

WHO CALLS THE SHOTS?: AN EXAMINATION OF FACTORS THAT IMPACT  
STUDENT ATHLETES' CHOICE OF ACADEMIC MAJOR

by

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of Academic Major

A Thesis submitted in partial fulfillment of the requirements for the degree of Master of  
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## LIST OF ABBREVIATIONS

National Collegiate Athletic Association.....	NCAA
Socioeconomic Status .....	SES
Academic Athletic Identity Scale .....	AAIS
Football Bowl Division.....	FBS
Football Championship Subdivision.....	FCS



## **ABSTRACT**

### **WHO CALLS THE SHOTS?: AN EXAMINATION OF FACTORS THAT IMPACT STUDENT ATHLETES' CHOICE OF ACADEMIC MAJOR**

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George Mason University, 2018

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Earning a degree and playing at the NCAA Division I level are both incredible accomplishments and accolades. Both require hard work, dedication, and commitment. However at many institutions, athletics outweighs the value of academics, and student athletes succumb to their preferred degree being put on the backburner due to the high intensity and demand of their athletic schedule. With the use of Crawford, Jackson, and Godbey's (1991) leisure constraint model and Raymore's (2002) facilitator model, this study looked at constraining and facilitating factors that impacted Division I athletes' decisions to major in their preferred academic area. This study used a mixed methods approach and looked at former Division I student athletes who participated in non-revenue generating sports. The study found that the majority of Division I student athletes in non-revenue generating sports are majoring in their preferred choice of major; however there are multiple constraints that arose in their degree choice selection. Academic clustering was also found to be evident amongst seven schools within the Atlantic 10 Conference.

## **CHAPTER ONE: INTRODUCTION**

Sports are a spotlight for Americans young and old. With professional leagues for football, baseball, basketball, hockey, and soccer, it is almost impossible to grow up without any knowledge of the five major leagues. Playing a sport at least once in your lifetime is inevitable. From primary school to higher education, various sports are offered through introductory and advanced classes. The prevalence of sport participation in the United States is at an all-time high in the last 12 years. From 2003 to 2015, individuals aged 15 to 24 and those aged 25 to 54 increased their participation by 4.5 percentage points, and those aged 55 and older increased their participation by 1.5 percentage points (Woods, 2017, p. 3). The overall number of participants in high school sports increased for the 28<sup>th</sup> consecutive year in 2016-17, reaching an all-time high of 7,963,535 (2016 Annual Report”, 2017, p. 10). Out of that total, approximately 480,000 have the opportunity to play in the National Collegiate Athletic Association (“Estimated Probability”, 2017). The chance of those collegiate athletes going to the professional league of their sport, however, is very slim. Less than 2% of male high school football and basketball players compete at the professional level. The probability for female basketball players is even lower (“Estimated Probability,” 2017). It has been noted that the lowest satisfaction levels were generally seen in high profile Division I and II sports where unrealistic professional expectations may be highest (“NCAA Goals Study,”

2016). Overall, these statistics prove that there is a greater chance that collegiate athletes will obtain a profession outside of them playing their sport at the next level.

Given the low probability of athletes competing after college, it could be inferred that more time and attention should be devoted to student athletes' performance in the classroom and career readiness rather than on the field or court. This, unfortunately, is not the case at most NCAA Division I institutions. A study published by the NCAA ("NCAA Goals Study," 2016) found that when in-season, Division I student athletes reported spending on average 32 hours/week in 2010 and 34 hours/week in 2015. Football Bowl Subdivision (FBS) student athletes continue to report the highest weekly in-season time commitments, averaging 42 hours/week. NCAA bylaws state "A student-athlete's participation in countable athletically related activities shall be limited to a maximum of four hours per day and 20 hours per week." In the off season, NCAA bylaws for sports other than football state, "A student-athlete's participation in such activities per Bylaw 17.02.1 shall be limited to a maximum of eight hours per week with no more than two hours per week spent on skill-related workouts." Despite this time restriction, Potuto and O'Hanlon (2007) found that 53% of athletes spend on average more than 10 hours per week practicing their sport and 21% claim that they spend on average more than 10 hours playing their sport.

Over the years, the off-season has turned into the secondary season. Some may even say there is no off-season because athletes tend to train harder in preparation for their upcoming season. Two-thirds of Division I and II student athletes (half in Division III) said they spend as much or more time on athletics during the off-season as during

their competitive season (“NCAA Goals Study,” 2016). A study conducted on 44,058 student athletes, 2,445 school administrators, and 3,071 head coaches found that a majority of Division I student athletes believe they are overworked, while coaches think their players should dedicate more time to athletics (“Time Demands,” 2016). With student-athletes reportedly putting in 33-45 hours a week in athletic activity (Jacobs, 2015), 10 or more hours past the declared number of hours set by NCAA, how do institutions and coaches expect athletes to major in their preferred degrees while applying themselves to their full potential?

This conundrum begs the question, are these collegiate student athletes or should their true title be “athlete-students?” The controversy of this topic has been ongoing for the last decade or so. Many studies have ruled inconsistencies with whether student athletes identify more as students over athletes. A study conducted with student athletes representing 18 Division I (A) Institutions found that 61.8% of student athletes view themselves more as an athlete than a student. The current year in school, however, may affect athletic identity (Potuto & O’Hanlon, 2007). An athletes’ gender has also been identified as an influential factor. For example, Miller and Kerr’s (2002) study found that females tend to hold a slightly stronger student identity compared to males. Henrion (2009) similarly found a difference in male and female student athletes’ identity issues. Specifically, it was found that females indicate more of a student identity and males more of an athletic identity.

Academic and athletic identity are key components when student athletes are deciding a major. The ability for student athletes to major in their preferred choice of

study has numerous complications than those who do not play a collegiate sport. These factors range from individual factors (Porter & Umbach, 2006), structural factors (Bjornsen et al., 2017), to interpersonal factors (Ridpath et al., 2007). When choosing a major, student athletes must be mindful of various factors: practice times and conflict of class times, internship and practical requirements, work load of their courses, as well as being considerate of potential absences for travel to away competitions. The implications of working around said conflicts creates a potential for student athletes to not be able to declare majors in certain academic programs. Study time, social time, and personal time are all decreased. For example, nursing is a tough major to balance as a student athlete due to the numerous stressors that arise trying to balance requirements between athletics and academics (McDowell, 2017). Athletic training is also another major that requires a great deal of clinical hours. Ithaca College, a Division III institution, was reported as being 1 of 4 schools in New York that offer athletic training as a major, and specifically allows student athletes to major in the program (Murray, 2015). Ithaca College, like many colleges and universities, requires their upperclassmen to clock a minimum of 780 hours in order to graduate. For a Division I student athlete, the possibility of doing both is rarely offered and would be considered a highly difficult process. Due to required clinical hours, athletes are forced in a lot of circumstances to choose between how much time they invest into their sport and into their classwork. However, to many it is imperative that the student athletes' themselves call the shots when it comes to deciding their academic major that will ultimately prepare them for life after college.

## **Statement of the Problem**

For Division I athletic programs, it is difficult to decipher whether or not their collegiate institutions value student athletes' performance more on the field than in the classroom. There are implications of various outside factors having influence on student athlete's choice of academic major—especially at the Division I level of collegiate sports, the highest level of competition prior to the professional leagues. This topic has been investigated mainly with the use of football and basketball programs in regard to academic clustering (Calhoun, 2012; Fountain & Finley, 2011; Rowland et al., 2014). Few studies, however, have been done on academic selection and the factors that affect student athletes in selecting their majors. Kulics, Kornspan, and Kretovics (2015) found that “most student athletes choose majors based on their interests” (p. 11). This study, like many, focuses on whether athletes choose their major because they are interested in the particular subject or because they are trying to remain academically eligible. Studies that discuss the specifics of why student athletes pick their majors and what factors affect their decision, however, are limited and have resulted in inconsistencies across the realm of this topic. For instance, a study conducted by Rowland (2014) contends that academic advisors play the biggest role in academic clustering. Academic clustering is defined as twenty-five percent or more of a single athletic team enrolled into a major (Fountain & Finley, 2009). Conversely, Porter and Umbach (2006) contest that political views and personality overrule other factors. Meyer (1990) and Miller and Kerr (2002) discovered through their research that the student athletes were solely responsible for their academic decisions; Adler and Adler (1985; 1987; 1991) found that coaches were primarily

responsible for choosing academic majors, picking classes, and registering athletes.

Navarro (2015) ascertained that student athletes were not selecting majors that reflected their interests and career aspirations. Studies on the subject whether it be academic clustering or academic major selection are dated and have been stagnant between time periods.

The focus on the aforementioned studies has been on collegiate football teams (Fountain & Finley, 2009, 2010, 2011; Otto, 2012; Schneider et al., 2010) and collegiate men's and women's basketball teams (Goodson et al., 2015; Paule, 2010). To the researcher's knowledge, there are no published studies directly analyzing the causation of academic selection on athletes solely in nonrevenue-sport. Non-revenue sports are defined as a sport that do not generate revenue for the athletic department of a university on a consistent basis ("Revenue and Expenses", 2016). Sports that fit in this classification vary by institution; but typically include all sports outside of men's basketball and football. See Appendix A for list of a list of the 24 sponsored NCAA sports ("Division I Championships," n.d.). Given that the majority of college athletes play a non-revenue generating sport, it is pertinent that more research be dedicated to NCAA sports other than basketball and football in regard to academic constraints and facilitators.

A study by Henrion (2009) looked at student athletes and the challenges and influences of various factors through five research questions. She investigated the extent to which challenges such as time management, academic conflicts, and health issues affect student athletes. She also looked at the level of influence of those factors. In addition, she researched the usage of academic services and other support, the challenges

of academic services and support, perception of student identity, chosen academic major and career aspirations and how they are impacted by various factors: type of sport, gender, academic year, and scholarship level. In her study, she found that student athletes were able to balance time for class and socialization but lack of time to attend study sessions, meet with professors or socialize with friends, lack of academic conflict, health issues, a mix of service usage, balance between their identity as a student athlete, selection of academic major mainly because of interest, and several other results. Henrion's (2009) study contributed greatly to student athlete research. However, with mixed results with certain factors and the study being conducted at one Division I University, this study looked to extend her research by using a different theoretical framework, reviewing divisional differences, using multiple universities, and different variables.

### **Research Purpose and Research Questions**

To address the gaps and limitations in sport research, the purpose of this study is to investigate (a) the presence of academic clustering and (b) factors that influence student athletes, in non-revenue generating sports, choice of preferred major. Specifically, this study will utilize tenets of Crawford, Jackson, and Godbey's (1991) leisure constraint model and Raymore's (2002) facilitator model to investigate the role of interpersonal, intrapersonal, and structural factors in determining non-revenue student athletes' majors. According to Raymore (2002, p. 38).

The constraints approach assumes that the basic human condition involves a desire or need to participate. If someone doesn't participate in an activity it must



be because they can't (i.e., non-participation = constrain), and if they do participate they must have overcome or negotiated: constraints to achieve participation (i.e., participation = negotiated constraint).

Intrapersonal facilitators and constraints are factors that occur internally within the individual (Crawford & Godbey, 1987). Intrapersonal constraints include stress, depression, religiosity, anxiety, perceived self-skill; whereas facilitators may include encouragement from friends (Bungum & Vincent, 1997) or parents being providers of opportunity (Raymore, 2002). Interpersonal constraints or facilitators, occur as a result of interaction or the relationship between individuals. For example, individuals may experience an interpersonal constraint if they are unable to find a partner or friends to participate with (Gilbert & Hudson, 2000). Structural factors originate from external elements created in society (Raymore, 2002). Examples of structural barriers are economic barriers, availability of time, access, and opportunity (Gilbert & Hudson, 2000), as well as the institution, facilities, money, ethnicity, gender, and socioeconomic status (SES) (Raymore, 2002).

A similar study conducted by Terrell (2012) looked at Division I non-revenue student athletes' degree choice assessment. Terrell investigated factors that influence student athlete degree choice and if participation in intercollegiate athletics influenced student athlete degree choice based on demographic characteristics. In his findings, he discovered several factors (e.g., sociocultural, academic prioritization, athletic participation) which influence degree choice. While Terrell's study produced some significant contributions, such as validating an instrument that can help quantify the

prevalence of degree pursuit challenges, this study will look to expand on his study by collecting data from multiple institutions to explore the prevalence of academic clustering and also by using a theoretical framework to identify factors that influence student athletes' decision making. The use of a theoretical framework will serve as a grounding base for the literature review, methods, and analysis section, and support the rationale for this study (Grant & Osanloo, 2014).

In line with the purpose and scope, the study aims to answer the following research questions:

1. What facilitating and constraining factors affect Division I student athletes' autonomy in selecting their academic major of interest?
2. Is academic clustering evident amongst Division I non-revenue generating sports?

### **Significance of the Study**

The NCAA prides itself on supporting their student athlete's academic success, helping them have a fulfilling college experience and encouraging them to learn and grow in all aspects. However, there have been numerous discussions over the years, of the balancing act between academics and athletics. This study is valuable to a vast number of groups and contributes to the scholarly community by expanding the knowledge of those with interest in the student athlete population. This research allows academic and athletic departments at collegiate institutions to be more aware of the influential factors affecting student athletes' academic choices. This study also helps to expand the body of knowledge regarding policy, practice and research implications in

order to aid university administrators, athletic administrators, coaches, faculty and the student athletes who face the competing interest of balancing academics and athletics (Calhoun, 2012). Finally, this study made a scientific contribution by extending Crawford and Godbey's (1987) leisure constraint model and Raymore's (2002) leisure facilitator framework to the intercollegiate context.

## **CHAPTER TWO: LITERATURE REVIEW**

There are numerous factors and influences that must be considered when discussing collegiate athletics and academic influences. These factors range from rules set in place by the NCAA to current trending topics, such as academic clustering. This literature review will then delve into the two theories being used for the purpose of this study, Raymore's (2002) Facilitator Model and Crawford, Jackson, and Godbey's (1991) Hierarchical Model of Leisure Constraints. Within the two theories are intrapersonal factors, interpersonal factors, and structural factors. Each component will review current literature that is applicable to the topic of collegiate student athletes and the factors influencing academic major selection.

### **NCAA Athletic Rules**

The NCAA is committed to 7 core values ("NCAA Core Values," n.d.): (a) the collegiate model of athletics, (b) the highest levels of integrity and sportsmanship, (c) the pursuit of excellence in both academics and athletics, (d) the supporting role that intercollegiate athletics plays, (e) an inclusive culture, (f) respect, and (g) presidential leadership. With these beliefs, the NCAA hope to instill an overall encompassing student-athlete well-being. The biggest focus of well-being falls around the student athletes pursuing excellence in both academics and athletics.

In order to maintain the balance between academics and athletics for student athletes, the NCAA established rules concerning the maximum number of hours that athletes can devote to practicing and competing in their sport (“Defining Countable,” NCAA, 2009). In-season, a student athlete may participate in a maximum of four hours per day and 20 hours per week of countable athletically related activities. An activity is considered a countable athletically related activity if it is with an athletics purpose, involving student athletes and at the direction or supervised by any member(s) of an institution’s coaching staff (including strength and conditioning coaches). Administrative activities (e.g., academic meetings, compliance meetings) shall not be considered as countable athletically related activities (“Defining Countable”, NCAA, 2009). During the competition season, student-athletes must also be given one day off per week. Out of season student athletes may only participate in a maximum of eight hours per week which includes participation in up to two hours of individual skill instruction. Many coaches and teams will offer additional activities they will deem “voluntary”; but for most Division I athletes, voluntary means “mandatory” (McCormick & McCormick, 2006).

There are several conditions that must be met in order for an activity to be considered a voluntary activity: the student athlete must not be required to report back to any member of the athletic department. The activity must be initiated and requested by the student athlete, it is not mandatory for student athletes to attend; the student athletes’ attendance is completely voluntary and record of attendance is not to be reported to athletic staff. In addition, if a student athlete does not attend the volunteer practice there will be no punishment, and there will be no rewards for those who attend the volunteer

practice (“Division I Progress”, n.d.). These conditions are enforced as a check and balance on the coaching staff.

The NCAA not only created rules for athletic participation, but also implemented academic requirements designed to guide student athletes toward graduation. The NCAA’s Progress toward Degree Requirements include minimum grade-point average, term-by-term and annual credit hour requirements, and percentage-of-degree requirements (“Division I Progress”, n.d.). Student athletes who do not maintain the required grade point average or appropriate amount of credit hours are not eligible for competition. To promote academic success and the student component of collegiate athletics, beginning in the 2019-2020 academic year, Division I Schools’ share of NCAA revenue will be tied to academic achievement (“Division I Progress”, n.d.). This will mark the first time the amount of money schools receive from the NCAA will be determined by their students’ academic achievement (“Division I Progress”, NCAA, n.d.; “NCAA Revenue,” 2012).

### **Academic Clustering**

A term that has become prominent and egregious within collegiate athletics is the term academic clustering. Academic clustering is defined as the occurrence of twenty-five percent or more of a single athletic team enrolled into a major (Case, Greer, & Brown, 1987; Fountain & Finley, 2009). The term has been used primarily in regard to revenue generating sports at Division I-A schools. It has become common to see football and basketball players enrolled in a particular major on campuses in order to create an academic schedule that allows for the continued pursuit of their athletic endeavors. When

this happens, the problem of academic clustering starts to take place (McCormick, 2010). McCormick (2010) discusses the roles that coaches, and academic advisors play in assisting their student athletes to pursue majors of their choice. She asserts that coaches' jobs have extended past the role of athletic coach and they play a part in the student athlete's academic success. Casie Lisabeth, the Kansas State Equestrian Coach (2010), was asked for her thoughts on the balance of athletics and academics and life after college. She stated, "It is extremely important for us that they graduate with a degree they will be successful with in their life after college" (McCormick, 2010, p. 12). While not all coaches take the same approach, with the implementation of new NCAA rules, coaches are becoming forced to look at different strategies in order to keep their top-tier programs and athletes.

Academic advisors also tend to contribute to academic clustering as they are being pressured by the coaches to ensure that their student athletes remain eligible (McCormick, 2010). Rowland (2014) concurred that his study's findings suggested that advisors play the biggest role in academic clustering, stating that, "The attitude that is expressed by both advisors and student athletes toward simply getting a degree seems to also be a major contributor to student athletes clustering into a small number of degree programs" (p. 43). The egregious term "academic clustering" has proven to be the consequence of a demanding athletic schedule. Academic clustering is a method to maintain eligibility and shows indifference towards academic achievement by isolating student athletes from the general student population and traditional college experience, preventing student athletes from realizing their academic potential (Calhoun, 2012). The

most notorious case of academic clustering occurred at a prestige university in southeastern United States where students were enrolled into fake courses, known as “ghost classes” (Clayton et al., 2015). The scandal unleashed a nationwide investigation as faculty, staff, and administrators were complicit in quietly providing student athletes in revenue generating sports academic credit for course work they did not complete.

### **Theoretical Framework**

Crawford, Jackson, and Godbey’s Leisure Constraints Model (1991) and Raymore’s Facilitator Model (2002) will be used to identify the various factors that influence students’ decisions about their academic major. These models have been used primarily to study constraints and facilitators in the fields of leisure, recreation and tourism (Hua, Ibrahim, & Chiu, 2013; Murphy et al., 2013; Reis et al., 2012; Silva, 2008). These models, however, can be used to gain an understanding of factors that limit or promote persons’ participation in a variety of contexts. This framework has the potential to be used to investigate constraints and facilitators potentially affecting student athletes’ decision about which major to pursue.

Jackson (1997) defined constraints as “factors that are assumed by researchers and perceived or experienced by individuals to limit the formation of leisure preferences and to inhibit or prohibit participation and enjoyment in leisure” (p. 461). Constraints are essentially factors that prohibit individuals from participating in an activity. The researchers identified three types of constraints on leisure: intrapersonal, interpersonal, and structural. Converse to constraints is the Facilitator Model. Raymore’s Facilitator Model (2002), an adaptation from the Leisure Constraints Model (Crawford et al., 1991),



defined facilitators as “factors that are assumed by researchers and perceived or experienced by individuals to enable or promote the formation of leisure preferences and to encourage or enhance participation.” (p. 39). Similar to the Leisure Constraints Model (1991), Raymore concluded that intrapersonal, interpersonal, and structural factors can facilitate persons’ participation in leisure activities. Moreover, he noted to get a better understanding of what produces participation and non-participation you must understand both facilitators and constraints (Raymore, 2002). Hence this study will focus on the role that interpersonal factors (e.g., parents, advisors, peers), intrapersonal factors (personal factors); and structural factors (e.g., political, social, economic, institutional and cultural factors) have in encouraging or discouraging athletes from choosing their preferred major.

**Intrapersonal Constraints and Facilitators.** Intrapersonal factors are defined as individualized factors that affect persons’ preferences and decision-making outcomes (White & Bustam, 2010). Porter and Umbach (2006) posit the “Person-Environment Fit” which suggests that students will have the most successful outcomes if they choose a major that aligns with their own personality, interests, beliefs, and even political views (structural). Multiple studies have found that student athletes choose their academic major based off interest and career aspirations (Henrion, 2009; Kulics et al., 2015). Pendergrass, Hansen, Neuman, and Nutter (2003) confirmed that student athletes choose their academic major based off personal interest, similar to the general student population. Their research was validated by the Campbell Interest and Skills Survey (CISS). It is not an unknown fact that people tend to steer towards where they feel more

comfortable or have a sense of belonging within a group. Feeling a lack of this belonging leads to discomfort and in turn dissatisfaction with choice of academic major (Porter & Umbach, 2006). On the contrary, there are individuals who enjoy stepping out the box and helping others but are not completely sure which major they would like to pursue right away. Several researchers have even recommended that students consider delaying that decision, particularly because they are not developmentally ready (Beggs, Bantham, & Taylor, 2008).

Athletic identity is also a big factor when selecting a major. The athletic identity construct is defined as the degree to which an individual identifies with the athlete role, within the framework of a multidimensional self-concept (Brewer, Raalte, & Linder, 1993). A strong athlete identity creates the potential for student athletes to fail to explore and develop other aspects of their identity, including career (Houle & Kluck, 2011). Strong athletic identity is associated with decreased career planning for life after college, higher than average expectation of becoming a professional athlete, lower levels of career adaptability, and decreased career maturity (Murphy, Petitpas, & Brewer, 1996; Tyrance et al., 2013). Many studies have tied self-efficacy with major selection and academic success. Porter and Umbach (2016) define self-efficacy as the belief a student has about his or her own ability to succeed in their major field of study. Studies have shown that self-efficacy is influenced by performance; performance success results in higher self-efficacy, and students with higher self-efficacy are more likely to be motivated to improve their skills (Schunk & DiBenedetto, 2014).

**Interpersonal Constraints and Facilitators.** Interpersonal factors are those individuals or groups that exert influences on an individual to encourage or discourage participation. In college athletics, examples of interpersonal factors that influence student athletes' choice of major can include parents, friends, peers, teammates, coaches, or advisors (Bell, 2009; Busch, 2007; Gilbert & Hudson, 2000). The majority of student athletes will encounter their first set of interpersonal influences from their parents and friends. Growing up watching your parents or guardians in their given profession can have an influence on your initial degree choice. Geyfman, Force, & Davis (2015), suggest that parents hold the most weight in the students' initial choice of major. Geyfman et al.'s (2015) research also contributed that student's value the opinions of their friends. Bell (2009) also acknowledged the influence of friends and found that student athlete's teammates contributed to their academic development or played a significant and powerful role in enhancing their learning experiences.

Academic advisors also play a role in educating student athletes on majors and career choices. Maintaining eligibility is the job of the college athletic academic advisor (Busch, 2007). It was noted in Huml et al., (2014) that the number of full-time NCAA Division I athletic advisors increased nearly 200 percent in the past 20 years. Results from a study conducted by Foster and Huml (2017) found that student athletes in both public and private institutions preferred receiving advising related to their academics from either an academic or faculty advisor instead of their athletic advisor. Despite this preference, athletic advisors are highly influential in helping student-athletes pick majors, as student athletes often rely on them to pick their future because they trust that person

would keep them on track to stay eligible (Navarro, 2015). Through numerous research studies, it has been professed that student athletes who enter college underqualified academically subsequently have their decision-making power removed with regards to selecting their academic major and so on (Schneider et al., 2010; Upton & Novak, 2008; Wolverton, 2007). Having the staff member complete these tasks for the student athlete only delays educating the student athlete on time management, prioritization, and self-guidance (Hardin & Pate, 2013). However academic advisors do play a huge role and carry a huge burden including: monitoring eligibility and grades, checking class attendance, assist with planning class schedules, finding tutors, and linking student athletes to other academic support services and referrals (Gaston-Gayles, Crandall, & Jones, 2015).

For student athletes, the biggest factor that has been questioned when selecting majors is the influence the coach and fellow teammates play in the decision. Coaches are the major adult role models for student athletes as they spend a significant amount of time with their athletes. Coaches need to see their student athletes' academic performance as part of their overall responsibility (Simons et al., 1999, p. 161). Simons and his colleagues discussed the ultimate power the coaches possess: playing time. Many student athletes believe, correctly or incorrectly, that they will be penalized by their coaches for choosing academic commitments over athletics. Ridpath et al. (2007) investigated the influence of college coaches and the effect they have on the perception of the athlete; specifically they looked at the importance of academic progress and graduation.

However, the results of their study suggested that individual motivation and others outside of the coaching staff have more of an influence than the coaches.

**Structural Constraints and Facilitators.** Structural factors are also essential components to be considered when looking at influences on student athletes when selecting their academic major. Structural factors are defined in Raymore's (2002) Facilitator Model as "social and physical institutions, organizations, or belief systems that operate external to the individual" (p. 43). Common structural constraints to persons pursuing leisure activities include: institutions, facilities, money, ethnicity and gender (Raymore, 2002). Institutional constraints are a huge impact if not implemented appropriately. For example, there are various universities and colleges that require their students to declare a major in their first year. Several coaches expressed their belief that declaring a major should not be the focus for first-year student athletes, allowing them to have more time to effectively determine the fit of a given area of interest (Bjornsen et al., 2017).

With a very demanding schedule, student athletes have to take a lot into consideration when choosing a major: practice times, travel, practicum hours required, and limited class availability. Where some sports are in season all year around, student athletes are impacted with a difficult time barrier. The only option to complete the required number of hours is in the summer; however, there are very limited classes offered in that semester (Bjornsen et al., 2017). Studies have also been done to compare the time constraints between student athletes and non-athletes. Gentsch (2014) found that student-athletes have more time constraints due to the practices and multiple of

obligations required of student athletes. Combined with the demands of academic work, financial status, ethnicity, gender, and institutional factors, structural constraints have the potential to have an extreme influence on academic major selection (Stanek, Rogers, & Anderson, 2015).

## **CHAPTER THREE: METHODS**

Collegiate athletics brings a sense of spirit, pride and loyalty, memories, recruitment, alumni loyalty and involvement, branding, and overall investment to an institution. However, what is the price student-athletes pay when it comes to their academics versus their athletics? Do the demands of being an athlete interfere with the degree student-athletes wish to pursue? The research conducted in this study looked to unveil the facilitators and constraints influencing Division I student-athletes to select their academic major.

### **Research Design**

An explanatory sequential mixed methods design was the preferred research design for this study, meaning quantitative data was collected first then qualitative data to help explain and refine the quantitative results (Creswell & Clark, 2011; Subedi, 2016). The design began with collecting numerical data of the number of student-athletes in each specific major at each school in the Atlantic 10 Conference. The Atlantic 10 conference encompasses 14 institutions in the eastern and mid-western region. See Appendix B for a list of member institutions in the Atlantic 10 Conference. The quantitative data collected investigated the presence of “clustering” at each institution. The design then sought to explore the degree of athletic and academic identity within oneself. The final segment of the design explored the influential constraints and

facilitators to student-athletes pursuing their major of interest with a questionnaire that unveiled athletic and student academic choices.

### **Population and Sampling Plan**

Phase one of the study explored academic clustering. The population for phase one of the study was student-athletes attending NCAA Division I institutions in the Atlantic 10 Conference who participate in non-revenue generating sports in the Fall season. The five fall sports that were investigated were women's and men's soccer, women's and men's cross country, and women's volleyball. Data was collected on 999 Division I student-athletes from 12 out of the 14 Atlantic 10-member institutions. The initial sample consisted of 1,239 student athletes. However, as delineated in the data collection section, incomplete data sources resulted in a final sample of 548 females and 451 males, representing 76 majors.

With the use of a convenience sample, a smaller population of 68 former Division I student athletes were surveyed for phase two of the study. The questionnaire was emailed to 60 participants. Response rate was not properly calculated since the study was forwarded through other participants in the study to increase the sample size for the study. In phase two, 16 Division I institutions were recognized and 13 non-revenue generating sports were represented. Out of the 16 institutions, they were broken down by football division: Division I-FBS (37%), Division I-FCS (37%), and Division I- No Football (27%). Between the 56 females and 12 males in the qualitative study, there was a broad age range (20-38) from former student-athletes who played collegiately between the years 1997-2017.



Table 1. Demographic Statistics

Characteristic	<i>n</i>	%
Gender		
Male	12	18%
Female	56	82%
Race		
White/Caucasian	48	71%
Minority	20	29%
NCAA Football Division		
Division I FBS	18	27%
Division I FCS	25	37%
Division I No Football	25	37%

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*Note.* Totals of percentages may not equal 100 due to rounding

### **Instrumentation/Measures**

The questionnaire was derived from Terrell’s (2012) Student-Athlete Degree Choice Questionnaire, with additional open-ended questions, designed specifically for this study, about the facilitators and constraints effecting their degree choice (See Appendix C). The original questions from Terrell’s (2012) study were revised to be addressed towards former student athletes. The questions in the survey looked at athletic participation, academic prioritization, and the influences of academic major selection. In Terrell’s (2012) study, the variables were composed into three factors—satisfaction with major, eligibility barriers, and demographic matches. For the purpose of this study only two composite scales were use—*Satisfaction with major* and *Eligibility Barriers*. Major satisfaction was composed of five questions: *My major matches my personal interests, my major helped me get a job in my desired career field, I enjoyed taking classes in my*

*major, I am satisfied with my major choice, and I often thought about jobs in my major field that I would like to have.* In Terrell's component 1 (labeled: Satisfaction with major) was originally composed of six questions, however the researcher did not use "my major matches my career interests" in the questionnaire because the sample population was former Division I student-athletes. The Eligibility component was compromised of four questions: *I chose my major to be eligible for competition, NCAA eligibility rules limited my time to explore different subjects and choose a major, I would have rather have pursued a different major but I could not because I would not be eligible and maintaining compliance with NCAA eligibility rules limited my power to make to make different academic decisions.* The Likert scale ranged from strongly agree to strongly disagree. Prior to using the survey a Cronbach alpha was first run to test the reliability of the eligibility scale. In Terrell's (2012) study, he found his coefficient alphas at an internal consistency between acceptable and good with a score of .894 for satisfaction with major and .817 for eligibility barriers (George & Mallery, 2000). In this investigation, the satisfaction with major scale had a Cronbach's score of .572; whereas, the eligibility barriers scale had a score of .805. Given the low reliability of the satisfaction scale, an assessment of student athletes' satisfaction with major was conducted as individual items.

The study also used the Academic Athletic Identity Scale (AAIS) (Yukhymenko-Lescroat, 2014). (See Appendix D). A Cronbach alpha was computed for the two AAIS subscales: Academic identity recorded .965 and athletic identity .950. The 11-item AAIS "captures the extent to which being academically and athletically engaged is experienced as central to one's sense of self" (p. 98). AAIS is composed of five items to test academic

identity and six items that will test athletic identity. AAIS appears to present its questions to be more outcome oriented and not targeted solely on athletic identity (Cole et al., 2016). The 6-point response scale measures from 1 (Not central to my sense of self) to 6 (Very central to my sense of self). Although this is a newly designed instrument, there have been several studies confirming that the scale is a valid and reliable measurement of academic and athletic identity (MacNab, 2015 & Yukhymenko-Lescroat, 2014). Data was also collected on gender, race, sport, institution, and football division of the institution.

### **Data Collection Procedure**

The data collection procedure was conducted in a two-part process. The first step was accessing and obtaining the majors of all Atlantic 10 Conference student-athletes participating in non-revenue generating sports in the Fall 2017 season. This research was collected by going to the online websites of all the institutions within the Atlantic 10 and searching through each sport to collect the major listed for each student athlete in their athlete bio. Institutional directories were also used when majors were not accessible on athletic websites. Institutional directories were preferred because they were more likely to obtain accurate information. This procedure resulted in an incomplete dataset because all majors were not listed on the school's athletic website for each athlete in each sport nor on the institutional directory.

Part two involved collecting data from former Division I student athletes in non-revenue generating sports via an online survey. The author sought IRB approval prior to distribution. A request for approval of this study was granted by George Mason

University's Office for the Protection of Research Subjects. The Academic Athletic Identity Scale and the Student Degree Choice Questionnaire were compiled in a Google Form and distributed, in March 2018, via email to all participants interested in participating in the study. Follow up communication was made between participants a week after the initial email. Participants reported that the survey took approximately 20 minutes to complete.

### **Data Analysis**

Numerous tests were run to detect consistency and validity. Prior to analyzing the quantitative data, a Cronbach Alpha was run on the satisfaction of major scale. Due to the low internal consistency the component recorded, the items with the satisfaction major were analyzed separately. Moving forward, the quantitative data in the satisfaction with major component was investigated more thoroughly through the use of a t-test, ANOVA, and a regression. All quantitative data was analyzed with a statistical analysis software called Statistical Package for the Social Sciences (SPSS). Similar to Terrell's (2012) study, the Student Athlete Degree Choice Questionnaire (SA-DCQ) responses were broken down into two components: major satisfaction and eligibility. For each component, a t-test was conducted to analyze the significance of the following factors: race and sex. There were 7 different classifications of races submitted by the participants, however due to the low sample size, race was coded into two groups (0= white, 1= minority). Sex was also coded into two groups (0 = male, 1 = female). Secondly, an ANOVA was run to look for differences by division. A regression was then run to test the relationship amongst Academic and Athletic Identity and eligibility. Each of the

satisfaction questions were run separately due to reliability reasons. Prior to running the regression, the data for the Academic Athletic Identity Scale had to be analyzed. The scores for the Academic Athletic Identity were separated into two composite scores, athletic and academic. A mean was calculated for each construct. A correlation was also computed across all the questions for item analysis. Lastly, an analysis was conducted to see if academic clustering was present amongst the team and schools throughout the Atlantic 10 conference by calculating if 25% or more of student-athletes on one team were majoring in one major.

Qualitative data was analyzed using deductive content analysis. Deductive content analysis is used when the structure of analysis is operationalized on the basis of previous knowledge (Elo & Kyngas, 2008). The analysis involved a multifaceted approach. Step one was recognizing and recording all the responses individually. Step two was compiling all the responses into similar reoccurring themes (e.g., personal interest, time restrictions, eligibility). The final step involved categorizing all the themes into their designated factors: interpersonal, intrapersonal, and structural. The interpersonal category grouped individuals who influenced the subjects to select their major; the intrapersonal category bracketed factors that were deemed personal or internal factors; the structural category corralled factors that were influenced by policies and institutions. The structuring and categorization of responses was conducted for both facilitators and constraints.

## **CHAPTER FOUR: RESULTS AND DISCUSSION**

The goal of this research was to investigate the academic choices of NCAA Division I student athletes when pursuing their desired major. Non-revenue Division I student athletes account for the majority of student athletes within the NCAA. While the majority of these athletes do not intend on continuing their sport at the professional level, they still endure the grueling responsibilities of revenue generating sports, which in turn takes a toll on their academic choices. With the guidance of Crawford, Jackson, and Godbey's (1991) leisure constraint model and Raymore's (2002) facilitator model, it was the author's goal to investigate the facilitating and constraining factors that affect Division I student athletes' decision-making process when selecting their academic major. This study additionally sought to discover whether academic clustering was present amongst Division I non-revenue generating sports within the Atlantic 10 Conference. Division I collegiate athletes accept a big responsibility when committing to represent an institution. The implications of this research and future research contribute significantly to insuring student athletes are being provided all the necessary tools and resources to be successful not only on the field, but in the classroom.

## **Presence of Academic Clustering**

Phase one of this study investigated the presence of academic clustering amongst the teams and schools throughout the Atlantic 10 Conference. Academic clustering, the occurrence of twenty-five percent or more of a single athletic team enrolled into a major (Case, Greer, & Brown, 1987) was present after the analysis. Results of the analysis revealed that seven schools show possible signs of academic clustering amongst their teams (See Table 2). The most significant results were found at George Washington University with Women's Cross Country, Men's Cross Country, Men's Soccer, and Women's Soccer falling into clustering, in three different majors: Business admin, Pre-Arts & International Affairs, and Pre-Arts. Compared to the representation of all GW students, the School of Business encompasses 1,699 students or 14% of undergraduate students and 2,295 students in the School of Pre-Arts & International Affairs (Dashboard-Enrollment," n.d.). St. Josephs also had three sports (Men's Cross Country, Women's Soccer, and Men's Soccer) showcasing academic clustering by definition; each sport was found to be highly favored in the same major, business. By the numbers, 2,533 students or 54% of the undergraduate population are enrolled in the School of Business at St. Joseph's University ("About SJU," n.d.). Although by definition academic clustering was found, the analytical comparisons question if academic clustering is technically present if the school is notorious in a specific academic pursuit. For example, St. Joseph's University is deemed a "business school" and a vast percentage of the undergraduate population is enrolled in that school; thus, would it still be considered academic clustering? This presents multiple research questions for future research. Should we

reconsider the definition of academic clustering? Should academic clustering be defined by more than enrollment? Is academic clustering always a negative term? This topic should be researched and evaluated further, and could potentially change the negative connotation that has always revolved around academic clustering.

In reference to Case, Greer, and Brown's study (1987), these findings support Otto (2012), Goodson et al., (2015), and other former studies analyzing clustering. In Goodson et al.'s, (2015) study the results exhibited clustering in both basketball and football amongst universities in the Mid-Eastern Athletic Conference in majors such as Sport Management and General Studies. These results also support Severn's (2017) study on academic clustering within women's intercollegiate athletics. The recent study found clustering within Women's Softball at the Division I level and contributed to research that suggest that academic clustering is still prevalent. It is still important to note that the majority of research regarding academic clustering has been focused on revenue-generating sports. This study's results add to the foundation of non-revenue generating sports and NCAA conferences showing signs of academic clustering. As aforementioned, this study has also presented new research questions in regard to academic clustering. To the researcher's knowledge, previous studies have not made the comparisons to the larger student body population when academic clustering is evident; hence further research should be conducted to discuss whether academic clustering is still prevalent.



Table 2. Institutions in the A-10 Conference that Presented Academic Clustering

	Women's Volleyball	Men's Cross Country	Women's Cross Country	Men's Soccer	Women's Soccer
Duquesne University	Pharmacy (27%)	N/A	Arts (25%) & Health Science (25%)	N/A	N/A
Fordham University	Communication (25%)	N/A	N/A	Finance (29%)	N/A
George Washington University	N/A	Business Admin (28%)	Pre-Arts (41%) & International Affairs (27%)	Business Admin (36%)	Pre-Arts (38%)
University of Rhode Island	N/A	N/A	Kinesiology (44%)	N/A	N/A
St. Bonaventure	N/A	N/A	Sport Studies (26%)	N/A	N/A
St. Josephs	N/A	Business (27%)	N/A	Business (34%)	Business (48%)
St. Louis University	N/A	N/A	N/A	Business (31%)	N/A

### Academic Major Satisfaction amongst Student Athletes

Another objective of this study was to research if former Division I student athletes were satisfied with their major selection. The bulk of these results were prominent in the Student Athlete Degree Choice Questionnaire. For simplicity, strongly agree and agree were combined into agree and strongly disagree and disagree were combined into disagree. For *My major matches my personal interests*, 88.2% (N=60) agreed that their major matched their personal interests. An overwhelming 89.7% (N=61) agreed that they enjoyed taking courses in their major. For *I often thought about jobs in*

*my major field that I would like to have*, 80.9% (N=55) agreed. These frequencies support Terrell's (2012) study. His results noted levels of agreement for *My major matches by personal interest* (84.7%), *I often thought about jobs in my major field that I would like to have* (84.1%),

This research study discovered that 79.4% of former Division I student athletes in non-revenue generating sports were satisfied with their major selection. These results support Terrell's (2012) study in which he found that 77.6% of current Division I student athletes were satisfied with their major choice. Henrion (2009) similarly found that the majority of student athletes pursued their major of interest.

Student athletes' satisfaction with major was further investigated through the use of a t-test, ANOVA, and regression. As mentioned earlier, separate t-tests were run for all six satisfaction with major questions. Results of an independent sample t-test showed no significance between the six satisfaction components and sex. There was a significance seen between *I often thought about jobs in my major field that I would like to have* and race. Racial minorities were found to think less about the jobs in their major field that they would like to have (M= 3.65, SD= 1.182) than those of white race (M= 3.96, SD= 0.824);  $t(66) = 1.231, p = 0.223$ . Terrell (2012) conducted chi squared tests and found significant differences between genders [ $X^2(4, n-107) = 12.57, p=.014$ ] and the satisfaction with major scale.

A one-way between subjects' ANOVA was conducted to compare divisional differences (D-I FBS, D-I FCS, D-I No Football) of former students' satisfaction with their major, alignment of major with personal interests, ability to get a job in their desired

career field, and course enjoyment. There was a significant effect of satisfaction with major at the  $p < .05$  level for the three divisions [ $F(2, 65) = 3.920, p = 0.025$ ]. A Turkey post hoc test revealed that students in D-I FBS ( $M = 4.61$ ) were more satisfied with their major compared to students in D-I FCS ( $M = 3.81, p < .05$ ). There was no statistically significant difference between the satisfaction levels of students in D-I FBS and D-I No Football ( $M = 4.13, p = .226$ ) or D-I FCS and D-I No Football ( $p = .459$ ). No significant divisional differences were found for alignment of major with personal interest [ $F(2, 65) = 0.069, p = 0.933$ ], ability to get a job in their desired career field [ $F(2, 65) = 0.010, p = 0.990$ ], and course enjoyment [ $F(2, 65) = 1.142, p = 0.326$ ]. To the researcher's knowledge, there is no previous research that discusses satisfaction of major between subdivisions at the Division I level.

Taken together, these results suggest that across the subdivisions within Division I, former student athletes report a high satisfaction with their major choice. Results also show that there is minimal impact on major selection between divisional differences, however significance was found between student athletes at FBS institutions and FCS institutions—student athletes at the D-I FBS subdivision were more content with their major selection than student-athletes at the D-I FCS level. Internal factors that may contribute to these findings are more access to academic resources such as academic advisors and mentors. Paul and Gilson (2010) interviewed a Women's Volleyball student-athlete within the Big-10 conference who claimed that the student athletes at her university received first priority when registering for classes. She also noted that she met weekly with an academic advisor who stressed upcoming tests and exams. To the

researcher's knowledge, there is no prior research investigating the academic-athletic constructs within NCAA Division I subdivisions. There have, however, been studies investigating significance between Division I and Division III athletes. Sturm and colleagues (2011) found that divisional differences were not an overall significant factor and that gender was the only distinguishing factor related to identity.

Although it appears the majority of subjects in this study pursued their major of choice, there were several student athletes who did not pursue their preferred major. The two most reported majors that student athletes wished to pursue were Athletic Training (28%) and Nursing (18%). This will be discussed further in the constraints section.

### **Factors Affecting Student Athletes' Academic Major**

The most important question that has only been asked in few studies is, what are the factors affecting student athlete's academic major? Discovering the crux of the problem is the next step prior to constructing a solution. In this section, four main topics will be discussed: eligibility barriers, academic and athletic identity, as well as facilitators and constraints.

**Eligibility Barriers.** The NCAA has a vast number of rules and policies that student athletes must meet in order to remain eligible for competition. The four questions in this component were considered compromised items that were seen as barriers to their desired major or impinged on their freedom to make decisions. In this study, there was no significance found between race, sex, gender, or divisional differences. The investigation of eligibility barriers showed no significance between those of white race ( $M= 2.17$   $SD=$

.857) and racial minority ( $M=2.32$ ,  $SD=.803$ );  $t(66)=-0.683$ ,  $p=.497$ . No significance was found between males ( $M=2.06$ ,  $SD=.930$ ) and females ( $M=2.25$ ,  $SD=.823$ );  $t(66)=-.700$ ,  $p=.486$ . The ANOVA did not report any significance between divisional differences [ $F(2, 54) = .554$ ,  $p = .897$ ]. Via chi-squared test, Terrell (2012) showed significant differences between gender and the eligibility scale [ $\chi^2(4, N=74) = 22.88$ ,  $p=.001$ ]. Terrell suggests that female participants think more critically about their degree choice and preparation for the workforce. He also proposes that the inability for most females to become professional athletes could influence their degree choice.

The questionnaire noted multiple frequencies-- 80.9% of subjects ( $N=55$ ) agreed that *they were well informed about the NCAA eligibility rules that pertained to their academic progress*. Conversely, 82.3% ( $N=56$ ) disagreed that *they went to college to increase their chances of becoming a professional athlete*. In addition, coaches (7.3%), parents (16.1%), and teammates (10.3%) had a minimal input on influencing major choice. Terrell (2012) also saw low agreement in teammates (10%) highly influencing major decision.

To measure the relationships and significance between the variables being measured, correlations were run across the five major satisfaction questions and the eligibility barrier scale (Table 3).

Table 3. Descriptive Statistics for Satisfaction with Major and Eligibility Components

Variables	1	2	3	4	5	6
1. Eligibility barrier	-	-.062	-.346*	.003	-.048	.036
2. I often thought about jobs in my major field that I would like to have	-.062	-	.440	.179	-.050	.040
3. I am satisfied with my major choice	-.346*	.440*	-	.319	.267*	.190
4. I enjoyed taking courses in my major	.003	.179	.319*	-	.168	.242*
5. My major helped me get a job in my desired career field	-.048	-.050	.267	.168	-	.421*
6. My major matched my personal interests	.036	.040	.190	-.242*	.421*	-

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

Multiple significant results came back from the correlation: students whose major matched their personal interests enjoyed taking courses in their major [ $r(68) = 0.242, p < .05$ ]; students who were satisfied with their major choice enjoyed taking courses in their major [ $r(68) = .319, p = .008$ ]; students whose major matched their personal interests stated that their major helped them get a job in their desired career field [ $r(68) = .421, p < .001$ ]; students that got a job in their desired career field were satisfied with their major choice [ $r(68) = .440, p < .001$ ]; students that were satisfied with their major choice did not report many barriers [ $r(68) = -0.346, p = .004$ ]. These results infer that the most preeminent factor that students are pursuing their major are due to personal interest and

career aspirations. Henrion (2009) supports this data with her key findings found in both selection of academic major and career aspirations. She found that student-athletes chose a major that leads to a career they want.

**Academic and Athletic Identity.** An examination between academic and athletic identity was reviewed further. The average for the academic scale was 4.90 and the athletic scale saw a mean of 5.33, meaning the respondents felt that both their academic and athletic identity was quite central to their sense of self. Athletic identity did show to rank higher than academic identity. When looking at sex, there was a higher significance in academic identification with females ( $M=5.10$ ,  $SD=1.30$ ); males averaged ( $M=4.02$ ,  $SD=.950$ );  $t(66)=-3.326$ ,  $p=.001$ . There was also a slight variance seen between sex on the athletic scale, however, there was no reported significance between Females ( $M=5.38$ ,  $SD=.885$ ) and males ( $M=5.17$ ,  $SD=.966$ );  $t(66)=-.687$ ,  $p=.494$ ). Several studies have found that female student-athletes have higher academic identity than males (Sturm, Feltz, & Gilson, 2011; Smith, 2017; Finch 2007). Smith (2017) found that males committed to the athlete role more than females, and females committed more to the student role. MacNab (2015) found no significance between gender for academic identity or athletic identity. A regression was also run to infer if there were any causal relationships between non-significant variables. The results of the regression showed no significance between eligibility barriers athletic identity.

Table 4. Effects of Sex on Academic and Athletic Identity

Variables	M	SD	Sig.
1. AAIS Academic Scale			
0	4.02	1.30	.055
1	5.10	.95	
2. AAIS Athletic Scale			
0	5.17	.88	.0683
1	5.38	.97	

*Note.* Significant at the  $p < .05$  level.

**Facilitators to Academic Major Selection.** The final question of the Student-Athlete Degree Choice Questionnaire asked *If you were not an athlete, is this the major you would have pursued?* Seventy-nine percent of participants responded yes. As a follow up question from respondents who selected yes, they were asked to list the top three reasons that influenced them to pursue their desired major. Using the responses, 16 themes were created. The 16 themes were next categorized into the three factors from the theoretical framework: Interpersonal, Intrapersonal, and Structural (See Table 5).



Table 5. Facilitators Categorized into Theoretical Framework

<u>Interpersonal</u>	<u>Intrapersonal</u>	<u>Structural</u>
Friends	Passion/ Personal Interest	Convenience
Academic Faculty/Staff	Comfortability	Time Management
Family	Stability	High School Preparation
Mentors	Upbringing	Prior experience in the field (internships/volunteering)
	Marketability	Institutional Accommodations (ex: online classes) Tutoring Financial Assistance

The most influential responses were based off intrapersonal factors such as self-interest, passion, and future career goals. Of those who responded yes, the greater majority chose their major for personal pleasure and growth. Interpersonal and structural factors followed suit. Many former students leaned on their family for support while others used financial stability as their motivation. These results support Beggs, Bantham, and Taylor's study (2008) in which they surveyed a large sample of undergraduate students to distinguish factors influencing college students' choice of major. Their

research discovered six factors involved in selecting their major: 1. Match with Interests, 2. Course/Major Attributes, 3. Job Characteristics, 4. Financial Considerations, 5. Psycho/Social Benefits, 6. Information Search. In Beggs et al. (2008), the qualm with the number one factor, match with interests, was that this assumes that student-athletes already have a base of knowledge about the degree. If this is the case, where were they acquiring the knowledge from? This was an important question asked by the aforementioned study. In this study, research suggests that intrapersonal factors tend to blend interpersonal and structural factors. Of those who responded with intrapersonal factors being their most influential factor also included other factors in their deduction such as familiarity through family business, growth of passion through internships, and the experiences of others.

During the current study, it was discovered that friends, family, mentors, advisors, and more contributed to the foundation of knowledge. Many participants claimed that internships and volunteering led them to their choice of major. One participant was quoted, "I was always surrounded by a lot of professionals in the fitness/health industry who were passionate about their line of work and encouraged me to do the same for my line of work." Others attested their decision to their teachers in high school. One former student athlete stated, "credits from high school worked better with this major/could graduate earlier." High school preparation and convenience were visible factors. Several participants claimed that it was due to time schedule fit and time management. A participant stated, "Practice times affected me choosing this major over a different major." Another claimed, "Practice times combined with class schedules and work load

were a major obstacle in obtaining a chemistry degree.” On the other hand, some former student-athletes used their obstacles as motivation: “Practice time made it difficult to accomplish my goals and fulfill my major requirements, so I feel that I chose my career path despite the roadblocks due to athletics.”

**Constraints.** Various constraints were shown in the open-ended questions.

Twenty-one percent of participants responded that if they were not an athlete, they would have pursued a different major. Majors of interest were Architecture/Engineering, Forensics, Marketing, Business and Sport Management. As mentioned earlier, the two most reported majors were Athletic Training (28%) and Nursing (18%). A respondent noted that the reason he/she did not pursue their desired degree [Athletic training] was because, “there was no time to do practicum and classes involved hands-on work in the training room.” Henrion’s (2009) data on Division I student athletes from a Mid-American Conference university supports these responses with additional claims in her study, “With nursing, as my major sometimes I feel profs don’t understand the difficulty w/ being a student-athlete & a nursing student” (p.124). Similar responses were recorded: “I did not pursue my major of interest because of lack of time to study, inability to miss practices, I wanted to focus on playing soccer and not being stretched too thin.” One subject noted that they did not pursue their major of interest [Nursing] because, “Teachers felt I got special treatment and wouldn’t help me with what I missed even when we met during their office hours.” Although only 21% of participants claimed they would pursue a different major if they were not a student athlete, all participants provided valuable information as to what prohibited them from pursuing their preferred major.

Twelve themes were created based on the responses and categorized into the three factors (see Table 6).

Table 6. Constraints Categorized into Theoretical Framework

Interpersonal	Intrapersonal	Structural
Coaching staff	Stress	Rigorous schedule
Academic Faculty/Staff	Lack or prior preparation	Time
Athletic department	Athletically driven	Travel
Teammates		Institutional offerings Eligibility

Structural factors were the most prominent in the responses of the former student athletes. One participant stated, “I would not have had enough time to study and successfully get A’s and B’s in my courses. Attending my rigorous schedule and completing a science degree would have caused extreme stress. I was a smart student, but I need time to study.” The trend of time continued to extend with other participants: “We had the normal practice hours. But on away trips it was tough to get study time. We had practices, video review and often studied on the bus; which wasn’t always conducive. Some of the science classes and labs did not work well with my soccer schedule.” Interpersonal factors also had a significant impact on decisions. A participant claimed,

“Our coaches did not always put our education first. We did not always have appropriate study time on away trip. My advisors were average, but I was a self-motivated student, so I wasn’t on their radar as a student to check up on. At one time, I did have an advisor tell me C’s were okay; which I did not agree with.” Another participant stated, “My coach made me change my major- Her reason was I would have less time to practice.” This scenario was experienced by more than one individual: “Our coaches did not like us to miss practice for class, which meant not attending practice was used against us for playing time.” In some cases, several former student-athletes reported being stressed and overwhelmed and succumbing to pursuing a major that would allow them to balance academics and athletics effectively. Several of these statements are affirmed in Henrion's (2009) study via her open-ended responses.

## **CHAPTER FIVE: CONCLUSION**

Student athletes are constantly in the spotlight for their athletic achievements, but are rarely acknowledged for all that they sacrifice in their academics to be successful in their sport. The controversy between the student-athlete and the athlete-student has been an ongoing topic for the last decade as collegiate athletes are becoming increasingly more vocal and outspoken about the ongoing issue. As mentioned in Chapter Two, numerous studies have discussed the topics of academic clustering, academic major selection, and prioritization of sport. The majority of these studies have revolved around revenue generating sports such as football and men's basketball. It was the author's goal to dig deeper into the issue of academic major selection within Division I sports to see if student-athletes are truly sacrificing their academic life to maintain a successful collegiate career.

### **Summary of Findings**

Using Crawford, Jackson, and Godbey's (1991) leisure constraint model and Raymore's (2002) facilitator model to investigate the role of interpersonal, intrapersonal, and structural factors in determining non-revenue student athletes' majors, the author sought to answer the following research questions:

1. What facilitating and constraining factors affect Division I student athletes' autonomy in selecting their academic major of interest?

2. Is academic clustering evident amongst Division I non-revenue generating sports?

The findings in this study overall showcase that the balance between athletics and academics is a necessary topic of research and that student-athletes are impacted by numerous factors when considering their academic major. When reviewing the Academic Athletic Identity Scale, it was shown that women self-identified more with academics than men; however, there was no significance between women and men in regard to athletics. The questionnaire provided a more in-depth analysis into the factors that facilitated Division I student athletes when selecting their academic major, and the primary constraints preventing Division I student athletes from pursuing their major of interest. 58.8% of former student athletes agreed that their main interest in coming to college was to participate in their sport; however 79% confirmed that if they were not an athlete, they would have pursued the same major. Of the 58.8% of student-athletes who wished to pursue a different major, a vast majority ranked athletic training and nursing as two of the most notable majors that their sport prevented them from pursuing due to degree requirements.

To the researcher's knowledge, there are few studies that have delved into student athletes and the balancing act of majors that require clinical hours, internships, or prerequisites in order to graduate. Significant factors worth mentioning that facilitated in academic major selection appeared to be more intrapersonal than interpersonal or structural. Primary factors that influenced former student-athletes to pursue their major were personal interest and career opportunities. Primary factors that prevented Division I

student athletes from pursuing their major of interest were stress, schedule conflicts and eligibility. Finally, academic clustering was calculated to see if it were present amongst non-revenue generating sports, within the Atlantic 10 Conference. In the calculations, seven schools were found to be guilty of academic clustering. Although academic clustering was found, it is best to note that clustering is inconclusive to whether it is counterproductive or provides benefits to student-athletes (Schneider et al., 2010).

### **Study Limitations and Recommendations**

Although this study contributed to the scholarly community, there were several limitations. One of the major limitations of this study was the number of responses received for the questionnaire. Due to time constraints and restrictions of the researcher's athletic department, the preferred method of recruitment was discontinued, and former athletes were used as an alternative. All subjects were recruited via convenience sampling which may have also aided in a less inclusive sample. Another limitation of the study was that the questionnaire was revised to be addressed to former Division I student athletes. To the researcher's knowledge, the Degree Choice Questionnaire has never been used on graduated student athletes; therefore the reliability of the test may be put into question. Specifically, when the author conducted a Cronbach alpha on the combined satisfaction of major components, the test came back unreliable, forcing the author to run the satisfaction questions individually. Furthermore, when data collection was being conducted for schools in the Atlantic 10 Conference to see if academic clustering was present, the collection resulted in an incomplete dataset; several institutions did not have a school directory that listed the student-athletes academic major. In addition, athletic



websites had outdated information on the student-athletes bio page or did not list the student-athlete's major at all.

One last limitation that may have added additional support to the study's results was the collection of whether athletes who completed the questionnaire were on full scholarship, partial scholarship, or no scholarship. The collection of this information may have produced supplementary evidence as to why certain student athletes were more athletically inclined than academically. There is a notion that if a student athlete is on a full or partial scholarship, they would feel obligated to surrender some of their academic desires in order to fulfill their athletic responsibilities.

Future research should address these limitations and seek to validate the results of this study. The most immediate issue that needs to be addressed is the sample size of the sample population. A more substantial and diverse population size will be key to validating this study. Future studies should also look to confirm the validity and reliability of the student degree choice questionnaire and the Academic Athletic Identity Scale with former Division I student athletes. The author did not note any discrepancies with using the study for former athletes.

Further research should support the findings of this study and continue to ratify the claims of imbalance between Division I student athletes, specifically non-revenue generating sports, academic and athletic roles, and how it influences their academic career path. Although this study found that the majority of Division I non-revenue generating athletes are pursuing their preferred academic major, there were still constraints present that need to be further researched, specifically, majors that require

clinical hours such as nursing and athletic training. Additional research will need to be continued to investigate the balance of academics and athletics to change the perception of academics and athletics amongst Division I student athletes.

Lastly, future research should thoroughly investigate academic clustering and its implications in modern day athletics. For years, academic clustering has been given a negative connotation, but are there benefits to this theory? Does academic clustering help students who are unsure of the degree they wish to pursue or assist them with staying on track to graduate? This theory needs to be viewed with a broader lens to see how it positively impacts NCAA student athletes. Another question that needs to be explored is if there needs to be more provisions to what constitutes academic clustering? As seen in this study, the majority of the general student population was enrolled in a specific major; although there is 25% or more of one team enrolled in a major, is it still considered academic clustering in comparison to the general student population?

### **Implications**

Together, these results expand on research regarding academic selection amongst Division I student athletes. The data provides additional support regarding policy, practice, and contributes to future research implications for academic and athletic departments in the balancing act between academic study and sport. Additionally, this study extends Crawford, Jackson, and Godbey's (1987; 1991) leisure constraint model and Raymore's (2002) leisure facilitator framework to the intercollegiate context. To the researcher's knowledge this is the first research that has been conducted for intercollegiate sports with the use of these models. It is the author's hope that future

studies use this data to extend on the imbalance within Division I sports to promote well-being and academic and athletic balance for student athletes.

## **APPENDICES**

APPENDIX A

Division I Sports Offered by Season

<b>FALL</b>	<b>WINTER</b>	<b>SPRING</b>
*Cross Country (M/W)	*Basketball (M)	*Baseball
*Field Hockey	*Basketball (W)	*Golf (M)
Football	National Collegiate Bowling	*Golf (W)
*Soccer (M)	National Collegiate Fencing	Lacrosse (M)
*Soccer (W)	National Collegiate	*Lacrosse (W)
*Volleyball (W)	Gymnastics (M/W)	*Rowing
National Collegiate Water	Ice Hockey (M)	*Softball
Polo (M)	National Collegiate Ice	*Tennis (M/W)
	Hockey (W)	*Outdoor Track and Field
	National Collegiate Rifle	(M/W)
	(M/W)	National Collegiate Beach
	National Collegiate Skiing	Volleyball (W)
	(M/W)	National Collegiate
	*Swimming and Diving	Volleyball (M)
	(M/W)	National Collegiate Water
	*Indoor Track and Field	Polo (W)
	(M/W)	
	Wrestling	

\*Sports offered by the Atlantic 10 Conference

## APPENDIX B

### Atlantic 10 Conference Member Institutions

Davidson	Massachusetts
Dayton	Rhode Island
Duquesne	Richmond
Fordham	St. Bonaventure
George Mason	Saint Joseph's
George Washington	Saint Louis
La Salle	VCU

## APPENDIX C

### Student-Athlete Degree Choice Questionnaire

Academic standing (e.g. Freshman, Sophomore, etc.):

Age:

Sex:

Race:

Collegiate Sport:

Number of years you have played at the collegiate level:

Current Major:

SA	A	U	D	SD
Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree

---

1. My major matched my personal interest
2. My major helped me get a job in my desired career field
3. Academic athletics advisors were the best source of advisement for choosing a major
4. NCAA eligibility rules restricted my major choices
5. My academic performance was my highest priority
6. When I needed help in a class, I visited my professor during his/her office hours
7. I enjoyed taking courses in my major
8. My teammates highly influenced my major choice
9. My college preparatory classes/workshops helped me prepare for the academic expectations of college
10. NCAA eligibility rules limited my time to explore different subjects and choose a major
11. My ultimate goal was to just graduate from college
12. I would rather have pursued a different major, but I could not because I would not be eligible
13. My main interest in coming to college was to participate in my sport
14. My parents were involved in the decision-making process for my major choice
15. Beyond my academic athletic advisor, I sought academic help from other campus resources (e.g., tutoring, writing center, math lab)
16. My parents highly influenced my major choice
17. I am satisfied with my major choice
18. Maintaining compliance with NCAA eligibility rules limited my power to make different academic decisions
19. My parents had high expectations for my career beyond athletics
20. I felt prepared to attend college
21. I often thought about jobs in my major that I would like to have

22. Throughout my K-12 school experience, educators reinforced the importance of a college education
23. With the exception of athletic travel, I never missed scheduled classes in my major
24. My coaches' input highly influenced my major choice
25. I chose my major to be eligible for competition
26. My parents monitored my academic progress in high school
27. I went to college to increase my chances of becoming a professional athlete
28. My parents would have been disappointed if I had not graduated from college
29. I was well informed about the NCCA eligibility rules that pertained to my academic progress
30. I believe being a former student-athlete contributed to my hiring at my current job
31. If you were not an athlete, is this the major you would have pursued? (Yes or No)
32. If No:
  - a. What major were you interested in pursuing?
  - b. List factors in each box that prohibited you from pursuing your desired major [Personal reason (e.g. Stress, religion, etc.)], [People (e.g. Coaches, advisors, etc.)], [Institutional factors (e.g. Financial, practice time, etc.)]
33. If Yes:
  - a. List factors in each box that prohibited you from pursuing your desired major [Personal reason (e.g. Stress, religion, etc.)], [People (e.g. Coaches, advisors, etc.)], [Institutional factors (e.g. Financial, practice time, etc.)]
  - b. Please list the top three factors that influenced you to pursue your desired major



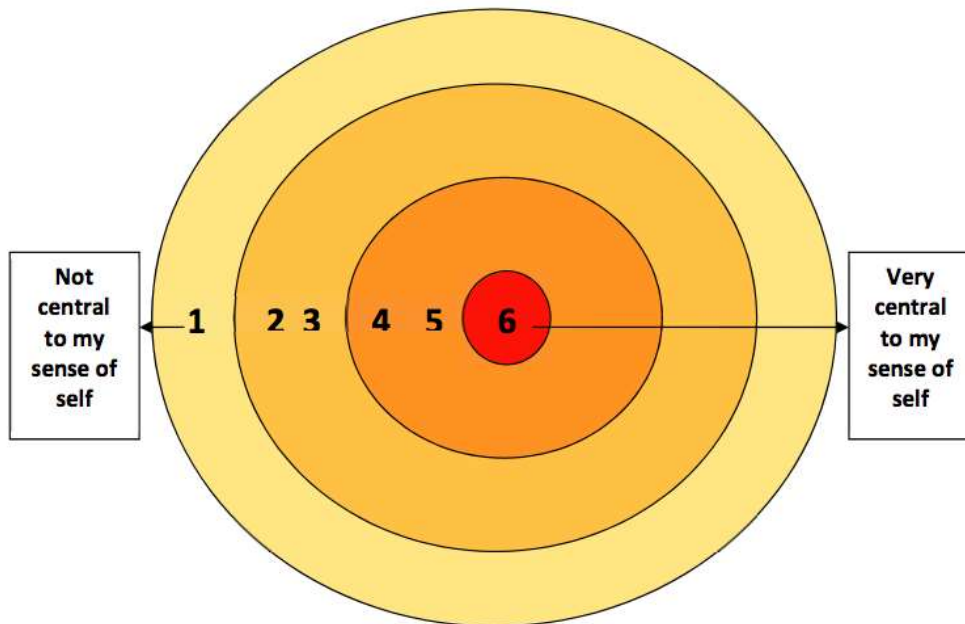
## APPENDIX D

### Academic and Athletic Identity Scale (AAIS)

Directions: Imagine that the figure below is a diagram of you.

The middle circle (6) is made up of qualities or characteristics that are very central to your sense of who you are as a person. The next circle (5 or 4) is made up of qualities that are quite central to your sense of self, and the outer circle (3 or 2) is made up of qualities that are somewhat important to your sense of self. Qualities that are not part of your sense of identity belong outside the circles (1).

To get a good idea of how you will compare and rate the different qualities, please read all of the items before you go back to rate each of them. Please think about this figure as you rate the items below. Most people will use a variety of answers, rating some qualities as very central and others as less central to their sense of self.



Please indicate how central to your sense of who you are in each of the following characteristics or qualities. If a quality seems good or desirable to you but is not an important part of who you are, you should answer “Not central to my sense of self” (1).

Circle the response that best represents your opinion.

**How central to your sense of who you are is each of the following characteristics or qualities...**

	<u>Not central to my sense of self</u>	<u>Somewhat central to my sense of self</u>	<u>Quite central to my sense of self</u>	<u>Very central to my sense of self</u>		
		(2 or 3)	(4 or 5)			
1 Being a capable student	1	2	3	4	5	6
2 Being satisfied with my academic work	1	2	3	4	5	6
3 Doing well in school	1	2	3	4	5	6
4 Getting good grades	1	2	3	4	5	6
5 Having high GPA	1	2	3	4	5	6
6 Being a capable athlete	1	2	3	4	5	6
7 Being a good athlete	1	2	3	4	5	6
8 Being athletic	1	2	3	4	5	6

9 Being proud to be an athlete	1	2	3	4	5	6
10 Being satisfied with my athletic achievements	1	2	3	4	5	6
11 Doing well during sport competitions	1	2	3	4	5	6

## APPENDIX E

### **Institutions**

Eastern Kentucky University

Florida International University

University of Central Florida

Florida Atlantic University

University of Georgia

USC Upstate

West Virginia University

University of Florida

Florida State University

High Point

Appalachian State

College of Charleston

James Madison University

Point Park

Brown

UNC-Wilmington

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## **BIOGRAPHY**

Merrissa Vault graduated from Boca Raton Community High School, Boca Raton, Florida, in 2012. She received her Bachelor of Science from Eastern Kentucky University in 2016. She enrolled at George Mason University to seek a Master of Science Degree in Sport and Recreation Studies with a concentration in Sport Management.