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ATHLETIC AND ACADEMIC IDENTITY, MOTIVATION AND SUCCESS: AN EXAMINATION OF DIII STUDENT-ATHLETES

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy at Virginia Commonwealth University.

by

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Dedication

This dissertation is dedicated to my husband, Christopher Ritenour. Chris, you have been my biggest fan in everything that I have set out to accomplish. You have been with me every step of the way through the doctoral process and every other life event that has come along with it. Somehow in the last four years, we have managed to not only begin a relationship, get married, and buy our first home, but also start an entirely new chapter of our lives with our first child on the way. Throughout this process, you have kept me grounded and helped me remember to balance my career and educational goals with personal time. Thank you for always taking care of me and making sure I took care of myself. I truly would not have been able to complete this journey without you. I love you.

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Abstract

ATHLETIC AND ACADEMIC IDENTITY, MOTIVATION AND SUCCESS: AN EXAMINATION OF DIII STUDENT-ATHLETES

By Savanna M Love, Ph.D.

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy at Virginia Commonwealth University

Virginia Commonwealth University, 2018

Major Director: Sharon Zumbrunn, Ph.D.;
Associate Professor, Foundations of Education, School of Education

The purpose of this study was to examine athletic and academic identity and athletic and academic motivation in DIII student-athletes. An additional purpose of the study was to explore the extent to which identity and motivation variables could predict GPA. This study also qualitatively explored students' perceptions of their success, identity and motivation. Using Expectancy-Value and Identity theories as a theoretical framework, participants (n = 358) were administered an online survey that included AAIS and SAMSAQ scales along with open-ended qualitative questions. Quantitative data were used to conduct confirmatory factor analyses, bivariate correlations, hierarchical multiple regression, and multivariate analyses of variance. Qualitative analyses were used to extract major themes from the data, and a Mixed Methods analysis was used to analyze quantitative and qualitative data in a side-by-side comparison.

Chapter I – Introduction

Sports play a powerful role in American society and are a highly influential presence in university life (Bowen & Levin, 2011; Shulman & Bowen, 2001). Many have praised the positive outcomes associated with athletics, particularly at the college level. For example, Pascarella & Terenzini (2005) found that meaningful engagement outside traditional classroom settings can have significant impacts on students' personal development, and Ryan (1989) found evidence that sport participation can support development by improving interpersonal skills, leadership abilities, and peer relations. Other research has found that participation in intercollegiate athletics can have a positive impact on academic motivation and college adjustment (Astin, 1984; Sung, Koo & Dittmore, 2017).

Despite the positive findings of some, much research and criticism can be found in both scholarly and popular literature that debates the importance of athletics in higher education. Some critics question the relevance of intercollegiate athletics to the mission of higher education (Fried, 2007), and argue that commercialized college sporting events have caused revenue-generating sports to become almost professional in nature and inconsistent with the academic mission of college institutions (Watt & Moore, 2001). Duderstadt (2003) argued that schools lower academic standards to accept star athletes regardless of their academic preparation, while Bok (2003) agrees, stating, "big time athletics have certainly caused many universities to compromise their admissions standards, water down their curricula, and provide many athletes with a pale imitation of a college education" (p. 44). Still others discuss how

recent investigations of college athletics illuminated corruption, dissatisfaction, and shifts in priorities within college athletic reform. For example, Benford (2007) highlighted the rapid escalation of coaches' salaries and the shift in focus from educating students to the growing involvement of colleges and universities in the entertainment or "edutainment" industry (p. 12). Similarly, Duderstadt (2003) posited that athletes may be exploited for their athletic ability while their college education takes a back seat.

In addition to the negative perceptions of athletics within the university, research has also found athletics to have potentially negative outcomes for student-athletes. For example, the findings of some demonstrate the potential negative impacts of participation in college athletics on cognitive outcomes in certain student-athlete populations (Pascarella, Bohr, Nora, & Terenzini, 1995). Additional research has demonstrated that commitment to the athlete role results in lower GPA (Routon & Walker, 2014; Simons, Van Rheenen & Covington, 1999). Findings from other studies suggest that athletes' academic performance is lower than that of their peers (Adler & Adler, 1985; Fitzel & Fort, 2004; Maloney & McCormick, 1993; Pascarella & Smart 1991; Ryan, 1989; Shulman & Bowen, 2001; Stuart 1985), and evidence from several studies supports the claim that athletes enter college with lower high school records, test scores, and GPAs than non-athletes (Hood, Braig & Ferguson 1992; Kiger & Lorentzen, 1988; Maloney & McCormick, 1993; Pascarella & Smart 1991; Purdy, Eitzen & Hufnagel, 1985; Vergara & Aragones, 2016). Additional research highlights the lack of academic support student-athletes receive despite the public perception that schools help the athletes balance their two roles (Jayakumar & Comeaux, 2016). The potentially negative outcomes and perceptions related to college athletics have in many ways led to widespread public concern about the academic

performance of student-athletes, which in turn has led to NCAA regulations focused on increasing academic achievement and much research on the topic (Hosick, 2008).

Some critics argue that the negative outcomes associated with college athletics can be attributed to the challenges that student-athletes face during their college career. In his seminal profile of the intercollegiate athlete, Parham (1993) argued that student-athletes face challenges that are in addition to and vastly different from the challenges of their non-student-athlete peers. The additional challenges student-athletes must navigate in a collegiate environment help to create what Sedlacek & Adams-Gaston (1992) argue is a separate culture or subculture that aligns more with nontraditional students than with traditional students in nontraditional circumstances. Thus, they maintain that student-athletes have a unique culture and set of experiences that should be considered by the larger college community.

Studies show, however, that this unique set of experiences is not necessarily consistent across different populations of student-athletes (Aries, McCarthy, Salovey, & Banaji, 2004; Engstrom and Sedlacek, 1991; Gayles & Hu, 2009; Robst & Keil, 2000; Rettig & Hu, 2016; Sedlacek & Adams-Gaston, 1992). While Parham (1993) may be correct in his argument of the additional challenges all athletes must navigate, the effects of these challenges are not always consistent. Findings suggest that while Division I (DI) student-athletes may have lower incoming academic abilities, GPAs and graduation rates than their non-athlete peers (e.g., Adler & Adler, 1985; Maloney & McCormick, 1993; Pascarella & Smart 1991; Ryan, 1989; Shulman & Bowen, 2001; Stuart 1985), findings on DIII student-athletes show considerably more positive results (e.g., Aries, McCarthy, Salovey, & Banaji, 2004; Robst & Keil, 2000). For example, Richards & Aries (1999) found that student-athlete academic performance was not significantly different than non-athletes, while Robst & Keil (2000) found that once SAT scores and high

school rank were controlled for, non-transfer student-athletes had significantly higher GPAs than non-athletes. Robst & Keil (2000) also found that student-athletes took more credits and a harder course load per academic year and had higher graduation rates than non-athletes. Additionally, Aries, McCarthy, Salovey & Banjai (2004) found that while student-athletes had lower entering credentials and academic self-assessments than non-athletes, their academic performance was not lower than expected based on their entering profiles.

These findings leave researchers and professionals wondering, "why?" Why do student-athletes at DIII institutions seem to perform better academically than those at DI institutions? What factors contribute to their academic success? With 39% of college-athletes competing at the DIII level (Irnik, 2016), findings from these schools could serve as an important addition to the research surrounding the student-athlete experience and academic success. However, very few studies have explored the academic performance of DIII student-athletes specifically (e.g., Aries, McCarthy, Salovey, & Banaji, 2004; Robst & Keil, 2000), and the ones that have primarily use small samples of one to two schools with a relatively small group of student-athletes from each school. Considering the fact that DIII schools comprise 42% of NCAA school membership, the largest division of NCAA student-athletes, these studies may have only scratched the surface in representing this population (Irnik, 2016). Therefore, the current study will focus on aspects that may impact academic performance in a DIII environment in order to identify the experiences and successes of this population and how they might converge or diverge from the literature currently available on student-athletes.

Statement of the Problem

Research on the student athlete population has investigated the existence of an identity among student athletes that separates them from the non-athlete student population. This athletic

identity construct is credited to Brewer, Van Raalte & Linder (1993) and is defined as "the degree to which an individual identifies with the athlete role" (p. 237). Although high levels of athletic identity are often linked to positive athletic performance (Horton & Mack, 2000), findings from several studies suggest relationships between high athletic identity and negative academic and career outcomes, including: less focus placed on academics during college years (Ryska, 2002); lower GPAs and less academic help-seeking (Antshel, VanderDrift & Pauline, 2015), delayed academic adjustment (Mendelez, 2009); overidentification with the athlete role and foreclosed identities (Petitpas & Champagne, 1988); delayed skill acquisition related to career development (Grove, Lavallee & Gordon, 1997); and difficulty transitioning out of sport participation (Alfermann, Stambulova & Zemaityte, 2004). Despite this evidence, little is known about the athletic identity of DIII student athletes.

In the last decade, research on student athlete identity has begun to explore differences among various groups of student athletes (Beron & Piquero, 2016; Strum, Feltz & Gilson, 2010). Findings from studies with Division I student-athletes suggest that athletic identity exists more strongly than student or academic identity (Adler & Adler, 1985; Marx, Hoffman & Doyle, 2008). However, results have been inconsistent across gender, graduation year and level of competition (Beron & Piquero, 2016; Coakley, 2009; Meyer, 1990). For example, Adler & Adler (1985, 1991) found that athletic identity increased over time for male basketball players at a DI university; however, Meyer (1990) attempted to replicate Adler & Adler's (1985) study with female basketball players and found that female athletes at the DI level were successfully able to balance roles of student and athlete. Similarly, Melendez (2009) found that DI male athletes had higher athletic identity than female athletes, and those who reported higher athletic identity scores also had lower academic adjustment scores, supporting Meyer's (1990)

conclusion that the negative outcomes found in Adler & Adler's (1985) study were not consistent in a female population. However, Beron and Piquero (2016), found that no differences existed in athletic identity based on gender at any level of competition. Additionally, Miller & Kerr (2000) found that athletes in Canada had strong athletic identity early in their college experience but developed stronger student identities later in their college career. This study also contradicted Adler & Adler (1985, 1991), demonstrating inconsistencies in how identity develops throughout a student-athletes' career. The researchers hypothesized that the differences might be due to the higher level of athletic competition at DI American institutions compared to Canada, where athletic competition is closer to that of DIII American institutions.

Although a majority of the research on athletic identity has focused on DI student-athletes, a few have also included DIII student-athletes. For example, in a study comparing the experiences of DI and DIII student-athletes, Strum, Feltz and Gibson (2011) found that the DI environment does not promote athletic identity any more than the DIII environment, which contradicts the research highlighting differences between DI and DIII experiences (e.g., Richards & Aries, 1999; Robst & Keil, 2000). Similarly, Beron and Piquero (2016) investigated athletic identity in DI, DII and DIII student-athletes and found no significant differences in athletic or student identity among the divisions. On the other hand, another recent study (Rankin, Merson & Sorgen, 2011), found that athletic identity is higher in DI than in DIII student-athletes, and academic identity is higher in DIII than DI student-athletes. These findings are consistent with the NCAA definitions and philosophies of DI versus DIII environments, with DIII focusing more on the academic and holistic experience of the student-athlete. Additionally, while consistent with earlier findings regarding differences in DI and DIII institutions, these findings conflict with

Strum and colleagues (2011) and Beron and Piquero (2016), demonstrating the need for further investigation.

The inconsistencies within the literature on athletic identity demonstrate a need for continued research, particularly with a focus on specific subpopulations in order to identify where differences might be present. Additionally, much of the research available on athletic identity focuses specifically on a small subgroup (e.g., male basketball players, female basketball players, DIII women athletes), so there is a need to look more broadly at the student-athlete population to allow for subgroup comparisons within a larger sample. In particular, much of the literature focuses on DI student-athletes, and more evidence is needed to represent other divisions. Considering the academic, adjustment and career implications of athletic identity, a better understanding of athletic identity among different groups of student-athletes is necessary to effectively support healthy, balanced identity development and academic and career success (Brewer & Pepitas, 2017; Houle & Kluck, 2015).

Achievement motivation is also a critical factor in student-athlete academic success (Parker, Perry, Hamm, Chipperfield & Hladkyj, 2016). For example, Gaston-Gayles (2005) explored the relationship between academic and athletic motivation and academic achievement with DI athletes. Results indicated that both athletic and academic motivation were influential in predicting academic performance. Similarly, Ryska (2002) found connections between high school athletes' ability to be motivated and mastery-oriented on the field and in the classroom. In another study on achievement motivation of DI athletes, Simons and colleagues (1999) found that when student-athletes are more motivated by athletics, they generally make lower grades than those who are motivated to succeed academically. In testing for differences between subgroups, the authors found that males and females and nonrevenue and revenue athletes were

significantly different on measures of motivational orientation types. Another study on DI student-athletes by Simons and Van Rheenen (2000) revealed that one of the central problems facing student-athletes at academically elite institutions is finding a balance between academic and athletic demands, and results from Jayakumar and Comeaux (2016) draw similar conclusions.

Although these findings suggest the influential role academic motivation can play in the academic success of many student-athletes, less is known about the experiences and academic motivation of DIII student athletes. In one study that included DIII athletes, Snyder (1996) assessed the levels of expressed academic motivation among Black and White student-athletes at both DI and DIII institutions and found that black students at DI university were more motivated to play professional sports than white students; however, no significant differences were found at the DIII level. Additionally, this study did not provide insight into how motivation affected academic performance. Due to the empirical differences found between DI and DIII institutions across a variety of studies (e.g. Snyder, 1996; Strum et al., 2011), it is possible that important motivational differences may also exist. The literature on student-athlete motivation has also demonstrated differences in gender and type of sport played, so it may also be important to consider these subgroups within a DIII population to identify where differences might exist.

Ultimately, DIII athletes are largely underrepresented in the identity and motivation literature, and where they are represented, findings are inconsistent in a number of ways. To this researcher's knowledge, no studies exist that investigate the relationship between athletic and academic identity and motivation with DIII athletes.

Statement of the Purpose

The purpose of this study is to examine identity and motivation in DIII student-athletes. Specifically, it will examine relationships among athletic and academic identity and athletic and academic motivation. An additional purpose of the study is to determine the extent to which athletic identity, academic identity, athletic motivation and academic motivation can predict academic performance. Gender, sport, and graduation year will also be examined as possible predictors. The study will also qualitatively explore students' perceptions of their success in academics and athletics, identities, and motivations, including barriers and supports related to their academic success.

This research is important for a number of reasons. First, it has the potential to highlight forms of support (e.g., counseling, advising, tutoring) that might foster the academic success of student athletes. Second, it will shed light on the DIII student-athlete experience and help to provide a more representative description of the population that has largely been missing in the literature on student-athletes thus far. It will also provide further insight into the contradictions among divisions and other subgroups of student-athletes that that recent literature has highlighted. Additionally, the qualitative portion of the study will provide insight into complex questions regarding student-athletes as well as allow for an exploratory element that has the potential to bring forward themes or ideas related to the student-athlete experience not yet fully explored in the literature.

Research Questions

1. Quantitative: What are the relationships among academic identity, athletic identity, academic motivation and athletic motivation for DIII student athletes?
2. Quantitative: To what extent does athletic motivation, academic motivation, athletic identity, or academic identity predict academic performance for DIII student-athletes?

3. Quantitative: Are there differences in identity, motivation or performance based on sport, gender, or school year?
4. Qualitative: How do student-athletes describe academic and athletic success at DIII institutions?
5. Qualitative: What are student-athletes' perceptions of their academic and athletic identities and motivations at DIII institutions?
6. Mixed Methods: To what extent do the identity and motivation scores converge with student-athletes' perceptions of their identity and motivation?

Definition of Terms

Student-Athlete. A full-time college student who participates in a varsity sport connected to his or her institution.

NCAA Divisions. Colleges and universities are divided into Division I, II and III by the National Collegiate Athletics Association. The divisions are decided based upon various requirements including the number of sports teams sponsored, participant minimums, attendance requirements, and financial aid awards.

NCAA Division I. According to the NCAA, Division I (DI) schools generally have the biggest student bodies, the largest athletics budgets and offer the most athletic scholarships in comparison to the other divisions. Nearly 350 colleges and universities are members of Division I, and together these schools have over 6,000 athletic teams and over 170,000 student-athletes (ncaa.org).

NCAA Division III According to the NCAA, academics are the primary focus for Division III student-athletes. The goal of the division is to minimize the conflicts between athletics and academics and help student-athletes progress towards graduation by implementing

shorter practice and playing seasons in order to reduce time away from academic studies. 450 institutions are members of DIII, making the 180,000 student-athletes that attend these institutions the largest group of student-athletes in the NCAA (ncaa.org).

Academic Motivation. Academic motivation is the degree to which a student-athlete is energized toward excelling in academic tasks.

Athletic Motivation. Athletic motivation is the degree to which a student-athlete is energized toward excelling in athletic tasks.

Athletic Identity. Athletic identity is the degree to which an individual identifies with the athlete role (Brewer et al., 1993).

Academic Identity. Academic identity is the degree to which an individual identifies with the student role.

Chapter II – Review of Literature

Current research suggests the importance of noncognitive variables to understanding and predicting student academic performance. Specifically, motivation and identity have been shown to be important to many aspects of student-athletes' college experiences, including academic performance (e.g., Gaston-Gayles, 2004; Ryska, 2002). However, a majority of this research has focused on DI student-athletes, who make up only 37% of the total student-athlete population (Irnik, 2016). Additionally, recent research has contested initial findings related to these constructs, demonstrating that findings may be different across various subgroups of student-athletes such as gender, sport or year in school (e.g., Meyer, 1990; Miller & Kerr, 2002; Strum et al., 2002). Thus, there is not only a need for continued study of noncognitive variables, but also a need to study other sub-populations of student-athletes, such as different divisions.

The current review will focus specifically on the differences in sub-group populations of student-athletes in order to highlight the inconsistencies and unanswered questions in the literature. One of the focus areas will highlight that a majority of the current research on student-athletes has focused primarily on DI student-athletes, and another will showcase varying results across sub-groups of student-athletes (e.g. gender, sport, and school year). Ultimately, it is important to identify where differences exist so as to pinpoint areas of concern or subgroups that may be in need of support.

The following review of literature includes sections on: noncognitive variables, expectancy-value theory, academic performance, motivation, identity, role-identity, athletic identity, student identity and study measures. A discussion of noncogntive variables begins the

review to explain the recent debate regarding the best way to study academic performance, followed by an in-depth discussion of how expectancy-value theory frames the motivational pieces of the current study. Research focused on student-athlete academic performance and motivation is then reviewed in detail to provide evidence of the need for further investigation. Identity theories are then reviewed as a framework for understanding athletic and student identity, which are related to the expectancy-value model of motivation. Research on athletic and student identity are then reviewed in detail, followed by an overview of the motivation and identity measures that will be used in the current study.

Noncognitive Variables

A recent debate in the field of college athletics considers the ways in which academic performance is measured and predicted for student-athletes. Some of the most common ways of measuring and predicting academic performance include GPA and standardized test scores (Sedlacek, 2004; Sternberg & Williams, 1997). Using GPA to measure performance is criticized due to its often self-reported nature and its inflation at all levels of education (Rojstracxer, 2003). Criticisms of standardized assessments used to predict college performance are also well-documented in the literature. For example, critics argue that standardized tests are often unreliable and biased against underrepresented groups (Freedle, 2003; Sedlacek, 2004) and that tests may lack validity and perpetuate the status quo for privileged populations (King & Bowman, 2006).

Since standardized test scores alone may not be the most reliable measure of academic performance, recent research supports considering noncognitive variables to predict academic performance for student-athletes (Gaston-Gayles, 2004; Petrie & Stoever, 1997; Sedlacek, 2004; Simons & Van Rheenan, 2000). Noncognitive variables have been defined in a number of ways

in the literature. Some have defined them as extracurricular or nonacademic activities (Sackett et al, 2001), while others have considered them to be motivational and personality variables (Willingham, 1985). Sedlacek (2004) argued that noncognitive variables should reflect Sternberg's (1985) experiential intelligence, which involves the ability to interpret information in changing contexts or contextual intelligence, which has to do with the ability to adapt to a changing environment (Sedlacek, 2004).

Many recent studies that address noncognitive variables in student-athlete populations use Tracey and Sedlacek's (1984) Noncognitive Questionnaire (NCQ), (Sedlacek, 2004; Sedlacek & Adams-Gaston, 1992; Tracey & Sedlacek, 1985; Young & Sowa, 1992) which was developed to assess attributes that are more predictive of success in higher education for nontraditional students than are standardized tests (Sedlacek, 2004) The idea behind the NCQ is that nontraditional people often tend to show their abilities through experiential and contextual evidence, and much research supports considering student-athletes a nontraditional student group (Parham, 1993; Sedlacek & Adams-Gaston, 1992). The questionnaire includes a number of scales that assess constructs such as long-range goals, self-concept, which includes perceptions of how the student is viewed, and leadership experience (Tracey & Sedlacek, 1984). Specifically, both Sedlacek and Adams-Gaston (1992) and Young and Sowa (1992) found that isolated noncognitive variables were effective predictors of student-athlete academic performance. However, an important variable not included on the NCQ is motivation. Until recently, motivation variables have not been considered as a factor in determining academic performance of student-athletes (Gaston-Gayles, 2004). Considering the important role motivation plays in academic achievement (Eccles & Wigfield, 2002; Gaston-Gayles, 2004)

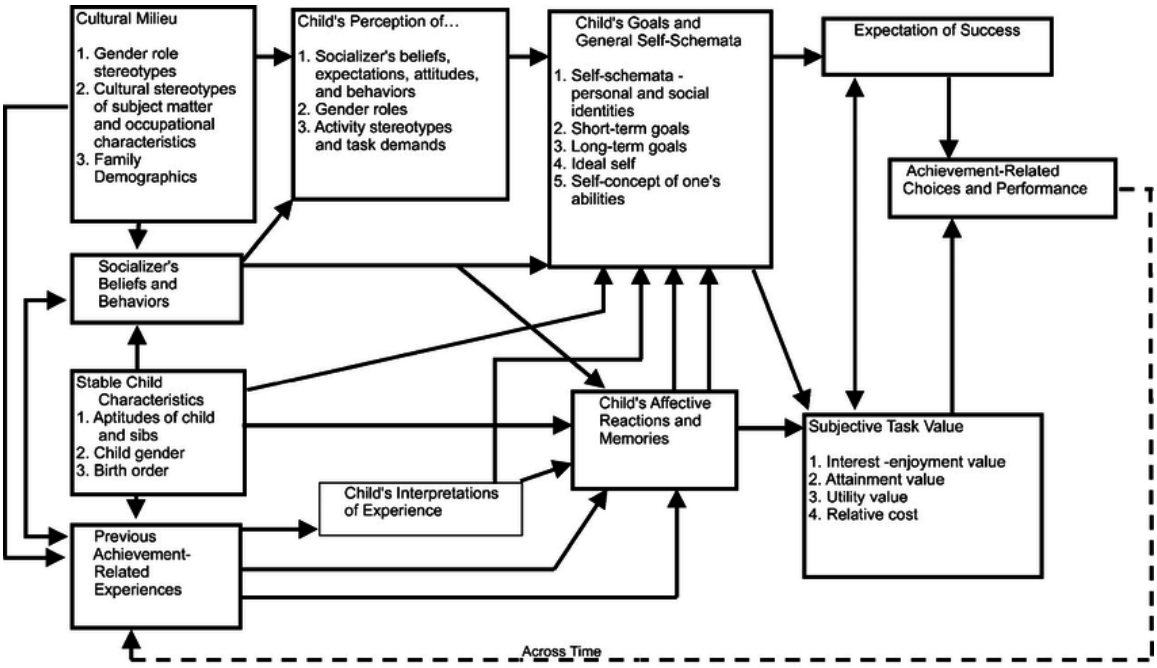
studying motivation variables in the student-athlete population might provide insight into how to best support the academic success of this population during their college career.

The following sections outline expectancy-value theory as a theoretical framework for motivation, the literature available on student-athlete motivation, and the academic performance of student-athletes.

Expectancy-Value Theory

Expectancy-value theory provides a useful framework from which to understand motivation in the current study. The theory posits that individuals' choice, persistence, and performance can be explained by their beliefs about how well they will do on an activity and the extent to which they value the activity (Wigfield & Eccles, 2000). The overall model is presented in Figure 1 to provide a sense of its scope. The model is based on the assumption that activity choices are made in the context of a variety of different choices and these choices are assumed to be guided by one's expectations for success at the various different options. These expectancies are related to core values such as achievement needs, competency needs, personal goals, motivational orientation, and gender-role schemata, by utilitarian values such as the importance of participating in various activities for future goals, and by potential costs of investing time in one activity over another (Eccles, 1983). The following section will provide details of the theory and how it can be applied to student-athletes.

Figure 1 Expectancy-Value Theory Model (Eccles & Wigfield, 2002)



Eccles (1983) argues that achievement expectancies play a significant role in students' academic choices, so it is important to identify the factors that shape these expectancies. The theory proposes that expectancies are most directly influenced by self-concept of ability and students' estimates of task difficulty. Expectancies are also proposed to be indirectly influenced by historical events, past experiences of success and failure, and cultural factors that are mediated "through the individual's interpretations of the past events, perceptions of expectancies of others, and identification with the goals and values of existing cultural role structures" (Eccles, 1983; p.82).

Self-concepts of ability are said to be critical predictors of performance and task choice. Research has supported this claim, demonstrating the positive relation between perceptions of academic ability and plans to enroll in advanced courses, as well as perceptions of athletic ability and plans to participate in sports (Eccles & Harold, 1991). For student-athletes, high self-

concepts of ability in either the academic or athletic domains might influence choices of where to dedicate more time and effort. In addition to self-concepts of ability, task difficulty also plays an important role in achievement expectancies. According to Eccles (1983), expectations for success and perceived task difficulty have a curvilinear relationship in that people prefer tasks that are moderately difficult to tasks that are considered either too easy or too difficult. As such, student-athletes' task choices in both academic and athletic domains may be impacted by the perceived level of difficulty of a specific task.

An individual's interpretation of past events of success and failure can also play an important role in achievement expectancies. According to attribution theory, the impact of success and failure of self-perceptions, expectations for future success, and self-confidence in one's ability depends on the causal attribution made for the success or failure (Eccles et al., 1983). Hence, attributing success to something like ability or effort is expected to have better psychological effects than attributing the success to luck or someone else, while attributing failures to task difficulty or lack of effort is expected to have better consequences than attributing failures to lack of ability (Eccles & Harold, 1991). In this way, it would be important to understand a student-athlete's attributions for success and failure in both academic and athletic realms. If, for example, a student-athlete attributes success in athletics to his or her ability, but attributes success in academics to luck or the help of someone else, the psychological effects of attributions in the academic domain may be cause for concern.

In addition to an individual's interpretation of past events, the perceptions and expectancies of others play an important role in both the academic and sport domains. According to the Eccles (1983) model, significant others play a role in shaping students' self-perceptions in two primary ways: as interpreters of experience, and as providers of experience.

Eccles & Harold (1991) explain, "the people around children help them interpret their experience and, in so doing, influence the inferences children make about their successes and failures in the sport domain" (p.13). Similarly, the people around students influence how students understand their successes and failures in the academic domain.

The second major influence on task choice is task value. According to the model, subjective task values are defined as how a task meets different needs of individuals (Eccles, 1983; Wigfeld & Eccles, 2002). In their original conception of the model, Eccles (1983) proposed four major components of subjective values: utility value, perceived cost, intrinsic value, and attainment value. Utility value is based on the question, "how useful will engaging in a particular task be in helping the individual fulfill immediate or long-range goals"? The theory asserts that individuals are more likely to engage in activities if participation will be of some use to them. Usefulness can be conceptualized in a number of ways, including that it may further an individual goal like learning a new athletic skill or learning a new topic in class. Alternatively, an activity may allow an individual to socialize with a group an individual enjoys, such as a team or group with similar interests, or it may provide an opportunity to impress a peer or mentor, such as a teammate, coach or instructor (Eccles & Harold, 1991).

Perceived cost is based on the question "what does one have to give to participate in an activity?" In this way, whereas the perception of high utility value can draw an individual to an activity, the perception of high cost can push the individual away from the activity. As people have limited time and energy to participate in activities and must choose among them, cost can be conceptualized in terms of loss of time and energy to put towards other activities. For example, a student-athlete has limited time to participate in both academic and athletic activities and must weigh the time and energy needed to participate in each as he or she makes choices on

a daily basis. Additionally, perceived cost can also be influenced by a number of other factors, including "anticipated anxiety of engaging in a given activity; anticipated negative responses from peers, parents, colleagues, or neighbors; fear of failure; and the negative affective memories associated with past participation in similar activities" (Eccles & Harold, 1991; p. 14). These additional factors may be particularly salient for student-athletes given the public nature of their athletic performance in a university setting and the necessity of performing academically to remain a member of a team.

The third component of subjective values, intrinsic value, is defined as the immediate enjoyment one gets out of participating in an activity (Eccles, 1983). For example, a student-athlete might enjoy playing sports because it makes him or her feel healthy, or he or she may enjoy being part of a competitive team. Additionally, a student-athlete might enjoy doing well in classes in order to become a better student, or to reach his or her academic or career goals.

Finally, attainment value is conceptualized in terms of the needs and personal values an activity fulfills for an individual (Eccles, 1983). The concept is of particular interest in the current study due to its focus on the self and identity. Based on the theory, tasks are important or of value if an individual views them as central to his or her sense of self (Wigfield & Eccles, 2003). For example, if a student-athlete has a strong sense of athletic identity, he or she would place a high value on athletic tasks. Similarly, if a student-athlete has a strong sense of student identity, the student-athlete would place high value on academic tasks. Literature regarding athletic and student identity will be discussed in detail in a later section.

Expectancy-value theory will be used in the current study as a lens through which to understand the choices, persistence and performance of student-athletes during their college experience. The model is appropriate in the study of student-athletes due to its focus on the

different activity choices individuals have and make in a given situation. As student-athletes fulfill a dual role as both student and athlete in a college environment, the factors that influence their choices and their persistence and performance on the chosen tasks are of particular interest in understanding their college experience and academic success. Specifically, the current study focuses on the academic achievement and motivation of DIII student-athletes.

The following sections will review the literature on student-athlete academic performance and motivation. First, academic performance will be discussed to demonstrate differences in findings between DI and DIII populations. Then, studies focused on student-athlete motivation will be discussed in detail.

Student-Athlete Academic Performance

One of the major areas of research on student-athletes has focused on academic performance. This is largely due to a history of poor academic performance within athletics and public concern that placed pressure on the NCAA to address the issue, particularly at large, DI institutions where many student-athletes receive athletic scholarships. In many situations, this public concern and pressure has led to academic regulations and an influx of research on programming and performance (Hosick, 2008).

Because the interest in student-athlete academic performance began with issues at DI institutions, much of the research on the topic has focused on the DI population specifically (e.g., Adler & Adler, 1985; 1990; Gaston-Gayles, 2004; Shulman & Bowen, 2001; Stuart, 1985). With only 37% of collegiate student-athletes attending DI institutions, this has resulted in a potentially biased representation of the overall student-athlete population. Although some researchers discuss the differences in performance and college experience between different divisions (Aries, McCarthy, Salovey & Najaji, 2004; Rankin et al., 2011) many studies fail to

specify what division they are studying, leaving the results and implications unclear (e.g., Cornelius, 1995; Gapin & Petruzzello, 2016; Yukkymenko-Lescroart, 2013). Due to these inconsistencies in the literature, it is important to separate the empirical results between the different divisions to clearly identify where differences may be present and how to effectively contribute to the research on student-athletes.

Division I and Division III.

Research on the academic performance of DI student-athletes has focused primarily on their academic failures (e.g., Maloney & McCormick, 1993; Pascarella & Smart 1991; Shulman & Bowen, 2001). Some researchers have attempted to point to the challenges of DI athletes as a reason for their low academic success (e.g., Jolly, 2008; Paraham, 1993). For example, Parham (1993) argued that learning to balance academic and athletic pursuits is often a serious challenge for student-athletes. Specifically, he points out the stress of an "in season" athlete in attempting to balance attending class, study hall, and academic appointments, as well as going to practice, participating in strength and conditioning programs, and taking time to care for injuries or aches and pains (Parham, 1993). Similarly, Jolly (2008) explained that within the athletic culture, extreme time demands and the often uneasy marriage between athletics and academics in the university setting contribute to the difficulties that student-athletes often face when pursuing a successful academic career.

Parham (1993) also argued that meeting academic demands can be especially challenging for the student-athlete who is inadequately prepared for college. This claim is particularly troubling for DI athletes, as the literature surrounding them has reported that athletes' academic performance is lower than that of their peers (Adler & Adler, 1985; Maloney & McCormick, 1993; Pascaella & Smart 1991; Shulman & Bowen, 2001; Stuart 1985). Additionally, much

evidence supports the claim that DI athletes enter college with lower high school records, test scores, and GPAs than non-athletes (Hood, Braig & Ferguson 1992; Kiger & Lorentzen, 1999; Maloney & McCormick, 1992; Parcella & Smart 1991; Purdy, Eitzen & Hufnagel, 1985; Stuart 1985).

Whereas the research on DI student-athletes has shown that they often struggle academically, research on DIII populations has demonstrated significantly different findings in many ways (e.g., Aries, McCarthy, Salovey & Banjai. 2004; Richards & Aries, 1999; Robst & Keil, 2000). However, very few studies have specifically investigated this population, and with 39% of student-athletes competing at this level (Irnik, 2016), representing this sub-group is an important step in understanding the student-athlete experience overall.

Three important studies demonstrate the positive academic outcomes for DIII institutions. The first is Richards & Aries' (1999) study of 219 senior athletes and non-athletes at a small northeastern residential liberal arts college. Their study aimed to assess the costs and benefits of athlete participation at a DIII institution by investigating the time demanded by athletic teams versus other groups, the difficulties posed by membership on athletic teams, the effects of athletic participation on academic success, involvement with non-athletes and other extracurricular groups and activities on campus, and on growth and wellness. Findings from this study revealed that athletes and non-athletes did not differ in number of hours a week spent studying, though athletes spent significantly more time on extracurricular activities than non-athletes. With regard to difficulties posed by athletic membership, student-athletes reported that participation in athletics made invitations to social events easier to obtain, though they struggled more than non-athletes to join other extracurricular groups, attend on and off campus events, and make friends outside of their groups. Student-athletes also reported more difficulties being taken

seriously by their professors than non-athletes, though their academic success did not differ significantly from non-athletes. Finally, results revealed no overall differences in campus involvement or well-being and growth between student-athletes and non-student athletes. Although the results of this study are important, particularly in identifying that student-athletes did not differ from non-student athletes in their academic success, the small sample size from one institution may limit the generalizability of the results.

The second study is Robst & Keil's (2000) investigation of Birmingham University. The study included all undergraduate students taking at least 12 credits and examined student-athlete grades and graduation rates compared to non-athletes. Results indicated that once SAT scores and high school rank were controlled for, non-transfer student-athletes had significantly higher GPAs than non-athletes. Although this result demonstrated that student-athletes had lower ability scores than non-athletes, it also pointed out that studies that do not account for ability scores might link student-athletes with poor academic performance inaccurately. Results also indicated that despite lower ability scores, student-athletes took more credits and a harder course load per academic year than non-athletes. Finally, student-athletes were found to have higher graduation rates than non-athletes. Results from this study were important in specifying the differences between student-athletes and non-athletes based on ability scores; however, they were limited to one highly selective institution. The authors therefore discuss the need to investigate other DIII populations from a variety of settings.

Finally, a study by Aries, McCarthy, Salovey & Banjai (2004) investigated the academic performance and personal development of student-athletes and non-athletes at two schools, an Ivy League school and a DIII school, over four years. Results of the study indicated that students spending 10 or more hours per week in athletic activities had lower entering credentials

and academic self-assessments than non-athletes. However, the academic performance of student-athletes was not lower than expected based on their entering profiles. Additional findings indicated that athletes surpassed non-athletes in sociability and self-reported well-being, and student-athletes were not isolated from the student body. Findings did not differ based on gender. The results of this study confirmed much of what Richards and Aries (1999) and Robst & Keil (2000) found with regard to the positive experiences and outcomes of DIII student-athletes. However, participants of the study attended schools with very high admissions standards, with an average entering SAT score of 1450, and students were predominantly white from well-educated families. Therefore, the authors advise exercising caution when attempting to generalize the results.

The findings presented in these three studies suggest that student-athletes experiences and outcomes may differ based on the type of institution they attend. The researchers argue that these important findings might contradict popular stereotypes that athletes are uninterested students who concentrate only on sports and that athletics have negative effects on college experiences and academic performance (Richards & Aries, 1999; Robst & Keil, 2000). Overall, each of the studies discussed found many of the assumptions held about student-athletes to be untrue which may call into question the ways in which athletics has been and should be studied. These divisional differences provide evidence for the need to investigate potential differences across a variety of student-athlete subgroups. Additionally, the limited samples of each of the DIII studies limit the generalizability of the findings and suggest a need for further investigation into other similar populations.

Student-Athlete Motivation

Within the literature on student-athletes, motivation has been studied in a number of ways. Although many studies indicate that motivation is an important construct in studying the student-athlete experience and their academic success (e.g., Gaston-Gayles, 2004, 2005; Guidotti, Minganti, Cartis, Piacentini, Tessitore & Capranica, 2013; Matsushima & Ozaki, 2015; Parker et al., 2016; Ryska, 2002; Simons et al., 1999; Snyder, 1996), there is little consistency in how motivation is measured and what details are considered in the analyses. It is therefore important to identify how studies analyze motivation so as to identify areas that may be in need of further attention.

In his 1996 study, Snyder assessed the levels of expressed academic motivation among Black and White student-athletes at both DI and DIII institutions. Participants were asked to respond to a series of situations where they were offered both academically inclined and athletically inclined alternatives. Results of the study provided noteworthy evidence about the differences in motivation between Black and White athletes, including the finding that Black student-athletes were more drawn to play professional sports than White student-athletes. Interestingly, these differences were only significant at the DI level, and not at the DIII level. However, findings did not provide insight into how motivation affected academic performance. Although it is interesting that White and Black students differed in how they selected roommates and prepared for final exams, these findings do not necessarily contribute practical significance to the academic support of student-athletes.

In another study on achievement motivation, Simons and colleagues (1999) investigated the relationship of motivational orientation to academic performance and identification. In a sample of 361 DI student-athletes, commitment to athletics was shown to correlate negatively with college GPA. Findings of the study indicated that fear of failure and the relative

commitment to athletics can play important roles in the academic motivation of both revenue and non-revenue student-athletes. Revenue sports are generally considered to be Men's Basketball and Football, as they bring in a majority of the revenue to an athletics program. All other sports are considered non-revenue. According to this research, when student-athletes are more motivated by athletics, they generally make lower grades than those who are motivated to succeed academically. The authors suggest that these findings are the result of the nature of college athletics to pressure students into increasing commitment to athletics while minimizing their academic commitment. Though the overall findings of this study are important to our understanding of student-athlete motivation, they also leave important questions unanswered. For example, the authors tested for differences between subgroups of athletes, finding that males and females were significantly different, and that nonrevenue and revenue athletes were significantly different on the measures of motivational types. However, the researchers did not test for differences on academic performance (GPA) based on these subgroups. Considering the significant differences found between groups on the motivational scores, it might also be true that GPA correlations would differ between groups as well. Although the overall negative correlation between athletic commitment and GPA was found to be significant, it may not be a true negative correlation for every group. Therefore, it might be important to separate the types of student-athletes based on their specific characteristics to pinpoint areas of concern.

Another study by Simons and Van Rheenen (2000) focused on the athletic-academic relationship and achievement motivation of 200 DI student-athletes. This study revealed that one of the central problems facing student-athletes at academically elite institutions was finding a balance between academic and athletic demands. Specifically, the study measured background and noncognitive variables including athletic-academic commitment, academic self-worth, and

self-handicapping excuses. Athletic-academic commitment was measured using five items on a questionnaire that were created based on Snyder's (1985) conception of four types of student-athletes: scholar athlete, one who is equally committed to both athletics and academics, pure scholar, one who is completely committed to academics, pure athlete, one who is completely committed to athletics and nonscholar/nonathlete, one who is committed to neither. Using these items, the authors concluded that academic identity, or academic commitment, was critical to academic success. Academic self-worth was measured using three items modified from the Rosenberg Self Esteem measure (Rosenburg, 1965) that the authors selected "based on their theoretical consistency and past empirical validity" (p.172). Findings from these items indicated that self-worth was also critical to academic success. Self-handicapping excuses was measured by a six-item Likert scale that assessed the tendency to report excuses for lowered levels of academic effort and performance. The findings from this scale indicated that student-athletes that scored higher on the self-worth scale scored lower on the self-handicapping excuses.

Although this study addressed achievement motivation and commitment (termed identity in the study's discussion) and their significance to academic performance, the measures were created specifically for the study and had therefore not been previously assessed for validity and reliability. The scale to measure athletic-academic commitment consists of only four items, all of which are written in a way that is biased towards sports (e.g., "I care more about sports than school) even though the scale is measuring both academic and athletic commitment. Additionally, the scale to measure academic self-worth is said to be based on Rosenberg's Self Esteem measure; however, the developed items bear little resemblance to the original items (e.g. "All in all, I am included to feel that I am a failure in school" became "Do you think you have the ability to succeed academically here at UC Berkeley?"). Thus, even though the authors

chose items based on theoretical consistency and past empirical validity, there is little reason to believe the newly developed items would share the same consistency and validity. Finally, the authors do not cite any theoretical or empirical evidence for the items on the self-handicapping excuses scale, so it is unclear why these particular items were chosen to test the construct. Overall, the findings presented in this study represent potentially important information regarding both achievement motivation and academic commitment or identity; however, it is unclear how trustworthy the findings are due to inconsistencies in the methodology and a lack of replicated studies using the same scales.

Matsushima and Ozaki (2015) also connected identity and motivation in their study on 109 female Japanese students from two private universities. This study examined academic motivation by focusing on individual differences in their sense of identity. Findings indicated that differences in psychosocial identity and self-identity account for significant variation in the students' attitudes toward classes, academic motivation and lecture self-evaluation. This study clearly links a sense of identity to academic motivation, which is particularly relevant to the current research. However, as the study only included female Japanese students and did not focus on student-athletes, more research is needed to confirm this relationship within American students who participate in college athletics.

In a recent study related to attribution theory, Parker et al. (2016) discussed the challenges student-athletes face in transitioning from high school to college that can undermine their academic motivation and class attendance. They explored Attributional Retraining treatment interventions and found that the AR treatment assisted competitive student-athletes who had low control beliefs by increasing perceived success in the course, post-treatment test performance, year-end course grades, and by reducing course withdrawals. The authors argued

that the results demonstrate the benefits of an attribution-based motivation treatment for vulnerable student-athletes in terms of perceived course success, performance and persistence in making the transition from high school to college. This study is relevant to the current research in that it demonstrates the positive relationships between the increased motivation and academic performance in student-athletes. Its focus, however, is also on DI student-athletes. Thus more evidence is needed to investigate the results within different populations of student-athletes.

In another study on student-athlete motivation, Gaston-Gayles (2004) used expectancy-value theory to explore both academic and athletic motivation of DI student-athletes and how motivation views influenced academic achievement. Using a 30-item scale based on Atkinson's (1957) expectancy-value theory that included subscales for student athletic motivation, career athletic motivation and academic motivation, Gaston-Gayles sought to explore the relationship between athletic and academic motivation and whether motivation would predict academic performance. Results indicated that ACT score, ethnicity and academic motivation were influential in predicting academic performance. This finding proved to be important to the literature in that it disproved studies such as Sellers (1992) which claimed that high school GPA and mother's occupation were the only significant predictors of black student-athletes. Additionally, Gaston-Gayles' (2004) findings contradicted those of Simons et al. (1999), showing that athletic motivation did not negatively impact academic performance. This research is critical to the current study in that it was the first to contest the idea that motivation to perform athletically has a negative relationship to academic motivation and performance. Additional research is needed to further investigate these constructs across various subgroups of student-athletes to identify if the results are consistent. Gaston-Gayles (2004) focused only on one DI institution, thus it will be important to identify not only if results are similar in larger, more

representative samples, but also in different divisions of student-athletes that might have differing college experiences.

Gaston-Gayles (2005) followed this research with a study on the factor structure and reliability of the scale used in her previous study, the SAMSAQ. Findings from this study revealed a three-factor structure with acceptable reliability scores. Differences in motivation based on gender, race and sport were also considered, and findings demonstrated that females had significantly higher academic motivation than athletic motivation scores, non-white students had high athletic and career athletic motivation scores compared to their academic motivation scores, and revenue athletes had higher athletic motivation than academic motivation scores. Like Gaston-Gayles' previously discussed study, participants only consisted of DI student-athletes.

In 2013, Guidotti et al. aimed to validate the SAMSAQ with an Italian group of student-athletes. Findings confirmed the three factor structure, though discrepancies between the two models were found and items on subscales needed adjustment. Notably, results demonstrated no differences in motivation scores between males and females or levels of competition. This opposes Gaston-Gayles (2003) findings that male student-athletes had higher athletic motivations than their female counterparts, and that motivation scores differ based on level of competition. This research is important in that it provides further insight into the factor structure of the SAMSAQ and provides an alternative perspective on gender and levels of competition differences within the student-athlete population. Thus, additional research is needed to identity the uses of the SAMSAQ in different populations and to investigate the potential differences in subgroups of student-athletes.

Additional studies focusing on student-athlete academic and athletic motivation have found differing results regarding the effect of the two constructs on academic performance. For example, Ryska and Vestal (2004) found that high school student-athletes who were motivated in their sport were able to carry over that motivation into the academic realm. Student-athletes who had higher athletic motivation spent a greater amount of time and energy on academic preparation, utilizing information processing, time management, personal effort, task persistence, self-testing and skill improvements. Findings from this study supported others who have argued that discipline gained from collegiate athletic competition can be transferred to the academic realm (e.g. Astin, 1984; Eccles, 2004; Hollembeak & Ambrose, 2005). However, other research suggests a negative relationship between academic and athletic motivation (Adler & Adler, 1985; Lucas & Lovaglai, 2002). For example, Lucas and Lovaglai (2002) found that students with high athletic motivation had low motivation on academic tasks. The study focused on comparing non-athletes and athletes at a large, DI institution, and researchers suggested that findings may be different in countries other than the United States where athletics are treated differently.

Findings across these studies suggest that academic motivation plays an important role in the academic success of student-athletes, and it is therefore an important construct to consider in investigating the student-athlete college experience. Of the aforementioned studies, only Snyder (1996) considers a DIII population. Gaston-Gayles (2004; 2005) and both of Simons et al.'s (1999; 2000) studies used a Division I population to address student-athlete academic performance. Other cited studies (e.g. Adler & Adler, 1995; Lucas & Lovaglai, 2002) use DI populations as well, while Ryska & Vestal (2004) focus on high school students. Therefore, there is a need to continue this work in more diverse populations, including the DIII population. It is possible that findings in a DIII population may differ significantly from those of DI populations

due to the differences in their college experiences. Additionally, previous literature regarding the differences in academic performance between DI and DIII student-athletes may also give reason to expect differences in motivational findings. Whether differences exist or not, however, current findings demonstrate the importance of motivational constructs on academic performance. It is therefore important to continue the work to fully understand the constructs in various sub populations of student-athletes.

Some of the previously discussed studies consider identity constructs in addition to motivational constructs. For example, both Simons' (1999; 2000) studies use self-worth theory to discuss motivation, while Simons and Van Rheenen (2000) specifically discuss the importance of academic identity to motivation. These results align well with the previous discussion on expectancy-value theory. According to the theory, tasks are important or of value if individuals view them as central to their own sense of selves (Wigfeild & Eccles, 2003). Thus, a student-athlete will place high value on athletic and academic tasks based on whether he or she has a strong sense of athletic or academic identity. Therefore, the combination of motivation and identity constructs might have the potential to provide important insight into the student-athlete experience and their academic success. The following sections will discuss identity development, role-identity theory, athletic identity and student identity in the context of understanding student-athletes.

Identity Development

Much of the research on developmentally-based personal identity has relied on Erikson's (1959) psychosocial theory of identity. Erikson's work is based on what he termed the "epigenetic principle" that development unfolds through a predetermined set of stages, the fifth explicitly focused on identity with adolescence characterized by a dynamic between identity

synthesis and identity confusion (Schwartz, Donnellan, Ravert, Luyckx & Zamboanga, 2012). From Erikson's concepts, Marcia (1966) extracted independent dimensions of exploration and commitment that permitted empirical measurement. According to Marcia (1966), exploration referred to the consideration of various potential alternative sets of goals, values and beliefs, while commitment referred to choosing and adhering to one or more of these alternatives. These two dimensions were then divided into high and low levels of choice and commitment that when crossed created four identity statuses. These four statuses were originally theorized to vary hierarchically in terms of levels of maturity of self-regulation and complexity of social functioning, with the lowest status having low maturity of self-regulation, or an ability to monitor one's own behavior, and low complexity of social functioning, while the highest status exemplified self-regulatory behavior and complex social functioning (Marcia, 1980). These four statuses are diffusion (low choice, low commitment), foreclosure (low choice, high commitment), moratorium (high choice, low commitment), and achievement (high choice, high commitment). According to Cote and Swartz (2002), identity diffusion reflects apathy and lack of concern about directing one's life and is considered the least mature and least complex status. Some research has shown individuals who remain in the diffusion status too long past adolescence to be prone to drug abuse, risky sexual behavior, and academic failure (Jones, 1994; Jones & Hartmann, 1988; White, 2000). Identity foreclosure, thought to be a more mature status than identity diffusion, is defined by embracing some form of commitment. Foreclosed individuals, however, are said to have low development complexity, to be close-minded and to over-identify with their parents (Cote & Swartz, 2002). Identity moratorium involves an individual taking proactive steps in considering identity alternatives and is therefore considered a more mature and complex status. This stage is also said to have higher levels of anxiety and

uncertainty as it is a temporary transitional stage towards a resolution of the identity stage (Kidwell, Dunham, Bacho, Pastorino & Portes, 1995; Meeus, Iedema, Helson, & Vollebergh, 1999). The last stage, identity achievement, represents resolution of the identity stage and is considered the most mature and functionally complex status. Empirical studies often associate identity achievement with balanced thinking, mature interpersonal relationships, and give and take relationships with parents (Boyes & Chandler, 1992; Dyk & Adams, 1990; Jackson, Dunham & Kidwell, 1990).

Identity Foreclosure. Of particular interest to the study of student-athletes is the status of foreclosure, as many studies describe student-athletes as either being in a state of identity foreclosure or as being overcommitted to the athletic role (Chartrand & Lent, 1987; Nelson, 1983; Petitpas & Champagne, 1988). Danish, Petitpas and Hale (1993) argue that foreclosure may be brought on by the demands and expectations of the environment or may be a result of personal choice. Regardless of how foreclosure is brought on, it has been associated with rigidity and authoritarianism (Marcia, 1966), but it has also been associated with high degrees of self-esteem, life satisfaction and psychological well-being (Swartz et al., 2012). Other research on foreclosed men has shown them to be immature in moral and ego development, to have low levels of autonomy or independence and to have an external locus of control, meaning that they believe success or failure is a result of external factors beyond their control (Marcia, Waterman, Matteson, Archer & Oriofsky, 1993; Petitpas, 1978). Research on college undergraduates has also shown identity foreclosure to be associated with a dependent decision making style, in which responsibility for important decisions is deferred to others (Blustein & Phillips. 1990). With regard to student-athletes, some authors have suggested that the demands of intercollegiate athletics, combined with the restrictiveness of the athletic system may not only

isolate athletics from mainstream college activities (Parham, 1993), but also restrict their opportunities for exploratory behavior and promote identity foreclosure (Chartrand & Lent, 1987; Nelson, 1983; Petitpas & Champagne, 1988). Empirical studies have supported this claim, showing that upper-class student-athletes were significantly more foreclosed than their non-athlete peers (Good, Brewer, Petitpas, Van Raalte, & Mahar, 1993; Petitpas, 1981). Additionally, research has shown that many student-athletes have restricted career and educational plans, which is consistent with the idea that exploratory behavior is restricted in this population (Blann, 1985; Kennedy & Dimick, 1987).

Role-Identity Theory

Another important theory for student-athlete research within the identity literature is role-identity theory. According to McCall & Simons (1966), role-identity theory is defined as the character that individuals devise for themselves when occupying specific social positions. They argue that role-identities stem from the preferred perceptions that someone has of his- or herself as different social positions are occupied. Thus, individuals occupy various social positions within their lives, and how they prefer to see themselves in those social positions define different role-identities for that individual. As such, role-identities influence people's everyday lives by serving as their primary source of personal action plans (Owens, Robinson & Smith-Lovin, 2010). Owens, Robinson and Smith-Levin (2010) explain, "the theory has a view of people capable of creativity and improvisation in the performance of their roles, yet within the overall requirements and restrictions of their social position(s)…this commingling of individuality, idiosyncrasy, and impulsiveness with behavior construed by social convention occurs through a dialog between the "I" and the "be" bounded by the broad dictates of one's role-identity" (p.481). Thus, within this theory the role of social positions is critical to a person's identity.

The theory also regards people as having multiple and often competing role-identities, which can come and go during one's life course. An important part of the theory, therefore, is to attempt to explain which role-identities people value most and will thus attempt to perform (Owens, et al., 2010). McCall & Simons (1966) argue that a person's role-identities are organized in a hierarchy of prominence and that prominence reflects the relative value a specific role-identity has for that person's overall conception of his or her ideal self. The prominence of a role-identity is determined by a number of factors including, commitment to the role-identity, how prior actions agree with the role-identity, how significant others feel about the role-identity, and what rewards may or may not have been received previously from the role-identity (McCall & Simons, 1996).

The idea of competing role-identities is important to student-athletes due to their dual roles as both students and athletes. Student-athletes may experience either the student or athlete role as prominent over the other based on their commitment to either role, their past experiences or how their friends and families perceive them. In accordance with Expectancy-Value Theory, which asserts that individuals' choice, persistence, and performance can be explained by their beliefs about how well they will do on an activity and the extent to which they value the activity (Wigfield & Eccles, 2000), Role-Identity Theory tells us the value an individual places on a specific role-identity will determine how prominent that role is to one's sense of self. In this way, the beliefs and self-perceptions of an individual are critical in understanding their priorities and motivations. To better understand how a student-athlete functions in a college environment, it is important to investigate both their role as an athlete and as a student and how those role-identities might impact their experiences of success.

Athletic Identity

Athletic identity is an important construct in the literature on the student-athlete population. The athletic identity construct is credited to Brewer and colleagues (1993) and is defined as "the degree to which an individual identifies with the athlete role." It is described in its narrowest sense as a cognitive structure, and it in its broadest sense as a social role (Brewer et al., 1993). In their 1993 piece, Brewer et al. describe the potential benefits and costs of a strong athletic identity. Some benefits include the development of a salient self-identity as well as opportunities to develop athletic skills, engage in social interaction, measure their abilities and build confidence. They also discuss how strong exclusive athletic identity can have a positive effect on athletic performance as well as its connection to engagement in healthy exercise behavior. Some of the costs discussed include emotional difficulties as a result of injury and emotional disturbance as a result of athletic career termination. Additionally, they discuss how individuals who strongly commit themselves to the athlete role may be less likely to explore other career, education and lifestyle options (Pearson & Petitpas, 1990). Lastly, Brewer et al. (1993) discuss the possibility of overcommitted individuals engaging in sport or exercise to an unhealthy extent.

Since these initial postulations, empirical research has demonstrated that high levels of athletic identity are linked to positive athletic performance (Horton & Mack, 2000), less focus placed on academics and lower academic adjustment during college years (Brown, Glastetter-Fender, & Shelton, 2000; Cornelius, 1995; Lally & Kerr, 2005; Melendez, 2010; Ryska, 2002), delayed skill acquisition related to career development (Grove, Lavallee & Gordon, 1997; Murphy et al., 1996), and difficulty transitioning out of sport participation (Alfermann, Stambulova & Zemaityte, 2004; Lewis, 1993). One study in particular showed that student-athletes identified strongly with the athlete role, which caused them some difficulties adjusting to

the workplace after college, and that they also acknowledged the importance of succeeding in both student and athlete roles to their overall sense of satisfaction and well-being (Harrison & Lawrence, 2003). In another study, Harrison, Strong, Shapiro, Yee, Boyd and Rullan (2009) showed that athletic identity actually led to increased performance and an academic task, postulating that the athlete role in this circumstance served as a positive stereotype increasing confidence.

In the last decade, research on student-athlete identity has begun to question whether differences exist among different groups of student-athletes (Strum, Feltz & Gilson, 2010). Previous research on DI student-athletes suggests that athletic identity exists more strongly than student or academic identity. One example of this is Adler and Adler's (1985, 1991) seminal qualitative pieces conducted on male basketball players at DI Universities. The researchers found that although freshmen came into college with optimistic views about academics, their views changed after their first year when they began to sense a lack of importance placed on their academics. The result of this change was that many athletes enrolled in easier courses and majors with the purpose of maintaining eligibility throughout their athletic career. Specifically, Adler & Adler (1991) found that the social factors impacting athletic identity included individuals such as coaches, other students, boosters, fans, and also commitments, benefits, and detriments of being a student-athlete. Athletic identify was found to fluctuate due to these social factors, and was found to strengthen over time due to time commitment to basketball, social interactions identifying student-athletes as athletes and perceived rewards from athletic identities.

Marx et al. (2008) argued that this example demonstrates how collegiate athletes who strongly commit to their team or sport may find it difficult to develop a balanced student-athlete

identity. However, this research has been contested in a number of important studies. One example is Meyer (1990) who attempted to replicate Adler and Adler's (1985) study with female basketball players and found that female athletes at the DI level were successfully able to balance roles of collegiate student and athlete. Meyer (1990) interviewed ten DI women's basketball players and found that, like the men in Adler's (1985) study, the women began college with an idealistic view of education. However, unlike Adler and Adler (1985), this view was strengthened over time. Meyer's (1990) findings suggest that women's athletic subculture in addition to their classroom and academic experiences may influence or reinforce educational optimism. Consequently, Meyer (1990) found that athletic identity increased for female student-athletes over time, and student identity was not negatively impacted by athletic identity.

Another important study that contested initial findings on athletic identity was Miller and Kerr's (2002) study on Canadian student-athlete athletic identity. Researchers interviewed eight 4th and 5th year athletes and were able to identify three components of their experience as athletic, academic and social spheres. They found that athletes had strong athletic identity early in their college experience but developed stronger student identities later in their college career. Miller and Kerr (2002) theorized that the contradiction between their results and Adler & Adler's (1985, 1991) results were due to the commercialization of DI athletics in the United States.

In response to the varying results regarding athletic identity and a lack of evidence from DIII institutions on the subject, Strum, Feltz and Gibson (2011), completed a study that compared athlete identity between DI and DIII student-athletes. Findings from this study demonstrated that regardless of division level, females held a weaker athlete identity and a significantly stronger student identity compared to males. This result was not surprising due to finding from several other studies confirming this idea and showing that females' commitment to

the student role increase as they progress through college (e.g. Meyer, 1990; Miller & Kerr, 2002; Sack & Thiel, 1985). However, some findings from the Strum and colleagues (2011) study were surprising. Results suggested that student-athletes at DI schools had similar athletic and academic identity levels as student-athletes attending DIII schools. Contrary to the research highlighting differences between DI and DIII experiences (e.g., Richards & Aries, 1999; Robst & Keil, 2000), Strum et al.'s (2011) results suggest that the DI environment does not promote athletic identity any more than the DIII environment. These findings provide an important backdrop for the present study as they focus on DIII student-athletes and provide insight into their athletic identity. However, Strum and colleagues (2011) discuss the modest number of participating universities sampled as a limitation of their study. Therefore, it is important to build upon these results by providing further insight into the DIII student-athlete experience.

Similar to Strum et al.'s (2011) findings, Beron and Piquero (2016) found no differences among divisions when studying athletic and student identity. Their study examined athletic and student identity correlates with student-athlete GPA at DI, DII and DIII institutions and found no evidence for two widely presumed beliefs: "that DI student-athletes' focus on athletics more than student-athletes in the "less competitive" divisions leads them to worse academic outcomes, and that the athletic identity of male student-athletes has a greater impact on academic performance than female student-athletes. This research is particularly important to the current study in that it not only compares DI and DIII athletes, but illustrates contradictory findings in need of futher research.

In another study that considered athletic identity and academic identity in both DI and DIII student-athletes, Feltz, Schneider, Hwang and Skogsberg (2013) proposed a structural equation model by which a perceived coaches positive regard for an athlete's academic ability,

athletic identity, and academic identity predicts the perceived stereotype threat while controlling for gender, race/ethnicity, type of sport, and division level. While the results regarding stereotype threat are not within the scope of the current study, the results regarding athletic and academic identity are of particular relevance. Across all sports, academic and athletic identity were found to be negatively correlated; however, when males and females were tested separately, the correlation was only found significant in females. Additionally, when DI and DIII were separated, academic and athletic identity were only found to be negatively correlated for DI student-athletes. The negative relationship did not differ based on sport played. Interestingly, the findings regarding female versus male athletic identity confirm the results from Strum, Feltz and Gibson (2011); however, the negative correlation between athletic and academic identity in DI student-athletes only is inconsistent with Strum, Feltz & Gibson's (2011) conclusion that no difference existed between DI and DIII student-athletes.

Other studies addressing potential differences between subgroups of student-athletes have consistently found females to have lower athletic identity than males (e.g. Melendez, 2010; Miller & Kerr, 2005). In an additional study focused only on female student-athletes, Migano, Brewer, Winter & Van Raalte (2006) found that female student-athletes attending women's colleges had higher athletic identity than female student-athletes attending coeducational schools. These findings demonstrate how athletic identity can vary even within a subpopulation based on the type of institution and provide evidence to support the need for further exploration of the construct within these various subpopulations.

Despite some of the contradictions present in the literature on athletic identity, the results of many studies demonstrate that athletic identity is an important construct in understanding the experiences and academic success of student-athletes.

Academic Identity

Compared to the available research on athletic identity, a limited amount of research has examined student identity in college student-athletes. As previously discussed, Strum and colleagues (2011) compared athlete and student identity in DI and DIII student-athletes and found a negative correlation between athlete identity and student identity. Additionally, Pot, Schenk and van Hilvoorde (2014) studied changes in athlete and student identity of 10 to 12-year-old boys and girls after competing in soccer. This study was not included in the athletic identity review due to its focus on young children as opposed to college athletes. The study focused on 304 boys and girls from the Netherlands that had not participated in any sport programs prior to the study. Surveys measuring athletic identity (Athletic Identity Measurement Scale; AIMS; Brewer et al., 1993) and student identity (Psychological Sense of School Membership; Goodenow, 1993) were completed prior to completing the program and following the program. Findings indicated that athletic identity was higher and academic identity was lower at the end of the program than it was at the beginning. However, the difference in student identity was not significant for girls. Pot et al. (2014) also noted that student identity decreased over the school year for boys whether they participated in a sport program or not.

Several other studies have indicated that being an athlete had a negative effect on academics (e.g. Adler & Adler, 1991; Miller & Kerr, 2002). Although findings overall suggest a negative relationship between athletic identity and academic identity, the scarcity of studies specifically assessing these constructs together indicates that there may be a need for further investigation.

Study Instruments

The measures for the current study included the Academic and Athletic Identity Scale (AAIS) and the Student-athletes' Motivation toward Sports and Academics Questionnaire (SAMSAQ). The following sections explain each scale in detail.

AAIS. A majority of quantitative studies on athletic identity have measured athletic identity using the Athletic Identity Measurement Scale (AIMS; Brewer et al., 1993) which recent research has found to be problematic. Masco & Webb (2006) point out the conflicting results studies using the AIMS scale have produced. For example, Murphy el al. (1996) found a negative relationship between scores on the AIMS and career maturity levels of student-athletes, but Brown and Hartley (1998) did not find the same relationship. Additionally, Brewer et al. (1993) suggested that a high AIMS score would reduce the number of other roles the individual includes in his or her self-concept, but Horton and Mack (2000) did not find a relationship between high AIMS scores and neglect to other life roles. According to Yukhymenko-Lescroart (2014), multiple studies have also demonstrated the conflicting psychometric properties of the AIMS scale (Burns, Jasinski, Dunn & Fletcher, 2012; Hale, James & Stambulova, 1999) and yet the AIMS scale continues to be heavily relied upon to measure the athletic identity construct. Hale et al. (1999) go so far as to argue that the psychometric instability of AIMS requires us to consider all prior results using the AIMS as a unidimensional concept and suggests that it may be necessary to return to "step one in instrument construction and produce more consistent items that clearly describe all the facets of this multidimensional construct" (p.96-97).

In response to this need to create a more reliable, valid instrument that captures the multidimensional nature of the athletic identity construct, Yukhymenko-Lescroart (2014) calls on social identity theory (Tajfel, 1978; Tajfel & Turner 1979) to reconstruct an instrument to

measure athletic identity called the Academic and Athletic Identity Scale (AAIS). A fundamental assumption of social identity theory is that society consists of social groups, and people form social identities based on these social groups which then influence behavior (Yukhumenko-Lescroart, 2014). Thus, because individuals may identify themselves with multiple social groups simultaneously, they can have multiple social identities (Deaux, 1996; Rocas & Brewer, 2002; Scanlon, Rowling, & Weber, 2007). For student-athletes, this becomes apparent in the context of the academic institution in which they are simultaneously expected to have both student and athlete identities (Sturm, Feltz, & Gilson, 2011). According to Lally (2005), however, one particular dimension of an individual's identity may become dominant or preferred depending on the situation. Student-athletes are considered to fall into one of two groups: student-athlete or athlete-student. The student-athlete identifies himself/herself with the academic domain and values academic success over athletic success. On the other hand, the athlete-student identifies himself/herself with the athlete role and values success in sport over academic success. Much previous research on DI athletes suggests that athletic identity is higher for these students than academic identity, leading Strum et al. (2011) to argue that when student-athletes are balancing the two contexts of athletic and academic, athlete identity usually takes precedence. Based on social identity theory, there is a need to consider multiple contexts for identity, particularly for student-athletes who are expected to function in multiple roles simultaneously. Therefore, for the purposes of this study, the researcher chose to substitute the AAIS scale for the AIMS scale in hopes of better capturing the multidimensional student-athlete experience.

SAMSAQ. Gaston-Gayles (2004; 2005) used and validated Student-athletes' Motivation toward Sports and Academics Questionnaire (SAMSAQ), to examine the relationship between athletic motivation, academic motivation, career athletic motivation, and academic performance.

Despite its initial hypothesized two factors (athletic motivation and academic motivation), factor analyses demonstrated a three factor scale that includes athletic motivation, academic motivation and career athletic motivation. The reliability estimates for each sub-scale were found to be acceptable with the athletic motivation sub-scale (Factor 1) as .86, the career athletic motivation sub-scale (Factor 2) as .84, and the academic motivation sub-scale (Factor 3) as .79 (Gaston-Gayles, 2005). For the purposes of the current study, only the athletic motivation and academic motivation subscales were used.

The purpose of this literature review has been to create a framework and rationale for the continued study of identity, motivation and academic performance for DIII student-athletes. More research should be conducted to further explore motivation and identity as predictors of academic performance, particularly in a DIII environment. Both Yukymenko-Lescroart (2014) and Gaston-Gayles (2004) used DI populations in their respective studies, so further research should be done using the same scales in different populations. Assessing motivation and identity at DIII institutions might be particularly helpful in not only further validating these scales, but also providing new insight into the college experiences of student-athletes at these institutions.

Qualitative Questions. In addition to the quantitative measures, the current study will also include open-ended qualitative questions to capture student-athletes' perceptions of their college experiences, identity, motivation and performance. A majority of the research on student-athlete motivation has measured motivation using survey instruments (e.g., Gaston-Gayles, 2004; Simons et al., 2000; Snyder, 1996). Therefore, there is a need to explore motivation through different methods, including qualitative methods. Additionally, early literature on athletic identity used primarily qualitative methods, with Adler and Adler (1985) and Meyer (1990) using observational and interview data to report on student-athlete identity.

However, much of the more recent literature on athletic identity has used the AIMs to study athletic identity (e.g., Brewer et al., 1993; Murphy et al., 1996; Strum et al., 2011). As mentioned in the section on the AAIS, the AIMS does not include measures of academic identity that may be equally as important to study as athletic identity. Therefore, there is a need to continue the early qualitative work on athletic identity and expand it to include both the athletic and academic identity constructs that are included in the AAIS scale. Ultimately, collecting qualitative data on both motivation and identity for DIII student-athletes will add to the existing literature in important ways that have been largely unexplored thus far.

Summary

The discussion included in this review of the literature highlights a number of important factors to consider in the study of student-athletes. First, it discussed the current debate surrounding the measurement and prediction of academic performance using noncognitive variables such as motivation. It then discussed expectancy-value theory as the theoretical framework for the current study, explaining its potential uses in both academic and athletic domains. Following the discussion of expectancy-value theory, research on student-athlete academic performance was reviewed, indicating the potentially biased results generated from empirical studies focusing primarily on DI student-athlete populations. Three studies focused on DIII student-athlete academic performance were also reviewed in detail, demonstrating the small sample sizes and limited generalizability of the studies.

Next, the literature on student-athlete academic motivation was reviewed, demonstrating that a majority of the research is again focused on DI populations and also that results across studies were inconsistent among various sub-groups of student-athletes. The discussion of motivation then led into a review of identity literature that included sections on identity

development, identity foreclosure and role-identity theory. Role-identity theory was discussed as an important connection to expectancy-value theory and a critical element to the student-athlete college experience due to their dual roles as students and athletes. Following the theoretical discussion of identity, athletic identity and academic identity literature was discussed. Literature on athletic identity demonstrated the inconsistent findings across different groups of student-athletes and highlighted the need to further investigate the construct. Additionally, literature on student identity demonstrated the lack of empirical studies available, highlighting the need to consider this construct along with athletic identity in order to fully represent the student-athlete experience.

The review finished with a discussion of the motivation and identity scales and qualitative questions that were used in the current study. Scales include motivation and identity constructs that cover the academic and athletic roles of student-athletes and therefore provided the researcher with important data regarding DIII student-athletes. Additionally, the qualitative questions explored less-represented areas in the current study.

Below are the hypotheses or working hypotheses for each of the research questions of the current study.

1. Quantitative: What are the relationships among academic identity, athletic identity, academic motivation and athletic motivation for DIII student-athletes?

   Hypotheses: Based on expectancy-value theory and the research available on identity and motivation, the researcher expected there to be a positive correlation between academic identity and academic motivation, as well as athletic identity and athletic motivation (Brewer, at al., 1993; Eccles, 1983; Matsushima & Ozaki, 2015; McCall & Simons, 1966). Some studies also argue that it is possible to transfer motivation from an athletic domain to other

domains (e.g. Astin, 1984; Eccles, 2004; Hollembeak & Ambrose, 2005). In this case, was also be reason to believe there might be a correlation between athletic motivation and academic motivation. A few studies have also made the argument that athletic identity and academic identity are not mutually exclusive, and that it is possible for an individual to have high levels of identity in both (Brown et al., 2000; Gayles, 2005; Harrison & Lawrence, 2003). However, other studies have shown a negative relationship between athletic identity and academic identity (Lally & Kerr, 2005; Yopyk & Prentice, 2005). Due to the discrepancies in the literature on this topic and the empirical differences that have been found in DIII populations, the researcher recognized that unexpected findings are possible. The researcher also expected to find no correlation between academic identity and athletic motivation as there is no literature to support such a connection. However, due to the exploratory nature of studying the constructs in a DIII population, the researcher chose to include all options for relationships.

2. Quantitative: To what extent do athletic motivation, academic motivation, athletic identity, or academic identity predict academic performance for DIII student-athletes?

Hypothesis: Previous literature has indicated that academic motivation and academic identity can positively predict academic performance (Gaston-Gayles, 2004), and that athletic motivation and athletic identity can negatively predict academic performance (Gaston-Gayles, 2004; Lally & Kerr, 2005). The researcher expected to find similar results; however, unexpected findings were possible due to the lack of empirical research on DIII student-athletes.

3. Quantitative: Are there differences in identity, motivation or performance based on sport, gender, or school year?

Hypothesis: Research has demonstrated that female student-athletes have lower athletic identity, higher academic identity, higher academic motivation, and higher academic achievement than male student-athletes (e.g., Melendez, 2010; Meyer, 1990; Strum, et al., 2010). Additionally, research suggests that student-athletes in revenue producing sports such as football and basketball have lower academic motivation and performance, while also having higher athletic identity and motivation than student-athletes in other sports (Simons et al., 1999). Finally, research has demonstrated that athletic identity increases and academic motivation and performance decreases as student-athletes progress through college (Adler & Adler, 1989). Due to the lack of studies focused on DIII student-athletes and the differences present between their experience and others, it was possible that differences might exist between findings from the current study and previous literature. However, based on what is currently known, the researcher expected to find differences among gender, sport, particularly basketball and football, and school year, particularly freshmen and seniors given their proximity to high school and graduation, respectively.

4. Qualitative: How do student-athletes describe academic and athletic success at DIII institutions?

Working Hypothesis: Based on previous research regarding DIII populations (e.g., Aries, et al., 2004; Richards & Aries, 1999; Robst & Keil, 2000), the researcher expected student-athletes to describe overall positive experiences at their institutions. The researcher sought to identify specific details to which student-athletes attribute their experiences, whether positive or negative.

5. Qualitative: What are student-athletes' perceptions of their academic and athletic identities and motivations at DIII institutions?

Working Hypothesis: Due to the mission of NCAA DIII institutions to balance academics with athletics (ncaa.org), the researcher expected to find that student-athletes report relatively balanced academic and athletic identities and motivation. However, the researcher expected there to be differences among sub-groups of student-athletes, and believed the qualitative data might provide insight into the different experiences of these sub-groups.

6. Mixed Methods: To what extent do quantitative identity and motivation scores converge with student-athletes' perceptions of their identity and motivation?

Working Hypothesis: The researcher expected the quantitative and qualitative findings to converge overall. The researcher synthesized complementary quantitative and qualitative results to develop a more complete understanding of the DIII student-athlete experience, their identities, motivation and academic performance.

Chapter III – Methodology

This chapter contains an overview of the methodology employed in the current study. Following a description and rationale of the study design, the chapter outlines the quantitative and qualitative phases of the study in detail, including the participants and setting, measures, data collection and analysis procedures, and validity concerns for each phase. The chapter concludes with a discussion of the mixed methods data analysis, Institutional Review Board considerations and delimitations of the study.

Research Questions

1. Quantitative: What are the relationships among academic identity, athletic identity, academic motivation and athletic motivation for DIII student-athletes?
2. Quantitative: To what extent do athletic motivation, academic motivation, athletic identity, or academic identity predict academic performance for DIII student-athletes?
3. Quantitative: Are there differences in identity, motivation or performance based on sport, gender, or school year?
4. Qualitative: How do student-athletes describe academic and athletic success at DIII institutions?
5. Qualitative: What are student-athletes' perceptions of their academic and athletic identities and motivations at DIII institutions?
6. Mixed Methods: To what extent do quantitative identity and motivation scores converge with student-athletes' perceptions of their identity and motivation?

Research Design

Mixed Methods Design. According to Creswell and Plano Clark (2011), mixed methods research is defined by core characteristics that differentiate it from other types of research. These characteristics include, collecting and analyzing persuasively and rigorously qualitative and quantitative data based on research questions, mixing or integrating the two forms of data by merging them sequentially or embedding them, giving priority to one or both forms of data, doing so in a single study or in multiple phases of a program of study, framing the procedures within philosophical worldviews, and combining the procedures into specific research designs that direct the plan for conducting the study. There are many reasons to conduct mixed-methods research, some of which include one data source being insufficient to answer the research questions, explaining initial results, generalizing exploratory findings, enhancing a study with a second method, employing a theoretical stance, or understanding a research objective through multiple phases (Creswell & Plano Clark, 2011). Some of the advantages of using mixed methods research are that it can provide more evidence than quantitative or qualitative research alone, help answer complicated questions, provide a bridge between qualitative and quantitative researchers, encourage the use of multiple worldviews, and be a practical solution to research allowing the researcher to use all methods necessary to address a problem (Creswell & Plano Clark, 2011).

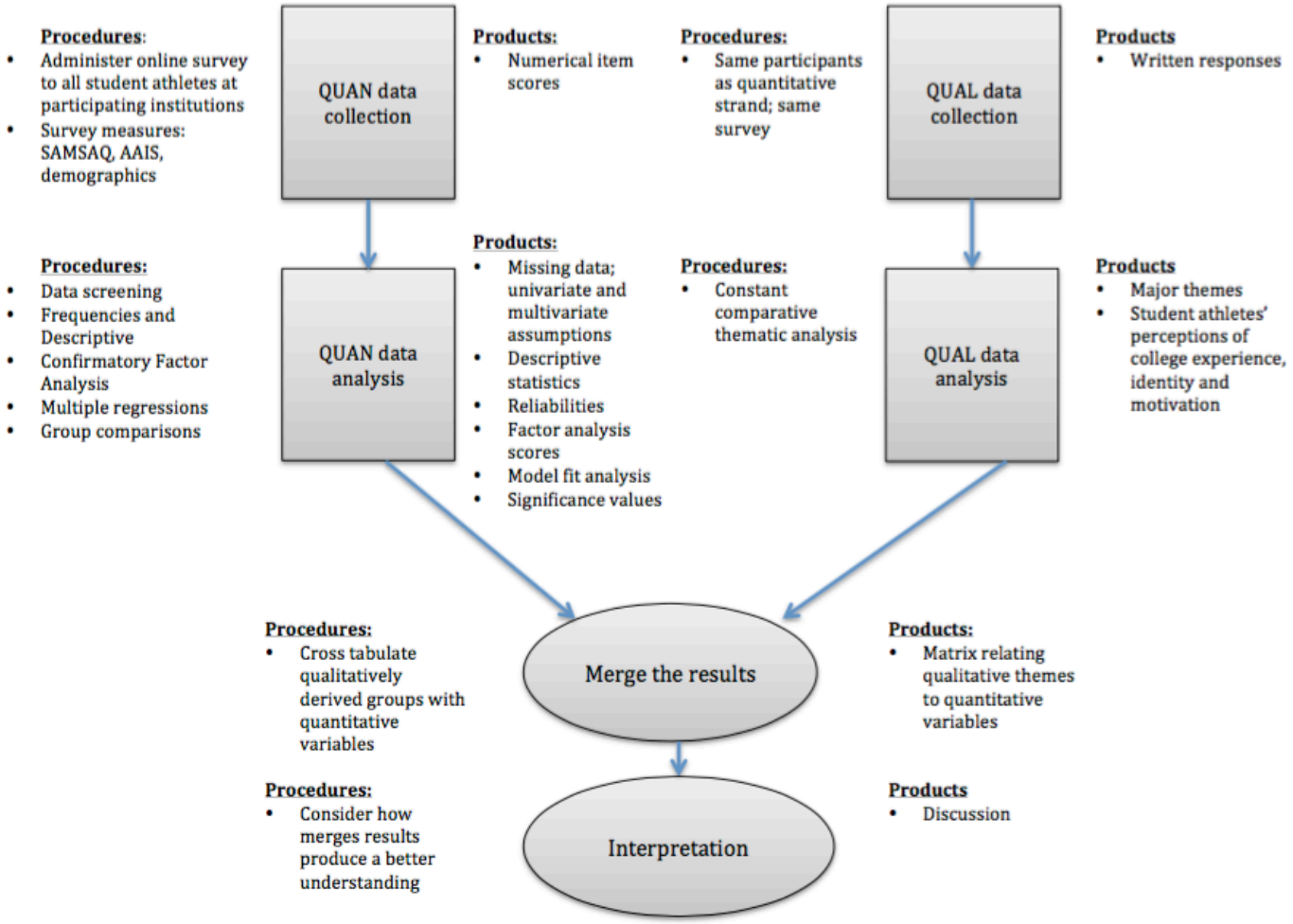
The current study employs a parallel convergent mixed methods design (Creswell & Plano Clark, 2011). The purpose of the convergent design is "to obtain different but complementary data on the same topic" (Morse, 1991, p122) to best understand the research problem. Specifically, this design is used when the researcher wants to triangulate results, illustrate quantitative results with qualitative findings, compare levels within a system, or

synthesize complementary quantitative and qualitative results to develop a more complete understanding of a phenomenon. As such, the quantitative and qualitative phases generally have equal importance in the study. The design is noted as QUAN + QUAL = complete understanding.

According to Creswell and Plano Clark (2011), the parallel convergent design is comprised of four steps. These steps are: (a) collect both quantitative and qualitative data concurrently but separately; (b) analyze data sets separately using typical quantitative and qualitative procedures; (c) merge the results of the two data sets; and (d) interpret to what extent the two sets of results converge, diverge, relate, and/or combine to create a better understanding in response to the study's overall purpose.

In the first phase of the current study, the researcher collected quantitative and qualitative data concurrently in the form of an online survey with both quantitative and qualitative questions. The researcher then analyzed the two data sets separately using quantitative and qualitative analytic techniques in the second phase. In the third phase, the researcher directly compared the results of the quantitative and qualitative data (Creswell & Plano-Clark, 2011). Finally, the researcher interpreted the extent to which the two sets of results converge, diverge, relate, and/or combine to create a better understanding in response to the study's overall purpose. Figure 2 provides a diagram of the current study's design phases, procedures, and products.

Figure 2. Diagram of Deign Phases, Procedures and Products



Design rationale. The researcher chose this particular design to assist in developing a more complete understanding of the DIII student-athlete experience. A sole quantitative portion would not be sufficient to understand the athletic and academic experiences of student-athletes. There are a number of extraneous variables that may contribute to student-athletes' identity, motivation or success. For this reason, qualitative and quantitative data will

complement one another by providing both in depth details and large sample generalizable results regarding the DIII student-athlete experience.

Specifically, the researcher chose to use a modification of the data-validation variant to guide the data collection design. The data-validation variant is used when the research includes both open- and close-ended questions on a questionnaire (Creswell & Plano-Clark, 2011). This model was chosen primarily due to an understanding that the student-athlete population has limited time outside of their academic and athletic schedules, particularly those student-athletes who are in season. Additionally, the researcher expected multiple institutions to participate (personal communication with universities, 2016); therefore, the sample size had the potential to be very large, making a questionnaire that includes both quantitative and qualitative questions the most logical choice. While the data-validation variant generally focuses on qualitative data confirming or validating quantitative data, the researcher deferred the purpose to the original convergent design that calls for synthesizing complementary quantitative and qualitative results to develop a more complete understanding of a phenomenon. It was possible that the qualitative findings would confirm or validate the quantitative findings; however, findings might have also "converged, diverged from each other, related to each other, and/or combined to create a better understanding in response to the study's overall purpose" (Creswell & Plano-Clark, 2011, p.78). Therefore, the researcher did not limit the qualitative analysis to validation but reported a full analysis of qualitative findings. This will be particularly important given the lack of qualitative research on the current study's population.

Convergent Design

Due to the nature of a parallel convergent design, the participants and setting, recruitment, and data collection procedures were identical for both phases of the study. These

details are therefore presented together. The measures, instruments, data analysis and validity concerns are then discussed in separate quantitative and qualitative sections.

Participants and setting. The sample was obtained from 11 institutions belonging to the same DIII athletic conference in the Mid-Atlantic United States. Participants were identified and recruited using a nonprobability convenience sampling procedure. Nonprobability sampling is sampling that is not random but, rather, based on judgments of the researcher (McMillan, 2015). A convenience sample is one that is accessible to the researcher (McMillan, 2015). Therefore, all student-athletes from each participating institution were invited to participate in the survey, or all coaches at each participating institution were invited to share the survey with their teams. The targeted sample size was between 300 to 350 participants. Comrey and Lee (1992) argued that a sample size of 200 is fair, 300 is good, 500 is very good and 1,000 is excellent. However, as a rule of thumb, "it is comforting to have at least 300 cases for factor analysis" (Tabachnick & Fidell, 2007, p. 613). Additionally, a power analysis for a multivariate analysis of variance with three predictors was conducted in G*Power to determine a sufficient sample size using an alpha of 0.05, a power of 0.95, and a medium effect size ($f^2 = 0.05$) (Faul et al., 2013). Based on the aforementioned assumptions, the desired sample size was calculated as 176. Therefore, the final sample size of 361 participants for the current study was considered adequate.

Recruitment. The researcher recruited students with help from the athletic directors at each participating institution. Athletic directors received an email (Appendix B) outlining the purpose of the study and the procedures associated with data collection. If the athletic director agreed to participate, the researcher then worked with the athletic director to ensure all school requirements (i.e. IRB) were met prior to data collection. With the help of the athletic director,

the researcher then contacted student-athletes via e-mail to invite them to participate in the study. In some cases, the athletic director preferred that the researcher contact coaches to access student-athletes. In those situations, the coaches were sent the recruitment email and asked to forward to their student-athletes. The recruitment email can be found in Appendix C. The email contained information about the purpose and scope of the study and a link to the online survey.

Data collection procedures. The researcher administered a web-based survey tool that includes the AAIS, the SAMSAQ, demographic questions and open-ended qualitative questions. The survey took approximately 15 to 20 minutes to complete. Students were invited to take the survey via an email from their athletic director, their coach, or the researcher, depending on the institutions' preferences. Students were not asked to report identifiable information outside of demographic information.

The researcher required students to identify as a consenting adult prior to beginning the survey. Students were presented with a screen that described the study and defined requirements for participating. By clicking "next" students confirmed that they were 18 years or older. The screen presented the student with the appropriate information concerning his or her rights and confidentiality as well as the researcher's contact information. Continuing with the survey constituted participation consent.

Quantitative Phase

Measures. The following section describes the quantitative measures used in the current study. They include demographic questions, the AAIS and the SAMSAQ.

Demographic questions. The researcher asked participants to answer several demographic questions to provide background information that may be relevant to their academic or athletic identity and motivation. These demographic questions included estimated

grade point average (GPA), gender, projected graduation year, and sport played. Although there has been some debate about collecting self-reported GPA, Cassady (2001) found the use of self-reported GPA to be highly reliable (r = .97), indicating that students typically are able to accurately predict their actual GPA. The researcher used all demographic information to assist in understanding how the variables relate to identity and motivation.

Academic and Athletic Identity Scale. Assessment of academic and athletic identity employed the use of the Academic and Athletic Identity Scale (AAIS; Yukhymenko-Lescroart, 2014). Yukhymenko-Lescroart (2014) provided evidence for a two-factor 11-item model as an acceptable fit and found that all item loadings in the model were statistically significant ranging from .76 to .92 for academic identity and from .82 to .91 for athletic identity (full factor loadings and standard errors available in Yukhymenko-Lescroart, 2014). Additionally, the subscales were found to have reasonable omega coefficients of .92 for academic identity and .94 for athletic identity.

The AAIS consists of 11 items designed to measure the degree of centrality to student-athletes' self-identification as students and athletes. Responses to scale items are made on a 6-point Likert-type scale ranging from *not central to my sense of self* to *very central to my sense of self* with higher scores representing something that is considered more central to one's self. Five of the items are concerned with academic identity (e.g. being a capable student and getting good grades) while six of the items focus on athletic identity (e.g. being a good athlete or being satisfied with my athletic achievements). A complete list of the survey items can be found in Appendix D. A summation of the six items on the AAIS that relate to athletic identity provided the athletic identity score for each participant, and a summation of the five items on the AAIS that relate to academic identity provided the academic identity score. Scores on the athletic

identity subscale can therefore range from 6 to 36, whereas scores on the academic identity subscale can range from 6 to 30 with higher scores indicating a high level of athletic or academic identity, respectively.

Student-athletes' Motivation toward Sports and Academics Questionnaire. The Student-Athlete's Motivation toward Sports and Academic Questionnaire (SAMSAQ; Gaston-Gayles, 2003) measures student-athletes' athletic, academic and career athletic motivation. Each of the subscales included in the instrument have well-established psychometric properties (Cronbach's α = .86, .79, and .84 for each subscale, respectively). In their responses to scale items, participants indicated their level of agreement with each statement on a 6-point Likert scale, ranging from very strongly agree (6) to very strongly disagree (1).

The SAMSAQ includes 30 total items; however, this study only used the 16 items from the academic motivation subscale (e.g., "I am willing to put in the time to earn excellent grades in my courses) and the 8 items that measure athletic motivation (e.g., Achieving a high level of performance in my sport is an important goal for me this year). The career athletic motivation scale was not used as it does not measure a construct of interest in this study. A complete list of the items can be found in Appendix E. Student-athletes' overall academic and athletic motivation scores were obtained by computing mean values for each item on the subscales. Higher mean values indicated higher academic and athletic motivation.

Pilot testing. The researcher conducted a pilot test for the quantitative survey questions with a similar student population but avoided recruiting student-athletes who attended a school that would participate in the study. The pilot test was administered online using a google forms survey and was sent to potential participants via e-mail. Following the results of the pilot test, the researcher was able to accurately predict the time participants spent on completing the survey

and made a few minor changes to the format and layout of the survey. Some of these changes included making the image associated with the AAIS scale larger and easier to see on a mobile device, and re-wording some of the instructions for the survey. The researcher did not change the items from the instruments as they have already been previously validated.

Data analysis procedures. Prior to conducting the primary analyses for the proposed study, the researcher screened the data for assumptions and missing data. The researcher used frequency tables to screen for missing data and then decided if there were missing data that could be deleted list-wise or pair-wise. Frequency tables also assisted the researcher in observing univariate outliers and irregularities. The researcher also evaluated skewness and kurtosis through histogram displays with skewness and kurtosis statistics. The researcher examined Levine's Test and a correlation matrix to check for homogeneity of variance and multicollinearity among variables, respectively.

In order to answer the proposed quantitative research questions, the researcher completed several steps to analyze the survey data. First, the researcher assessed descriptive statistics to observe information on the measures of central tendency (mean, median, and mode), and maximum, minimum, and range statistics. These descriptive statistics allowed the researcher to determine the presence of outliers, skewness, or extreme scores. Next, the researcher employed factor analyses to test the psychometric properties of the scales used in the study. While the SAMSAQ scale had been validated in multiple populations, it had not been used in the DIII population. Similarly, the AAIS is a relatively new scale that had not been validated in a DIII population. Therefore, the researcher used a confirmatory factor analysis to check the factor loadings of these scales in the current sample.

The researcher then used correlations to answer the first research question: "What are the relationships among academic identity, athletic identity, academic motivation, athletic motivation and academic performance for DIII student-athletes?" Bivariate correlations allowed the researcher to examine the relationships among the key variables in the study. Previous empirical studies have shown positive relationships between academic identity and academic performance as well as academic motivation and academic performance (e.g., Gaston-Gayles, 2005; Ryska, 2002). Other studies have shown negative relationships between athletic identity and academic performance in DI populations (e.g., Adler & Adler, 1985; Marx et al., 2008). Other relationships, such as the relationship between athletic identity and academic motivation, have not been fully explored. Based on the differences present in the current population, it was important to assess whether or not the same relationships among variables were present.

The researcher then used a hierarchical linear regression analysis to answer the second research question: "To what extent do athletic motivation, academic motivation, athletic identity and academic identity predict academic performance for DIII student-athletes?" The hierarchical linear regression allowed the researcher to determine if the SAMSAQ motivation subscores and the AAIS subscores are significant predictors of academic performance, as measured by self-reported cumulative GPA. Background and demographic characteristics including sport played, gender, and school year, were entered into the first block of the regression, and motivation and identity subscores were entered into the second block. Hierarchical regression analyses allowed the researcher to determine the variance of the scale subscores on academic performance, above and beyond the variance accounted for by the background and demographic variables alone.

Finally, the researcher used multiple MANOVAs and a T-test to answer the third research question: "Are there differences in identity, motivation or performance based on sport, gender, or

school year?" The first MANOVA provided a sub-group comparison of academic motivation, academic identity, athletic motivation and academic motivation based on sport played (football, basketball, soccer, volleyball, etc.). The second and third MANOVAs provided a comparison of the constructs based on gender and on school year (freshman, sophomore, junior or senior). These results are important to extend the literature that has found differences among various sub-groups of student-athletes (e.g., Meyer, 1991; Strum, et al., 2010).

Validity. Validity is defined as "an overall evaluation of the extent to which theory and empirical evidence support interpretations that are implied in given uses of the scores" (McMillan, 2008; p. 131). One potential threat to the validity of the quantitative measures is selection bias. As the survey was sent to every student-athlete at all participating campuses, it was possible that those who opted to participate differed systematically from those who do not. For example, one team might have decided they all wanted to participate while another choose not to participate, or teams that were in season may have been less likely to answer than teams who are out of season, so the time the surveys are sent could have changed who decided to participate.

A major concern in survey designs is external validity, or "the extent to which the investigator can conclude that the results apply to a larger population" (Creswell & Plano-Clark, 2011, p. 211). Three important considerations for threats to validity in the current study were contextual or situational factors, Hawthorne effects and experimenter effects. As the survey was being administered to some student-athletes who knew the researcher personally, it was possible that participants might have been affected by the researcher's presence or by the idea of their results being studied. Contextual or situational factors at any given institution might have also impacted the validity of the results.

To address these potential threats, multiple waves of data within each institution were collected to allow maximum participation, and student confidentiality was ensured so that students could feel comfortable volunteering to participate in the survey. Additionally, procedures for survey administration were standardized to help minimize differing contextual or situational factors and limit the interactions between the researcher and the participants.

Need for Qualitative Data

The current study also included a qualitative phase in conjunction with the quantitative phase. In administering the quantitative phase, it was possible for the researcher to miss in-depth information that could be obtained through qualitative procedures. Therefore, the researcher included open-ended qualitative questions within the online survey. While the quantitative data provided results that demonstrate trends and are generalizable, quantitative data are not able to provide the details and depth that qualitative data can. To best respect the already limited time of the sample population, a survey that included open-ended questions was the most practical way to collect qualitative data without asking for a great time commitment from students. Considering the lack of research on this population, both quantitative and qualitative data were expected to be valuable in understanding the research problem.

The concurrent qualitative phase was guided by two research questions: "How do student-athletes describe their academic and athletic success at DIII institutions?" and "What are student-athletes' perceptions of their academic and athletic identities and motivations at DIII institutions?" These questions allowed the researcher to gain a more in depth understanding of the DIII student-athlete experience, particularly with regard to their identities and motivation. The researcher anticipated a number of ways in which the quantitative data might shed light on the experiences of this population and the relationships between the constructs in

question. Additionally, the researcher expected that the written qualitative data might contribute to a richer understanding of these quantitative results. Qualitative results also contributed to answering the overall question of how identity and motivation constructs provide insight into the DIII student-athlete experience and their academic success.

Qualitative Phase

Qualitative questions. The online survey contained seven open-ended questions following the quantitative scale items. Qualitative questions can be found in Appendix F. These questions addressed the fourth and fifth research questions: "How do student-athletes describe their academic and athletic experiences at DIII institutions?" and "What are student-athletes' perceptions of their academic and athletic identities and motivations at DIII institutions?" An example of an open-ended question used in the study is: "To what extent is being a successful student important to how you see yourself?" This question directly addresses the fifth research question and provides an opportunity for the participants to elaborate on the extent to which they consider their athlete role to be important to their identity.

The questions included in the qualitative portion are consistent with the literature on identity, motivation or the student-athlete population. Many of the questions are modeled after similar studies that have focused primarily on a different population of student-athletes so that the researcher can confidently compare previous results to the results of the current study.

Pilot testing. The researcher conducted a pilot test for the open-ended questions with a similar student population but avoided recruiting student-athletes who may attend a school that will participate in the study. The pilot test was administered online using a google forms survey and was sent to potential participants via e-mail. It asked student-athletes to answer the open-ended questions and comment on any wording that may be confusing or unclear. The researcher

then assessed the responses to see if questions resulted in any suggestions or unexpected answers. Following the pilot, a few questions were reworded and one question was added to specifically address student-athlete motivation in both academic and athletic domains.

Data analysis procedures. Once the surveys were complete and responses were compiled into an online database, the researcher separated the qualitative data and imported it into the qualitative program, ATLAS.ti, used for storing, coding and analyzing data. Open-coding procedures (Strauss & Corbin, 1998) were used to analyze the qualitative open-ended student responses and answer research question 4 and 5. Specifically, student responses were segmented into discrete categories. Categories were sorted, compared, and contrasted until no new categories emerged. Finally, categories were collapsed into central themes.

According to Merriam (2009), the step-by-step process of qualitative analysis includes category construction, sorting categories and data, naming the categories, deciding how many categories, and becoming more theoretical. During category construction, the researcher should be expansive in identifying any segment of data that might be useful. This portion of the qualitative analysis is called open coding because the researcher is being open to any possible outcome at this point (Merriam, 2009). Next, in the process of sorting categories and data, Merriam (2009) discusses the importance of the researcher moving from the highly inductive process of category construction to a more deductive mode of thinking in which the researcher "tests" tentative categories against the data. Once categories are constructed, the researcher must then name the categories based on one of three sources: the researcher, the participants, or the literature. Additionally, categories constructed during data analysis should be: (a) responsive to the purpose of the research; (b) exhaustive; (c) mutually exclusive; (d) sensitizing; and (e) conceptually congruent (Merriam, 2009). As a final step, the researcher collapsed categories into

central themes that helped summarize the overall qualitative results in response to the research problem.

Internal validity or credibility. Internal validity is concerned with the question of how research findings match reality. According to Merriam (2009), internal validity in qualitative research can be established through a number of strategies. One common strategy that was relevant to the current study was adequate engagement in data collection. Within this strategy, the researcher attempts to reach a point of saturation in the results so as to get as close as possible to the participants' understanding of a phenomenon. In addition to spending adequate time collecting data, the researcher also looked for variation in the understanding of the phenomenon. According to Patton (2002), the researcher should "look for data that support alternative explanations. Failure to find strong supporting evidence for alternative ways of presenting the data or contrary explanations helps increase confidence in the original, principal explanation you generated" (p. 553).

Another strategy related to the integrity of the qualitative data is termed researcher's position of reflexivity. According to Lincoln and Guba (2000), this is the "process of reflecting critically on the self as a researcher, the 'human instrument'" (p.183). This strategy was particularly important to the current study, as the researcher is personally invested in the topic. The researcher explained biases, dispositions and assumptions regarding the research at hand. Clarifying the researcher's assumptions, experiences, worldview and theoretical origination allows the reader to better understand how the researcher might have arrived a particular interpretation of the data (Merriam, 2009).

Reliability or consistency. Reliability refers to the extent to which research findings can be replicated; however, due to the nature of qualitative research, the more important question is

whether the results are consistent with the data collected (Merriam, 2009). Similar to ensuring internal validity or credibility, the researcher's position is a common strategy used to ensure consistency and dependability or reliability. Here again it was important for the researcher to explain biases, dispositions and assumptions regarding the current research.

Another strategy the researcher employed to ensure reliability is the audit trail. An audit trail describes in detail how the researcher collected data, derived categories, and made decisions throughout the research (Merriam, 2009). To create an audit trail, the researcher kept a detailed journal record of the process of conducting research and analyzing data.

External validity or transferability. External validity refers to the extent to which the findings of one study can be applied to other situations (Merriam, 2009). In qualitative research, this is termed transferability rather than generalizability in many cases due to the differences in understanding how quantitative versus qualitative data can be applied to other situations. In qualitative studies, there are several strategies to enhance the possibility of results transferring to another setting. Most common is the use of rich, thick description, or a highly descriptive, detailed presentation of the setting and the findings of the study (Merriam, 2009). In the current study, the researcher focused on a highly descriptive presentation of the study findings, as well as detailed descriptions of each of the participating institutions so as to put the qualitative findings in context.

Another strategy for enhancing transferability is maximum variation in the study sample. Maximum variation in the sites selected or the participants included in the study allows for the "possibility of a greater range of application by readers or consumers of the research" (Merriam, 2009, p. 227). The current study attempted to include maximum variation in the sample as it included schools within a conference and attempted to include all student-athletes at

each participating school. This allowed the researcher to represent a variety of different perspectives in the qualitative results.

Mixed Methods Data Analysis.

This study utilized mixed methods to obtain a richer understanding of DIII college athlete identity, motivation, experience and success. Data for the quantitative and qualitative phases of the study were collected concurrently through an online survey. Following data collection, the quantitative and qualitative results were analyzed separately using individual quantitative and qualitative analyses. Results from both phases were then compared in a merged data analysis. The most commonly used merged data analysis comparisons are side-by-side comparisons in which the quantitative results and qualitative themes are presented in a discussion or summary table, joint display comparisons in which the researcher arrays both qualitative and quantitative data in a figure or table in the results or interpretation, or data transformation in which the researcher transforms one type of data into another type so the databases can be easily compared in the results (Creswell & Plano Clark, 2011). Generally, the decision as to what comparison to use in the analysis is not made until the quantitative and qualitative data are analyzed separately. The researcher can then make an informed decision as to what type of comparison will suit the data best. The current study therefore used the most appropriate comparison based on the initial separate analyses. Ultimately, the researcher chose to use a side-by-side comparison primarily in discussion form along with two summary tables.

Following the decision of how to compare the two data sets, the researcher then specified what information was compared across the two dimensions. This was decided based on both the results from the quantitative and the qualitative analyses. Ultimately, the researcher chose to focus on quantitative and qualitative data that examined the details of each scale used in the

study. Finally, the researcher compared the merged results with the research questions and assessed whether or not there was a need for further analysis based on the convergence or divergence of the data.

Institutional Review Board Considerations.

Once the researcher's dissertation committee approved the proposed study, the researcher obtained Institutional Review Board (IRB) approval. Due to the nature of the proposed study, the researcher filed for exempt review status. The proposed study involved no more than minimal risk to the study participants and only included participants over the age of 18. The researcher followed all guidelines detailed by the IRB throughout the study.

Delimitations

The researcher chose to delimit the study to DIII student-athletes because of the lack of literature available on the population. Including multiple divisions in the study or including both non-student-athlete and student-athlete would have detracted from the specific purpose of this study. Additionally, the researcher was only interested in a particular DIII conference due to the importance of comparing students from different geographical regions but understanding the need to maintain manageability of the study. The researcher chose the particular conference out of convenience in order to garner the largest sample possible.

The researcher delimited the study to a mixed methods design because of the need to gain complementary information about the population that would help understand the problem. Quantitative data alone would give the researcher narrow results; however, the quantitative data is important in obtaining identity and motivation scores for each student-athlete. Thus, a mixed methods design allowed the researcher to obtain individual scores using

the quantitative measure while also collecting detailed accounts of the student-athlete experience with the qualitative phase.

Chapter IV: Findings

The purpose of the current study was to examine identity and motivation in DIII student athletes. There were six specific research questions that guided the study; questions one, two and three guided the quantitative portion of the study, research questions four and five guided the qualitative portion of the study, and the sixth and final research question guided the mixed methods portion of the study. The questions are as follows:

R1: What are the relationships among academic identity, athletic identity, academic motivation and athletic motivation for DIII student athletes?

R2: To what extent does athletic motivation, academic motivation, athletic identity, or academic identity predict academic performance for DIII student-athletes?

R3: Are there differences in identity, motivation or performance based on sport, gender, or school year?

R4: How do student-athletes describe their academic and athletic experiences at DIII institutions?

R5: What are student-athletes' perceptions of their academic and athletic identities and motivations at DIII institutions?

R6: To what extent do the identity and motivation scores converge with student-athletes' perceptions of their identity and motivation?

Using a Concurrent Mixed methods design, both quantitative and qualitative data were collected simultaneously and analyzed separately. To reiterate, both quantitative and qualitative

data were collected using an online survey that included the SAMSAQ and AAIS scales along with open-ended and demographic questions. After the data were analyzed separately, data from both phases were then analyzed together to make up the mixed methods analysis. The following chapter will present the findings from each of the three phases.

Participants and Descriptive Statistics

Data were collected in one phase that took place from February 2017 to May 2017. Data collection lasted four months due to varying time tables for different participating schools; however, each school's data collection took place over a two to three-week time period within the four months. A total of 361 participants completed the survey, with 358 providing enough information to be included in the study.

Overall, a total of 11 schools participated in the study, though the participation level at each school varied significantly with the largest school population making up 31.8% of the participants (n = 114), and the smallest school population making up only .8% of the total participants (n = 3). 21 sports were represented in the study population, with Baseball making up the largest portion of the study population (14.2%, n = 51), and Men's Track and Field making up the smallest portion (.6%, n = 2). The study sample consisted of slightly more females than males (57.5%, n = 206), and all age levels were represented in the study, with the highest participation level in the freshmen class (34.6%, n = 124), and the lowest participation in the senior class (17.3%, n = 63). Comparatively, demographic data for the conference represented in this study for the 2016 – 2017 school year consisted of 59.5% males (n = 3191), 26 sports and 14 schools (NCAA Demographics Database). Complete demographic data for the current study is listed in Table 1.

Table 1
Descriptive Statistics for Student-Athletes

Characteristic	*n*	Percent of total (n = 358)
Total participants	358	
Gender		
Male	151	42.2%
Female	206	57.5%
Other	1	.3%
School		
School 1	114	31.8%
School 2	28	7.8%
School 3	89	24.9%
School 4	53	14.8%
School 5	7	2.0%
School 6	18	5.0%
School 7	15	4.2%
School 8	4	1.1%
School 9	3	.8%
School 10	6	1.7%
School 11	21	5.9%
Sport		
Football	28	7.8%
Field Hockey	12	3.4%
Volleyball	31	8.7%
Men's Soccer	18	5.0%
Women's Soccer	28	7.8%
Men's Basketball	14	3.9%
Women's Basketball	20	5.6%
Wrestling	3	.8%
Baseball	51	14.2%
Softball	13	3.6%
Men's Lacrosse	9	2.5%
Women's Lacrosse	33	9.2%
Men's Tennis	8	2.2%
Women's Tennis	18	5.0%
Men's Golf	6	1.7%
Women's Golf	3	.8%
Men's Track and Field	2	.6%
Women's Track and Field	9	3%
Men's Swimming	3	.8%
Women's Swimming	14	3.9%
Equestrian	6	1.7%
Multiple Sport Athlete	29	8.1%
Graduation Year		
2017	62	17.3%
2018	73	20.4%
2019	97	27.1%

2020	124	34.6%
2022	2	.6%

As stated, participation among schools varied significantly. School 1 and School 3 were the only two schools considered to fully participate in the study as every athlete at the school received that survey. The athletic directors at these schools opted to provide the researcher with all student-athlete contact information, so surveys were sent directly to the students. School 1 is a private liberal arts college consisting of approximately 1400 undergraduate students, 55% of which are female, and 78% of which are white. School 3 is a small University consisting of approximately 2200 undergraduates, 48% of which are female and 80% of which are white and 650 graduate students. Out of the 484 student-athletes at School 1 and the 610 student-athletes at school 3, a total of 114 and 89 (respectively) participated in the study, which the researcher calculated to be a 24% response rate for School 1 and a 15% response rate for School 3.

The athletic directors from Schools 2 and 4 opted to send the surveys to their coaches to forward on to their respective teams. This resulted in some teams not receiving the survey as the coach opted not to send. For School 2, eight teams received the survey, and for School 4, 13 teams received the survey. School 2 is a small University consisting of approximately 2100 undergraduates, 60% of which are female and 77% of which are white and 650 graduate students, and School 4 is a small private college consisting of approximately 700 undergraduate students, 60% of which are female and 65% of which are white. After comparing the responses to the total responses from each of these teams, the researcher calculated a response rate of 15% for School 2 and 24% for School 4.

For the remainder of the schools, the researcher contacted coaches directly to send surveys to student-athletes. Therefore, only teams with coaches who agreed to send the survey

were given the opportunity to participate in the study. School 5 is a small University consisting of approximately 2000 undergraduate students and 1700 graduate students with 66% females and 57% white students. School 6 is a small liberal arts college with approximately 58% female and 81% white students of their 2000 undergraduates. School 7 is another small liberal arts school with approximates 1900 undergraduates consisting of 53% females and 68% white students. School 8 is a small women's college with an enrollment under 500 students, 71% of which are white, and School 9 is another small university with approximately 700 undergraduate women's and 154 coeducational graduate students, 74% of which are white. School 10 is a liberal arts college with an approximate enrollment of 1800 students, 53% of which are female and 60% of which are white, and School 11 has approximately 1200 undergraduate students, 63% of which are female, and 61% of which are white. Two teams from School 5 consisting of a total of 86 student-athletes, two teams from School 6 with a total of 52 athletes, four teams from School 7 consisting of 220 total student-athletes, two teams and 30 total student-athletes from School 8, two teams and 26 total student-athletes from School 9, three teams from School 10 consisting of 29 total athletes, and three teams from School 11 with a totally of 65 student-athletes were invited to participate in the study. After comparing the responses to the roster sizes from each of these teams, the researcher calculated a response rate of 24% for School 5, 8% for School 6, 35% for School 7, 7% for School 8, 13% for School 9, 11% for School 10, and 20% for School 11. The overall response rate for the study was therefore 32%. Table 2 reviews the demographic information for each of the schools discussed.

Table 2
Descriptive Data for Each School

Characteristic	*N*	Percent of Total	School enrollment	Graduate Students	Percent Female	Percent White	Total student-athletes to receive survey	Response Rate
School 1	114	31.8%	1400	N/A	55%	78%	484	24%
School 2	28	7.8%	2100	N/A	60%	77%	190	15%

School 3	89	24.9%	2200	650	48%	80%	610	15%
School 4	53	14.8%	700	N/A	60%	65%	220	24%
School 5	7	2.0%	2063	282	66%	57%	86	8%
School 6	18	5.0%	2037	N/A	58%	81%	52	35%
School 7	15	4.2%	1876	N/A	53%	68%	220	7%
School 8	4	1.1%	320	N/A	100%	71%	30	13%
School 9	3	.8%	645	145	100%	74%	26	11%
School 10	6	1.7%	1776	N/A	53%	60%	29	20%
School 11	21	5.9%	1275	N/A	63%	61%	65	32%

Quantitative Results

Preliminary analysis. Prior to beginning the quantitative analysis of the data, the researcher examined the data for missing cases and extreme outliers to determine whether there were any data points that needed to be excluded. Of the 361 surveys completed, only two were missing data. Other exclusions deemed necessary had to do with there being only one case in a particular category. Only two surveys were excluded due to irregular data. As such, only three surveys were removed all together for a total of 358 surveys used.

Prior to beginning the analyses, the researcher computed new variables using mean scores from the SAMSAQ and summation scores from the AAIS subscales as outlined in Chapter Three. The resulting variables were academic motivation, athletic motivation, academic identity and athletic identity. The newly computed variables were used in subsequent analyses.

Data screening. As discussed in Chapter Three, several assumptions were tested prior to the start of subsequent analysis. All assumptions, which were also addressed earlier in Chapter Three, were tested for each analysis prior to the primary analyses in SPSS. Descriptive statistics including central tendency (mean, median and mode), and maximum, minimum and range statistics were used to determine the presence of outliers, skewness, or extreme scores. Levine's Test and a correlation matrix were used to confirm homogeneity of variances and multicollinearity. Based on the outlier analysis, every dependent variable showed at least one

outlier. However, due to the low variability in responses, with SAMSAQ data ranging from 2.81-5.88 on the Academic Motivation sub scale and 2.1-6 on the Athletic Motivation subscale, and AAIS data ranging from 7-30 on the Academic Identity subscale, and 14-36 on the Athletic Identity subscale, the researcher decided to keep all outliers in the data for the analysis. Orr, Sackett & DeBois (1991) argue that the data are more likely to be representative of the population if outliers are kept in the analyses. Thus, the researcher opted to keep the outliers in hopes to having the most representative data.

In order to check for normality of the data, the Shapiro-Wilk test of normality in conjunction with Q-Q plots with kurtosis and skew statistics were evaluated. Rose, Spinks, and Canhoto (2015) highlight that the Shapiro-Wilk test should not be used alone but rather in conjunction with a plot and skewness and kurtosis values. If the Shapiro-Wilk is significant, there is indication that the data is not normal. As well, the skewness and kurtosis values were divided by their standard error to determine z-scores. If the z-scores are greater than + or – 1.96, there is indication of non-normal data (Rose et al., 2015). The Shapiro-Wilk test for each subscale was significant, indicating that the data deviates from normal distribution. The Q-Q plots indicated that some of the data deviated from the normal diagonal line. More so all values had z-scores for both skewness and kurtosis higher than + or – 1.96, indicating deviation from the normal distribution. All four of the variables were found to be skewed right with a positive kurtosis. Athletic motivation scores were skewed right with a skewness of -.780 (*SE* = .129) with a positive kurtosis score of .695 (*SE* = .257). Academic motivation scores were skewed right with a skewness of -.844 (*SE* = .129) with a kurtosis score of .845 (*SE* = .257). Athletic identity scores were skewed right with a skewness of -1.017 (*SE* = .129) with a positive kurtosis

score of .802 (*SE* = .257). Academic identity scores were skewed right with a skewness of -1.070 (*SE* = .129) with a positive kurtosis score of 1.612 (*SE* = .257).

Next, Pearson's bivariate correlation analysis were examined to evaluate potential collinearity. Multicollinearity was not found for any of the variables, as the *r* coefficients were below the maximum recommendation of .90. (Kline, 2011). All Pearson's *r* correlations can be found in Table 5.

Confirmatory factor analyses. In order to test the factor structure for the two instruments on student-athlete motivation and identity, CFA analyses were conducted. For student-athlete motivation, athletic motivation and academic motivation factors were tested. For student-athlete identity the factors of athletic and academic identity were tested. To assess the CFA models, the fit indices were examined as suggested by Little (2013). The first assessment of the model is the χ^2 test statistic. While it is recommended to have a non-significant χ^2 with a χ^2/df less than 3, knowing that the χ^2 is sensitive to sample size, other fit statistics need to be evaluated. The Root Mean Square Error Approximation (RMSEA) and the Standardized Root Mean Square (SRMR) should have the suggested values from .02 to .05 for good fit and .06 to .08 for acceptable fit, and .09 to .1 for an okay fit. Next, the Comparative Fit Index (CFI) and Tucker-Lewis (TLI) have recommended values between .95 to .99 for very good fit and .90 to .94 for acceptable fit, and .85 to .89 for an okay fit. The CFA models were conducted using the maximum likelihood estimation with robust standard errors and mean-and variance adjusted test statistic (MLMV) in Mplus 7.

Student-athlete identity. The model for the identity scale was found to be a reasonable fit, $\chi^2_{(42,\ 101.97)} = 2.43$, $p < .001$; RMSEA $_{(.048,\ .079)} = .063$; CFI = .96; TLI = .95; SRMR = .045. For academic identity, the item loadings ranged from .74 to .95, and for athletic identity, they

ranged from .52 to .86. Even though some of the item loadings are below the recommended value of .6, since the model is a reasonable fit, the item loadings can be accepted (Awang, 2012). All factor loadings and error variances can be found in Table 3. Since the CFA models were all found acceptable for the scales, reliability and descriptive data for the scales were analyzed.

Student-athlete motivation. The model fit for the student-athlete motivation scale was initially found not to be a reasonable fit $\chi^2_{(251,\ 398.885)} = 1.59$, $p < .001$; $RMSEA_{(.05,.07)} = .14$; CFI = .72; TLI = .69; SRMR = .096. The item loadings of the scale ranged from .012 to .698 for academic motivation and -.327 to .845 for athletic motivation. Since the model was found not to have an acceptable fit, the modifications indices were evaluated post-hoc. Modification indices in CFA can be used post-hoc but must be supported by theory and may capitalize on change (Ullman, 2001). The second CA model conducted allowed the covariance errors of M20 and M15 and M5(R) and M24 to correlate. The wording of M5, "I get more satisfaction from earning an "A" in a course toward my major than winning a game in my sport" is very similar to the wording of M20 "I get more satisfaction from winning a game in my sport than from getting an "A" in a course toward my major", and the wording of M5(R) "The most important reason why I am in school is to play my sport" is very similar to the wording of M24 "The most important reason why I am in school is to earn a degree." Upon looking closer at the model indices and wording of additional questions, the researcher also allowed the covariance errors of M15 and M20(R) and M20 and M15(R) to correlate. These questions were very similar in that M15 stated, "I get more satisfaction from earning an "A" in a course toward my major than winning a game in my sport," while M20 stated "I get more satisfaction from winning a game in my sport than from getting an "A" in a course toward my major." M20 was used on the athletic motivation subscale, and also on the academic motivation subscale as a reverse coded item,

while M15 was used on the academic motivation subscale and also on the athletic subscale as a reverse coded item. Once the model allowed for these covariances, the model was found to be a better fit, $\chi^2_{(247, 350.806)} = 1.42$, $p < .001$; RMSEA $_{(.036,.060)} = .048$; CFI = .802; TLI = .779; SRMR = .097. However, the item loadings for academic motivation ranged from .000 to .729 and -.073 to .853 for athletic motivation. Factor loadings for each subscale are listed below.

Table 3
Factor Loadings and Error Variances for the Final CFA Models

	Factor Loadings			Error Variances		
	Std. Est	SE	*p*	Std. Est	SE	*p*
Academic Identity						
Identity 1	0.741	0.039	< .001	0.451	0.058	< .001
Identity 2	0.866	0.020	< .001	0.251	0.035	< .001
Identity 3	0.947	0.014	< .001	0.104	0.026	< .001
Identity 4	0.869	0.023	< .001	0.244	0.041	< .001
Identity 5	0.753	0.036	< .001	0.434	0.054	< .001
Athletic Identity						
Identity 6	0.863	0.031	< .001	0.255	0.053	< .001
Identity 7	0.924	0.016	< .001	0.145	0.029	< .001
Identity 8	0.546	0.049	< .001	0.702	0.053	< .001
Identity 9	0.520	0.052	< .001	0.730	0.054	< .001
Identity 10	0.746	0.027	< .001	0.444	. 0.041	< .001
Identity 11	0.776	0.028	< .001	0.398	0.043	< .001
Academic Motivation						
Motivation 1	0.591	0.053	< .001	0.651	0.062	< .001
Motivation 3	0.609	0.050	< .001	0.568	0.072	< .001
Motivation 4	0.729	0.043	< .001	0.629	0.061	< .001
Motivation 5(R)	0.366	0.060	< .001	0.866	0.044	< .001
Motivation 7	0.278	0.072	< .001	0.923	0.040	< .001
Motivation 8	0.269	0.075	< .001	0.928	0.040	< .001
Motivation 9(R)	0.428	0.091	< .001	0.817	0.078	< .001
Motivation 15	0.115	0.058	< .001	0.987	0.013	< .001
Motivation 16(R)	0.305	0.074	< .001	0.907	0.045	< .001
Motivation 17(R)	0.488	0.058	< .001	0.762	0.056	< .001
Motivation 18	0.539	0.058	< .001	0.710	0.062	< .001
Motivation 20(R)	0.000	0.071	< .001	1.000	0.000	< .001
Motivation 21(R)	0.235	0.067	< .001	0.945	0.031	< .001
Motivation 23	0.416	0.060	< .001	0.827	0.050	< .001
Motivation 24	0.414	0.065	< .001	0.828	0.054	< .001
Motivation 25(R)	0.487	0.057	< .001	0.762	0.056	< .001
Athletic Motivation						
Motivation 2	0.657	0.055	< .001	0.568	0.072	< .001

Motivation 10	0.479	0.076	< .001	0.770	0.073	< .001
Motivation 11	0.613	0.053	< .001	0.624	0.065	< .001
Motivation 12	0.711	0.043	< .001	0.494	0.061	< .001
Motivation 13	0.853	0.033	< .001	0.272	0.056	< .001
Motivation 15(R)	-0.073	0.061	< .001	0.995	0.009	< .001
Motivation 20	0.233	0.055	< .001	0.946	0.025	< .001
Motivation 22	0.834	0.031	< .001	0.304	0.053	< .001

Reliability of the instruments. To assess reliability, Cronbach alpha scores were computed for each subscale in the study. Athletic identity had a Cronbach's alpha score of .923, Academic identity a score of .871, Athletic motivation a score of .810, and Academic motivation a score of .786. Overall, these were found to be acceptable. Individual reliability scores are presented below in Table 4.

Table 4

Reliability Tests for Scale Factors: Chronbach's Alpha (CA), Means (μ), and Variances (s), and Standard Deviations (SD).

Factors	CA	μ	s^2	SD
Student-Athlete Identity				
Academic identity	.924	25.32	17.59	4.19
1. Being a capable student		5.18	.728	.853
2. Being satisfied with y academic work		5.04	.978	.989
3. Doing well in school		5.19	.864	.930
4. Getting good grades		5.11	.822	.939
5. Having a high GPA		4.80	1.14	1.07
Athletic identity	.871	31.81	16.74	4.09
6. Being a capable athlete		5.31	.669	.800
7. Being a good athlete		5.28	.695	.834
8. Being athletic		5.33	.730	.855
9. Being proud to be an athlete		5.42	.844	.919
10. Being satisfied with my athletic achievement		5.22	.850	.922
11. Doing well during sport competitions		5.25	.833	.913
Student-Athlete Motivation				
Academic motivation	.786	4.90	.549	.740
M1. I am confident that I can achieve a high grade point average this year (3.0 or above)		5.10	1.55	1.25
M3. It is important for me to learn what is taught in my courses		5.36	.628	.793
M4. I am willing to put in the time to earn excellent grades in my courses		5.16	.825	.908

M5(R). The most important reason why I am in school is to play my sport		4.06	2.36	1.54
M7. I will be able to use what is taught in my courses in different aspects of my life outside of school		4.99	1.00	1.00
M8. I chose (or will choose) my major because it is something I am interested in as a career.		5.52	.727	.852
M9(R). Earning a high grade point average (3.0 or above) is not an important goal for me this year (Reversed)		5.34	1.55	1.24
M15. I get more satisfaction from earning an "A in a course toward my major than winning a game in my sport		3.80	2.13	1.46
M16(R). During the years I compete in my sport, completing a college degree is not a goal for me (Reversed)		5.83	.317	.563
M17(R). I have some doubt about my ability to earn high grades in some of my courses.		4.14	2.33	1.53
M18. I am confident that I can earn a college degree.		5.84	.287	.536
M20(R). I get more satisfaction from winning a game in my sport than from getting an "A" in a course toward my major.		3.78	1.89	1.37
M21(R). It is not important for me to perform better than other students in my courses.		4.03	2.24	1.50
M23. The content of most of my courses is interesting to me.		4.66	1.16	1.08
M24. The most important reason why I am in school is to earn a degree.		5.42	.827	.909
M25(R). The content of most of my courses is interesting to me		5.34	1.08	1.04
Athletic Motivation	.810	4.64	.549	.74
M2. Achieving a high level of performance in my sport is an important goal for me this year		5.35	.900	.949
M10. It is important to me to learn the skills and strategies taught by my coaches		5.19	.811	.901
M11. It is important for me to better than other athletes in my sport.		4.81	1.36	1.17
M12. The time I spend engaged in my sport is enjoyable to me.		5.04	1.15	1.07
M13. It is worth the effort to be an exceptional athlete in my sport.		5.25	.986	.993
M15(R). I get more satisfaction from earning an "A" in a course toward my major than winning a game in my sport. (Reversed)		3.20	2.13	1.46

M20. I get more satisfaction from winning a game in my sport than from getting an "A" in my course toward my major	3.22	1.89	1.37
M22. I am willing to put in the time to be outstanding in my sport.	5.09	1.00	1.00

Research question one findings. To answer the first research question, what are the relationships among academic identity, athletic identity, academic motivation and athletic motivation for DIII student-athletes, Pearson's product-moment correlations were conducted to assess relationships among the four major variables in this study. Preliminary analyses showed the relationships to be linear. Distribution and outlier concerns have been addressed in the previous discussion on preliminary analyses and data screening. A strong positive correlation was found between academic motivation and academic identity $r(98) = .599$ $p < .01$, and negative correlations were found between academic motivation and athletic motivation $r(98) = -.390$, $p < .01$, athletic motivation and academic identity $r(98) = -.115$, $p < .01$ and academic motivation and athletic identity $r(98) = -.110$, $p < .05$. Additionally, a strong positive correlation was found between athletic motivation and athletic identity $r(98) = .553$, $p < .01$, and a small positive correlation was found between academic identity and athletic identity $r(98) = .251$, $p < .01$. All correlations can be found in Table 5.

Table 5
Pearson's r Correlation Matrix

Variable	1	2	3	4
1. Academic Identity	1			
2. Athletic Identity	.251**	1		
3. Academic Motivation	.599**	-.110**	1	
4. Athletic Motivation	-.115*	.553**	-.390**	1

** Correlation is significant at the .01 level (2-tailed).
*Correlation is significant at the .05 level (2-taled)

Research question two findings. The second research question, to what extent does athletic motivation, academic motivation, athletic identity, or academic identity predict academic

performance for DIII student-athletes, was answered using a hierarchical linear regression analysis which allowed the researcher to determine if the SAMSAQ motivation subscores and the AAIS subscores were significant predictors of academic performance as measured by self-reported cumulative GPA. Prior to conducting a hierarchical multiple regression, the relevant assumptions of this statistical test were tested. A sample size of 358 was deemed adequate given the seven independent variables to be included in the analysis (Tabachnick & Fidell, 2001). Of the seven independent variables to be included in the analysis, three were considered demographic variables, including gender, sport and graduation year. Because these variables were nominal in nature, it was necessary to split the variables with multiple groups into "dummy variables" that could be recognized by the hierarchical multiple regression model. This resulted in the addition of 26 "dummy variables" in the place of sport (22 groups) and year (4 groups). The assumption of singularity was also met as the independent variables (athletic identity, academic identity, athletic motivation and academic motivation) were not a combination of other independent variables, and there was independence of residuals, as assessed by a Durbin-Watson statistic of 1.95. An examination of correlations revealed that no independent variables were highly correlated. All collinearity statistics (i.e., Tolerance and VIF) were within accepted limits with the exception of gender, which had a VIF score of 26.76; however, given that it is a categorical variable and no variables were highly correlated, the assumption of multicollinearity was deemed to have been met. Residual and scatter plots indicated the assumptions of normality, linearity and homoscedasticity were all satisfied (Pallant, 2001).

A two-stage hierarchical multiple regression was conducted with GPA as the dependent variable. Gender, sport and graduation year were entered at stage one of the regression to control

for differences in these areas. Identity and motivation variables were entered at stage two. Regression statistics are reported in Table 6.

Table 6
Hierarchical Multiple Regression Predicting GPA from Gender, Year, Sport, School and Identity and Motivation Variables

	GPA	
Result	Model 1	Model 2
R Squared	.167	.372
F	1.696	6.071
Adjusted R Squared	.068	.372
Adjusted F	1.696	38.955

The hierarchical multiple regression revealed that gender, sport, school and graduation year contributed slightly to the regression model R^2 = .167 $F(37,314) = 1.696$, p<.01. and accounted for 6.8% of the variation in GPA with adjusted R^2 = .068. Introducing identity and motivation variables to the model explained an additional 30.4% of variation in GPA, and this change was significant, R^2 = .372, $F(4,310) = 6.071$, P<.001, adjusted R^2 = .372. Both sets of variables significantly predicted GPA, though the Identity and Motivation variables predicted more of the variation in GPA than the demographic variables. Taken together, the variables accounted for 37.2% of the variation in GPA, a medium effect size according to Cohen (1988). Individually, academic motivation and academic identity (B = .240, $p > .001$; B = .044, $p > .001$, respectively) were found to lead to increases in GPA, while athletic identity (B = -.028, $p > .001$) was found to lead to decreases in GPA.

Research question three findings. To answer the third research question, are there differences in identity, motivation or performance based on sport, gender, or school year, *t*-tests and three MANOVAs were conducted to provide sub-group comparisons. For each of the tests, preliminary assumption checking revealed that data was not normally distributed for all of four of the variables, as assessed by Shapiro-Wilk tests ($p > .05$). Univariate and multivariate outliers

were both present, as assessed by boxplots and Mahalanobis distances ($p > .001$), but the researcher decided to keep all data points in the analysis. Linear relationships between variables were established using scatterplots, and no multicollinearity was found ($r < .9$). There was homogeneity of variance-covariance matrices for each analysis as assessed by Box's tests of equality of covariance matrices ($p > .05$), and homogeneity of variances was established by Levene's Test of Homogeneity of Variance ($p > .05$) for all but athletic motivation in the gender and sport tests ($p = .016$; $p = .017$, respectively) and athletic motivation for the test on school year ($p = .039$).

Hotelling's T was conducted to determine the differences in identity scores, motivation scores and GPA based on gender. Academic identity, athletic identity, academic motivation, athletic motivation and GPA were all assessed. Females reported higher scores on academic identity, athletic identity, academic motivation and GPA (M=25.91, SD=4.02; M = 32.02, SD = 3.94; M=5.00, SD=.503, M = 3.28, SD = .48, respectively), and males reported higher athletic motivation (M=4.75, SD=.705, respectively). There was a statistically significant difference between genders on the combined dependent variables, $F(5,347) = 5.14$, $p < .001$; Wilks' Δ = .931; partial $\eta^2 = .069$. Bonferoni intervals with an alpha level of .05 and a 95% confidence level showed a 1.328, 95% CI [25.208– 26.456] mean point difference between academic identity scores, a .485, 95% CI [31.461 – 32.588] mean point difference between athletic identity scores, a .240, 95% CI [4.926. - 5.077] mean point difference between academic motivation scores, .182, 95% CI [4.464 – 4.668] mean difference between males and females on athletic motivation scores, and .142, 95% CI [3.202 – 3.332] mean point difference between GPA scores. Statistically significant differences were found on academic identity, academic motivation, GPA and athletic motivation, with females scoring significantly higher than males on academic

identity, academic motivation and GPA (p =.003; p <.001; p = .005, respectively), and males scoring significantly higher on athletic motivation (p = .023). No significant difference was found between males and females on athletic identity (p = .271).

Table 7
Means and Standard Deviations for Study Variables and Gender

Variable	Male		Female	
	M	*SD*	*M*	*SD*
Academic Identity	24.55	4.30	25.91	4.02
Athletic Identity	31.53	4.26	32.02	3.97
Academic Motivation	4.76	.599	5.00	.503
Athletic Motivation	4.75	.705	4.57	.760
GPA	3.13	.459	3.27	.481

Two one-way multivariate analysis of variances were run to determine the effect of sport and graduation year on the dependent variables. The first MANOVA addressed the effect of the sport an athlete played on their identity scores, motivation scores and GPA. Prior to conducting this analysis, a number of sports were dropped due to the small number of responses in each group (fewer than four). Specifically, Wrestling, Women's Golf, Men's Track and Field, and Men's Swimming were removed from the analysis, leaving the sports included as: Football (n = 28), Field Hockey (n = 12), Volleyball (n = 31), Men's Soccer (n = 18), Women's Soccer (n = 28), Men's Basketball (n = 14), Women's Basketball (n = 20), Baseball (n = 51), Softball (n = 13), Men's Lacrosse (n = 9), Women's Lacrosse (n = 33), Men's Tennis (n = 8) Women's Tennis (n = 18), Men's Golf (n = 6), Women's Track and Field (n = 9), Women's Swimming (n = 14), Equestrian (n = 6), and Multiple Sports (n = 29). Descriptive statistics showing mean scores for each sport on each variable can be found in Tables 8 and 9. Appendix G also shows mean scores for academic, athletic motivation and GPA in order of highest to lowest scores. The differences between the sports on the combined dependent variable was statistically significant, F((85,1556) = .184) = 1.443, p = .006, Wilks' Δ =.693, partial η^2 = .071. Follow-up univariate ANOVAs

showed that academic motivation ($F(17,325) = 1.884$, $p = .019$; partial $\eta^2 = .090$), athletic motivation ($F(17,325) = 1.988$, $p = .012$; partial $\eta^2 = .94$), and GPA ($F(17, 325) = 2.189$, $p = .005$; $\eta^2 = .103$) were all statistically significant between student-athletes playing different sports. Tukey post-hoc tests showed a significant difference between Women's Basketball and Baseball on athletic motivation (p=.035), with Baseball scoring higher on athletic motivation (M = 4.91, SD = .553) than Women's Basketball ($M = 4.23$, $SD = .675$).

Table 8

Means and Standard Deviations for Study Variables and Men's and Mixed Sports

Variable	Football *n* = 28		Men's Soccer *n* = 18		Men's Basketball *n* = 14		Baseball *n* = 51		Men's Lacrosse *n* = 9		Men's Tennis *n* = 8		Men's Golf *n* = 6		Equestrian (mixed) *n* = 6		Multiple Sport (mixed) *n* = 29	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Academic Identity	25.25	3.98	23.28	4.40	25.00	4.42	24.31	5.05	24.89	3.72	25.13	3.18	26.33	2.73	26.00	2.10	24.41	3.49
Athletic Identity	32.18	4.54	32.11	3.94	31.96	4.04	32.47	4.42	30.56	3.32	30.38	4.66	29.17	2.32	29.33	3.78	32.17	4.02
Academic Motivation	4.78	.591	4.61	.802	4.67	.536	4.70	.618	4.92	.443	4.84	.536	5.03	.670	4.86	.561	4.89	.556
Athletic Motivation	4.92	.612	4.80	.764	4.55	.963	4.91	.553	4.26	.591	4.61	.922	4.98	.539	4.31	.974	4.83	.604
GPA	3.12	.413	3.00	.438	3.16	.473	3.09	.525	3.01	.394	3.25	.410	3.41	.345	3.40	.519	3.28	.440

Table 9

Means and Standard Deviations for Study Variables and Women's Sports

Variable	Field Hockey *n* = 12		Volleyball *n* = 31		Women's Soccer *n* = 28		Women's Basketball *n* = 20		Softball *n* = 13		Women's Lacrosse *n* = 33		Women's Tennis *n* = 18		Women's Swimming *n* = 14		W Track and Field *n* = 9	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Academic Identity	26.08	3.18	25.59	3.95	26.96	2.95	25.80	5.05	24.92	6.22	25.15	4.47	25.56	3.90	26.71	3.12	58.00	3.91
Athletic Identity	32.75	4.00	32.26	4.79	31.96	3.56	30.10	3.99	33.85	3.08	31.91	3.60	32.78	3.75	31.36	4.36	33.00	2.40
Academic Motivation	5.13	.334	4.91	.543	5.13	.376	5.16	.358	4.71	.646	4.96	.393	4.94	.643	4.97	.372	5.16	.758
Athletic Motivation	4.37	.656	4.70	.764	4.46	.846	4.23	.675	4.81	.499	4.63	.747	4.37	.813	4.68	.751	4.67	.901
GPA	3.26	.388	3.29	.402	3.47	.398	3.13	.473	2.95	.596	3.26	.488	3.01	.453	3.52	.278	3.34	.664

The second MANOVA addressed the effect of graduation year on the identity scores, motivation scores, and GPA. Freshman and Juniors reported slightly higher scores than Sophomores and Seniors on academic identity (M = 25.36, SD = 4.46; M = 25.52, SD = 3.79, respectively), Seniors and Juniors reported higher scores than Freshmen and Sophomores on athletic identity (M = 32.26, SD = 3.98; M = 32.04, SD = 3.76, respectively), Freshmen and Seniors reported higher scores than Sophomores and Juniors on academic motivation (M = 4.92, SD = .557; M = 4.91, SD = .472, respectively), as well as athletic motivation (M = 4.69, SD = .685; M = 4.73, SD = .669, respectively), and Freshmen and Seniors reported higher scores than Sophomores and Juniors for GPA (M = 3.24, SD = .500; M = 3.28, SD = .398). The differences between the graduation years on the combined dependent variables were not statistically significant, $F(12, 923.659) = .617$, $p = .790$; Wilks' $\Delta = .978$; partial $\eta^2 = .008$.

Table 10
Means and standard deviations for study variables and graduation year

Variable	2017		2018		2019		2020	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Academic Identity	25.26	3.45	25.52	3.79	25.11	4.63	25.39	4.45
Athletic Identity	32.32	3.88	32.04	3.76	31.29	4.33	31.90	4.12
Academic Motivation	4.91	.469	4.88	.574	4.86	.609	4.92	.555
Athletic Motivation	4.73	.663	4.61	.825	4.55	.797	4.70	.743
GPA	3.28	.398	3.12	.440	3.18	.510	3.24	.500

Qualitative Results

According to DeCuir-Gunby et al. (2011), there are three major areas from which codes are created, including theory, data and research goals. For the purposes of the current study, the researcher focused on data-driven codes and theory-driven codes. The researcher first focused on data-driven codes by engaging in open coding and axial coding to determine overall themes. In accordance with Miles, Huberman, and Saldaña (2014), data-driven qualitative coding was

completed in two cycles. The first round of open coding yielded 121 codes. After completing this round of coding, the researcher examined which codes seemed to be redundant, which codes were not used at all, and which codes were used very little. Upon doing so, the researcher found several related codes that could be collapsed into broader codes and several codes that could be deleted from the codebook. Some codes that were only used once or twice were retained due to their importance or uniqueness (Miles, Huberman, & Saldaña, 2014; Saldaña, 2016). Using ATLAS.ti software, the researcher then examined the frequency of codes and looked for connections between codes across the data. Using an axial coding method, the researcher was able to identify connections that existed between codes. As suggested by Creswell (2013), these codes and patterns were then pared down into several larger themes that encompassed the general meaning of the codes.

Once these themes were extrapolated from the data, the researcher then returned to the theoretical underpinnings of the project. In doing so, the researcher compared the tenants of motivational (expectancy-value theory) and identity theories to the themes and codes that resulted from the data-driven coding. The researcher then revised several of the codes to reflect the theoretical underpinnings of the study. Many of the codes and themes that were already created fit easily into one of the theories, and the process of reviewing and revising the codes based on theory allowed the researcher to more clearly define the parameters of the theme. For example, one theme that emerged from the first round of coding was that student athletes discussed the value of academics for a variety of reasons. Upon considering this theme in the context of theory, it became apparent that the reasons student-athletes discussed valuing academics could be explained with expectancy-value theory and the idea that there are utility values, costs, intrinsic values, and attainment values associated with their reasoning. Therefore,

the codes associated with the "value of academics" theme could be categorized by the four different task values within expectancy-value theory. While not all themes were impacted by the process of re-examining the data and codes in the context of theory, it was important for the researcher to consider both data and theory in the final decisions on themes and the overall meaning of the codes.

The following sections are organized by research question and broader themes/categories. Over the 36 final codes and 45 sub-codes that were established in accordance with the process suggested by several researchers, (DeCuir-Gunby, Marshall & McCulloch, 2011; Miles et al., 2014; Saldaña, 2016), seven themes were created: student perceptions of academic success, student perceptions of athletic success, student expectations in academics and athletics, value of academics and athletics, multiple role identities, student identity, and athlete identity. Qualitative responses ranged in word length from 1-179 words with an average response length of 17.8 words. The amount of codes per response ranged from 1-8 codes with an average of 1.8 codes per response.

Research question four findings. The fourth research question of this study was, "How do student-athletes describe academic and athletic success at a DIII institution?" This was an important question because in order to understand how students perceived their identity and motivation in either domain, it was first necessary to understand how they conceptualized success. Many of the questions on the scales used in the current study related to the idea of success, and without knowing how the student-athletes actually defined success, their responses could potentially be unclear.

Student-athletes' ideas about what makes a successful student and a successful athlete fell into two main categories: outcome oriented and process oriented. Students who discussed

success in terms of outcomes seemed primarily concerned with the tangible and intangible rewards that came as a result of success in either domain. On the other hand, students who discussed success in terms of the process focused on the journey to finding success and the activities related to gaining success. The difference between these two orientations are important to discuss as the way in which a student-athlete defines success in a particular domain may be related to how they identify with or feel motivated in that specific domain. The following sections explore these two categories in detail.

Theme 1 – Outcome-oriented. Many of the qualitative responses student-athletes gave for how they described both academic success and athletic success aligned with the Outcome Oriented qualitative category that emerged from the data. Student responses aligning with this category highlighted a variety of different outcomes they associated with success in either academics or athletics. Sub-categories for academic success included: good grades, getting a degree and starting a career. Sub-categories for athletic success included: meeting individual goals, receiving recognition, and positive results.

Good grades. When it came to academic success, 58% student-athletes in this study overwhelmingly discussed the necessity of receiving good grades in order to achieve academic success. For example, one student wrote, "Being a successful student means getting really good grades and therefore having a high GPA," while another wrote, "Being a successful student means being able to push through everything to get good grades." Responses such as these were very common throughout a majority of the student-athletes' responses. Some variations included expressing a desire to receive academic awards and feelings of failure if grades were not good. For example, one student described academic success as receiving, "Scholastic all american, dean's list. A high gpa that earns me some type of award," while another discussed how, "(Being

a successful student is) very important. Ever since I was little I always needed good grades. If I don't get a good grade I feel as if I have failed."

Getting a degree. In addition to receiving high marks in their classes, 46% of students identified getting a degree as the primary indicator of academic success. One student described the relationship between grades and degree: "Getting good grades to get the degree I want plays a role in my future so it is necessary that I get the good grades." Other student-athletes simply responded that academic success meant "passing classes and getting my degree", while still others make connections between getting good grades, receiving a degree, and finding a job: "Being a successful student means that I get good grades and will be in a good place to get a job after college with the grades and diploma I receive."

Starting a career. Beyond earning good grades and getting a degree, 20% of student-athletes also reported that finding a job or starting a career was an important outcome of academic success. When asked to describe what it means to be a successful student, one student responded, "To earn a diploma to get a job because that's what society has made a recruitment in order to get a good job." When discussing how important it was to be a successful student, one student reported, "my whole life and future career will be based off of how well I do now," while another wrote, "It is the most important thing to me in college as I need an education to further my career." Ultimately, a majority of responses regarding academic success were outcome oriented in some way, and many highlighted the relationships between good grades, graduating with a diploma and eventually starting a successful career.

Meeting individual goals. When it came to athletic success, some student-athletes, approximately 8%, in this study reported that achieving individual goals defined success in their sport. Students indicated the importance of setting attainable goals, "Setting goals for myself

that I know I'm capable of reaching and achieving them" and working to exceed previous success, "Pushing yourself past limits and succeeding at goals set for oneself." Other responses highlighted the importance of achieving goals under pressure. For example, one student described athletic success as the "Ability to produce and achieve your goals under the pressure of a live game."

Receiving recognition. 3% student-athletes defined athletic success as receiving some kind of recognition. The types of recognition student-athletes discussed included personal accolades, team titles, and a lasting legacy. One student described athletic success as, "Achieving the highest level of success, so for me going to NCAA's, being an all american and being a scholastic all American," while another expressed how she wanted, "…people to remember me as one of the best players at my school when I leave." Many were satisfied with any type of award, as one student summarized, "Any type of hardware or recognition you receive from an athletic Achievement. It could be a championship or a scoring title."

Positive results. The final sub-category to emerge in the outcome oriented category for athletic success was positive results or pay-off. Another 3% of student-athletes reported feeling successful in their sport if their "hard work paid off" or if they were "able to see results from competition to competition." One student-athlete discussed how "putting in the hard work and receiving an outcome based on the effort/work" is the most important part of being successful athlete.

Overall, the six sub-categories associated with the outcome-oriented theme highlight the importance that student-athletes place on seeing outcomes from the work they put in, whether it be in their academics or their athletics. In general, student-athletes were more outcome oriented when it came to academics than athletics.

Theme 2 – Process-oriented. The process-oriented theme encompasses response that focused more on the process of obtaining success than on the tangible outcomes. Responses grouped in the process-oriented category related to academics fell into two sub-categories: learning/life lessons and effort/personal best, and responses related to athletics were grouped into four sub-categories: contribution to team, hard work, improvement, and enjoyment.

Learning/life lessons. 25% of student-athletes discussed how learning was the primary indicator of success. Some students who discussed the importance of learning or life lessons discussed the importance of being able to contribute to society. For example one student discussed the importance of "Learning material that will help me to contribute better to society." and "Do(ing) all of the work that is asked and more so if it is necessary to do so to apply class materials to real world situations." Other students argued that grades should not define a person's success. One student wrote that, "Passing classes and learning life lessons from your classes" define success, stating that, "it shouldn't always be about getting that A+. Some of the dumbest people will get straight A's and the smartest straight C's. I don't think a GPA should be what defines a student, especially a student athlete." Another student explained, "being a successful student means you are effectively learning things that you are able to apply in real life. While grades are important and I believe you should strive to do well, I don't always agree that one's GPA is a measure of their success."

Effort/personal best. In addition to learning and life lessons, another 25% of student-athletes also felt that effort and hard work were the best indicator of academic success. These students often discussed the importance of "relying on hard work rather than natural intelligence," stating things like "a successful student is doing the best you can at everything you do" and "if I put in the effort in each class and invest in actually understanding material covered,

I consider that being a successful student." Others also described grades as being less important than the effort one puts in to his or her courses. For example, one student described academic success as "working as hard as you can and always doing your best. There will always be those classes that you just can't do well in no matter how much effort you put into it, but it is incredibly important to continue working, studying, and preparing for the next class and assignment," while another wrote, "being a successful student is being someone who tries their hardest, puts in the work, and makes the effort to do their best no matter what their grades are." Ultimately, responses in this category related to academic success highlighted the idea that some student athletes believe that outcomes should not define success, and instead whether or not you are learning or putting in sufficient effort are the defining factors.

Contributions to the team. When it came to athletic success, 15% of student-athletes discussed how contributions to the team were an important factor. These students often stressed the importance of helping the team reach overall goals rather than individual recognition, statistics, or even playing time. For example, one student wrote, "a successful-athlete is someone who does their very best and contributes in ways that may not be recognized by the conference or by spectators. Yet that player is a valuable asset to the team. Without their contributions the team would suffer", while another discussed how being a positive contribution to your team makes a successful athlete, and "a positive contribution doesn't always have to be in way of stats--you can be a leader, bring positive energy, or be more of an intellectual athlete." A third student wrote that being a successful athlete means "competing in your sport and being an active member of your team. It doesn't mean you start, it just means you are a positive member of your team." Thus many student-athletes recognized the importance of team success over their own individual recognition or success, feeling that contributing to an overall goal was more

important.

Hard work. Similar to responses about academic success related to hard work, 31% of student-athletes discussed feeling that as long as maximum effort was put forth, they considered themselves successful. In many cases, student-athletes discussed how the effort they put forth would lead to positive results or "pay off," and in other cases they discussed feeling accomplished as long as they worked hard, even if they did not succeed as planned. For example, one student discussed how "being able to see results from competition to competition, and working hard in practice every day to see these results" made him a successful athlete, while another described how, "having all your hard work pay off, giving it your all and being good at it" was most important. A third student wrote how success in athletics meant, "knowing that I played hard the entire time, even if things did not necessarily go as planned." This idea of pay off was primarily concerned with the effort student-athletes put into their sport and was therefore categorized differently than the "results" sub category previously discussed as outcome oriented.

Improvement. Another process oriented sub-category for athletic success was improvement. 10% of student-athletes discussed improving in both their sport and as overall people, and felt that as long as they were improving, they considered themselves to be successful. Students discussed the importance of "being better everyday than I was the day before" and "growing as a man, teammate, and athlete." Similarly, one student wrote that athletic success meant, "Bettering yourself physically, emotionally, and academically every single day so that you are better than you were the day before; improvement can occur in any increment, so it is important to continue striving for betterment each and every day," while another clearly defined success as "Improvement. Consistent, measurable improvement that leads to success in competition."

Enjoyment. Finally, a few student-athletes, only 2%, maintained that as long as they were enjoying their sport, they were successful. One student wrote how "loving the sport you are playing and having fun" defined success, explaining that, "if you're not having fun, you aren't doing it for the right reasons." Another summarized a number of process oriented attitudes, defining success as "…being dedicated, encouraging and doing your best. Even if you don't perform as well as you wanted, if you worked to the best of your ability, had fun and learned something about yourself and others then I consider myself a successful athlete."

Overall, student-athletes seemed to have clear ideas of how they defined academic and athletic success, though there were distinct differences between those who conceptualized success as either outcome oriented or process oriented. Those who were concerned with outcomes judged their levels of success based on things like grades, recognition and ability to get the job they want in the future. On the other hand, those who discussed process-oriented ideas judged their success by how much they learned, their improvement, the amount of effort they put towards a task, and whether or not they were able to contribute in a meaningful way. In general, a majority of student-athletes were outcome-oriented when it came to academics, and more student-athletes were process-oriented when it came to athletics.

Research question five findings. Research question five asked "how do student-athletes describe their academic and athletic motivation and identity at DIII institutions"? Themes three and four are primarily concerned with motivation, while five through seven are primarily concerned with identity. However, due to the connections between these two constructs, there is some overlap.

Overall, a majority of the student-athletes in the study discussed feeling highly motivated to do well in both academics and athletics, with over 50% of responses addressing both domains.

When student-athletes did choose one over the other, about 30% specifically discussed feeling more motivated to do well in school than in sports, while about 15% of participants reported feeling more motivated in sports than in school. Themes three and four are primarily concerned with motivation as they address student-athlete's expectations and values associated with academics and athletics. The following two sections discuss the sub categories associated with both expectations and values in academics and athletics in detail.

Theme 3 – Expectations for success. Student-athletes' responses regarding their expectations for success in academics and athletics varied from confident to not confident, with some reporting that they felt "somewhat confident". A majority of students, 68%, reported feeling confident in their classes, with only 16% feeling somewhat confident and 4% not feeling confident at all. Similarly, 69% of student-athletes reported feeling confident in athletics, with only 8% feeling somewhat confident and 9% feeling not confident at all. Taken together, 53% of student-athletes reported feeling confident in both academics and athletics, with 16% reporting only feeling confident in their courses and 15% only confident in athletics. According to Expectancy-Value Theory (EVT), these expectations can be explained by a number of things, including self-concepts of ability, task difficulty, past experiences and expectations of others. Prior to considering theoretical comparisons in coding, many of the original codes matched the meaning of these expectancy ideas from EVT, so the researcher decided to use these terms as the codes related to expectancies.

Self-concepts of ability. In discussing their expectations for success in academics, student-athletes' reported varying levels of confidence based on their self-concepts of ability. Students who reported feeling confident referenced their ability, saying things like, "I will do well in my courses because I know that I have to ability to do well" or specific skills that they

knew would help them succeed such as knowing "how to best study and prepare for exams and assignments" and having "strong time management skills to balance academic work and athletic commitments." Many students also referenced their intelligence when discussing their expectations for success. One student wrote, "I believe I will do okay in my classes. Acceptable, but not great. This is because I attend a school that I only got into through my sport and I am not as smart as the average student at my school. Also I am not motivated to perform exceptionally in the classroom. Mediocre is enough for me." Other students felt even stronger that they lacked intelligence to succeed; one student wrote, "I feel that I am not the most intelligent at my school so I often struggle to keep up with my classmates," while another discussed how she was not very confidence because "other classmates are smarter than me by far and I also don't do everything I can to study." These examples highlight that while a majority of student-athletes feel confident in their ability to perform well in the classroom, a few perceive themselves as lacking the skills necessary to succeed. Their self-concepts of ability impact their expectations for future success.

Similar to the responses about self-concept of ability in academics, student-athletes' also reported varying levels of confidence in athletics based on their ability. The most common responses were related to the amount of work individuals put in to their sport overall; many student athletes felt that if they put a significant amount of time and effort into their sport, they would be confident in their ability to succeed. One student described the hard work resulting in automaticity, "I am very confident that I will do well in my sport this season. I have put in the hard work all year round and am at the point in the season where my body automatically is able to compete at a high level simply through muscle memory. I am also extremely passionate about my sport and will try my hardest not to let anything prevent me from achieving my goals."

Another student expressed knowing that he or she would not be outworked, “I feel very confident. I know for a fact that no one in the gym will out work me. If I think they are then I will work harder.” Students also described working “hard every day even in the off season,” and knowing that they are “trying their best.” One student summarized, reporting, “I am very confident that i will do well in my sport because of all the hard work i am putting in during the off season and i have great coaches and teammates to help me along the way.”

Other student-athletes felt confident that they would outperform other players on their team. One student reported, “I will out-perform anyone on my team, since I am the only player who has played more than a year (I started in high school),” and another wrote, “I outwork people because I can. I played at the Division 1 level. I know what I am capable of and I see a lot more in myself.” Some student-athletes also admitted to choosing a school where they knew they would be successful: “I am very confident because I choose a school where I would excel in my sport without having to spend all my time and effort towards my sport.”

A few student-athletes discussed feeling either somewhat confident or not confident in their sport due to their self-concepts of ability. Students reported things like, “there is a lot of competition that is better than me,” and “there are more skilled players at my position,” and “I don’t think I am the best and it’s very competitive. One student explained, “I'm not as confident that I will be very successful in my sport because I am not at the same level as some of the other players and I am unsure if I will ever be physically capable enough to be. Despite this fact, I do still love the sport I play and will continue to put as much effort as possible into it to better myself as an individual.”

Overall, this sub-category represented the widest variety of expectations for success in both academics and athletics. While many perceived their abilities to be fairly high, others

discussed feeling only somewhat confident or not confident at all due to their ideas about their abilities.

Task difficulty. More than any other category, task difficulty was found to be a prominent reason student-athletes reported feeling only somewhat confident or a complete lack of confidence in their academics. Many students discussed taking difficult classes that require a great deal of effort while others discussed having an overall "difficult degree." Specifically, one student reported, "some of my classes are hard and will require much more effort on my part than other classes will so I will have to balance and not let grades slip in one for another," whereas another stated, "I have midling confidence that I will do well in my courses. This term, only midling because my effort has not been high enough at times, but in others because the coursework was very demanding." Students who reported feeling a lack of confidence stated things like "this is my hardest semester of classes," "courses are difficult and extremely time consuming," and "my major is hard and it seems like everyone understands the material except me."

On the other hand, this category was not applicable to the athletic domain. Student-athletes did not discuss task difficulty in relation to their sport.

Past experiences. Student-athletes' past experiences of success were also found to be a common explanation for expectations of success. Responses ranged from feeling confident to not confident, though compared to all other academic expectations this sub-category contained the highest number of confident responses. Students reported feeling confident because they "performed well in previous school work," or "have historically done well." One student wrote, "I feel fairly confident that I will do well in my courses. I have yet to run into a course that I haven't succeeded in when I put in the time and effort, so being my last semester, I don't see

myself running into that problem," while another explained, "I'm a straight-A student; I have a history of earning high grades and often out-perform my classmates with a minimum of effort. I hope that doesn't sound conceded; beyond that minimum, I put in more hours of on-campus work and school work than most students I know. I have standards that I hold myself to, and I don't waste time partying or binge-watching Netflix (except on occasion)." These examples highlight how success in previous classes has the ability to impact student-athletes' confidence and expectations for success moving forward On the other hand, a few students who focused on past experiences discussed their struggles to do well. As one student explained, "I don't feel very confident at all really, mainly because school have never came easy to me and I struggle with ADHD, dyslexia and a reading disability." Though these responses were less common, it is important to highlight those students who expect failure due to their previous academic outcomes.

Similar to the academic domain, student-athletes most commonly discussed past experiences giving them confidence in their athletic abilities. For example, one student reported, "I know I will do well in my sport because… (I) have been since I was 11 years old," and another wrote, "I feel confident that I will do well in my sport, because I've worked very hard to get better, and I've played baseball almost my whole life." A third student explained the she felt confident because, "I am a senior and have put in the time and effort over the years and through the off season to prepare for this season." Other students reported knowing that they would do well due to the additional work they put in compared to previous years. For example, one student reported, "I feel confident because I have been pushing myself harder than I have in the past," while another explained, "I did ok this past season, however i think that i will do better next season, as i have been working extremely hard and have been training a lot to stand out and

do better."

Overall, when discussing their past experiences in both academics and athletics, student-athletes most commonly reported high expectations for success.

Others. Beyond self-concepts of ability and past experiences, student-athletes also discussed their expectations for success in terms of the expectations of others. For the most part, these responses were positive in that student-athletes seemed to gain confidence due to the support and expectations of others. In particular, many student-athletes connected their confidence to do well in their courses to the expectations of their coaches. One student reported that he felt "very confident" because "my coach is always on me about my grades. ALWAYS," while another explained, "I feel extremely confident that I will do well in my courses because I put in the time and effort into my academic career and my coach also puts a huge emphasis on doing well in school." Other student-athletes discussed the impact of their friends. One student spoke of friends' expectations: "…I also have friends that are highly motivated and keep me on track in terms of earning the grades that I want/ need in order to pursue a career in my desired field of study."

Coaches and friends also played a role in student-athletes' expectations for success in athletics. Whether they felt confident or not, all student-athletes who discussed others referenced their coach, and many included their teammates as influences as well. For example, student-athletes reported things like, "I feel confident because I have my teammates and coaches to motivate," and "I will do well because I am constantly being pushed by my coach to strive for greatness." Others felt a lack of confidence due to their coaches. For example, one student-athlete wrote, "(I am) not confident at all. No matter how much effort I put into the program the coach gives me nothing in return and tells me I will never play in a game and that I am much

worse than all the other players on the team," while another reported, "I don't feel that confident, My coach does not seem to put in the effort I expected her to in terms of preparing me for regionals."

Overall, students reported varying degrees of confidence in their academic and athletic abilities. These expectations were impacted by a number of factors, including self-concepts of ability, task difficulty, past experiences, and expectations. Most commonly, task difficulty led to a lack of confidence in academic success, while past experiences and expectations of others often support students-athletes' confidence in both academics and athletics. Self-concepts of ability reports ranged from supporting high to low confidence in academic and athletic abilities depending on the student, thought overall a majority of student-athletes felt confident in both domains.

Theme 4 – Value of academics and athletics. According to Expectancy-Value theory, in addition to the expectations individuals have for success in a certain domain, their motivation to complete a task is also impacted by how much they value that task. As mentioned previously, the values associated with Expectancy-Value Theory are utility value, cost, intrinsic value and attainment value. After the researcher completed data driven coding to create the first round of codes, these codes were then examined in light of EVT, and all of the codes associated with the theme "value of academics" or "value of athletics" were linked to one of the four values. The current theme encompasses the various reasons student-athletes discussed as to why they found academic and athletic success to be important.

Utility value. The first value associated with EVT is utility value, and it is characterized by how useful engaging in a particular task will be in helping the individual fulfill immediate or long-range goals. Student-athletes discussed the utility values of academic success as the

necessity of grades to play and future benefits. The first code specifically focuses on the value of academic success as associated with athletic success. On the other hand, student-athletes discussed how athletic success was linked to fitness, and the idea that sports end after college.

Necessity of grades to play. Student-athletes who discussed the necessity of grades to play pointed out that in order to participate in their sport, they needed to meet a minimum academic requirement. For example, one student reported it was important to do well academically "because without good grades I won't be on the team," and another described how "my grades are not primary concern, but I must have good grades to play my sport." Others pointed out that in addition to needing good grades to participate in sports, they also needed a good GPA for other privileges on campus and for potential job applications. As one student wrote, "Getting good grades is essential for a good GPA. A good GPA is essential for many other things like athletic eligibility, housing competition on college campuses, and sometimes even job applications. I only see the student aspect important as far as competing with others for these things but I don't think being a successful or non successful student should effect how I see myself as a person."

Future benefits. In addition to utility values associated with athletic competition, student-athletes also discussed how their success in the classroom would benefit them in the future. For example, one student reported, "Doing well in the student perspective is super important because all the time and effort that I put into my studies will benefit me and pay off later on in life when it comes time for me to apply to jobs and make a living," while another discussed how "a lot of my future depends on getting good grades and I have certain goals in life that I want to reach and having a good GPA is the first stepping stone to reaching those goals so it tends to be pretty

important." A third student clearly stated, "the most important thing about my college career is my academic success. It will determine my future career success."

Some student athletes also discussed academics in comparison to athletics, pointing out that academics must come first because athletics will not have a direct impact on their future like academics will. For example, one student explained that academic success, "is very important to me and more so than athletics. I have no desire to be a professional athlete, so my schoolwork will help me in my career later on. I am a very hard worker and the best way to demonstrate this is through my schoolwork," while another reported, "I am more motivated to do well in my classes rather than do well in my sport. This is because I know that my achievements in my classes directly impact my future job and career while my athletic career will end after college."

Sports end after college. Another point that many student-athletes made was that while they enjoy participating in their sport, they understand that it will end after college. Therefore, they discussed how it was important not to put too much stress on athletics. For example, one student wrote, "I would like to be successful however, i am realistic and know i only have 1 season left to participate in college sports," while another student explained, "Sports have always been important to me, but when it comes down to do it, school is more important. You are only an athlete for so long, but the knowledge you learn along the way is what really matters."

Fitness. One of the ways in which student-athletes found athletics to be useful was keeping them physically fit. Student-athletes discussed how "being athletic and fit," "strong and healthy," and remaining "in shape and healthy for my physically appearance" were important to them. As one student explained, "I care about my interactions with people and my personal physical fitness much more so than I care about performance in training or at competitions."

Costs. Another important element of EVT are the potential costs associated with a certain task. Perceived cost is defined as what one has to give to participate in an activity. The primary cost associated with both academics and athletics was time. Student-athletes discussed the large amount of time they had to spend on their school work in order to succeed. Although student-athletes discussed the amount of time they spent on school work, they did not necessarily see it as a negative thing. Rather, they described a desire to do well because of their time commitment. As one student explained, "being a successful student is important to how I see myself because I want to know that I am being successful in what I spend a lot of my time doing." A second student reported, "the amount of time put in in the classroom makes me want to succeed and achieve good grades."

Similarly, student-athletes often discussed the amount of time associated with their sport. For example, one student wrote, "Most of my time is devoted to athletics or doing athletic activities outside and so being successful is evidence that my dedication and commitment is leading to success or that I excel above others," while another explained, "I want to feel that all of the hours I put into swimming are justified by my success so that I don't regret my time swimming. Also, I like to have that to fall back on- if I feel like my school work is lacking, at least I know that I'm a great athlete." A third student reported, "I see (succeeding in athletics) as important to me because I chose to be an athlete while being a full time student. If I wasn't a successful athlete, I would feel as though I would be wasting my time and effort."

Student-athletes also reported that the time demands from their sport conflicted with their coursework, making it difficult to perform well in both areas. They discussed things like having "significantly less time to study and meet with teachers" and wishing they "had more time to study", explaining that "practice and matches…take up a lot of time." One student-athlete wrote,

"I sometimes feel if I were not a student-athlete I would get better grades," and another elaborated on this idea, explaining, "I feel more confident in the spring semester because the sport I play doesn't take up as much time and I therefore have more time to focus on my school work and getting the grades I know that I'm capable of getting. Fall semester I'm not as confident because I don't have the time to go the extra mile to get good grades." Other students reported that finding time to do both school work and athletics resulted in a lack of sleep. For example, one student reported, "I am a hard-working student and feel very confident in majority of my courses that I am taking this semester. I do sometimes struggle with getting enough sleep at night since I am usually up late completing my assignments after practice."

Ultimately, time was considered a major factor for student-athletes in both academics and athletics. However, time seemed to be a more problematic cost within athletics than academics, as students saw the time put into academics as an indication of their hard work and desire to succeed, whereas sometimes the cost of time within athletics interfered with their ability to succeed in the classroom.

Intrinsic value. – A third value associated with EVT is intrinsic value, which is defined as the immediate enjoyment one gets out of participating in an activity. In some cases, students reported feeling that they could do well in courses that they liked. For instance, one student reported, "I will do well in the classes that I enjoy because it is easier for me to study and do the assignments since I like them," and another explained, "I feel confident because they are courses I am interested in, and while they are very hard courses, I enjoy learning the content."

Within the athletics domain, the intrinsic value category was one of the most common. Many student-athletes expressed their passion towards their sport and their happiness when participating. One student explained, "My sport is my personal passion that I wish to be good at

because it makes me happy. I want to do well in school to make others happy." Student-athletes also discussed feeling more motivated to do well in their sport than their classes because they enjoy their sport more. For example, one student reported "I am more motivated to do well in my sport than in my classes because I am extremely passionate about my sport and get an extreme sense of satisfaction when succeeding in my sport whereas my classes there is a wider range of what is considered successful and just being at the university I am at, I know I will be in a good position going into the real world with how I am doing currently." A second student wrote, "I am more motivated to do well in my sport plainly because I love the feeling of being out there, there is no other feeling better than it. Doing well in school is awesome the feelings great just doesn't match that of athletics," while another explained, "I probably try harder in my sport because I am very happy at practice because I am with my friends and it is more enjoyable. I choose to swim. I don't have the choice to take classes and study, so it feels like a burden."

Student-athletes also discussed how success in their sport was directly linked to their happiness. As one student described, "Success on the field translates to success and happiness off the field to me. If I do well on the field then I am more satisfied and feel more accomplished outside of athletics." A second student reported, "I am obviously happier with myself when I am performing well. I enjoy when others notice my success and I like to feel as if my hard work has paid off," and a third wrote, "Athletics are a very big part of my life and happiness therefore it's important to me that I be successful at something that means so much to me." Overall, student-athletes seemed to express much more intrinsic value associated with athletics than with academics.

Attainment value. The final value associated with EVT is attainment value, which is conceptualized in terms of the needs and personal values an activity fulfills for an individual.

The codes associated with this value for both academics and athletes were confidence/self-worth, characteristics and pride.

Confidence/Self-worth. Student-athletes expressed that doing well in their classes gave them confidence and a sense of self-worth. One student described, "Being a successful student gives me an higher esteem level which makes up for other aspects in my life that aren't as high and it is important to me because my success as a student will give me opportunities to be successful in my future. When i get a good grade i feel better about myself and its good to know that what I'm doing is paying off, and rids me of some of the doubt i might've had before." A second student wrote that doing well in classes was very important "because in today's society, it is common to think that how one performs in school sets up their entire life and it is easy to fall into this pattern where one is trying to push themselves to the absolute maximum, and therefore I am more confident as an individual when I know I am also successful as a student."

In addition to those who discussed how doing well in school gave them more confidence, others discussed how doing poorly could do the opposite. For example, one student reported, "I used to be one of the smartest kids in every class growing up, but since arriving at (my school) I've questioned my own intelligence being surrounded by so many other brilliant people. At first I didn't make the grades I wanted and it certainly hurt my perception of myself." Other students reported things like "over the years as my grades have gone down so has my sense of self," and "when I do not get an A on something my self-confidence goes down for a little."

Similar to academic success, student-athletes discussed success in athletics impacting their confidence. They reported that athletic success was "strongly linked to self-confidence," and "can lead to more confidence and hard work outside of athletics." One student explained, "by being successful as an athlete it is a self-confidence booster to my self-esteem and I view

myself in a better light." Another highlighted the negative impact it could have, reporting, "It's important because a lot of my classmates see me as being an athlete and being an unsuccessful athlete would bring down the confidence and motivation."

Characteristics. Student-athletes also discuss how they value the characteristics associated with a good student, and find it important to associate those characteristics with how they see themselves. For example, one student wrote "Being a successful student is very important to how I see myself because I pride myself on being smart, having a good GPA, and getting good grades. That has always mattered throughout my education so my grades are who I am," while another explained, "It's even more important than my success in athletics. I've always been a higher achiever in class than athletics, so my academic success is a higher pressure because I already have so much expected of me by others and by myself. I want to put myself forward as thoughtful, intelligent, and knowledgeable." Another student summarized, reporting that doing well academically "is important to me because I have always valued education as super important and the characteristics that go along with it are characteristics that I hope people see in me."

Some student-athletes also discussed how their academic achievements were a direct reflection of themselves. Students explained that doing well in academics was important to them because "it reflects who you are" and it "reflects how I view myself as a person." As one student wrote, "I've always considered myself a good student and upholding that image of myself is something I strive for." A second reported, "ultimately how you are in the classroom is how you are going to be in the adult world, so when I get something finished it makes me feel good because I knew I could do it."

Similar to the characteristics associated with being a good student, many student-athletes

reported that characteristics associated with being an athlete were important to how they saw themselves. For example, one student wrote, "Being a successful athlete is important to how I see myself because I can prove to others and myself that I am hard-working, determined, and compassionate. This will typically carry over to my personality and character which is also very important to me." A second student explained, "It is important to how I see myself because the characteristics of a successful athlete, such as dedicated and hardworking, are characteristics that I expect of myself and strive to be." Other student-athletes discussed things like wanting "to be seen as strong and healthy" and remaining "in shape and healthy."

Additionally, some student-athletes discussed how athletic success was a reflection of their work ethic. One student-athlete reported, "I measure success with effort, so if I'm giving my best, I consider myself to be successful. And when I do my best, I see myself in a positive light," while another explained "I always want to do the best that I can. I don't put pressure on myself to accomplish things, rather I pressure myself to work as hard as I can. If I can look back and without having any regrets than I am happy." A third student explained how athletic success "reflects my work ethic and the time I put into my sport. If I see success there, I continue to use my strong work ethic in all other areas of my life. It's just a reminder to continue working hard."

Pride. Another common response associated with attainment value was that student-athletes felt pride in their academic accomplishments. Student-athletes wrote things like "I have always had tremendous pride in my academic success," and "I pride myself on how well I do academically, and gaining knowledge will always get you far." One student wrote, "It's extremely important. I take pride in knowing I do well in the classroom and if I didn't do well, I would think less of myself."

Student-athletes also discussed feeling pride in their athletic success. As one student

wrote, “Being a successful athlete makes me proud of myself because I know if I can be successful through sports, I can be successful elsewhere.” A second student explained, “being a successful athlete makes me feel stronger as an individual and more proud of all the work I put in in regards to training, lifting, playing, etc.”

Ultimately, student-athletes discussed a variety of reasons for valuing their academic athletic success, whether those reasons aligned with how useful their academics would be in the future, how much it cost to succeed, how much they enjoyed the work, or to what extent succeeding aligned with their sense of self. Ultimately, responses indicated that academics were considered to have more utility value than athletics as academics would play a direct role in their future, whereas athletics would not. Responses also indicated that the high cost of time committed to athletics was a serious issue for many athletes who reported their academics suffering due to time constraints. Intrinsic value responses favored the athletic domain over the academic domain in that a majority of the responses indicated how much student-athletes enjoyed their sport and gained happiness from participation in athletics. Finally, responses related to attainment value indicated a fairly even split with many students discussing how academic attainment aligned with their sense of self and others associating more with the athletic domain.

Three final, related themes are student identity, athlete identity and multiple role identities. While many of the previous codes and exemplars can be connected to identity in some way in that student athletes discuss how and why things are important to them and how they see themselves, the following themes encompass specific references to a sense of identity. In many cases the exemplars demonstrate a specific preference to one role or the other, while others demonstrate the importance of both student and athlete identities to the student athletes.

Specifically, about 25% of student-athletes discussed identifying with the student role, while about 38% discussed identifying with the athlete role; however, these overlapped in some cases and over 50% of student-athletes specifically discussed identifying with both the student and athlete role.

Theme 5 – Student identity. This theme encompassed responses in which student athletes discussed how they viewed their roles as students. Within this theme, students discuss prioritizing their roles as students, how academics come before athletics, and that other things may be more important than academics.

Prioritizing student role. Frist, many student-athletes discussed the importance of prioritizing their role as a student. One student explained, "School and education is the primary reason that I came to college. That is my purpose here. My primary purpose is not to be good at sports or mess around or even meet friends. My primary goal is to be academically successful. So, the extent to which I achieve that goal is extremely important to how successful I see myself as being," while another described, "Academics have always come first in my life. Being a successful student is very important to how I see myself." A third student responded in the form of a question, asking, "I am a Biochem major, if I'm not a successful student then what am I even doing at school?" Students in this category all related strongly with the role of student, often describing how being successful in this role was very important to their identity.

Academics before athletics. Similar to those who discussed prioritizing their student role, some student athletes specifically discussed how academics come before athletics. One student explained, "Being a successful student is more central to myself than being a successful athlete, If my grades were dropping because of my sport, it would be hard, but I would drop my sport before allowing it to jeopardize my academics. Academics and being a successful student will

get me farther in life than being a successful DIII athlete," while another expressed, "Being a successful athlete is important to how my confidence level but being an athlete isn't the most important part of my life. Being an athlete will only take me so far, but academics is what will matter for the rest of my life." A third wrote, "I can't say that being a successful student is not important to how I see myself. Success in school is a more critical to me than success in athletics. I put more weight on school." These comparisons demonstrate the student-athletes' perspectives that school is a more important part of their life than athletics, even though athletics may at times be more enjoyable.

Other things more important. Finally, a few student-athletes discussed how other things were more important than their student identity. One student described, "If I let my self worth rely on my success in school or grades I wouldn't be anywhere, Being a successful student is something I work very hard at each and every day but when I don't see the success I try my best to not let it get me down. I am more than just my grades." A second student explained that, "Being a successful student is somewhat important to how I see myself, but not a defining factor at all. Part of this is that I am sometimes academically lazy and I like to distance that failure on my part from my identity. But another large part of the distance between my school performance and my identity is that I realize that I have value and purpose regardless of what my grades show." These students clearly express the idea that grades and success in academics are not the only or the most important factors that define their identity.

Theme 6 – Athlete identity. Within this theme, student-athletes discussed how sports are more important than school, the fact that they chose their school because of their sport, the recruiting process, the centrality of sports in their life, and the fact that they have always been athletes. This theme also encompasses the category of responses focusing on how and why

athletics are *not* a priority.

Sports more important than school. A few student athletes discussed how they viewed sports as more important than school. One student explained how academics are "important but not as important as sports. This stems from growing up this way, grades have always been second to achievement in sports." Another student described, "I share the same amount of motivation to do well, but sports will always take priority when I have to choose one on a given night," while yet another explained, that sports are more important "because I'm competitive and it's fun to me."

School choice based on sport. Many student athletes discussed the fact that they chose to attend their college due to their sport. Some discussed learning about the school due to the recruiting process, while others specifically discussed attending the school due to the ability to play a sport. For example, one student wrote, "I chose [this school] because I was offered a spot on the FH team but they also offered what I wanted to study and I enjoyed the small environment," while another explained, "I am attending this school because I got recruited here to play soccer and i want to earn my degree." Other students discussed how they "came to college to play a sport," "wouldn't be at the school I am currently attending" without the sport, and that they "never heard of this school until the coach reached out." One student summarized his thoughts on attending the school, saying "I came to this school specifically to play soccer, the team is my family and I want to be successful for them as well as for myself because it is now apart of my identity. I want other young players to look up to me and I enjoy the respect of my peers and other successful athletes. If I wasn't a successful athlete I don't think it would change the way I view myself, but I might have a different sense of self that might revolve more around being a successful student rather than a successful athlete." In general, student-athletes in this

category highlighted the impact participation in athletics had on their school choice.

Sports central to self. A few student-athletes reported that athletics were central in their life and central to their sense of self. For example, one student expressed, "If I am not a successful athlete then I am not successful in life," while another wrote, "My entire life has been sports so I pride myself on being successful as an athlete and being someone who gets significant playing time which I have been fortunate to have. Without sports I feel like there is not much to me." These students highlight the important role athletics plays in how they see themselves.

Always an athlete. Many students related to the athlete role due to the fact that they have been athletes throughout their entire lives, generally starting at a very young age. Student-athletes described how they have "been an athlete [their] entire life", since the ages of "4" and "6", and therefore "it [athletics] is a very central part" of who they are. One student explained, "I have been playing tennis my whole life. I really look forward to my competitions in college and so my continued success in the sport is one of the most prominent ways I reflect on the direction I am going in." Another explained, "It is very important. I have been an athlete my whole life, i've always identified as an athlete. If I weren't successful as an athlete I would feel like a huge part of my identity is that of a failure," while a third student expressed how succeeding in athletics was central to his identity because, "I did not work this hard to make it this far to only half-do something." Overall, these students expressed the importance of athletics and being successful in athletics to their identities due to the amount of time dedicated to their sport throughout their lives.

Athletics not a priority. Finally, some students specifically discussed how athletics were *not* a priority in their lives for different reasons. One student explained, "I do not think athletics are important in my life, as they will be gone upon graduation," while another wrote how athletics

are “Only a bit important. Being an athlete is only one facet of who I am. While that means that it still plays a role, it is not central to my identity or what I rely on to define myself.” A third student described other important areas of life, “There are more things that are important such as family, friends and school but it is also a very important aspect of my life and does partially define who I am as a person.” A fourth student admitted that sports were important, “I would be lying if it is not important to how I see myself. My sport means a lot to me, but it doesn't determine everything. I'm still my own person without my sport.” Lastly, one student addressed the fact that Division III athletics are often seen as more of a hobby than sports at other divisions, “It's really not that important to me because being a division 3 athlete is just a hobby for me.” Overall, these students highlighted the fact that many student-athletes do not always prioritize athletics and offered a variety of other aspects that make up a person’s identity.

Theme 7 – Multiple role identities. The third and final theme related to identity encompassed responses that described the ability for student-athletes to have multiple role identities. According to role-identity theory, individuals occupy various social positions within their lives, and how they prefer to see themselves in those social positions define different role-identities for that individual. As such, role-identities influence people’s everyday lives by serving as their primary source of personal action plans (Owens et al., 2010). Additionally, people have multiple and often competing role-identities which can come and go during one’s life (McCall & Simmons, 1996). Hence, this theme focuses on responses in which student-athletes discussed having multiple roles as both students and athletes.

Balance. The first topic addressed within this theme is the idea of balance. Many student-student athletes discussed being able to balance both academic and athletic commitments, making them both an important part of their identity. Student-athletes described

how they are "able to manage my time between sports and class" and "know how to best study and prepare for exams and assignments at this point and have strong time management skills to balance academic work and athletic commitments." One student explained, "I feel very confident in myself as an overall person, both on the sports field and in the classroom. My competitive nature will help me strive to achieve success in both aspects of life." Overall, students in this category reported having an ability to balance both commitments and therefore both areas were important parts of their lives.

Both. Many student-athletes discussed the importance of both academic and athletic roles in their lives. Specifically, some discussed each as having equal importance because they have different goals for each domain, for example, one student wrote, "Classes is what is going to give me a good job, sport is what will improve my self-esteem and define part of my personality," while another wrote, "I want to do well in my classes to be able to further my education and eventually work towards getting my Doctorate degree. I want to do well in my sport because it is something I have been working towards for many years and I want to end up being the best athlete that I can be." Other students discussed that they are equally motived in both academic and athletic roles, for example, one student wrote, "I am motivated in school and in swimming but it's a different motivation. The school motivation is to get a degree. My sport is important it pushes me but I think it is because of swimming I am able to do well in school. I am motivated to drop time in swimming," while another explained, "I am equally motivated to do well in both. They both balance each other out- me knowing I'm doing well in school takes off stress, which allows me to focus on my sport. Doing well in my classes allows me to play sport, I know if I do not do well in class then I will be suspended from my sport." Lastly, one student summarized the importance of both, explaining,

> I find that both are synonymous to me and that there isn't one that is better than the other. Obviously, grades and education are far more important than a sport... however, I have always treated the two with the same amount of respect and courtesy for one another; I get all of my school work done before my sport, and I am sure to work hard at my sport and get everything I can out of a practice so that I can go back to my studies afterwards. There is no play without work, and no work without play... Attendance also matters - you will not see me suited up for a game if my grades have been lacking or absences have increased. Likewise, you will always see me in class because I know I won't play and will instead run sprints if I do not take my education seriously. Sports are kind of like the reward: not always sunshine and rainbows, but ultimately all you really want to do at the end of a stressful day or week.

Ultimately, these students expressed a desire to perform well in both academics and athletics and the importance of both areas for different reasons in their lives.

Overall, student-athletes overwhelmingly reported that both academics and athletics were important parts of their identity, though they often satisfied different ideas participants held about themselves. Similarly, a majority of student-athletes reported feeling motivated to do well in both school and sport, though their reasons for doing well varied in many ways. For example, students discussed wanting to do well in their classes to set themselves up for the future, whereas they discussed wanting to do well in their sport to benefit the team or to receive recognition of some kind. The qualitative data demonstrated the importance of both academics and athletics to the DIII student-athletes in this study and provided insight into their ideas about success, motivation and identity in both domains.

Mixed Methods Analysis

Research question six findings. Research question six asked, "to what extent do the identity and motivation scores converge with student-athletes' perceptions of their identity and motivation?" In order to answer this research question, it was necessary to consider the quantitative and qualitative results together. An important way in which to do this for the current study was to consider whether the qualitative responses aligned with the responses to individual

items on the motivation and identity scales. This was particularly relevant for the motivation scale given the problems that arose when analyzing the quantitative data. The following section explores the alignment of quantitative scale items and scores to the qualitative responses.

As previously discussed, the motivation scale was split into two subscales, one to measure student-athlete academic motivation (AM) and one to measure athletic motivation (SAM). Overall, mean scores for both the AM subscale (M = 4.9) and the SAM subscale (M = 4.64) were very high on a scale of 1-6. These scores were generally consistent with the qualitative results, with over 50% of student-athletes reporting that they felt highly motivated in both academics and athletics and almost 70% of student-athletes reporting they felt confident in their ability to succeed in sports *and* athletics. The specific mean scores for each item of the scale were considered in order to identify any areas of potential discrepancies. Table 3 in the quantitative section shows details of item means, variances and standard deviations.

Four items, all of which were included in the AM subscale, were found to be exceptionally high, with mean scores greater than 5.3 on a scale of 1-6, and were found to be highly skewed, with skewness values above 2. The specific items, means and skewness and kurtosis values are reported in Table 11. Two of these questions specifically referred to the student-athlete's intention or confidence in earning a degree: "During the years I compete in my sport, completing a college degree is not a goal for me (Reversed)," and "I am confident that I can earn a college degree." Two others addressed the importance of grades and GPA: "Earning a high grade point average (3.0 or above) is not an important goal for me this year (Reversed)" and "It is not worth the effort to earn excellent grades in my courses." The fifth also considered a future outcome in the form of a career: "I chose (or will choose) my major because it is something I am interested in as a career." High mean scores and skewness and kurtosis statistics

with each of these items indicate that most students rated these items as either a 5 or 6 on a scale of 1-6, indicating that they strongly agree with the statements (or disagree if the item is reverse coded).

Qualitative data gives further insight into these items, showing that over 95% of students reported that academics were important to them, over 70% of students specifically discussed the importance of grades, and over 80% of students reported feeling to some degree confident in their ability to succeed in academics. Additionally, 57% of students reported feeling motivated to do well in school, and 47% of students specifically discussed the importance of receiving a degree. These trends in the qualitative responses support the high scores for items regarding GPA, grades and earning a college degree. Finally, a total of 39% of students discussed the importance of a future job or career, supporting the high scores on the career item. Table 11 shows the items, item statistics and qualitative findings that align with the items.

Table 11
Exceptionally High Items with Mean, Skewness and Kurtosis Values with Supporting Qualitative Data

Item	*Mean*	*Skewness*	*Kurtosis*	*Qualitative Alignment*
M8. I chose (or will choose) my major because it is something I am interested in as a career.	5.52	-2.095	4.761	39% of students discussed the importance of a job or career
M9(R) Earning a high grade point average (3.0 or above) is not an important goal for me this year.	5.34	-2.223	4.349	Over 70% of students discussed the importance of getting good grades Over 95% of students discussed the importance of academics
M25(R) It is not worth the effort to earn excellent grades in my courses	5.34	-2.009	4.329	Over 80% of students reported feeling to some degree confident in their ability to succeed in academics
M16(R). During the years I compete in my sport, completing a college degree is not a goal for me (Reversed)	5.83	-4.182	20.507	57% of students reported feeling motivated to do well in school
M18. I am confident that I can earn a college degree.	5.84	-4.618	27.319	47% of students discussed the importance of receiving a degree

Taken together, the qualitative data demonstrates that a majority of students recognize the importance of doing well in school, receiving a degree, and ultimately beginning a career. In this way, the qualitative data is clearly aligned with the quantitative data that shows high scores for these items and for academic motivation in general.

Similar to the motivation scale, the identity scale was split into two subscales, one for athletic identity and one for academic identity. Overall, mean scores for both scales were very high with $M = 25.31$ for academic identity within a potential range of 6-30 and with $M = 31.81$ for athletic identity within a potential range of 6-36. Individual item means were all found to be between 4.8 and 5.42, indicating very high scores across all items. However, no items were identified to be highly skewed or problematic. The overall high mean scores for athletic and academic identity sub scales were consistent with the qualitative data indicating that over 50% of student-athletes identified strongly with both roles and felt that they were able to balance the two during their college career.

In addition to reviewing the quantitative scale data for inconsistencies, it was also important to consider the themes that emerged from the qualitative data in relation to the quantitative scales. This was important to identify whether or not the student-athletes qualitative responses revealed elements of their identity or motivation that were not addressed in the scales. Table 12 displays the themes and subcategories associated with each theme and indicates whether or not the scales address these themes.

Table 12
Themes and Subcategories Compared to Scale Items

Theme	*Category/Subcategory*	*Quantitative Motivation Item*	*Quantitative Identity Item*

Outcome oriented	Grades	M1, M4, M9, M17	I4, I5
	Degree	M16, M18, M24	--
	Job/Career	M8	--
	Individual goals	M2	--
	Recognition	--	--
	Pay Off	--	I11
Process oriented	Learning/Life Lessons	M3	
	Effort/Personal Best	M13, M25	I3
	Contribution to team	--	--
	Improving	M10	--
	Enjoying	M12, M23	--
Expectations	Self-concepts of ability	M11, M21	--
	Task Difficulty	--	--
	Past Experiences	--	--
	Expectations of others	--	--
Values	Utility Value	M7	--
	Intrinsic Value	M12, M23	--
	Cost	M22, M4	--
	Attainment Value	M15, M20	I1, I2, I7, I8, I9, I10
Student Identity	Prioritizing student role	--	I1, I2, I3, I4, I5
	Academics before athletics	M15, M20	I1, I2, I3, I4, I5
	Other things more important	--	I1, I2, I3, I4, I5
Athlete Identity	Sports more important than school	M5	I6, I7, I8, I9, I10, I11
	School choice based on sport	M5	I6, I7, I8, I9, I10, I11
	Sports central to self	--	I6, I7, I8, I9, I10, I11
	Always an athlete	--	I6, I7, I8, I9, I10, I11
	Athletics not a priority	--	I6, I7, I8, I9, I10, I11
Multiple Role Identities	Balance	--	All
	Both	--	All

As the above display demonstrates, the qualitative themes and categories demonstrate potential areas that may be lacking in both the motivation subscales and the identity subscales. Within the motivation subscales, the categories of "recognition, "pay off," "contribution to team," "task difficulty," "past experiences, and "expectations of others" do not have related items. The first three mentioned are all outcome or process-oriented categories related to athletics. Thus, while the outcome and process-oriented categories related to academics were all represented in the

academic motivation subscale, the athletic motivation subscale may be lacking some elements of success orientation that student-athletes find important. Student-athletes reported that receiving recognition, getting some kind of payoff for the work put in, and contributing to their team were all important indications of success; however, the current subscales do not address these ideas in any way. The last three categories mentioned all fall under the theme "expectations for success" and apply to both the academic and athletic domains. Thus, both subscales only address ideas of "self-concepts of ability" related to how well students believe they will perform in either domain. Although task difficulty was only found to be relevant to students' expectations in academics, both past experiences and expectations of others were found to be important indications of expectations in both academics and athletics. According to Expectancy-Value Theory, all four expectations have important implications for a student's motivation and should therefore be considered together. Therefore, it is possible that the sub scales are lacking in addressing the full extent of expectations held by student-athletes. Lastly, of the values represented in the qualitative findings, utility value in athletics was not found to be represented in the athletic motivation subscale. This means that the reasons student-athletes found sports to be useful were not addressed in this subscale and it therefore may be missing this element in representing their motivation.

With regard to the identity scale, overall responses aligned generally with students either prioritizing the student role or the athletic role. A few items overlapped with the motivation subscales; however, the researcher expected this due to the links between the two constructs and did not consider the overlap to be problematic. Qualitative results related to identity provided more detailed responses that indicated reasons why student-athletes might identify with the student role or the athlete role and allowed for themes that discussed multiple role identities to be

revealed. Although specific items on the scale did not address both athletics and academics, the scores themselves indicated that many student athletes identified strongly with both; therefore, the researcher considered the results of both sub scales taken together to address these themes.

Overall, mixed methods analyses revealed a potential need to examine the motivation scale and its effectiveness in the current population. Side-by-side quantitative and qualitative data illustrated the relationships between individual items with high mean scores and skewed results and qualitative summary data. Qualitative data also revealed that student-athletes discussed important themes related to motivation that were not represented in the motivation scale. The implications of these findings are discussed further in Chapter V.

Chapter V – Discussion

This chapter serves as the final chapter detailing the current study. Major findings from each research question are briefly restated in order to make connections to the literature on identity and motivation for student-athletes. Findings are then discussed together in order to draw conclusions about the overall results of quantitative, qualitative and mixed-methods questions. The chapter closes with a discussion of limitations to the study, recommendations for future research and concluding thoughts.

Research Question One

What are the relationships among academic identity, athletic identity, academic motivation and athletic motivation for DIII student-athletes?

The results indicated strong positive connections between academic identity and academic motivation as well as between athletic identity and athletic motivation. These results aligned with the researcher's expectations based on expectancy-value theory, role-identity theory and previous research on identity and motivation among student-athletes. According to Expectancy-Value Theory, an individuals' choice, persistence, and performance can be explained by their beliefs about how well they will do on an activity and the extent to which they value the activity (Wigfield & Eccles, 2000). This is related to the premise of role-identity Theory, which tells us that the value an individual places on a specific role-identity will determine how prominent that role is to one's sense of self. Thus, the beliefs and perceptions of an individual are critical in understanding their priorities and motivations, meaning the extent to

which one identifies with a certain role may be related to their motivation in that domain. Therefore, the links between motivation and identity constructs within the same domain were expected in the current study.

Previous empirical literature has also demonstrated the connection between academic identity and academic performance (Matsushima & Ozaki, 2015; Simons et al., 2000), and given the connection between academic motivation and academic performance (Gatson-Gayles, 2004; Parker et al., 2016; Simons et al., 2000), it is not surprising that academic identity would also have a positive connection to academic motivation. Likewise, previous literature has also demonstrated the connection between athlete identity and increased athletic performance (Horton & Mack, 2000) making the connection to motivation unsurprising. These results are important as they empirically link the identity and motivation constructs within the same domain together, indicating that identification with the student or athlete role has a significant positive relationship with the motivation for that same role.

Results also indicated a small positive correlation between athletic identity and academic identity. This finding was particularly interesting given the contradictory empirical findings associated with these constructs. This result contradicts Lally and Kerr's (2005) conclusion that athletic identity is negatively related to student identity, and only as athletic identity wanes over time does the student identity become prominent. Likewise, this result opposed Yopyk and Prentice's (2005) findings that as one identity increases given a certain task, the other decreases. Feltz et al (2013) also found a negative correlation between the two identities across DI and DIII sports. However, this same study found that upon separating the DI from the DIII schools, only the DI school shad a significant relationship. While Feltz and colleagues (2013) did not find a

positive correlation between identities like the current study, their findings indicate the presence of a difference in the construct for these populations.

On the other hand, the positive correlation found between these two constructs confirm the arguments that it is possible to have high identities in both domains (Brown et al, 2000; Harrison & Lawrence, 2003). For example, Brown et al. (2000) surmised that as long as student-athletes were not overcommitted to the athlete role, that it was possible to have a high student identity as well as a high athlete identity, while Harrison and Lawrence (2003) found that student-athletes acknowledged the importance of succeeding in both roles to their overall sense of satisfaction. Thus, the current findings support these studies, giving further empirical evidence to the positive relationships between athletic identity and academic identity in this population. Furthermore, this finding is important in light of the research on athletic identity indicating that student-athletes who over-identify with the athlete role have low student identity and low academic performance (Marx et al., 2008; Strum, Feltz & Gibson, 2010). Based on these findings, it may be concluded that the population for the current study does not over identify with the athlete role in a problematic way as the DI athlete literature demonstrates.

While the two identity constructs were found to be positively correlated, the two motivation constructs, academic motivation and athletic motivation, were found to have a moderate negative correlation. This result supports the findings from Simons et al (1999) that demonstrated that high athletic motivation resulted in lowered academic performance, and Lucus and Lovaglai's (2002) findings that high athletic motivation results in lowered motivation on academic tasks. Importantly, this result may also add to Gaston-Gayles' (2004) finding that athletic motivation did not detract from academic success. Since the current study used Gaston-Gayles' subscales to measure academic motivation and athletic motivation, this is an important

finding demonstrating potential differences between the current population and the DI population used in Gaston-Gayle's (2004) study. Overall, the negative correlation between academic and athletic motivation may indicate that spending too much time and effort in one domain can negatively impact the other.

Lastly, small negative correlations were found between academic identity and athletic motivation as well as between athletic identity and academic motivation. While the researcher did not necessarily expect to find any significant relationships between these constructs due to the lack of available literature comparing them, it was not surprising given the connections between identity and motivation constructs of the same domains (i.e. that athletic identity has a strong positive relationship with athletic motivation) paired with the finding in the current study that athletic motivation and academic motivation are negatively correlated. It is also not surprising given the theoretical connections between identity and expectancy-value theory. These empirical findings are important as they provide evidence for the existence of this negative relationship and add to our understanding of how the identity and motivation constructs relate to one another. In this case, it can be concluded that high levels of identity in either the student or athlete role are often associated with lowered motivation in the opposite role.

Research Question Two

To what extent does athletic motivation, academic motivation, athletic identity or academic identity predict academic performance for DIII student-athletes?

The results associated with the second research question indicated that the model including gender, sport, graduation year, academic motivation, athletic motivation, academic identity and athletic identity significantly predicted student-athlete GPA. Based on previous empirical work, the researcher expected to find that academic motivation and identity positively

predicted GPA (Gaston-Gayles, 2004), while athletic motivation and identity negatively predicted GPA (Lally & Kerr, 2005). As expected, academic motivation and academic identity were strong positive predictors of GPA. However, while athletic identity negatively predicted GPA, athletic motivation was not found to negatively predict GPA. These findings are important as they oppose much of the previous literature that indicates the significant negative relationships between athletic motivation and other domains such as academic motivation and academic performance. Thus, the current results demonstrate a potential need to reconsider the negative stigma currently present in the literature on athletic motivation.

These results are also important in that they help identify factors that impact student-athlete academic performance. Student-athletes who strongly identify with the student role and have high academic motivation can be expected to have high academic performance. Likewise, students with low student identity or low academic motivation may struggle to perform academically. Additionally, students with high athletic motivation might not be expected to have lower GPAs. Therefore, measures of these constructs have the potential to help identify students who may be at risk for low academic performance throughout their college career.

Research Question Three

Are there differences in identity, motivation or performance based on sport, gender or school year?

Results indicated statistically significant differences between males and females for academic motivation, athletic motivation, academic identity, and GPA. As previous research demonstrated that female student-athletes generally have lower athletic identity, higher academic identity, higher academic motivation, and higher academic achievement than male student-athletes (e.g., Gaston-Gayles, 2005; Melendez, 2010; Meyer, 1990; Strum, Feltz & Gibson,

2010), the researcher expected to find similar results. As expected, females were found to have higher academic motivation, academic identity and higher academic performance, though no significant difference was found on athletic identity. Additionally, previous research did not identify differences in males and females on athletic motivation, and current results demonstrated that males had significantly higher scores than females. Overall, these results support a majority of empirical findings that show females to have higher scores in academic domains and higher academic performance than males, and males to have higher scores in athletic domains than females. However, athletic identity scores demonstrate a potential difference in this population in that females have similar athletic identities to males. This finding is consistent with Beron and Piquero's (2016) recent finding that identity did not differ significantly between males and females, and is important in understanding the way in which student-athletes in this population identify themselves as both students and athletes. Given the previously discussed findings that show athletic identity to be positively correlated with academic identity, it is not surprising that females reported equally high levels of athletic identity to males as athletic identity in this population may not be associated with all of the negative outcomes previous literature has reported.

Additional results demonstrated significant differences among sports on academic motivation, athletic motivation and academic performance. Previous research found that student-athletes in revenue producing sports such as football and men's basketball have lower academic motivation and performance, while also having higher athletic identity and motivation than student-athletes in other sports (Gaston-Gayles, 2004; 2005; Rettig & Hu, 2016; Sellers et al, 1992; Simons et al., 1999). Comparing means between sports demonstrates that for the current population, there was no indication that football and men's basketball were significantly

different than other sports in academic motivation, athletic motivation or GPA. As no significant difference was found for athletic identity or academic identity, the means for those sports are not reiterated here. Tables listing the means for these constructs from largest to smallest can be found in Appendix G. Thus, for the DIII population in the current study, the previous empirical findings indicating that men's basketball and football were significantly different were not supported. While men's basketball fell in the bottom three sports for academic motivation, it was not lowest, and it did not fall within the top three of athletic motivation. Similarly, while football fell in the top three for athletic motivation, it did not score the highest, and it did not fall within the bottom three for academic motivation. Additionally, neither football nor men's basketball fell in the bottom three for mean GPA scores. Therefore, while the findings of the current study demonstrate that student-athletes' motivation in academics and athletics varies by sport, it is not consistent with previous evidence supporting differences in sports and may therefore need further consideration.

Lastly, results demonstrated that no significant difference existed among grade levels for motivation, identity or GPA. Previous literature demonstrated that athletic identity increases and academic motivation and performance decrease as male basketball players progress through college (Adler & Adler, 1989; 1991). However, other literature demonstrated the opposite, showing that motivation and performance actually increase for female basketball players in college (Meyer, 1990), and that while academic identity was high at the beginning of their college career, student identity actually increased over time (Miller & Kerr, 2002). Due to the differences between the DI revenue-producing sport population used in Adler & Adler's studies and DIII sport populations, it is not surprising that the current study aligned more with Meyer (1990) and Miller & Kerr (2002). Differences in identity, motivation or performance based on

school year could indicate a need to support incoming freshmen as they adjust to their dual roles as students and athletes, or a need to support seniors as they transition out of sport into their career paths. However, a lack of differences among grade levels indicates no significant areas in need of attention for this population.

Research Question Four

How do student-athletes describe academic and athlete success at a DIII institution?

Findings from the qualitative results indicated that student-athletes described success in both academic and athletic domains as either outcome or process oriented. Those who considered success to be outcome oriented described academic success in terms of earning a high GPA, graduating with a degree, or starting a career and described athletic success as meeting individual goals, receiving recognition and obtaining positive results. On the other hand, those who considered success to be process oriented described academic success as learning or putting forth effort and described athletic success as contributing to their team, putting in hard work, seeing improvement and enjoying their experience.

Understanding how student-athletes in this population defined success was important to the study for a number of reasons. First, many of the quantitative scale items asked students questions referring to how confident they felt in their ability to succeed in either domain, therefore, it was important to understand in what ways they understood success. Second, the current study focused on GPA as an indication of success in the academic domain; however, the researcher knew that it was possible for student-athletes to prioritize other forms of success over academic performance (GPA). Lastly, in studying motivation, it is important to understand what student-athletes are striving towards. For instance, a student may be motivated in academics because he or she is interested in learning, whereas another student may be motivated in

academics because he or she finds it important to receive good grades. These differences could have important implications for the extent to which the student-athlete remain motivated in these areas, as student-athletes who are more intrinsically motivated to learn as opposed to extrinsically motivated by grades may be more likely to maintain these levels of motivation throughout their college career and beyond.

Research Question Five

How do students describe their academic and athletic motivation and identity at DIII institutions?

Results indicated that student-athletes described their motivation and identity in a number of ways. In describing their motivation to perform in either the academic or athletic domain, student-athletes described their expectations for success and their values associated with both domains. Student-athletes referred to their ability level, the expectations of others and their past experiences for both academics and athletics. Most commonly, student-athletes reported feeling confident in both academics and athletics due to the expectations of their coaches, teammates and friends, meaning that the influence of others on their motivation in both domains was generally positive. Additionally, past experiences of success positively influenced student-athletes expectations for success. Self-concepts of ability responses varied for both academics and athletics with some students feeling confident in their abilities to succeed and others feeling they did not have the skills necessary to succeed. However, those who felt confident due to their perceptions of ability outnumbered those who did not. Lastly, student-athletes discussed task difficulty as a factor in their motivation for academics. Many students reported the difficult natures of their courses or major, though in general this did not dissuade them from wanting to succeed. Student-athletes did not discuss task difficulty related to athletics, which was not surprising due to the volunteer nature of athletics at DIII institutions. If students felt their sport

was too hard for them to be successful, they would likely choose not to do it. According to Expectancy-Value theory, it is important to understand individuals' expectations for success as these expectations impact how motivated they are in a certain domain. Given the overwhelmingly confident responses in both academic and athletic domains, the results from most expectation categories suggest high levels of motivation in both areas.

In addition to their expectations for success, student-athletes also discussed the utility values, costs, intrinsic values, and attainment values associated with both academics and athletics. These results were particularly interesting in that they highlighted the different reasons student-athletes had for valuing the two domains. The values for each were oftentimes very different though not necessarily in conflict. For example, a majority of the utility values student-athletes reported were related to academics. Students discussed the future benefits of academics such as graduating and getting a job in the field they desire. When discussing utility values associated with athletics, student-athletes only reported physical fitness as a benefit of their participation, and otherwise pointed out that sports end after college and therefore had low utility value for the future compared to academics. Thus, student-athletes generally recognized the usefulness of their academics to their future goals and demonstrated an understanding that while sports may be beneficial to their health, participation would not ultimately help them in their future goals.

Student-athletes also discussed time as the primary cost associated with both academics and athletics. Students reported the large amount of time commitment needed to be successful in both domains, though they discussed the cost differently in the academic versus the athletic domain. For example, when discussing time constraints associated with academics, students generally reported that the time they spent studying and preparing for classes added to their

desire to do well, explaining that they wanted their time and effort to pay off in the form of good performance. On the other hand, some students reported the time constrains associated with athletics to be a hindrance to either their academic work or their well-being. This is consistent with previous literature on the challenges student-athletes face in college (Parham, 1993; Jolly 2008). Student-athletes who discussed this reported feeling that they did not have as much time as they would like to commit to their classes because of the time demands from their sport, or that they lost sleep due to their lack of time to complete everything during their season. Thus, while time was reported as a cost in both academics and athletics, it was only discussed as problematic in the athletic domain.

A third category within this theme was intrinsic value, which was most commonly discussed within the athletic domain. Student-athletes reported enjoying their participation in athletics and that being part of their team increased their overall happiness. While these types of responses were most commonly related to athletics, some student-athletes also reported enjoying their classes and choosing their major based on their interest in the subject. The prevalence of this category in the athletically related responses is not surprising given the volunteer nature of sport participation. Student-athletes would likely not choose to participate in athletics if they did not enjoy the time spent playing their sport.

By far the most discussed value in both responses relating to academics and athletics was attainment value. Student-athletes reported gaining a sense of confidence and self-worth when they were able to succeed in either academics or athletics. They also described specific characteristics associated with either domain that they found to be important. For example, some students reported wanting to be seen as smart, thoughtful and knowledgeable and that being a good student was a direct reflection of themselves. Other students reported wanting others to see

them as hard working, determined and committed to their sport. Another common response was that student-athletes felt a sense of pride in their ability to succeed in both academics and athletics. The prevalence of this category was particularly interesting given its theoretical connection to multiple-role identity theory, which explains that the value an individual places on a specific role-identity, in this case student or athlete, will determine how prominent that role is to one's sense of self (McCall & Simons, 1996). Likewise, Expectancy-Value Theory asserts that individuals' choices, persistence, and performance can be explained in part by the extent to which they value the activity, and attainment value in particular is conceptualized in terms of the needs and personal values an activity fulfills for an individual, or in other words, the extent to which a task is seen as central to his or her sense of self (Wigfield & Eccles, 2002). In light of these theories, these responses demonstrate a variety of personal values that either academics or athletics fulfill for the student-athlete that they may not necessarily experience outside of that domain. Therefore, their participation in both domains may be important in fulfilling all needs and personal values for an individual.

Overall, student-athletes reported feeling highly motivated in both athletics and academics, and often emphasized the importance of doing well in school. This is consistent with the DIII philosophy statement that reads,

> Colleges and universities in Division III place the highest priority on the overall quality of the educational experience and on the successful completion of all students' academic programs. They seek to establish and maintain an environment in which a student-athlete's athletics activities are conducted as an integral part of the student-athlete's educational experience, and an environment that values cultural diversity and gender equity among their student-athletes and athletics staff (NCCA.org).

The NCAA further describes DIII athletics,

> Academics are the primary focus for Division III student-athletes. The division minimizes the conflicts between athletics and academics and helps student-athletes progress toward graduation through shorter practice and playing seasons and regional

> competition that reduces time away from academic studies. Participants are integrated on campus and treated like all other members of the student body, keeping them focused on being a student first (NCCA.org).

Unlike any other NCAA division, DIII athletics focuses on the balance between the student and athlete role, clearly stating the expectations that student-athletes are students first. Therefore, it was not surprising to find that students reported a heavy emphasis on academics throughout the qualitative results.

Consistent with reports of high motivation in both academics and athletics and the NCAA descriptions of DIII athletics, results indicated that both domains were important to student-athletes' sense of self. A majority of students reported that both roles were highly important to how they see themselves, and some even discussed their ability to balance the two roles. When describing their student role, many student-athletes discussed the importance of prioritizing their student role and placing academics before athletics. On the other hand, when describing their athlete role, student-athletes described how sports were central to their sense of self, how they chose their school based on the ability to play their sport and the fact that they have always been an athlete. Very few students reported feeling that athletics were a priority over academics. Thus their reasons for identifying with either role are not necessarily in conflict with one another.

Overall, these responses largely demonstrate that student-athletes feel motivated to perform in both academics and athletics and feel that both are important to their sense of selves. They rarely see the two domains in conflict with one another, but rather identify them as fulfilling different needs within their identities or helping them to achieve different goals they have for their college career. For example, a student-athlete may recognize the important of receiving a degree in order to pursue his or her future career and may also find enjoyment from

playing a sport to reach individual goals or contribute to a team, so they feel motivated to do well in both areas for different reasons.

Research Question Six

To what extent do the identity and motivation scores converge with student-athletes' perceptions of their identity and motivation?

The results of the mixed-methods analysis demonstrated a potential need to re-evaluate the motivation scale for the current population. Individual item means, and skewness and kurtosis values were evaluated in comparison to qualitative summary data to reveal a number of items with very little variability within the current population. These items were related to receiving good grades, graduating with a degree, and pursuing a career. Given the emphasis on high performance in academics within this division, it is not surprising that these items revealed little variation in responses with an overwhelming majority of student-athletes reporting a desire to receive good grades and graduate with a degree. Thus, it is possible that these questions are either irrelevant or in need of revision within this population in order to identity differences among individuals.

A side-by-side comparison of qualitative themes to individual scale items also revealed a number of areas student-athletes identified to be important in their motivation for either academics or athletics that were not represented in the motivation subscales. Specifically, student-athletes discussed recognition, pay off and being able to contribute to their team as important indicators of success within the athletic domain, and these topics were not addressed in any of the items on the athletic motivation subscale. This could mean that student-athletes who define success differently than the language present in the subscale may not be adequately represented in the results using the current items.

Additionally, student-athletes discussed past experiences and the expectations of others as common reasons for their beliefs about their ability to succeed in both academics and athletics. They also reported task difficulty as an important element to their expectations in the academic domain. According to Expectancy-Value Theory, an individual's interpretation of past events of success and failure can play an important role in achievement expectancies and therefore motivation. Likewise, the perceptions and expectancies of others play an important role in shaping students' self-perception for achievement expectations while task difficulty impacts students' task choices in that they tend to prefer tasks that are moderately difficult as opposed to those considered too easy or too difficult. According to the theory, these concepts all impact achievement expectancies that play a significant role in students' academic choices, persistence and performance (Wigfield & Eccles, 2000) and are therefore critical in considering an individual's motivation in a particular domain. However, none of these concepts were addressed on either the academic or athletic subscales. Given the prevalence of the themes and categories discussed and the importance of these ideas to the complete model of motivation according to Expectancy-Value Theory, it is possible that the subscales would provide more complete results if additional questions addressing these ideas were added.

Summary of Findings

Taken together, the results of this study highlight a number of important areas for consideration. The current section highlights the following major findings and recommendations that have come out of this study: a re-evaluation of the SAMSAQ academic and athletic subscales within the current population, a reconsideration of the reported negative impacts of athletic identity, the potential conflicts associated with multiple role-identities, and the personal values each role fulfills.

First, it is important to reiterate the psychometric issues that arose in evaluating the motivation subscales in the current study. Confirmatory Factor Analyses revealed problems with individual item correlations and item factor loadings. Additional analyses revealed issues with multicollinearity and high skewness and kurtosis for individual items. In addition to the psychometric issues identified, qualitative and mixed-methods analyses revealed areas of the subscales that may be lacking in examining both academic and athletic motivation. Emergent qualitative themes compared side-by-side to scale items illustrated the potential need for additional questions in order to address all elements of student-athlete motivation. Therefore, it is possible that for this population, questions regarding athletic and academic motivation need to be re-evaluated to better investigate these constructs within the current population.

Next, results regarding athletic identity within this population were found to differ in many ways from previous research on the construct. Although many previous empirical studies demonstrated the negative impact athletic identity had on either student identity or academic performance (e.g. Alfermann et al., 2004; Antshel et al., 2015; Mendelez, 2010; Ryska, 2002) the current study demonstrated a positive correlation between athletic identity and academic, or student, identity, indicating that in the current population, the two constructs are not in conflict with one another. This relationship was confirmed by qualitative data indicating that student-athletes identified strongly with both the athlete and student role and felt highly motivated to succeed in both domains. Thus, it is possible that over identification with the athlete role is not a concern within this population as previous literature on athletic identity would lead us to believe (Petitpas & Champagne, 1988).

Both quantitative and qualitative data demonstrated that student-athletes reported high motivation and identity for both academics and athletics. According to role-identity theory, it is

possible for individuals to have multiple, and sometimes competing identities (McCall & Simons, 1996). In general, student-athletes reported feeling that they were able to balance both of these roles sufficiently, though some did report feeling that time constraints from their sport sometimes made it difficult to complete academic tasks. Also in accordance with role-identity theory, many student-athletes discussed academics as their priority over athletics. Role-identity theory argues that a person's role-identities are organized in a hierarchy of prominence and that prominence reflects the relative value the specific role-identity has for that person's overall concepts of his or her ideal self (Owens, Robinson & Smith-Lovin, 2010). Thus, if a student-athlete prioritizes the student role, but time constrains from the athlete role interfere with the tasks within the student role, these two roles would come into conflict. In the case where the student prioritizes the student role, the student would likely choose the academic task over the athletic task. However, if the student prioritizes the athlete role, it is likely that the academic task (i.e. homework, studying, etc.) would suffer at the expense of the athlete role. Although minimal, there were students who reported prioritizing the athlete role to the student role. Thus, it is these students who would be of concern for becoming academically at risk if their multiple role-identities were to come into conflict. In a DIII environment where academics are expected to be prioritized at the administrative level, these types of conflicts for the student-athletes should be minimized. However, it may still be a cause for concern given the combined findings that some students reported time constraints as a barrier to academic success and that they prioritized the athlete role over the student role. Overall, most student-athletes in the current study would not fall into this category as they either reported balancing the two roles effectively or prioritizing the student role.

Another important finding that came out of the qualitative analysis was the presence of differing values for student versus the athlete role. According to Expectancy-Value Theory, subjective task values are defined as how a task meets different needs of individuals (Eccles, 1983; Wigfield & Eccles, 2002). While some of the values crossed over into both domains such as gaining confidence or a sense of self-worth and feeling a sense of pride, other values were only associated with one role. For example, future benefits and characteriscitcs of being smart, thoughtful and knowledgeable were only associated with the student role, while physical fitness and the characteristics of dedication, hard work, determination, and compassion were only associated with the athlete role. Considering the different values represented within the two domains, it seems appropriate to conclude that the student role and the athlete role often meet different needs of these student-athletes. While this may not be problematic during the years a student-athlete is competing in his or her collegiate sport, the question that remains is, how are these values fulfilled after the athlete is no longer part of a team? This question may be important for professionals working with student-athletes so that they may help in the transition away from being a college athlete. It may be important to help student-athletes find alternative ways in which to fulfill the values associated with their athlete role in other areas of their life.

Ultimately, the current study is an important step in filling the gap in the literature regarding the athletic and academic experiences, identity, and motivation of DIII student-athletes. While some of the pre-existing literature on student-athletes may be relevant to this population, it is clear that due to their unique circumstances, many of the assumptions we hold about student-athletes may need to be reconsidered in a DIII population.

Implications for Future Research

The current study is a step towards understanding academic and athletic motivation and identity in DIII collegiate student-athletes. Future research should continue to investigate this population in order to fully understand the experiences of student-athletes across all college divisions, not just high profile, DI programs.

Results from the current study highlighted a potential need to re-evaluate the SAMSAQ as it applies to DIII populations. Future researchers who wish to study academic and athletic motivation in DIII student-athletes may consider adjusting the scale items to better represent the philosophy of DIII academic-athletic environments. Specifically, qualitative data from the current study may provide some insight into potential areas on which to focus future adjustments to quantitative scales. Additional qualitative research may also be beneficial in identifying potential areas of interest as the current study only employed open-ended qualitative questions, and other methods such as interviews may yield more detailed responses.

Future research should also consider the experiences of DIII student-athletes post-graduation. The current study highlighted the importance many student-athletes placed on their athletic identity and the values that identity fulfilled for their sense of self. Therefore, it might be important to investigate how these identities evolve after sport participation comes to end. Helping student-athletes transition into life after college athletics and identifying other avenues through which to fulfill their identity needs may be an important role for college or university professionals who regularly work with student-athletes in this population.

Finally, research in this area should also consider comparing motivation and identity constructs across different divisions of student-athletes. Given the sometimes differing results between divisions and the overall lack of literature regarding these constructs, it would be helpful for researchers to investigate differences among Division I, Division II and Division III

student-athletes within the same study. Understanding the different experiences and different outcomes associated with each division will help to better inform professionals working with student-athletes how to best support them and will help fill in gaps in the current literature that currently primarily focuses on DI athletes.

Practical Implications

There are a number of practical implications that can be concluded from the current study. First, the findings regarding athlete identity may have important implications for coaches, administrators and counselors who work with student-athletes on a regular basis. Within this population, students were found to have very high levels of athletic identity, but athletic identity was found to have a positive relationship with academic identity. Therefore, a strong commitment to their athlete role may not be seen as problematic in this population. On the contrary, it may be worthwhile to explore how professionals who work with student-athletes can encourage a healthy sense of athlete identity and continue to support the link between it and an academic identity. It is possible that this may be accomplished by coaches and athletic staff promoting a culture that effectively balances the student and athlete role. This is again consistent with the NCAA DIII philosophy that stresses the importance of academics and a balanced college experience for student-athletes.

Findings regarding the importance of athletic identity to students' sense of self may also have important implications for professionals helping student-athletes to transition out of the athlete role. The current study demonstrated that certain values central to student-athletes' sense of self were primarily associated with their athlete role. Thus, when student-athletes are no longer participating in college athletics, these important parts of their identity may become more difficult to fulfill. Professionals responsible for helping student-athletes transition out of college

may therefore assist student-athletes by helping them to find other areas of their lives in which they can fulfill similar values to those associated with their athlete identity (i.e. recreational fitness, coaching, other group activities).

Lastly, the time constraints associated with their dual roles that many student-athletes discussed may be a problematic area for coaches and athletic directors to consider. Many student-athletes reported that the amount of time spent on their sport during when they were in season often conflicted with their academic work. Even though there is a commonly held belief that athletes are actually more successful in their classes during season due to the need for a more rigid schedule to make time for classes and sports, many of the responses in the current study demonstrate the opposite. Those athletes who report struggling in their classes due to time constraints but who also strongly identify with the athlete role and are therefore unwilling to lessen their commitment to their sport may be at risk for academic struggles. Thus, it may be important for coaches and administrators to assess the amount of time students have between attending classes, practices and games to actually study and complete their coursework. Athletes who are highly motivated to perform in their sport may also be spending additional time outside of practices in the weight room or training room in order to increase their performance. Thus, additional time commitments associated with athletics should also be taking into consideration when assessing student-athletes' ability to balance their dual roles.

Limitations

A major limitation of the current study was the extent to which the data violated assumptions of normality, particularly for the motivation subscales. These violations should be carefully considered when drawing conclusions from the results of this study. As mentioned

previously, future research should re-evaluate the use of the academic and athletic motivation subscales when working with this population.

Another important limitation of this study was the small number of participants in certain groups for the statistical tests. Due to the large number of sports represented within the study population and the relatively small total number of participants, some of the sports were not adequately represented. While some groups were removed from the analyses due to these small numbers, others were left in as they did not violate the assumptions for the MANOVA. However, given the small number of participants in some of the groups included, results should be considered carefully before making conclusions about certain sports within this population. Further research is needed with larger sample sizes from each sport in order to generalize the results. Likewise, some participating schools were not well represented in the current study. Though school was not a variable of focus, the limited number of participants from some areas should be taken into account. A more evenly spread population among schools may have been a better indication of the results from the conference included in the study.

A third limitation of this study was the potential for a biased sample. It is possible that motivation scores were found to be high due to the fact that students who chose to participate in the survey were particularly motivated students. Those who may choose to voluntarily participate in a scholarly activity such as responding to a survey regarding their academic and athletic identity and motivation may do so because they already feel highly motivated in these areas. Additionally, the two schools with the highest participation rates are ranked a #1 and #2 for strong academics in their conference. Thus, the responses may be somewhat biased towards a population with higher GPAs and higher academic identity and motivation.

Lastly, the open-ended survey questions included in the current study were able to provide additional detail and insight into the student-athletes' experiences. However, given the nature of the online survey, the responses were limited in depth compared to what other qualitative methods, such as interviews, would have yielded. Future research should consider in-depth interviews as an important method to investigate the identities and motivations of student-athletes in this population.

Conclusion

Ultimately, the current study is a step towards better understanding the DIII student-athlete population. Literature to date is primarily focused on DI student-athletes, and limited research is available on motivation and identity in both academic and athletic domains. The current study provides important insight into not only the differences that may exist between this population and other populations of student-athletes, but also the potential need to re-examine the way in which we measure constructs within this population. While some of the literature on student-athletes may be generalizable to DIII populations, some of the issues may not be relevant, especially considering the heavy focus on academics and holistic college experiences within the philosophy of NCAA DIII athletics. Moving forward, it will be important for scholars and professionals to distinguish the specific differences within the various populations of student-athletes in order to best support them in their academic careers.

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Appendix A

Timeline of Study

Activity	Proposed Timeframe
Submission of Prospectus to Committee	November 17, 2016
Prospectus Hearing	December 8, 2016
IRB Submission	December 20, 2016
Data Collection	Late January to Early May, 2017
Dissertation Defense	April 2018

Appendix B

Email to Athletic Directors

Dear ODAC Athletic Directors,

I am writing to inquire about your potential participation in my study of Division III athletes. Many of you may remember me from the August Athletic Director meeting where I shared with you all my plans for my dissertation research. Since that time, I have successfully submitted the NCAA grant proposal and will defend my study proposal to my dissertation committee in the beginning of December. Following the approval of my study, **I hope to begin collecting data in January, 2017.**

I am hoping that you all can assist me in accessing your student-athlete population. I can speak with you each individually about the best way to navigate the particular dynamic at your school. **At this point, I am reaching out to confirm whether or not you are interested in participating in the study.** Student-athletes who participate in the study will be asked to complete an online survey that should take approximately 10-15 minutes to complete. I am attaching a copy of the NCAA grant proposal to this email where you can find further details about the study. While minor changes may occur prior to data collection, the general concepts presented in the proposal will remain the same in my dissertation. To be clear, I will be conducting my study whether or not I receive the NCAA grant. If I receive the grant, the findings from my study will also be presented at the NCAA annual meeting. Grant decisions will be released in mid-November.

Please respond to let me know if you are interested in your school participating in this study. If you have any questions, I am happy to discuss my ideas in more detail. If you choose to participate, I will correspond with you directly to set up a plan moving forward.

Thank you for your consideration,

Savanna Love
Doctoral Student
Foundations Department – Educational Psychology
Virginia Commonwealth University

Appendix C

Student Athlete Recruitment Email

Dear Students,

My name is Savanna Love and I am doctoral student at Virginia Commonwealth University pursuing a degree in Educational Psychology. I am contacting you in hopes that you will participate in a study for my dissertation research that I am conducting focusing on student-athlete motivation, identity and academic performance.

The purpose of this study is to understand the experiences of Division III student-athletes and how their identity and motivation impact their academic performance. The study consists of a short survey that will take approximately 10-15 minutes to complete. It will take place on [insert data] on your campus in [insert room] from [insert time]. To be eligible for this study you must meet the following criteria:

(a) participate in varsity athletics at your institution
(b) be enrolled in the institution as a full-time student
(c) be between the age of 18 and 24

If you agree to participate, an information sheet has been provided for your records. A reminder email will be sent the day before data collection with the details of when and where to participate.

If you have any questions or concerns I can be contacted by email at loves@vcu.edu.

Thank you for your time,

Savanna Love
Doctoral Student
Foundations Department – Educational Psychology
Virginia Commonwealth University

Appendix D

AAIS Items

Academic and Athletic Identity Scale (AAIS)

Participants were asked "How central to your sense of who you are is each of the following attributes?" followed by a diagram of four concentric circles, which correspond with different degrees of centrality to the self-identification. The circles were anchored by 1 (not central to my sense of self) and 6 (very central to my sense of self), representing a 6-point scale.

1. Being a capable student
2. Being satisfied with my academic work
3. Doing well in school
4. Getting good grades
5. Having a high GPA
6. Being a capable athlete
7. Being a good athlete
8. Being athletic
9. Being proud to be an athlete
10. Being satisfied with my athletic achievement
11. Doing well during sport competitions

Note: Statements 1-5 are associated with academic identity and questions 6-11 are associated with athletic identity.

Appendix E

SAMSAQ Items

The SAMSAQ Items

1. I am confident that I can achieve a high grade point average this year (3.0 or above).
2. Achieving a high level of performance in my sport is an important goal for me this year.
3. It is important for me to learn what is taught in my courses.
4. I am willing to put in the time to earn excellent grades in my courses.
5. The most important reason why I am in school is to play my sport.
6. The amount of work required in my courses interferes with my athletic goals.
7. I will be able to use what is taught in my courses in different aspects of my life outside of school.
8. I chose to play my sport because it is something that I am interested in as a career.
9. I have some doubt about my ability to be a star athlete on my team.
10. I chose (or will choose) my major because it is something I am interested in as a career.
11. Earning a high grade point average (3.0 or above) is not an important goal for me this year.
12. It is important to me to learn the skills and strategies taught by my coaches.
13. It is important for me to do better than other athletes in my sport.
14. The time I spend engaged in my sport is enjoyable to me.
15. It is worth the effort to be an exceptional athlete in my sport.
16. Participation in my sport interferes with my progress towards earning a college degree.
17. I get more satisfaction from earning an “A” in a course toward my major than winning a game in my sport.
18. During the years I compete in my sport, completing a college degree is not a goal for me.
19. I am confident that I can be a star performer on my team this year.
20. My goal is to make it to the professional level or the Olympics in my sport.
21. I have some doubt about my ability to earn high grades in some of my courses.
22. I am confident that I can make it to an elite level in my sport (Professional/Olympics).
23. I am confident that I can earn a college degree.
24. I will be able to use the skills I learn in my sport in other areas of my life outside of sports.
25. I get more satisfaction from winning a game in my sport than from getting an “A” in a course toward my major.
26. It is not important for me to perform better than other students in my courses.
27. I am willing to put in the time to be outstanding in my sport.
28. The content of most of my courses is interesting to me.
29. The most important reason why I am in school is to earn a degree.

30. It is not worth the effort to earn excellent grades in my courses.

Note. Each item is rated on a scale of 1 to 6 with 1 = very strongly disagree, 2 = strongly disagree, 3 = disagree, 4 = agree, 5 = strongly agree, and 6 = very strongly agree. The CAM subscale consists of items 8, 9, 19, 20, and 22. The SAM subscale consisted of items 2, 12, 13, 14, 15, 17, 25, and 27. The AM subscale items consisted of items 1, 3, 4, 5 (reversed), 7, 10, 11, 17, 18, 21, 23, 25(reversed), 26, 28, 29, and 30.

Appendix F

Qualitative Questions

Open-ended Survey Questions

1. What does "being a successful athlete" mean to you?
2. To what extent is being a successful athlete important to how you see yourself? Please explain your answer.
3. What does "being a successful student" mean to you?
4. To what extent is being a successful student important to how you see yourself? Please explain your answer.
5. Please explain why you are currently attending your school
6. Please explain how confident you feel that you will do well in your courses. Why do you feel this way?
7. Please explain how confident you feel that you will do well in your sport. Why do you feel this way?
8. Please describe how motivated you are to do well in your classes versus how motivated you are to do well in your sport.

Appendix G

Means by Sport: Largest to Smallest

Sport	Academic Motivation	Sport	Athletic Motivation	Sport	GPA
Women's Basketball	5.16	Men's Golf	4.98	Women's Swimming	3.52
W Track and Field	5.16	Football	4.92	Women's Soccer	3.47
Field Hockey	5.13	Baseball	4.91	Men's Golf	3.41
Women's Soccer	5.13	Multiple Sport (mixed)	4.83	Equestrian	3.40
Men's Golf	5.03	Softball	4.81	Women's Track and Field	3.34
Women's Swimming	4.97	Men's Soccer	4.8	Volleyball	3.29
Women's Lacrosse	4.96	Volleyball	4.7	Multiple Sport	3.28
Women's Tennis	4.94	Women's Swimming	4.68	Women's Lacrosse	3.26
Men's Lacrosse	4.92	W Track and Field	4.67	Field Hockey	3.26
Volleyball	4.91	Women's Lacrosse	4.63	Men's Tennis	3.25
Multiple Sport (mixed)	4.89	Men's Tennis	4.61	Men's Basketball	3.16
Equestrian (mixed)	4.86	Men's Basketball	4.55	Women's Basketball	3.13
Men's Tennis	4.84	Women's Soccer	4.46	Football	3.12
Football	4.78	Field Hockey	4.37	Baseball	3.09
Softball	4.71	Women's Tennis	4.37	Men's Lacrosse	3.01
Baseball	4.7	Equestrian (mixed)	4.31	Women's Tennis	3.01
Men's Basketball	4.67	Men's Lacrosse	4.26	Men's Soccer	3.00
Men's Soccer	4.61	Women's Basketball	4.23	Softball	2.95