college student-athletes as measured by grade point average (GPA)?

To address the research question, a Pearson product moment was calculated for the relationship between academic motivation, athletic motivation and academic performance as measured by college GPA. Although no significant correlation was present, it was interesting that the one statement on the SAMSAQ survey which indicated any type of relationship above a .10 value (I get more satisfaction from earning an “A” in a course toward my major than winning a game in my sport) measured both academic and athletic motivation. This statement was an item on both the AM and SAM subscales.

Overall, there was not enough statistical evidence based on the findings of this study to show any relationship between academic and athletic motivation and whether they are predictors of how successful a student-athlete will be in college as measured by college grade point average. However, as mentioned in Chapter III, career athletic motivation could add a unique dimension to the findings of this study. There is a significant, yet weak, direct correlation between career athletic motivation and academic performance.



This is evidenced in Table 4.5 where a Pearson correlation of .127 is shown at the .05 confidence level. The statement, “I have some doubt about my ability to be a star athlete on my team” is an item on the CAM subscale; therefore, this would indicate that career athletic motivation may dictate future academic performance.

Table 4.5

*Correlation Between Career Athletic Motivation and Academic Performance (College GPA)*

		I have some doubt about my ability to be a star athlete on my team (CAM).
Cumulative college GPA	Pearson Correlation	.127*
	Sig. (2-tailed)	.040
	N	263

\*. Correlation is significant at the 0.05 level (2-tailed).

CAM = Career Athletic Motivation

Research Question 3: Is there a significant relationship between academic and athletic motivation in college student athletes at a Division III university?

A Pearson product moment was calculated for the relationship between academic motivation and athletic motivation by correlating all the items on the AM and SAM subscales. Upon analyzing the data, several significant direct and inverse relationships were found, although only those values between .50 and .74 and above as well as the inverse values were provided in the tables below. A moderately strong, direct relationship (Pearson  $r = .565, p < .01$ ) was found between the following two statements as shown in Table 4.6: “It is important for me to learn what is taught in my courses,” and “Achieving a high level of performance in my sport is an important goal for me this year.” Additionally, Table 4.7 contains information regarding the relationship between

two more items on each the AM and SAM subscales. When correlated, the relationship between, “Achieving a high level of performance in my sport is an important goal for me this year,” and “I am willing to put in the time to earn excellent grades in my courses” is direct and moderately strong (Pearson  $r = .524, p < .01$ ). Table 4.8 displays information regarding the following two statements: “The most important reason why I am in school is to play my sport,” and “I get more satisfaction from winning a game in my sport than from getting an “A” in a course toward my major.” The value of the Pearson  $r$  is .562 at the .01 confidence level which indicates a moderately strong, direct relationship. The above correlations suggest that levels of motivation are being transferred from the athletic domain to the academic domain.

Table 4.6

*Correlation Between Academic Motivation and Athletic Motivation*

		Achieving a high level of performance in my sport is an important goal for me this year (SAM).
It is important for me to learn what is taught in my courses (AM).	Pearson Correlation	.565**
	Sig. (2-tailed)	.000
	N	263

\*\* Correlation is significant at the 0.01 level (2-tailed).

AM = Academic Motivation; SAM = Student Athletic Motivation

Table 4.7

*Correlation Between Academic Motivation and Athletic Motivation*

		Achieving a high level of performance in my sport is an important goal for me this year (SAM).
I am willing to put in the time to earn excellent grades in my courses (AM).	Pearson Correlation	.524**
	Sig. (2-tailed)	.000
	N	263

\*\* Correlation is significant at the 0.01 level (2-tailed).

AM = Academic Motivation; SAM = Student Athletic Motivation

Table 4.8

*Correlation Between Academic Motivation and Athletic Motivation*

		I get more satisfaction from winning a game in my sport than from getting an "A" in a course toward my major (SAM).
The most important reason why I am in school is to play my sport (AM reversed).	Pearson Correlation	.562**
	Sig. (2-tailed)	.000
	N	255

\*\* Correlation is significant at the 0.01 level (2-tailed).

AM = Academic Motivation; SAM = Student Athletic Motivation

## CHAPTER V

### Summary, Discussion, Conclusions, and Recommendations

#### Summary of the Study

This study investigated academic motivation and athletic motivation as predictors of academic performance in college student-athletes at a Division III university during the 2010-2011 academic year. Demographic information was collected and utilized in conjunction with the research questions. All subjects were intercollegiate student-athletes at Rowan University, Glassboro, NJ.

A 30-item Likert-style survey using a 6-point rating scale was distributed to all student-athletes who attended the January 30<sup>th</sup> Rutgers SCREAM life skills event. Surveys were also distributed on four separate occasions in an effort to collect additional responses. A disclaimer was included at the top of the survey to inform subjects that all responses collected were strictly anonymous and no identifiable information would be asked of them. The survey consisted of various statements pertaining to motivation across three subscales: academic motivation (AM), student athletic motivation (SAM), and career athletic motivation (CAM). A total of 245 surveys were completed; however, 19 additional surveys were started but never finished, yielding a return rate of 62%.

Descriptive statistics and correlations were used to interpret the data obtained from the surveys. Variations in motivation levels were explored using Predictive Analytic Software (PASW) Version 18.0. Statistically significant correlations at the .01

and .05 confidence levels were noted appropriately using Pearson product-moment calculations.

#### Discussion of the Findings

The majority of the participants indicated moderate to moderately strong levels of motivation across the three motivation subscales of academic motivation (AM), student athletic motivation (SAM), and career athletic motivation (CAM). Based on the findings, Rowan student-athletes are demonstrating a solid balance of the different kinds of motivation addressed in this study. It would be difficult to have a completely equal balance of motivation across the three subscales as Ryan and Deci (2000) noted that individuals have different amounts, different kinds, and varying levels of motivation.

The current study was based on research conducted by Gaston-Gayles (2004) and Shuman (2009). The results of this study are partially inconsistent with the findings of previous work by Gaston-Gayles and Shuman regarding academic motivation being a predictor of academic performance as measured by college GPA. Gaston-Gayles (2004) indicated that academic motivation, regardless of athletic motivation, is influential on future academic success. Similarly, Shuman's (2009) findings suggested that academic motivation is a significant predictor in measuring academic performance as well. On the contrary, the results of this study do concur with Sellers (1992), who suggested that no relationship exists between academic motivation and academic performance in college student-athletes. Findings from the current study suggest no statistically significant relationship between academic motivation and academic performance. This study supports Sellers' findings.

This study, however found a significant, yet weak, direct correlation amid one of the items on the CAM subscale (I have some doubt about my ability to be a star athlete on my team) and academic performance. This result also contradicts the findings of Gaston-Gayles and Shuman as career athletic motivation was not found to be predictive of academic performance. In fact, Shuman (2009) found that high career athletic motivation was significantly and inversely correlated with GPA. Although the current study is thus far inconsistent with the research in which it was based, it does support previous work in terms of a student-athlete's level of athletic motivation being insignificant in determining academic success. Gaston-Gayles (2004) found student athletic motivation to be insignificant in the model, and Shuman (2009) indicated that high athletic motivation has an inverse, yet insignificant, relationship with academic performance.

This study also indicated a notable finding involving the relationship among academic motivation and athletic motivation. There was significant statistical significance determined regarding these two variables; however, the strongest correlations were found involving three statement sets on the AM and SAM subscales: (a) "It is important for me to learn what is taught in my courses (AM)," and "Achieving a high level of performance in my sport is an important goal for me this year (SAM)," (b) "Achieving a high level of performance in my sport is an important goal for me this year (SAM)," and "I am willing to put in the time to earn excellent grades in my courses (AM)," and (c) "The most important reason why I am in school is to play my sport (AM reversed)," and "I get more satisfaction from winning a game in my sport than from

getting an “A” in a course toward my major (SAM).” Overall, a moderately strong, direct correlation was indicated among these items. Neither Gaston-Gayles nor Shuman addressed any relationships found between the three motivation subscales in their studies, but Shuman (2009) did note a direct and significant relationship between student athletic and career athletic motivation, as well as an inverse, significant relationship between career athletic motivation and academic motivation.

### Conclusions

Overall, Deci’s (1980) theory of self-determination seems to best explain why student-athletes at Rowan appear to be intrinsically motivated and self-determined to perform well in their given tasks as their levels of motivation across the three subscales appears to be reasonably proportionate.

The results of this study partially confirmed the findings of previous studies. The first is student athletic motivation is not a predictor of academic performance. On the other hand, no statistical significance was found amid academic motivation and academic performance as measured by college GPA which is inconsistent with the findings of Gaston-Gayles and Shuman, however in agreement with Sellers (1992) who found academic motivation to be an unimportant factor in predicting academic performance. Furthermore, a significant, yet weak, direct correlation was found between career athletic motivation and college GPA which further strays from previous research conducted by Gaston-Gayles and Shuman.

Based on the current findings, student-athletes at Rowan University exhibit generally high levels of motivation across the three motivation subscales, although only

career athletic motivation has any statistical significance in terms of predicting future academic success. These findings mean that although academic and student athletic motivation may not predict how successful an individual may be in the classroom, it does not mean that the student is not reaching his/her academic potential or performing successfully in the academic domain. In fact, student-athletes at Rowan *are* succeeding in the classroom as indicated by the mean cumulative GPA of 3.04 of the survey participants which is a strong representation of the overall mean cumulative GPA of 3.01 of all Rowan student-athletes. As previously noted, this university is a NCAA Division III member with non-revenue producing sports; therefore, student-athletes are not receiving athletic scholarships. While student-athletes at Rowan appear to be intrinsically motivated, they may also demonstrate some levels of extrinsic motivation as well which stems from doing something because it leads to a separable outcome (Ryan & Deci, 2000). For example, student-athletes may be more extrinsically motivated because they are receiving no financial assistance to attend the university and as a result, are paying out of their own pockets or with help from their parents. With that said, student-athletes have more of a reason to be academically successful in an effort to not have to pay extra money for failed classes or a prolonged graduation at the university. Previous studies by Gaston-Gayles and Shuman were conducted at Division I institutions which could in part be attributed to the variance in statistical results. It is important to mention that Division III athletics emphasizes the true “scholar-athlete,” meaning levels of motivation and success in both the academic and athletic domains have much in common.



Additionally, when Gaston-Gayles (2004) developed the SAMSAQ instrument, career athletic motivation suggested a student-athlete's desire to play on the professional level or having career aspirations associated with college sports; however, career athletic motivation could be interpreted differently which may explain why a significant relationship was found between one of the items on the CAM subscale and academic performance. Because of the nature of Division III athletics and the understanding that the majority of our country's top student-athletes are attending Division I athletic programs that are more athletically elite and prestigious, it can be assumed that the likelihood of a Division III student-athlete making it to the professional level is few, far and in-between. On the other hand, career athletic motivation could also be interpreted as having a desire to pursue a career in athletics not necessarily as a player but rather as a coach or athletic administrator. If career athletic motivation is understood in this way, then this could explain why career athletic motivation in Division III student-athletes may have predictive power in determining future academic success. A strong determination to continue on in athletics as, for example, an NBA executive, would then trigger a high level of career athletic motivation in the student-athlete, thus producing greater outcomes in the classroom, which gets a foot in the door with a professional sports team as an intern, resulting in a potential, successful athletic career further down the road. This idea can be related back to Vroom's (1964) Expectancy Theory of Motivation which emphasizes the more motivated the individual to perform effectively, the more effective his/her performance. If student-athletes at Rowan are able to look ahead to the future and hone in on a desired career path early on in college, then that may explain why their

apparent effective performance in the classroom has any sort of relationship with career athletic motivation.

Another concept to consider as mentioned by Sellers (1992) is that, Some studies do not distinguish between revenue and nonrevenue producing sports. Given the differences in socioeconomic status and educational background between student-athletes in revenue and nonrevenue sports, it is appropriate to account for those differences in the analyses. Finally, most investigations focus on one institution, thus making it impossible to generalize the findings to student-athletes at other institutions. (p. 50)

Moreover, Division I (revenue sports) student-athletes versus Division III (nonrevenue sports) student-athletes come to college less academically prepared and without the necessary tools and foundation to succeed in the classroom, regardless of motivation or effort. Therefore, as previous studies have suggested, traditional cognitive criteria such as high school GPA, parent's education level, and ACT/SAT scores still may prove to be the strongest predictors of academic performance.

This study also highlights a correlation between academic motivation and student athletic motivation. There was much statistical significance found between items on the AM and SAM subscales, therefore leading the belief that student-athletes are transferring their high levels of motivation from the competition field to the classroom. Connected to this finding is Astin's (1999) theory of student involvement which highlights the amount of time and effort a student puts forth toward certain activities. The results from the

current study suggest that student-athletes are finding ways to devote his/her time appropriately and effectively to both the academic and athletic domains.

Another concept to consider is the idea that Division III student-athletes come to college already displaying the characteristics of a “scholar-athlete” because they realized early on that their athletic talents would only take them so far. As a result, they were able to shift their high levels of athletic motivation to the classroom which is why the relationship between the items on the AM and SAM subscales are so significant. These results are consistent with the findings of the NCAA Athletics Research Committee (2011) from their 2010 GOALS and SCORE Studies of the Student-Athlete Experience such that across sport and division, it appears that many student-athletes are spending more time in total on the combination of athletics and academics. Additionally, no sport group studied showed a decrease in time spent on academics over the four-year time span; however, within several sport groups (mostly Division I), the academics-athletics time balance shifted toward athletics. As noted in the GOALS and SCORE studies, it is difficult to gauge time spent in any domain, but the findings suggest that there is a more even balance between academics and athletics at the Division III level. Even in Division III, the time demands in-season for athletics is grueling, but it appears that student-athletes are finding ways to transfer their skills from the athletic domain to the academic domain which may make a significant difference in how student-athletes approach academics. Although academic and athletic motivation is not predictive of academic performance, a relationship still exists between the two domains in terms of level of motivation and effort put forth towards each task. If student-athletes are able to tackle

their homework assignments and tests the same way they tackle an opponent, then maybe that same level of tenacity and fierceness can be used to help them be more successful academically. Maybe motivation does not determine college GPA, but motivation could push a student-athlete to better utilize academic support services, tutors, or help from professors to aid in their quest for academic success.

#### Recommendations for Practice

Based upon the findings and conclusions of the study, the following suggestions are presented for better practice and support of student-athletes' academic achievement:

1. Division III colleges and universities should allocate money to the athletic department to hire at least one full-time Athletic Academic Advisor whose primary responsibility is overseeing the academic progress of the student-athletes, as well as making sure they are effectively managing their athletic and academic commitments. This is common practice at Division I member institutions.
2. Athletic departments should continue to educate the rest of the campus community, specifically faculty about the heavy demands placed on student-athletes. Coaches, athletic staff, and faculty need to band together to find ways to help student-athletes succeed both on and off the field. It must be a collaborative effort.
3. Faculty should take the time to attend athletic sporting events of their students. If they can see the drive and motivation on the competition field,

then maybe they can create methods for transferring that same motivation to the classroom.

4. Athletic departments should recognize the opportunity to create workshops and host events that are geared towards pursuing careers in athletics. Students often think the only positions available in college athletics are coaches and athletic directors; therefore, educating student-athletes about the various opportunities present within college athletics, as well as how to network and get a foot in the door will help motivate athletes to see life beyond being a player.
5. Coaches should place greater emphasis on academic success. They need to be concerned about the academic progress of each of their athlete's at the individual level rather than looking at the team's overall cumulative GPA at the end of the season. Coaches cannot pat themselves on the back for having the highest team GPA among all athletic programs if they still have a few athletes who are struggling academically. Coaches must be accountable for every student-athlete. If they can offer incentives/rewards (e.g. not having to do conditioning at practice one day) for those who earn a good grade on a test or do well for the semester, just as they do for the team who wins the inter-squad scrimmage at practice, then athletes may be more motivated to push themselves academically.
6. The Athletic Department should team with the Division of Student Affairs to create academic support programs that are geared towards cultivating

academic motivation in college student-athletes. If programming models are developed that target increasing academic motivation, then student-athletes may improve their academic performance.

7. Athletic departments should invest in hiring a sport psychologist who specializes in helping student-athletes cope with role identity and who can also encourage athletes' academic motivation by helping them see the long-term benefits of performing well in the academic domain.

#### Recommendations for Further Research

Based upon the findings and conclusions of the researcher, the following suggestions are presented:

1. Further studies should be conducted with Division III student-athletes to confirm the findings of this study.
2. Future research might investigate student-athlete academic and athletic motivation as predictors of academic performance in male and female students and/or white and black students.
3. A study could be done that analyzes academic motivation in student-athletes versus non-student-athletes.
4. Qualitative research could be conducted with a limited number of student-athletes to determine how they perceive their levels of motivation within the academic and athletic domains and if they feel higher or lower levels of motivation impact future academic success.

5. The SAMSAQ survey should include a question that asks student-athletes to report their current cumulative GPA. On the other hand, the instrument could also include directions for how to code surveys and consent forms distributed to participants in order to collect more accurate GPA scores from the Registrar's Office without compromising the anonymity of the subjects as well as not having to rely on self-reported GPA's.
6. The SAMSAQ survey should be revised to include more questions regarding career athletic motivation and student athletic motivation as there is a disparity between the number of items within each subscale. A better balance across the three constructs of academic motivation, student athletic motivation, and career athletic motivation could help improve the validity of the instrument.
7. A final recommendation is that the SAMSAQ survey should include directions for scoring the assessment, as well as an explanation for the items that are reverse coded.

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APPENDIX A  
SAMSAQ Survey

Student Athletes' Motivation toward Sports and Academics Questionnaire  
(SAMSAQ)  
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*While your participation in this survey is voluntary and you are not required to answer any of the questions herein, your cooperation and participation are important to the success of the project and are greatly appreciated. If you choose to participate, please understand that all responses are strictly anonymous and no personally identifiable information is being requested. Your completion of this survey constitutes informed consent and your willingness to participate. If you are younger than 18 years of age, please disregard this survey. Any questions please contact Katie Grillo at 856-256-5130 or grillo@rowan.edu or my advisor, Dr. Burton Sisco at 856-256-4500, ext. 3717 or sisco@rowan.edu.*

1. I am confident that I can achieve a high grade point average this year (3.0 or above).  
 very strongly disagree     strongly disagree     disagree     agree     strongly agree     very strongly agree
2. Achieving a high level of performance in my sport is an important goal for me this year.  
 very strongly disagree     strongly disagree     disagree     agree     strongly agree     very strongly agree
3. It is important for me to learn what is taught in my courses.  
 very strongly disagree     strongly disagree     disagree     agree     strongly agree     very strongly agree
4. I am willing to put in the time to earn excellent grades in my courses.  
 very strongly disagree     strongly disagree     disagree     agree     strongly agree     very strongly agree
5. The most important reason why I am in school is to play my sport.  
 very strongly disagree     strongly disagree     disagree     agree     strongly agree     very strongly agree
6. The amount of work required in my courses interferes with my athletic goals.  
 very strongly disagree     strongly disagree     disagree     agree     strongly agree     very strongly agree
7. I will be able to use what is taught in my courses in different aspects of my life outside of school.  
 very strongly disagree     strongly disagree     disagree     agree     strongly agree     very strongly agree
8. I chose to play my sport because it is something that I am interested in as a career.  
 very strongly disagree     strongly disagree     disagree     agree     strongly agree     very strongly agree
9. I have some doubt about my ability to be a star athlete on my team.  
 very strongly disagree     strongly disagree     disagree     agree     strongly agree     very strongly agree
10. I chose (or will choose) my major because it is something I am interested in as a career.  
 very strongly disagree     strongly disagree     disagree     agree     strongly agree     very strongly agree
11. Earning a high grade point average (3.0 or above) is not an important goal for me this year.  
 very strongly disagree     strongly disagree     disagree     agree     strongly agree     very strongly agree
12. It is important to me to learn the skills and strategies taught by my coaches.  
 very strongly disagree     strongly disagree     disagree     agree     strongly agree     very strongly agree

13. It is important for me to do better than other athletes in my sport.
- very strongly disagree     strongly disagree     disagree     agree     strongly agree     very strongly agree
14. The time I spend engaged in my sport is enjoyable to me.
- very strongly disagree     strongly disagree     disagree     agree     strongly agree     very strongly agree
15. It is worth the effort to be an exceptional athlete in my sport.
- very strongly disagree     strongly disagree     disagree     agree     strongly agree     very strongly agree
16. Participation in my sport interferes with my progress towards earning a college degree.
- very strongly disagree     strongly disagree     disagree     agree     strongly agree     very strongly agree
17. I get more satisfaction from earning an "A" in a course toward my major than winning a game in my sport.
- very strongly disagree     strongly disagree     disagree     agree     strongly agree     very strongly agree
18. During the years I compete in my sport, completing a college degree is not a goal for me.
- very strongly disagree     strongly disagree     disagree     agree     strongly agree     very strongly agree
19. I am confident that I can be a star performer on my team this year.
- very strongly disagree     strongly disagree     disagree     agree     strongly agree     very strongly agree
20. My goal is to make it to the professional level or the Olympics in my sport.
- very strongly disagree     strongly disagree     disagree     agree     strongly agree     very strongly agree
21. I have some doubt about my ability to earn high grades in some of my courses.
- very strongly disagree     strongly disagree     disagree     agree     strongly agree     very strongly agree
22. I am confident that I can make it to an elite level in my sport (Professional/Olympics).
- very strongly disagree     strongly disagree     disagree     agree     strongly agree     very strongly agree
23. I am confident that I can earn a college degree.
- very strongly disagree     strongly disagree     disagree     agree     strongly agree     very strongly agree
24. I will be able to use the skills I learn in my sport in other areas of my life outside of sports.
- very strongly disagree     strongly disagree     disagree     agree     strongly agree     very strongly agree
25. I get more satisfaction from winning a game in my sport than from getting an "A" in a course toward my major.
- very strongly disagree     strongly disagree     disagree     agree     strongly agree     very strongly agree
26. It is not important for me to perform better than other students in my courses.
- very strongly disagree     strongly disagree     disagree     agree     strongly agree     very strongly agree
27. I am willing to put in the time to be outstanding in my sport.
- very strongly disagree     strongly disagree     disagree     agree     strongly agree     very strongly agree

28. The content of most of my courses is interesting to me.
- very strongly disagree   
 strongly disagree   
 disagree   
 agree   
 strongly agree   
 very strongly agree
29. The most important reason why I am in school is to earn a degree.
- very strongly disagree   
 strongly disagree   
 disagree   
 agree   
 strongly agree   
 very strongly agree
30. It is not worth the effort to earn excellent grades in my courses.
- very strongly disagree   
 strongly disagree   
 disagree   
 agree   
 strongly agree   
 very strongly agree
- 

### Demographic Questions

1. Gender     Male     Female
  
2. Race/Ethnicity
  - White/Caucasian
  - Black/African American
  - Asian/Pacific Islander
  - Hispanic/Latino
  - Native American
  - Multiracial
  - Other \_\_\_\_\_
  
3. Mother's Highest Education Level
  - Less than high school
  - Some high school
  - High School degree
  - Some college
  - College degree
  - Some graduate work
  - Advanced graduate degree
  
4. Father's Highest Education Level
  - Less than high school
  - Some high school
  - High school degree
  - Some college
  - College degree
  - Some graduate work
  - Advanced graduate degree
  
5. Year in College
  - First
  - Second
  - Third
  - Fourth
  - Fifth
  - Other \_\_\_\_\_

## APPENDIX B

Email Permission from Dr. Joy Gayles

**Grillo, Kathleen Lynn**

---

**From:** Joy Gayles [joy\_gayles@ncsu.edu]  
**Sent:** Tuesday, November 16, 2010 12:49 PM  
**To:** Grillo, Kathleen Lynn  
**Subject:** Re: FW: Permission to use SAMSAQ  
**Attachments:** Joy Gayles.vcf

Hi Katie, you have permission to use the SAMSAQ. Upon completion of your study please send me an executive summary of the major findings. Best of luck to you.

Dr. Gayles

Joy Gaston Gayles, Ph.D.  
Associate Professor  
North Carolina State University  
Department of Adult & Higher Education  
300 D Poe Hall, Campus Box 7801  
Raleigh, NC 27695-7801  
(919)513-0924 (office)  
(919)515-6305 (fax)  
[joy\\_gayles@ncsu.edu](mailto:joy_gayles@ncsu.edu) (e-mail)  
<http://ced.ncsu.edu/ahe/index.php>

\*\*\*E-mail correspondence to and from this sender may be subject to the North Carolina Public Records law and may be disclosed to third parties.\*\*\*

>>> "Grillo, Kathleen Lynn" <[grillo@rowan.edu](mailto:grillo@rowan.edu)> 11/16/2010 12:29 PM >>>  
Hi Dr. Gayles,

I wanted to follow up again regarding permission to use the SAMSAQ for my thesis research. I know how extremely busy you must be, but I am hoping to submit my research proposal to our Institutional Review Board for the December 1 submission deadline pending your permission to use the SAMSAQ. I did try to call your office line this afternoon; however, I was not able to leave a voice message. I certainly do not want to bother you with continuous phone calls and emails, so I'm hoping you could get back to me at your earliest convenience with your approval or denial.

Thank you again for your consideration.

Katie Grillo

**From:** Kathleen Grillo [<mailto:kathleen.grillo@yahoo.com>]  
**Sent:** Tuesday, November 16, 2010 12:15 PM  
**To:** Grillo, Kathleen Lynn  
**Subject:** Fw: Permission to use SAMSAQ

--- On Wed, 11/3/10, Kathleen Grillo <[kathleen.grillo@yahoo.com](mailto:kathleen.grillo@yahoo.com)> wrote:

**From:** Kathleen Grillo <[kathleen.grillo@yahoo.com](mailto:kathleen.grillo@yahoo.com)>  
**Subject:** Permission to use SAMSAQ  
**To:** [joy\\_gayles@ncsu.edu](mailto:joy_gayles@ncsu.edu)  
**Date:** Wednesday, November 3, 2010, 1:47 PM



Good afternoon,

My name is Katie Grillo, and I am a current graduate student at Rowan University in Glassboro, NJ pursuing my Master's in Higher Education Administration. I am writing to you to seek permission to use the Student Athletes' Motivation toward Sports and Academics Questionnaire (SAMSAQ)? For my thesis, I am interested in researching athletic and academic motivation and academic performance of college student-athletes, specifically at a Division III university. I am interning in our athletic department until next May and am also a former college student-athlete, so naturally I gravitated towards this student population. I would be so unbelievably grateful to have your permission to use the SAMSAQ as an assessment for collecting data for my thesis. I sent this email last week, but I just noticed in my Spam that it came back undeliverable since you are no longer at Florida State University. Hopefully this time around I have the correct email address!

Thank you so much for your time and consideration!

Best,  
Katie

## APPENDIX C

### IRB Approval Letter



December 15, 2010

Kathleen L. Grillo  
501-D Highland Avenue  
Collingswood, NJ 08108

Dear Kathleen L. Grillo:

In accordance with the University's IRB policies and 45 CFR 46, the Federal Policy for the Protection of Human Subjects, I am pleased to inform you that the Rowan University Institutional Review Board (IRB) has exempted your project:

IRB application number: 2011-058

Project Title: Academic and Athletic Motivation: Predictors of Academic Performance of College Student-Athletes at a Division III University

If you need to make significant modifications to your study, you must notify the IRB immediately. Please reference the above-cited IRB application number in any future communications with our office regarding this research.

If, during your research, you encounter any unanticipated problems involving risks to subjects, you must report this immediately to Dr. Harriet Hartman ([hartman@rowan.edu](mailto:hartman@rowan.edu) or call 856-256-4500, ext. 3787) or contact Dr. Gautam Pillay, Associate Provost for Research ([pillay@rowan.edu](mailto:pillay@rowan.edu) or call 856-256-5150).

If you have any administrative questions, please contact Karen Heiser ([heiser@rowan.edu](mailto:heiser@rowan.edu) or 856-256-5150).

Sincerely,

Harriet Hartman, Ph.D.  
Chair, Rowan University IRB

c: Burton Sisco, Educational Leadership, Education Hall

Office of Research  
Bole Hall Annex  
201 Mullica Hill Road  
Glassboro, NJ 08028-1701

856-256-5150  
856-256-4425 fax