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Division I Student-Athlete Degree Choice Assessment

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DIVISION I STUDENT-ATHLETE DEGREE CHOICE ASSESSMENT

By

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A dissertation submitted in partial fulfillment
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THE GRADUATE COLLEGE

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ABSTRACT

Division I Student-Athlete Degree Choice Assessment

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Though the NCAA has established rules that require student-athletes to complete their college degree in an expeditious manner, the 40/60/80% rule may impinge on student-athlete academic decisions (i.e., degree choice). Yet limited empirical data exist regarding the nature and prevalence of student-athlete degree impingement. The purpose of this study was to develop and validate the Student-Athlete Degree Choice Questionnaire (SA-DCQ). The SA-DCQ assesses factors that influence Division I student-athletes' degree choice. An initial 40 item, 4 component SA-DCQ instrument was piloted with 170 Division I student-athletes. In order to develop scales, Principal Components Analysis (PCA) was conducted. PCA results yielded 13 items that loaded on 3 components (satisfaction with major, eligibility barriers, and demographic matches) that together explained 51.4% of the variance. Cronbach's Alpha was used to assess the internal consistency of each component for use as a scaled score. The Cronbach coefficient alphas for each component are as follows: satisfaction with major .894, eligibility barriers .817, and demographic matches .722. SA-DCQ components met the standard for acceptable or good ($> .8$ to $> .7$; George & Mallery, 2000).

Chi square analyses were used to examine student-athlete scaled score differences based on gender, ethnicity, sport, admissions status, household income, educational background of parents, and scholarship status. Statistically significant chi square

differences were found for all three scales and student-athletes' gender [$X^2(4, N=107) = 12.57, p=.014$; $X^2(4, N=74) = 22.88, p=.001$; $X^2(3, N=57) = 11.60, p=.009$], admissions status [$X^2(8, N=107) = 17.93, p=.022$; $X^2(8, N=74) = 18.92, p=.015$; $X^2(6, N=57) = 20.16, p=.03$], and sport [$X^2(56, N=107) = 84.85, p=.008$; $X^2(56, N=74) = 120.32, p=.001$; $X^2(42, N=57) = 62.26, p=.023$].

The development and validation of the SA-DCQ should prove to be a useful tool to monitor student-athlete degree impingements and their pervasiveness. Additionally, although findings from the pilot study were limited by sampling challenges, they do provide some insight into student-athlete demographic differences in satisfaction with major, eligibility barriers, and demographic matches. Future related studies should seek a larger sample size with adequate representation from student-athletes from low SES families, 2 and 4 year transfers, and minority student-athletes.

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CHAPTER 1

INTRODUCTION

Background

Division I (or D-I) is the highest level of intercollegiate athletics sanctioned by the National Collegiate Athletic Association (NCAA) in the United States. D-I schools are generally the major collegiate athletic powers, with larger budgets, more elaborate facilities, and more athletic scholarships than Divisions II and III (Crowley, 2006) and conference dynamics elevate the competitive landscape. Division I student-athletes train and are coached like professional athletes. In addition to lofty performance expectations, these student-athletes must cope with the NCAA's athletic eligibility requirements, scholarship guidelines of member institutions, and student life. Striving for athletic excellence and managing academic life has been a constant struggle for Division I student-athletes. The NCAA has established rules that require student-athletes to complete their degree in an expeditious manner. The progress-towards-degree (PTD) or 40/60/80% rule requires student-athletes to (a) choose a baccalaureate degree program (e.g., 124-136 credits) and satisfactorily complete 40% (50 credits) upon entering the third year of collegiate enrollment, (b) complete 60% (75 credits) by the fourth year, and (c) complete 80% (100 credits) before their final season of competition to maintain compliance with the 40/60/80% rule (NCAA Division I Manual, Bylaw 14.4.3.2, 2009, p. 150).

From a historical perspective, the initial PTD percentages of 25/50/75% provided ample time for academic development and exploration during freshman and sophomore year. However, the PTD of 25/50/75% were amended due to lackluster graduation rates.

For instance, the 1997-1998 graduation rates for the general student body were 60 percent compared to 55 percent for football, 46 percent for baseball, and 44 percent for basketball (Hamilton, 2005). In the fall of 2003, the NCAA responded to these findings by implementing the Academic Progress Rate (APR) and increasing the PTD percentages from 25/50/75% to 40/60/80%. APR is a useful tool for monitoring the academic progress of intercollegiate athletic teams (on a term-by-term basis) and retention. Moreover, APR holds coaches accountable for their team's success in the classroom. However, the heightened PTD percentages can impinge on the student-athlete's academic freedom (i.e., degree choice). For instance, Cathie Helmbold, academic athletic advisor at Auburn University affirmed, "the 40/60/80 requirement forces student-athletes to stick to a major once they reach a certain point, even if they change their minds, otherwise, they forego competing" (Meyer, 2005, p. 17).

Maintaining compliance with APR benchmarks and the 40/60/80% rule is connected to a student-athlete's eligibility for competition. Protecting this eligibility is paramount. In this regard, academic athletic advisors have to monitor their student-athletes academic progress and intervene when athletic eligibility is threatened. Ultimately, the academic athletic advisor's job performance is measured by their ability to keep student-athletes eligible. Kulics (2006) summarized the professional conflicts that arose with the 40/60/80% rule in her doctoral dissertation. She stated the increased PTD requirements compelled her to "surmise" the academic ability of some student-athletes and thus focus on majors that would permit compliance with the 40/60/80% rule (Kulics, 2006, p. 16). Furthermore, she asserted that these student-athletes "did not have the

option to select the major of their choice and had to abide exclusively to her recommendations” (Kulics, 2006, p. 16).

Incidentally, lock-step majors pose a threat to maintaining athletic eligibility because the 40/60/80% rule provides little or no time for student-athletes to recover from a tough semester. However, the NCAA does allow academic athletic advisors to submit waivers for 40/60/80% rule interruptions, but this process is time consuming and evidence is needed to prove negligence was not a factor. For this reason, student-athletes commonly change their major to bypass the NCAA waiver process. Thus, this practice forces some student-athletes to settle on a major for the present without concern for future ramifications.

The problem is that the 40/60/80% rule fails to consider the degree requirements of various programs offered by colleges/universities. For example, some degree programs have a five year commitment, an abundance of prerequisites (i.e., not degree applicable), and minimal or no space for elective credits. These degree programs are undesirable for most student-athletes, and are counterproductive for student-athletes that transfer from two-year colleges as non-qualifiers. Additionally, few student-athletes are able to earn a minor or certificate because the credits (i.e., electives) have to be accounted for in their major to be degree applicable. Therefore, to compete at the Division I level and matriculate through an institution of higher education student-athletes likely receive counsel (i.e., from parents, coaches, academic athletic advisors, teammates, etc.) and some have no choice (i.e., two-year college non-qualifiers [NQs]) to accept (rather than choose) their college major. This predicament is not uncommon as former NCAA President Myles Brand attested, “You have to be somewhat directed. Everyone doesn’t

get in this world to do everything they want to” (Fountain & Finley, 2009, p. 5). It appears Mr. Brand’s quote is referring to a student-athlete’s intellectual ability to be physician or lawyer. However, this study is more concerned with identifying factors that influence student-athlete degree choice.

The 40/60/80% rule can particularly impinge on the academic freedom (i.e., degree choice) of NQs. These student-athletes are initially ineligible for intercollegiate athletics. Thus, NQs are required to (a) earn an associate’s degree, (b) complete a minimum of 48-semester or 72-quarter hours of transferable degree credit acceptable toward any baccalaureate degree program at the certifying institution, (c) complete 3 semester or 4 quarters (excluding summer terms) as a full-time student, (d) and possess a minimum 2.0 GPA to be immediately eligible for intercollegiate athletic competition (NCAA Division I Manual, Bylaw 14.5.4.2, 2009, p. 156).

Routinely, NQs have difficulty with applying their transfer coursework (i.e., 50 or more degree applicable credits) to multiple baccalaureate degree programs because the NCAA only requires them to earn six transferable credit hours in English and three in Math. These classes address a minimal portion of degree requirements at a college or university. Furthermore, the lack of an extensive core course list that coincides with college/university general education requirements (e.g., natural/physical sciences, social sciences, humanities, fine arts, etc.) prompts most NQs to seek advisement from campus entities or self-advise, which does not guarantee compliance with the 40/60/80% rule. This scenario strays from the mission of the NCAA. Athletic scholarships provide access to higher education and a pathway to professional sports for some student-athletes. However, an NQ’s degree choice can be severely limited without proper advisement.

Research Problem

The 40/60/80% rule forces an academically prepared or underprepared Division I student-athlete to make expeditious progress toward degree completion (i.e., graduation). In this regard, Division I student-athletes have a small window of opportunity to develop, explore, and make academic decisions that are essential for their career development and life after sports. Therefore, identifying factors that influence Division I student-athletes' degree choice could provide empirical evidence for the anecdotally observed shortcomings of the 40/60/80% rule.

Statement of Purpose

The purpose of this study was to develop and validate an instrument that can quantify the pervasiveness of influences on Division I student-athletes' degree choice. Evidence obtained from pilot-testing identified scaled scores for student-athlete demographics (i.e., gender, admission, and sport). Statistically significant chi square differences were found for all three scales. Preliminary findings provide some insight into student-athlete demographic differences in satisfaction with major, eligibility barriers, and demographic matches.

Research Questions

This study aims to answer two questions. First, what factors influence student-athlete degree choice? Second, does participation in intercollegiate athletics influence student-athlete degree choice differently based on demographic characteristics (i.e., gender, ethnicity, sport, admissions status, household income, educational background of parents, and scholarship status)?

Significance

To date, there is only anecdotal evidence reported about impingements on student-athletes' degree choice. Quantitative descriptions of this phenomenon are clearly needed to understand these potential impingements and also to gain greater insight into the pervasive nature of the problem. An instrument with scales will be used to isolate factors that influence student-athlete degree choice. Significant indications of this phenomenon could develop a pipeline for future research.

Limiting Factors

Scope

Based on findings in the literature and commentary in the popular press, Division I student-athletes' academic freedom (i.e., degree choice) can be impinged on to fulfill their scholarship obligations. However, little is known about the factors that influence Division I student-athletes' degree choice. Their degree choice could be influenced by several pre-college (e.g., parents, siblings, counselors, role models, career goals, etc.) and college (e.g., academic rigor, coaches, academic athletic advisors, NCAA rules, academic/athletic goals, etc.) factors that student-athletes encounter at the Division I level.

Assumptions

The assumptions of the study are as follows:

1. As a beginning point, preliminary data will reveal a group of pre-college and college factors that are salient influences in Division I student-athletes' decision making process for degree choice.
2. Student-athletes will grasp the purpose of the instrument items.
3. Student-athletes will read each item and answer truthfully.

4. Exploratory factor analysis will link items to factors that characterize their influence on student-athlete degree choice.

Limitations

The limitations of the study are as follows:

1. The instrument will be administered to a small student-athlete population for validation and pilot testing.
2. Division I student-athletes who attend the same institution will be surveyed for data collection.
3. The results from this study will be sufficient to validate a new instrument, but further analysis may be needed for the results to be generalizable to all Division I student-athletes, and comparisons between conferences would require a larger sample size.

Operational Definitions

1. Division I Intercollegiate Athletics – Division I (or D-I) is the highest level of intercollegiate athletics sanctioned by the National Collegiate Athletic Association (NCAA) in the United States. D-I schools are generally the major collegiate athletic powers, with larger budgets, more elaborate facilities, and more athletic scholarships than Divisions II and III (Crowley, 2006).
2. Student-athlete – A student-athlete is a student whose enrollment was solicited by a member of the athletics staff or other representative of athletics interests with a view toward the student's ultimate participation in the intercollegiate athletics program. Any other student becomes a student-athlete only when the student reports for an intercollegiate squad that is under the jurisdiction of the athletics department, as specified

in Constitution 3.2.4.5. A student is not deemed a student-athlete solely on the basis of prior high school athletics participation (NCAA Division I Manual, 2009).

3. Qualifier – A transfer student from a two-year college who was a qualifier is eligible for competition in the first academic year in residence only if the student (NCAA Division I Manual, Bylaw 14.3.1.1, 2009):

- (a) Has spent at least one full-time semester or one full-time quarter in residence at the two-year college (excluding summer sessions);
- (b) Has presented a minimum grade-point average of 2.000; and
- (c) Has satisfactorily completed an average of at least 12-semester or quarter hours of transferable-degree credit acceptable toward any baccalaureate degree program at the certifying institution for each full-time academic term of attendance at the two-year college.

4. Not a Qualifier – A transfer student from a two-year college who was not a qualifier is eligible for institutional financial aid, practice and competition the first academic year in residence only if the student (NCAA Division I Manual, Bylaw 14.3.1.1, 2009):

- (a) Has graduated from the two-year college;
- (b) Has completed satisfactorily a minimum of 48-semester or 72-quarter hours of transferable-degree credit acceptable toward any baccalaureate degree program at the certifying institution, including six semester or eight quarter hours of transferable English credit and three semester or four quarter hours of transferable math credit;
- (c) Has attended a two-year college as a full-time student for at least three semesters or four quarters (excluding summer terms); and

(d) Has achieved a cumulative grade-point average of 2.000

5. Progress-Toward-Degree requirements – To be eligible to represent an institution in intercollegiate athletics competition, a student-athlete shall maintain progress toward a baccalaureate or equivalent degree at that institution as determined by the regulations of that institution subject to controlling legislation of the conference (s) or similar association of which the institution is a member and applicable NCAA legislation (NCAA Division I Manual, 2009).

6. Academic exploration – provides students with the opportunity to engage in coursework from multiple disciplines to test assumptions and merge interests. This experience enables the student to take ownership for their academic decisions, baccalaureate degree, and future career path.

7. Degree selection – when a student has identified a field of study that corresponds with their academic abilities and personal interests, they are ready to declare their major.

8. Impingements – occur when a student-athlete's academic freedom (i.e., degree choice) is restricted to comply with the 40/60/80% rule and maintain eligibility for competition.

CHAPTER 2

REVIEW OF LITERATURE

By virtue of their platform within Division I institutions of higher education, student-athletes are commonly treated like adults on the playing fields, courts, and in the media. Most professionals in the athletic arena are hesitant to make accommodations for the developmental cycle that occurs for emerging adults. Emerging adulthood is “neither adolescence nor young adulthood” but a period of life (ages 18-25) that is filled with uncertainty about the future (Arnett, 2000, p. 469). Stringer and Kerpelman (2010) reported that “identity exploration sets the foundation for commitments made during emerging adulthood and the years that follow” (p. 181). As emerging adults, collegiate student-athletes make decisions (rather consciously or unconsciously) that chart the course for their life after athletics. This chapter examines how sociocultural influences, academic prioritization, and athletic participation can influence student-athletes’ degree choice. In doing so, the culture, people, and rules that govern eligibility for intercollegiate athletics is analyzed.

In order to provide a comprehensive description of the Division I student and athlete, this chapter was divided into three sections: sociocultural influences, academic prioritization, and athletic participation. The goal of the sociocultural influences section is to articulate how pre-college influences can shape students’ perception of higher education and careers. Secondly, the goal of the academic prioritization section is to examine academic motivation, academic self-efficacy, and parenting style literature to assess its impacts on academic performance at the collegiate level. Lastly, the goal of the athletic participation section is to direct attention toward the athletic arena and factors

that can impinge on student-athlete degree choice. Furthermore, this section orients the reader by providing a brief historical overview of the NCAA as a means to understand the foundation of the current rules governing student-athlete academic eligibility (A more extended treatment of the organization's historical birth and legislative actions may be found elsewhere [Crowley, 2006]) and highlights key arguments against the 40/60/80% rule.

Sociocultural Influences

The United States population is growing rapidly and the citizenry is becoming more diverse. Kelly (2008) asserted that the percentage of minority citizens could exceed "50 percent of the U.S. population by 2050" (p. 5). Projected population growth and a cultural influx will most likely translate to a more competitive workforce. Citizens that prepare accordingly for trending careers will be at the forefront of the race to obtain gainful employment. Institutions of higher education continue to be viable career preparation entities. In most cases higher education is pursued for career advancement and/or personal achievement. However, factors that influence an individual's degree choice could be widespread. Beggs et al. (2008) contended that, "undergraduate students employ strategies of indecision as opposed to strategies of cognitive decision-making in that they back into a major rather than actively choose a major, often by employing heuristics" (p. 382). Selecting a college major is a stressful process that requires one to assess their academic abilities and personal interests. Therefore, a student must be groomed to a particular field of study or engage in academic exploration to avoid major hopscotch.

Contrary, to what is known about factors that influence Division I student-athletes' degree choice, researchers have identified factors that influence non student-athletes. Adams et al. (1994) reported that 59% of the students in their study listed genuine interest in the field as a dominant factor for degree choice. Similarly, Beggs et al. (2008) analyzed 852 student surveys and found match with interests to be the highest rated factor out of six factors. In Collins and Giordani (2004) study, 68.4% of the participants chose their major for its career attributes. Consequently, students felt the major had a direct correlation to their ideal career. In contrast, a student's demographic profile can influence their decision making process for degree choice. For example, women usually select majors like education, English, and nursing because there is a strong female representation in these disciplines (Jacobs, 1986; Solnick, 1995; Lackland, 2001; 1995; Porter & Umbach, 2006). Along with gender, race can influence degree choice. For example, Smith (1983) claimed, "race is the more preponent factor in determining one's status, income and career development" (p. 167). Porter and Umbach (2006) stated that, "People of color are not likely to choose a particular major where they are one of the few minorities present, If they do choose a major where there are few people of color, attrition is likely" (p. 431).

A family's socioeconomic status (SES) can also influence a student's decision making process for degree choice. For example, high SES parents usually have a baccalaureate or advanced degree. These parents have the educational background and resources to effectively manage their children's pre-college experiences. Frequently, children from high SES families will follow in their parents' footsteps and "choose more lucrative college majors than students from modest family origins" (Yingyi, 2009, p.

214). Incidentally, college is a financial investment. Families that fund their child's education are usually involved in every academic decision the child makes. Scholars and K-12 studies have extolled the positive impact parental involvement has on "children's and adolescents' learning and academic success" (Gonzalez-DeHass, Willems, and Doan Holbein, 2005, p.100). Parents set academic standards for their children. A parent's academic successes can influence their child's motivation for academic pursuits. In regard to degree choice, most parents push their children toward majors like business, engineering, and health fields because they impart workforce skills and practitioner-based licenses (Kerr 1991). Yingyi (2009) professed that, "these majors are more predictable in terms of future jobs and earnings than liberal arts majors" (p. 214). Ultimately, parents want their children to choose a major that can provide financial security.

Peer interaction with non student-athletes can teach student-athletes to have "respect for differences" and lead to "greater levels of critical thinking" (Howard-Hamilton and Sina, 2001, p. 35). Gayles and Hu (2009) reported that student-athletes who majored in "social and behavioral sciences, math, and science" had more social encounters with non student-athletes and took part in more "academic-related activities" that corresponded to "greater gains in learning and communication skills" when compared to undecided student-athletes who were more isolated with other student-athletes (p. 104). Student-athletes who maintain a social network with non student-athletes on campus learn vicariously through the experiences of their friends and can be more innovative with their academic decisions (i.e., degree choice). In addition to peers, role models (i.e., faculty, administrators, and alumni) can offer substantive academic advice to student-athletes. Faculty members are the authority in the classroom and have

the ability “to make the learning environment for all students inclusive and supportive rather than isolating and exclusionary” (Howard-Hamilton, 2001, p. 41). Alternatively, administrators and alumni can share their professional opinions and experiences with student-athletes. This dialogue can help student-athletes think more critically about their conduct and the role they will assume after intercollegiate athletics.

Academic Prioritization

The allure of professional sports can captivate youth early in their sport’s career. In some cases, the pursuit of athletic excellence can be consuming and minimize the importance of striving for academic pursuits. Keeping a Division I student-athlete intrinsically focused on academic pursuits can be difficult when the extrinsic rewards (e.g., money, celebrity, preferential treatment, etc.) of professional sports is highly televised and woven into American culture.

Analyst and scholars have continually protested that “Division I sports serve as a training and recruiting agencies for professional sports” (Snyder, 1996, p. 651). Student-athletes who are recruited for a revenue generating sport (football or Men’s basketball) have more difficulty (than their non-revenue counterparts) with transferring the work ethic that is required for performing at a high level for athletics to the academic realm (Simons, Van Rheenen, & Covington, 1999). Despite the odds, many of these student-athletes believe they will be a professional athlete. In a previous study, Edwards (1994) reported that 1 in 6,318 for football and 1 in 10,345 for basketball will defy the odds and play their sport professionally. Student-athletes who get the “fever” usually believe professional sports will provide financial security. Frequently, these student-athletes

think that staying eligible to compete and “a C gets a degree” approach is the appropriate benchmark for academic success (Simons, Van Rheenen, & Covington, 1999, p. 157).

Without proper parental support and advisement from educators, a student-athlete’s purpose for attending a 4-year institution can be purely athletic (rather than a balanced student and athlete mentality). For example, in November 1990 a Lou Harris poll reported that “59% of African American high school athletes expected to play sports in college” (Snyder, 1996, p. 654). On one hand, the desire to attend college is low among minority and first generation students. On the other hand, a definitive academic goal must be developed and pursued to prepare student-athletes for life after intercollegiate athletics. According to Simons, Van Rheenen, and Covington (1999) precollege educators must find ways to assess the academic needs of “gifted athletes to balance the attention they receive for their athletics exploits” (p. 159).

Literature on academic motivation, academic self-efficacy, and parenting style will be examined to assess its impact on academic performance at the collegiate level. Furthermore, this review of literature will explain how students from diverse backgrounds develop their affinity for academic endeavors.

Markus and Kitayama (1991) proclaimed that individuals possess a collectivistic or individualistic motivational compass. Individuals with a collectivistic orientation are inclined to meet the expectations of others, while those with an individualistic orientation are concerned with fulfilling personal goals and aspirations. Most college-bound students are pursuing higher education for personal reasons or to appease their parents. However, college-bound first generation students rely on peers instead of their parents for college advisement. Dennis, Phinney, and Chuateco (2005) reported that first-generation college

students felt peers were more equipped to help them persist toward graduation. In this study, parents were an outlet for emotional not academic support. The role parents assume in their child's academic life can set their pace and expectations for academic achievement.

Baumrind (1966) compartmentalized parenting style into three categories. Authoritative parents are known to be diplomatic, structured, and overprotective. However, permissive parents are advocates of self-discovery and set little or no restrictions for their child's behavior. Lastly, authoritarian parents are controlling and only concerned with the plan they have developed for their child's life. These parents enforce punishments for bad behavior and provide minimal emotional support. According to Baumrind and Black (1967), authoritative parenting was the only style that had a positive correlation to academic performance.

In addition to parenting style and its effect on academic performance, researchers have analyzed the academic self-efficacy of college students. Traditionally, self-efficacy has been defined as a person's belief in his/her ability to perform an assigned task or behavior successfully (Bandura, 1977; Betz & Luzzo, 1996). Both Pajares (1996) and Chemers et al. (2001) found academic self-efficacy to be highly correlated to academic performance and expectations in college students. Turner et al. (2009) study found academic self-efficacy to be significantly correlated to self-reported grade-point-averages. These studies support the notion that "the more a student believes she/he is capable of achieving in her/his academic studies, the more likely she/he is to actually succeed academically" (Turner, Chandler, & Heffer, 2009, p. 344). Therefore, students

who possess an inherent desire to perform well academically are active participants and not spectators in the classroom.

Helping Division I student-athletes (especially gifted athletes) cultivate a passion for academic pursuits can be a difficult task. For example, each student-athletes' pre-college academic preparation and experiences are diverse. According to Bowen and Levin (2003), academic performance "depends on interests, motivation, time management skills, creativity, and other late-developing qualities that no battery of tests captures well" (p. 117). Historically, gender and sport have been examined to determine academic performance differences. Gaston-Gayles (2005) study indicated that "female athletes were more motivated toward academic related tasks than athletic related tasks" and "non-White and revenue athletes exhibited the most unbalanced groups of student athletes in terms of academic and athletic motivation" (p. 324). These findings prove that there are at-risk student-athlete populations within Division I intercollegiate athletics that need unique support services to foster academic goals that complement the collegiate experience.

Athletic Participation

Despite the wishes of their parents, Division I (scholarship) student-athletes must find a balance between their academic pursuits and athletic obligations. Therefore, their degree choice is influenced by differential factors when compared to non student-athletes. Division I student-athletes' degree choice is dependent on their academic ability, athletic eligibility status, and the demands of their sport. Choosing a major is a complex task for these student-athletes. For this reason, several factors can influence student-athlete degree choice. Few empirical studies have identified degree choice factors that directly pertain to

this study. However, the literature review process yielded support for college factors that Division I student-athletes' confront in their decision making process for degree choice.

Division I student-athletes' must weigh the demands of their athletic obligations and consider the values/beliefs of influential people (academic/athletic administrators, coaches, faculty, and parents) during the degree selection process. These additional factors can suppress or illuminate the importance of choosing a degree that will provide career mobility. Thus, a student-athlete's degree choice and career related experiences they acquire (if any) are the only accolades they have to compete for careers in today's workforce. Failure to prepare appropriately could marginalize career opportunities. A detailed description of Division I student-athletes' athletic obligations and interaction with influential people (academic/athletic administrators, coaches, faculty, and parents) is provided in the following paragraphs.

The pressure to maintain a winning tradition or the chance to become a Cinderella team detracts focused attention away from academic pursuits. Division I student-athletes' (primarily football and men's basketball) athletic obligations are time consuming. Sharp and Sheilley (2008) reported the findings of a survey that declared "major-college football players reported spending an average of 44.8 hours a week practicing, playing, or training for their sport, the survey found, with golfers, baseball players, and softball players not far behind" (p. 105). Rather in-season or out-of-season, Division I student-athletes' are always on the clock. A football player in Singer's (2008) study asserted that "you practice nine months for three months of games" (p. 405). Furthermore, Division I student-athletes' must cope with the performance expectations of their head coach, position coach, strength & conditioning coach, parents, friends, and fans. Conversely,

these student-athletes do not receive the same amount of attention or scrutiny for their academic performance.

Athletic obligations (e.g., competition, practice, strength/conditioning, film study, and meetings) leave Division I student-athletes with little or no energy for student life (i.e., clubs, organizations, socials) and career related activities. Student-athletes that were observed by Jolly (2008), stated “the demands of intercollegiate athletic competition have prevented them from devoting as much time to the student side of their lives as they would like” (p. 147). Academic pursuits are usually downgraded to provide ample time for athletic obligations. Student-athletes in Singer’s (2008) study claimed “football-related responsibilities” prevented the full acquisition of the “free education” they were entitled to as intercollegiate student-athletes (p. 406). Thus, the premium that is placed on athletic obligations impacts the student-athlete’s ability to manage both roles efficiently.

As early as sophomore year, prospective high school student-athletes and Division I coaches build a bond through the recruiting process. Coaches across the country work diligently to make prospects of interest, their main priority. These student-athletes receive mailings, phone calls, and take unofficial (i.e., summer camps or campus tours) and official visits to institutions that are impressed with their athletic ability. This level of attention and communication cements the coach and student-athlete relationship. Coaches (especially head coaches) are role models and collegiate student-athletes are influenced by their philosophies and beliefs (Ridpath, Kiger, Mak, Eagle, and Letter, 2007). According to Sharp and Sheilley (2008) “coaches can have a major impact on all facets of their student athletes’ lives, with the influence extending well beyond the playing field or gymnasium” (p. 107). Therefore, coaches become a lifeline for student-

athletes because they have the power to give and take away their athletic scholarship, reduce playing time, or downgrade their character and athletic ability for professional sports.

Academic advising is a necessity, and is linked to “student success” (Kelly, 2009, para. 1). Division I student-athletes cling to their academic athletic advisors and rely on them for academic and life advising. Academic athletic advisors must guide student-athletes through the degree selection process because inappropriate academic decisions can compromise their athletic eligibility. Furthermore, many student-athletes lack academic confidence and are reluctant to make academic decisions that present a chance of failure (Kelly, 2009). Thus, from matriculation until graduation, coaches as well as academic athletic advisors oversee student-athletes’ academic decisions.

The second phase of the Athletic Participation review of literature begins with NCAA Foundation and Athletic Eligibility Rules. Next, The Path of the Non-Qualifier section will identify impingements that are specifically linked to non-qualifiers (NQ). Finally, critiques of the 40/60/80% rule will be examined to provide anecdotal evidence for observed shortcomings.

NCAA Foundation and Athletic Eligibility Rules

In the early 1900s, intercollegiate athletics, primarily football, was criticized for its and barbaric nature, which was uncustomary of club sports (i.e., rowing) that paved the way for intercollegiate athletics to flourish and be an integral part of higher education (NCAA, 2010, “History”, para. 2). Subsequently, the competitive aspects of football became a pressing concern for college and university officials as well as the United States, President, Theodore Roosevelt (NCAA, 2010, “History”, para. 3).

Calls for reform at the presidential level spawned the development of the Intercollegiate Athletic Association of the United States (IAAUS) and formal playing rules for intercollegiate athletic competition. Shortly thereafter, in 1910 the IAAUS became the National Collegiate Athletic Association (NCAA [NCAA, 2010, “History”, para. 4]). At the outset, the association mainly implemented policies/procedures for competition and coordinated post-season championships (Crowley, 2006).

The quest for notoriety and championship prizes by Division I athletic programs (i.e., men’s football and basketball) proposed new concerns for the NCAA. Controversial practices by member institutions and boosters threatened the spirit of amateurism. For example, during the 1930s and 1940s, alumni often befriended local athletes and financed their college education (Byers & Hammer, 1995). Additionally, “free-wheeling recruiting” tactics were becoming common practice (Byers & Hammer, 1995, p. 67). This form of recruiting was at its peak due to the conclusion of World War II and the emergence of the GI Bill for war veterans. Suddenly, a wealth of skilled athletes was available and able to finance their own education.

To curtail practices of institutions and conferences the NCAA convened to develop the “Principles for the Conduct of Intercollegiate Athletics” (Crowley, 2006, p. 30). The principles encompassed regulations for financial aid, recruitment, academic standards for athletes, institutional control, and the principle of amateurism (Crowley, 2006). These principles were eventually adapted and enacted as the “Sanity Code” in 1948 (Crowley, 2006, p. 30). The Sanity Code was notable for permitting institutions to award financial aid (i.e., tuition & fees) to student-athletes who met their admissions requirements and could prove financial need. Nonetheless, occurrences of student-

athletes receiving illegal gifts or working for boosters to pay for housing and other living expenses led to the institution of the “full ride” or athletic scholarship (Byers & Hammer, 1995, p. 72). The athletic scholarship paid for the room, board, tuition, fees, and laundry expenses of awarded student-athletes regardless of their financial need.

During the 1950s the NCAA had not crafted academic eligibility requirements for athletic scholarship recipients (Covell & Barr, 2001). This fact attracted adverse criticism from higher education officials and speculations of exploitation began to fester. In response to criticism from higher education entities and the media, the NCAA put forth several pieces of noteworthy legislation for prospective student-athletes at the high school level to prepare them for the academic realm of higher education and to guide matriculated student-athletes toward completion of a baccalaureate degree. The following represents an abbreviated timeline of athletic eligibility requirements implemented to govern the participation and academic endeavors of prospective (high school), 2-4 (community/junior college), and continuing (matriculated) student-athletes:

1952 – The NCAA amended its constitution and declared that “all eligible student-athletes make normal progress toward a degree” (Covell & Barr, 2001, p. 424). However, monitoring degree completion was the responsibility of member institutions.

1959 – The NCAA mandated that “competing student-athletes be enrolled in a full course of study of no less than 12 semester or quarter hours” (Covell & Barr, 2001, p. 425). This rule was enforced for championship competition.

1965 – Student-athletes had to possess a 1.60 GPA in their sixth, seventh, or eighth semesters in high school and satisfactory SAT or ACT test scores to receive an athletic scholarship (Covell & Barr, 2001).

1973 – The NCAA replaced the 1.600 rule with the 2.0 rule. The 2.0 rule required high school student-athletes to possess a 2.00 GPA in the sixth, seventh, and eighth semester “regardless of course content and test scores” to receive an athletic scholarship (Covell & Barr, 2001, p. 427).

1983 – Proposition 48 required freshman student-athletes to possess a minimum 2.0 GPA, with a 15 ACT composite score or 700 SAT combined verbal and mathematics score (Crowley, 2006). The term “partial qualifier” was incorporated into the NCAA’s bylaws to account for high school student-athletes that failed to meet GPA or test score minimums of proposition 48 (Crowley, 2006, p. 74). These student-athletes were eligible to receive an athletic scholarship, but ineligible to compete for one academic year.

1991 – Landmark recommendations put forth by the Knight Foundation Commission on Intercollegiate Athletics suggested “athletic scholarship be offered for a five-year period” and core course units “should be raised from 11 to 15” for high school athletes (Knight Foundation Commission, 2001, p. 36-37). The NCAA raised the core curriculum requirements to 13 units (adopted in 1995). Additionally, the NCAA (following the commission’s recommendations) adopted in 1996, progress toward degree percentages for Division I student-athletes (Knight Foundation Commission, 2001). At this time, student-athletes were required to complete 25 percent of a degree program by the beginning of the third year, 50 percent by year four, and 75 percent by the fifth year of collegiate enrollment.

1996 – Despite lengthy debate and several revisions, Proposition 16 was formally adopted. Proposition 16 required high school student-athletes to have a minimum GPA of 2.5 within 13 core courses (determined by NCAA) and corresponding SAT or ACT test score, and a sliding scale provided additional opportunities for student-athletes who performed better in the classroom or on standardized tests to be in compliance with NCAA initial-eligibility requirements (Crowley, 2006).

2003 – Several proposals for academic reform came in existence to convey the NCAA’s commitment to academia: (1) core course requirement increased from 13 to 14 units and the sliding scale index was extended, (2) matriculated student-athletes were required to complete 24 semester hours before the second year of enrollment, (3) 18 of those semester hours were to be completed in the academic year (i.e., fall/spring), (4) student-athletes had to complete six hours of academic credit each term, (5) the progress toward-degree percentages were increased from 25/50/75% to 40/60/80%, (6) the number of remedial credits that constituted satisfactory academic progress was reduced from 12 semester hours to six semester hours, and (7) 2-4 transfers who were non-qualifiers had to meet new progress towards degree percentages at the time of transfer (NCAA Division I Management Council, NCAA News Release, 2002, para. 5,8). Additionally, the Academic Progress Rate (APR) and the Graduation-Success Rate (GSR) were implemented in 2003 to amplify the NCAA’s reform efforts (Crowley, 2006).

2008 and Later – Increasing college and university entrance requirements inspired the NCAA to raise the core curriculum requirements from 14 to 16 units. (NCAA Guide for the College-Bound Student-Athlete, 2006-2007).

This historical overview and timeline represents a fraction of the NCAA's efforts to merge the apparent gap between intercollegiate athletics and academic endeavors. The next section will focus on the 40/60/80% rule to build consensus and identify key arguments against the rule.

The Path of the Non-Qualifier

Community and Junior colleges are uncommon transition points for student-athletes who leave high school as qualifiers and are eligible for intercollegiate athletic competition. Unlike non-qualifiers, qualifiers must (a) serve at least one full-time semester or one full-time quarter in residence at the two-year college (excluding summer sessions), (b) possess a minimum grade-point average of 2.000 and, (c) satisfactorily complete an average of at least 12-semester or quarter hours of transferable-degree credit acceptable toward any baccalaureate degree program at the certifying institution for each full-time academic term of attendance at the two-year college (NCAA Division I Manual, Bylaw 14.5.4.1, p. 156, 2009). Typically, qualifiers attend a two-year college to develop more athletically or to increase opportunities for an athletic scholarship. However, non-qualifiers (NQs) are high school student-athletes who failed to meet NCAA initial-eligibility requirements for intercollegiate athletics. For this reason, NQs are required to (a) earn an associate's degree, (b) complete a minimum of 48-semester or 72-quarter hours of transferable degree credit acceptable toward any baccalaureate degree program at the certifying institution, (c) complete 3 semester or 4 quarters (excluding summer

terms) as a full-time student, (d) and possess a minimum 2.0 GPA to be immediately eligible for competition (NCAA Division I Manual, Bylaw 14.5.4.2, p. 156, 2009).

As a result of academic deficiencies in high school, NQs commonly take longer (i.e., 2 years) to complete the NCAA's eligibility requirements for transfer to a Division I institution (Wong, 2006). In addition to these circumstances, Wong (2006) stated in her doctoral dissertation that "an injury or the necessity to work" can prolong a NQ's two-year college career (p. 9). Therefore, if academic or personal issues require more than a 2 year stint at a two-year college, the NQ will be subject to a higher PTD percentage (i.e., 60%). This predicament would require the NQ to possess 72-75 transferable and degree applicable credits to be immediately eligible for competition at a Division I institution. However, NQs routinely have difficulty with applying their transfer coursework to multiple baccalaureate degree programs.

Presently, the NCAA only requires two-year college student-athletes to earn six transferable credit hours in English and three in Math. These classes address a minimal portion of degree requirements at a 4-year institution. Furthermore, the lack of an extensive core course list that coincides with 4-year college/university general education requirements (e.g., natural/physical science, social science, humanities, fine arts, etc.) prompts most NQs to seek advisement from campus entities or self-advise, which does not guarantee compliance with the 40/60/80% rule. Also, most colleges/universities require a minimum (e.g., 62-70 credits) of a student's degree credits be earned from a 4-year institution. Therefore, established guidelines are needed to ensure NQs align their associate's and baccalaureate degree coursework appropriately.

Despite these revelations, the NCAA may increase academic standards for two-year qualifiers and NQs. According to Hosick (The NCAA News, 2010), NCAA officials and two-year college representative have discussed the likelihood of increasing the grade point average and adjusting the progress-toward-degree requirements for two-four (i.e., qualifiers and NQs) transfers to permit “significant remediation” (para. 4, 11). Increasing the grade point average for two-four transfers can raise academic expectations and improve academic behavior (e.g., competence, study habits, and prioritization). Conversely, adjusting the progress-toward-degree requirements to increase the time two-fours spend at two-year colleges may be counterproductive. First, 4-year institutions house the degree programs that two-fours are required to complete. Second, most Division I athletic departments have a state of the art academic support facility, learning specialist, tutors, mentors, and services for student-athletes. Third, NQs have a short lifespan as a 4-year college student and intercollegiate athlete. Thus, increasing the time NQs spend at a two-year college without course equivalency guidelines and a defined destination (i.e., 4-year institution) their academic pursuits will be marginalized.

This section has illustrated how/when 40/60/80% rule benchmarks impinge on the academic freedom (i.e., degree choice) of NQs. It is important to note that the NCAA increased the progress toward degree percentages to improve graduation rates. This decision was not made to lessen the Division I student-athlete’s collegiate experience. However, the information that has been produced since the fall of 2003 on the 40/60/80% rule merits further inquiry and research.

40/60/80% Rule Critiques

NCAA Bylaw 14.5.4 introduced foundational guidelines for continuing eligibility and satisfactory progress. Bylaw 14.5.4 required student-athletes to annually complete 24 semester-hours or 35 quarter-hours in a declared degree program (Bollig, 1993). In addition, student-athletes had to be in good academic standing with their institution's requirements and declare a major prior to the fifth semester of enrollment to maintain athletic eligibility as stated in NCAA Bylaw 14.4.5 (Bollig, 1993). Among the credits and/or hours completed for satisfactory progress toward a degree, at least 75% had to be earned during the regular academic year as stated in NCAA Bylaw 14.5.4.1 (Bollig, 1993). Lastly, Bylaw 14.5.4.4 mandated that student-athletes who became full-time students in the fall of 1991 must complete 50% of their degree requirements by the beginning of their fourth year of enrollment (Bollig, 1993).

In the fall of 1992, NCAA Bylaw 14.5.2.1 was enacted and required student-athletes to complete 25%, 50%, and 75% of their degree requirements by the beginning of the third, fourth, and fifth year of collegiate enrollment (Bollig, 1993). These percentages were more conducive for student-athletes who needed remediation or those that wanted to explore academically. However, in her doctoral dissertation, Kulics (2006) stated a "move toward academic reform emerged in April 1999 when the NCAA Division I Board of Directors charged an academic consulting membership group with appraising the Association's current academic standards" (p.68). Primarily, the Board of Directors wanted the consulting group to focus on legislation that would "increase graduation rates" (Kulics, 2006, p. 68). The academic consulting group provided recommendations for revision to initial eligibility (i.e., high school student-athletes) and continuing eligibility (i.e., student-athletes participating in intercollegiate athletics) requirements.

With the goal of increasing graduation rates, the academic consulting group declared that “raising the current standards will assure that students who remain eligible for 4 years are in an excellent position to complete their degree after 5 years” (Kulics, 2006, p. 68). This revision would require Division I “freshman to complete 24 semester-hours with a 1.80 grade point average and increase the progress toward degree requirements from the current 25%, 50%, and 75% after years two, three, and four to 40%, 60%, and 80% after those years” (Kulics, 2006, p. 68).

Ultimately, the NCAA’s desire to increase graduation rates and the recommendations from the academic consulting group lead to the implementation of heightened progress toward degree requirements. A move to put the “student” back into “student-athlete” (Hamilton, 2005, p. 28) could produce contradictory results. This legislative act has been critiqued since its implementation in August of 2003. On one hand, the 40/60/80% rule can expedite degree completion; it can also impinge on degree choice.

This predicament lessens the odds of a win-win situation when both parties (i.e., member institutions and student-athletes) receive equal satisfaction for services rendered. M. Duane Nellis, provost and senior vice president at Kansas State University commented in an interview with USA Today, on the difficulties student-athletes encounter when academic endeavors collide with the 40/60/80% rule (Steeg, Upton, Bohn, & Berkowitz, 2008):

“The university tries to be supportive of athletes to be able to pursue what they dream to have as their degree path. We've had starting athletes in basketball who went on to...get into veterinary medicine. Any student can get out of sequence if they're in a prescribed curriculum... and if they get out of sequence, it leads them down a different path. They also

have to realize, when they decide to pursue athletics, there are time commitments and parameters around that” (para. 29, 30).

Consequently, student-athletes cannot engage freely in academic exploration or make an impromptu major change, even if their career aspirations change (Meyer, 2005). Minimizing their opportunities for academic development and exposure narrows the collegiate experience. Student-athletes should leave an institution of higher education with a firm understanding of their qualifications for careers in today’s workforce. Dr. Gayle Fenton, shared a similar vision regarding the 40/60/80% rule, she stated, “With having to make 40% in only two years, the student-athlete population has lost one of the main benefits of being college students: the opportunity to learn about themselves and what their interests are. Having to meet 40% in two years means that in order to be eligible, they must find a major fast/soon and stick with it, something that goes against all student development theory” (Meyer, 2005, p. 17).

In 2004, a broad consensus was reached in the academic athletic advising community when the National Association of Academic Advisors for Athletics (N4A) conveyed concerns about 40/60/80% rule benchmarks in the *Practices and Concepts for the Success of NCAA Academic Reform* report. The Association stated, “New progress toward degree percentage requirements may cause student-athletes to accept enrollment in majors that predict eligibility rather than encourage exploration of more challenging or personally meaningful major fields of study. The N4A is concerned that current legislation may not encourage sound educational outcomes” (Meyer, 2005, p. 17).

The N4A’s reservations about the 40/60/80% rule did not alter the rule’s structure. However, sport scholars and analysts began to ask questions and research the impact of the 40/60/80% rule. Kulics (2006) surveyed 1,000 student-athletes in the Mid-

American Conference, to assess the student-athletes feelings toward the 40/60/80% rule. The results of her study were published in Wolverton's (2007) "Athletes Question Effectiveness of NCAA Rule" article. In Kulics's study, she reported that 11 percent of the athletes felt sports participation influenced their choice of major, 23 percent agreed they would change majors to stay eligible for competition, and the majority of the student-athletes in the study felt the 40/60/80% rule limited career options, caused anxiety during degree selection, or punished them for changing their major. Concerns regarding athletic participation and academic pursuits gained the NCAA's attention. The results of a survey that was administered to 10,000 student-athletes by the NCAA stated 20 percent of student-athletes believed athletic participation stopped them from pursuing their desired major and 40 percent of student-athletes believed athletic participation infringed on course selection (Wolverton, 2007, p. A33, A34).

Wolverton (2007) utilized a case study approach to find out if/how the 40/60/80% rule impinged on the degree choice of four Kent State University student-athletes.

Related findings from Wolverton's investigation are listed below:

Case 1: Student-athlete completed more than 40% of degree requirements under initial major. Experiences at an internship site prompted action to change major. To meet eligibility requirements for desired major, the student-athlete had to take 10 credit hours of summer school and increase fall and spring course loads to be eligible for competition henceforth.

Student-athlete's position: "I don't know how someone can choose their major coming straight out of high school. I know lots of students who are still changing their majors, but it won't affect them the same way" (Wolverton, 2007, Switching Majors, Catching Up, p. A33, A34)

Case 2: Student-athlete possessed 91 transfer credits and triggered the 60% rule for anticipated entry term. Student-athlete selected a major that correlated to their work experience and career goals. The student-athlete relayed educational aspirations to their academic athletic advisor and was told their degree choice prohibited compliance with the 60% benchmark

(i.e., 75 degree applicable credits). Thus, the student-athlete switched to a major with more electives.

Student-athlete's position: "It's too bad. I found something I was good at, and now I can't go into it" (Wolverton, 2007, A Transfer Student's Eligibility Challenge, p. A33, A34).

Case 3: Student-athlete knew college major since grade school, but let professionals in the field discourage declaration. A life altering experience rejuvenated past interest that led the student-athlete back to original major. However, due to eligibility requirements, the student-athlete had to change their major change to stay eligible for competition.

Student-athlete's position: "The rule takes away your freedom to go to school for something you want to do. Two years can really make a difference in deciding what you want to do for the rest of your life" (Wolverton, 2007, The Cost of Indecision, p. A33, A34).

Case 4: Student-athlete wanted to obtain a degree that complemented their athletic background. However, a slow start academically forced the student-athlete to tailor their degree choice to one that enabled compliance with future 40/60/80% rule benchmarks.

Student-athlete's position: "I have no freaking clue what it was. I just switched to stay eligible" (Wolverton, 2007, A Player's Fallout from a Slow Start, p. A33, A34).

These cases provide a description, though limited in size and scope, into the impingements that are associated with the 40/60/80% rule. As previously highlighted and substantiated by the NCAA's study, Kulics (2006), and Wolverton (2007), the 40/60/80% rule can impinge on the Division I student-athletes' degree choice. Specifically, there is evidence to suggest that the 40/60/80% rule gives student-athletes an insufficient timeframe for academic remediation, exploration, and degree selection. The pace, in which the 40/60/80% rule is structured, limits the student-athlete's ability to digest academia and make appropriate decisions for post-baccalaureate endeavors. This predicament can be a setback for an indecisive or misguided student-athlete. Therefore,

regardless of their degree preference, student-athletes must make satisfactory progress toward a baccalaureate degree to stay eligible for intercollegiate athletics.

Summary

The aim of the literature review was to (1) determine how sociocultural influences, academic prioritization, and athletic participation can influence student-athletes' degree choice (2) orient the reader and articulate the NCAA's efforts to balance the complex roles of Division I student-athletes' (3) underscore how the 40/60/80% rule impacts the academic decisions (i.e., degree choice) non-qualifiers make when they transfer to Division I institutions, and (4) present key arguments that support the anecdotally observed shortcomings of the 40/60/80% rule.

The history of the NCAA and its place in higher education has been analyzed and documented thoroughly. Yet few empirical studies exist that describe the prevalence and degree of impingement on student-athletes' degree choice. Furthermore, no one has studied whether the degree choice affects all student-athletes in the same way. Therefore, findings in the literature and commentary in the popular press provided the foundation for this study. Nevertheless, to achieve the purpose of this study, findings in the literature, existing relevant instrumentation, and interview feedback will be used for instrumentation.

CHAPTER 3

METHODOLOGY

Introduction

The NCAA and member institutions are responsible for the well-being of all student-athletes that participate in intercollegiate athletics. The welfare of Division I student-athletes in regard to the factors that influence their degree choice is the focal point of this study. A quantitative description of factors that influence student-athlete degree choice is important information for the NCAA and member institutions. It is important for these entities to uphold the balance between the student and athlete at the Division I level.

The Student-Athlete Degree Choice Questionnaire (SA-DCQ) was developed to assess the pervasiveness of factors that influence student-athlete degree choice. The scope and content of the SA-DCQ was based on (a) literature review findings to conceptualize the Division I student-athletes' sphere of influence; (b) existing relevant instrumentation; and (c) interviews with student-athletes, parents, coaches, academic athletic advisors, and faculty. Content validity was assessed through the following triangulation procedures: literature review, analyzing existing relevant instrumentation, critical review from expert panel members, and interview feedback from influential people (i.e., student-athletes, parents, coaches, and academic athletic advisors).

The individual procedures for developing and validating the SA-DCQ encompassed the following: (a) instrument and item development; (b) content validity; (c) instrument pilot test; and (d) student-athlete demographic differences. The next

section of this chapter provides a detailed account of the steps that were undertaken to prepare the SA-DCQ for data collection.

Instrument and Item Development

The SA-DCQ was designed to measure findings in the literature that depict how sociocultural influences, academic prioritization, and participation in Division I intercollegiate athletics can influence degree choice. Similar to DeWaele's (2006) instrument that was designed to measure "influential factors in the student-athletes recruiting process," a theory-based approach was not suitable for this study (p. 33). This research study was exploratory. Items were developed by gathering and synthesizing existing literature relative to student-athlete academic endeavors, NCAA policies and procedures, intercollegiate athletics, higher education, and student life. Evaluation of existing assessment tools such as the Student Athletes' Motivation toward Sports and Academics Questionnaire (Gaston-Gayles, 2005) and Career Maturity Inventory Form C (Savickas & Porfeli, 2011) were also examined and synthesized. Thus, these processes were conducted to ensure the SA-DCQ was created equal to similar instruments.

It was determined that three components were the most influential for Division I student-athletes. Literature that pertains to the sociocultural influences, athletic participation, and academic prioritization components was used to conceptualize Division I student-athletes' sphere of influence. A description of each component is as follows: (1) *sociocultural influences* articulate how pre-college influences can shape students' perception of higher education and careers, (2) *athletic participation* defines the role of Division I student-athletes and directs attention towards their academic life, and (3) *academic prioritization* utilizes academic motivation, academic self-efficacy, and

parenting style research to categorize academic behaviors of student-athletes. Each component has two or more subcomponents. The subcomponents for sociocultural influences are as follows: (a) match with interest, (b) career attributes, (c) demographic profile, (d) funding source, and (e) college preparatory influences. The academic prioritization subcomponents were (a) awareness and (b) laxity. Lastly, the athletic participation subcomponents consisted of (a) demands, (b) degree choice advisement, and (d) eligibility (refer to Appendix C for major findings/assertions). Each component has 10 or more items. However, 21 items were crafted for the sociocultural influences component.

Critical review feedback from the expert panel guided item deletions and revisions. The expert panel's background or familiarity with Division I intercollegiate athletics, coaching, higher education administration, teaching at the collegiate level, sport behavior research, scale development, and NCAA policies/procedures was a necessity for this study. SA-DCQ items that were considered redundant or ambiguous were revised or eliminated.

A total of 48 items were developed and submitted to expert panel members and influential people (i.e., student-athletes, parents, coaches, and academic athletic advisors) for review. The combined feedback from expert panel members and influential people led to the elimination of 8 items. The insight gleaned from individuals that understand the Division I student-athlete's lifestyle or the culture of intercollegiate athletics added credence to this study. Moreover, critical review processes ensured that the instrument contained purposeful factors, items, and demographic indicators (i.e., gender, class standing, admissions status, grade-point-average, sport, scholarship status, ethnicity,

educational background of parents, and household income) that are representative of most Division I intercollegiate athletic programs. To express the observed influence of instrument factors, items were written in first person and with a positive or negative orientation. Negative items were reverse scored. As a result of these processes, the instrument was whittled down to 40 items. Table 1 shows the items that comprised the initial SA-DCQ.

Table 1. Student-Athlete Degree Choice Questionnaire Items

40 Student-Athlete Degree Choice Questionnaire Items
<p>My major matches my personal interests.</p> <p>I feel class attendance is only necessary during mid-term and finals weeks.</p> <p>My major will help me get a job in my desired career field.</p> <p>Academic athletic advisors are the best source of advisement for choosing a major.</p> <p>I take notes and ask questions during class lectures.</p> <p>Most students in my major are from the same ethnic background as me.</p> <p>NCAA eligibility rules restrict my major choices.</p> <p>My academic performance is my highest priority.</p> <p>My parents support me financially (e.g., bills, transportation, spending money).</p> <p>When I need help in a class, I visit my professor during his/her office hours.</p> <p>I enjoy taking courses in my major.</p> <p>My teammates highly influenced my major choice.</p> <p>My college preparatory classes/workshops helped me prepare for the academic expectations of college.</p> <p>My major matches my career interests.</p> <p>NCAA eligibility rules limit my time to explore different subjects and choose a major.</p> <p>My ultimate goal is to just graduate from college.</p> <p>Most students in my major are the same gender as me.</p> <p>I would rather pursue a different major but I can't because I would not be eligible.</p> <p>My main interest in coming to college was to participate in my sport.</p> <p>My parents were involved in the decision-making process for my major choice.</p> <p>Beyond my academic athletic advisor, I seek academic help from other campus resources (e.g., tutoring, writing center, math lab).</p> <p>My parents highly influenced my major choice.</p> <p>I am satisfied with my major choice.</p> <p>Maintaining compliance with NCAA eligibility rules limits my power to make different academic decisions.</p> <p>My parents have high expectations for my career beyond athletics.</p> <p>I felt prepared to attend college.</p> <p>I often think about jobs in my major field that I would like to have.</p> <p>Most professionals in the career field I'm interested in are from the same ethnic background as me.</p> <p>Throughout my K-12 school experience, educators reinforced the importance of a college education.</p> <p>Most professionals in the career field I'm interested in are the same gender as me.</p> <p>My parents' academic successes influenced me to attend college.</p> <p>With the exception of athletic travel, I never miss scheduled classes in my major.</p> <p>Members of my community promoted the importance of academic success and obtaining a satisfying career.</p> <p>My coaches' input highly influenced my major choice.</p> <p>My parents monitored my academic progress in high school.</p> <p>I believe studying for a test or exam at the last minute is sufficient.</p> <p>I chose my present major to be eligible for competition.</p> <p>I came to college to increase my chances of becoming a professional athlete.</p> <p>My parents would be disappointed if I didn't graduate from college.</p> <p>I am well informed about the NCAA eligibility rules that pertain to my academic progress.</p>

Content Validity

Content validity was assessed through the following triangulation procedures: literature review, analyzing existing relevant instrumentation, critical review from expert panel members, and feedback from influential people (i.e., student-athletes, parents, coaches, and academic athletic advisors). Insight gleaned from these procedures was utilized to prepare the SA-DCQ for pilot-testing.

Pilot-Testing

Participants and Setting. Division I student-athletes that participated in instrument pilot-testing were asked to report several demographic characteristics that pertained to the study. This information was used to create a demographic profile of Division I student-athletes. The characteristics that were captured are as follows: gender, ethnicity, class standing, admissions status, grade-point-average (GPA), sport, scholarship status, major, educational background of parents, and household income. A four point Likert scale was used to provide a scaled score for each item. The response options ranged from *Strongly Agree* (SA) to *Agree* (A) to *Disagree* (D) to *Strongly Disagree* (SD). Undecided (U) was also a response option. For example, items that are transparent for a senior student-athlete may be confusing for a sophomore student-athlete. Therefore, it was a unanimous decision to allow student-athletes to use U for statements that were confusing or not applicable. Most student-athletes completed the SA-DCQ in 12 to 15 minutes.

The SA-DCQ was piloted to Division I student-athletes during the fall 2012 semester at their annual student-athlete meeting. A request for approval of this study was granted by the Office for the Protection of Research Subjects on May 9, 2012 (Appendix

A). Permission for student-athlete participation was granted by the pilot test institution's athletic director. Student-athletes were briefed on the study's purpose at their annual student-athlete meeting. Waiver of informed consent was granted for this study because eligible participants were 18 years of age or older. Also, student-athletes were told that participation was voluntary and anonymous.

Data Collection. The SA-DCQ was disseminated to eligible (i.e., sophomore, junior, and senior) student-athletes at their annual student-athlete meeting. Freshmen were excluded from pilot-testing because most have not declared a major and/or have little to no familiarity with NCAA eligibility rules that are cited in chapter 2. It was thought that access to all student-athletes at their annual student-athlete meeting would yield high participation rates. However, a small portion of the surveys were returned immediately. For this reason, additional surveys were collected at various student-athlete meetings, study hall, or submitted in-person to the student investigator from late August to mid-October. This data collection timeframe provided ample time for submission and accounted for student-athletes that travel consistently for competition.

Despite the recruitment avenues that were exhausted, a 100% participation rate could not be obtained. Perhaps, competing class or athletic obligations could have been mitigating factors for student-athletes that did not return their survey or participate in pilot-testing. Thus, one-hundred and seventy or 40.5% out of an estimated 420 Division I student-athletes participated in the instrument pilot test. Interestingly, the appropriate sample size for factor analysis instruments has been debated in the literature. Pett, Lackey, & Sullivan (2003) suggest that 10 to 15 subjects per item would produce a sufficient sample size. Similarly, Nunnally (1978) stated that 10 subjects per item are

needed to reduce sampling error. In contrast, Gorsuch (1983) claimed that, “no one has worked out what a safe ratio of the number of subjects to variable is” (p.332).

This recruitment, nonetheless, yielded a sample of student-athletes that were first-time freshmen, meaning they came to UNLV directly after they graduated from high school. This group represented 72.9% (of the study’s sample size). Two (junior/community college) and four (college/university) year student-athletes equally comprised 13.5% (of the study’s sample size). The majority of student-athlete participants possessed a full athletic scholarship. Eighty four (49.4%) student-athletes reported being on full scholarship, 45 (26.5%) reported being on partial scholarship, 40 (23.5%) student-athletes were not receiving any type of athletic aid, and one student-athlete did not report their scholarship status. Table 2 shows the distribution of student-athlete participants by admission and scholarship status.

Table 2. Admission and Scholarship Status of Participants

	n	% of Sample
<i>Admissions Status</i>		
First-Time Freshmen	124	72.9
2-Year Transfer	23	13.5
4-Year Transfer	23	13.5
<i>Scholarship Status</i>		
Full	84	49.4
Partial	45	26.5
None	40	23.5

The ethnicity distribution of the sample is shown in Table 3. As Table 3 shows, White/Caucasian student-athletes represented the greatest racial demographic as 80 (47.1%) among student-athlete participants. The gender distribution of the sample was 62 (36.5%) males and 108 (63.5%) females. Table 4 shows the participant distribution by sport. Cheer/Dance had the highest sport participation rate with 26 (15.3%), Football was second with 22 (12.9%), and Softball was third with 17 (10.0%) student-athletes.

Table 3. Ethnicity of Participants

Ethnicity	n	% of Sample
White/Caucasian	80	47.1
Black/African American	28	16.5
American Indian	21	12.4
Hispanic/Latino	21	12.4
Asian American or Pacific Islander	17	10
Other	3	1.8

Table 4. Participation by Sport

Sport	n	% of Sample
Cheer/Dance	26	15.3
Football	22	12.9
Softball	17	10.0
Women's Track & Field (Cross Country)	16	9.4
Men's Swimming/Diving	14	8.2
Women's Swimming/Diving	12	7.1
Baseball	10	5.9
Women's Basketball	10	5.9
Men's Basketball	7	4.1
Men's Tennis	7	4.1
Women's Tennis	7	4.1
Women's Soccer	7	4.1
Total	170	100.0

Tables 5 and 6 show the sample distributions for educational backgrounds and household incomes. This data shows a high rate of post-secondary education for mothers and fathers with 44 (26%) reporting associate's degrees, 106 (62%) reporting bachelor's degrees, and 43 (25%) reporting master's degrees. In addition, 72 (42%) of student-athlete participants had a household income that ranged from \$80,000-100,000 or exceeded \$100,000.

Table 5. Participant Parent Educational Background

Educational Background	n	% of Sample
<i>Mother</i>		
High School Diploma	63	37.1
Bachelors	46	27.1
Associates	23	13.5
Masters	21	12.4
Other	14	8.2
GED	2	1.2
Doctorate	1	0.6
<i>Father</i>		
Bachelors	60	35.3
High School Diploma	47	27.6
Masters	22	12.9
Associates	21	12.4
Other	17	10.0
GED	2	1.2
Doctorate	1	0.6

Table 6. Participant Parent Household Income

Household Income	n	% of Sample
More than \$100,000	44	25.9
\$50,000 - \$79,999	35	20.6
\$80,000 - \$100,000	28	16.5
\$30,000 - \$49,999	22	12.9
Less than \$30,000	22	12.9

Data Analysis. The purpose of the SA-DCQ is to quantify the pervasiveness of influences on Division I student-athletes' degree choice. Principal Components Analysis (PCA) was used to identify the components that comprise the SA-DCQ. PCA assessed the interrelationships between SA-DCQ items and identified items that load onto the same components. These items developed scales and the internal consistency of items were analyzed accordingly. Alpha was set at 0.05 to test significance. The statistical software package SPSS version 20 was used to analyze data.

Several methods were used to determine component retention. The Kaiser-Guttman rule states that only components with eigenvalues that are greater than 1 should

be retained. Eigenvalues are used to derive factor loadings, which indicate how strongly particular items are related to particular factors (Pett, Lackey, & Sullivan, 2003). In addition to eigenvalues, the scree plot was examined to identify appropriate components. Cattell was the first researcher to use the scree plot “to identify distinct breaks between the steep slope of the larger eigenvalues and the trailing off of the smaller ones” (Pett, Lackey, & Sullivan, 2003, p. 118-119). A straight line is generated by SPSS to determine where these breaks occur. The components that account for the largest possible amount of variance were retained. Finally, Cronbach’s alpha was used to determine the internal consistency of components (Pett, Lackey, & Sullivan, 2003).

Student-Athlete Demographic Differences

To examine the dataset and provide a profile of Division I student-athletes’, descriptive statistics were analyzed for demographic characteristics. Chi square analyses were used to examine differences in student-athlete responses to scaled items based on gender, ethnicity, sport, admissions status, household income, educational background of parents, and scholarship status. For chi square analyses component scales were the dependent variables and gender, ethnicity, sport, admissions status, household income, educational background of parents, and scholarship status were the independent variables. Alpha was set at 0.05 to test significance.

CHAPTER 4

DATA ANALYSIS

Results

In this chapter, the results of the study will be reported. Several procedures were undertaken to develop and validate the Student-Athlete Degree Choice Questionnaire (SA-DCQ). As stated in Chapter 3, the SA-DCQ was designed to measure factors that influence student-athlete degree choice. In addition, pilot data were analyzed to examine student-athlete differences based on demographic characteristics (e.g., gender, ethnicity, sport, admissions status, household income, educational background of parents, and scholarship status). Results are reported in four distinct sections: Item Analysis, Principle Component Analysis, Scale Development, and Student-Athlete Demographic Differences.

Item Analysis

Noteworthy levels of agreement were found between male and female student-athletes in items that were critical to instrumentation and finding in the literature (refer to Table 7). For “*My major matches my personal interests,*” 84.7% (N=144) were satisfied with their major on a personal level. For “*I often think about jobs in my major field that I would like to have,*” 84.1% (N=143) engaged in career exploration. Lastly, for “*I am well informed about the NCAA eligibility rules that pertain to my academic progress,*” 82.9% (N=141) felt they had a good understanding of NCAA eligibility rules that govern academic progress. Conversely, fewer student-athletes agreed or strongly agreed that a coach or teammate influenced their degree choice (e.g., “*My teammates highly influenced my major choice*” only 17 [10%]; “*My coaches’ input highly influenced my major*

choice” 34 [20%]). Additionally, degree impingement items of “*I chose my present major to be eligible for competition*” and “*I would rather pursue a different major but I can’t because I would not be eligible*” had 23% (N=39) and 22.9% (N=39) of student-athletes responding either agree or strongly agree.

Table 7. Percent Strongly Agree and Agree by Gender and Race/Ethnicity

Item	n	Total	Gender		Race/Ethnicity					
			M	F	BL	AI	WH	HL	AA	O
My major matches my personal interests.	144	84.7	67.7	94.5	75.0	75.1	88.8	95.2	82.4	100.0
I enjoy taking courses in my major.	135	79.4	66.2	87.0	67.9	71.5	85.0	85.7	70.6	100.0
I am satisfied with my major choice.	132	77.6	61.3	87.1	67.8	76.2	80.0	90.5	70.6	66.7
With the exception of athletic travel, I never miss scheduled classes in my major.	130	76.5	66.2	82.4	78.5	61.9	77.4	85.7	70.6	100
My major matches my career interests.	132	77.6	59.7	87.9	64.2	80.9	78.8	85.8	82.4	66.7
My major will help me get a job in my desired career field.	140	82.4	64.6	92.6	67.9	71.5	87.5	90.5	82.4	100.0
I often think about jobs in my major field that I would like to have.	143	84.1	75.8	88.8	82.2	95.3	86.3	81.0	70.6	66.6
Academic athletic advisors are the best source of advisement for choosing a major.	103	60.6	66.1	57.4	82.2	61.9	57.5	47.6	58.8	33.3
My teammates highly influenced my major choice.	17	10.0	16.1	6.5	7.2	4.8	13.7	0.0	17.6	0.0
My coaches’ input highly influenced my major choice.	34	20.0	25.8	16.7	32.2	14.3	17.4	14.3	17.6	66.6
NCAA eligibility rules restrict my major choices.	106	62.3	30.7	15.8	28.6	23.8	13.8	28.6	23.5	66.7
I chose my present major to be eligible for competition.	39	23.0	32.3	69.5	50.0	52.4	58.8	66.6	53.0	0.0
NCAA eligibility rules limit my time to explore different subjects and select a major.	47	27.6	22.6	54.6	42.9	42.8	43.7	47.6	41.2	0.0
Maintaining compliance with NCAA academic eligibility rules limit my power to make different academic decisions.	48	28.2	25.8	61.1	28.6	47.6	50.0	66.7	53.0	33.3
I would rather pursue a different major but I can’t because I would not be eligible.	39	22.9	41.9	78.7	60.7	61.9	70.0	71.4	58.8	0.0
I am well informed about the NCAA eligibility rules that pertain to my academic progress.	141	82.9	79.1	85.2	82.1	81.0	82.5	95.2	76.5	66.6
M = Male, F = Female Demographics: BL = Black/African American, AI = American Indian, WH = White/Caucasian, HL = Hispanic/Latino, AA = Asian American or Pacific Islander, O = Other										

Principle Component Analysis

Principle Component Analysis (PCA) was conducted for 40 items. PCA entails a three tier preliminary examination process. First, the correlation matrix was inspected and

indicated that correlation coefficients were greater than .3. Second, the Kaiser-Meyer-Olkin value was .766 which is considered “middling” (Pett, Lackey, & Sullivan, 2003, p. 78). Third, Bartlett's Test of Sphericity was within the statistically significant range ($p < .001$). These preliminary analyses demonstrated the appropriateness for PCA to be conducted.

In order to determine the number of components that would comprise the SA-DCQ, Cattell scree test (see Figure 1) was analyzed “to identify distinct breaks between the steep slope of the larger eigenvalues and the trailing off of the smaller ones” (Pett, Lackey, & Sullivan, 2003, p. 118-119). The scree plot identified breaks in the slope and justified the cut-off point.

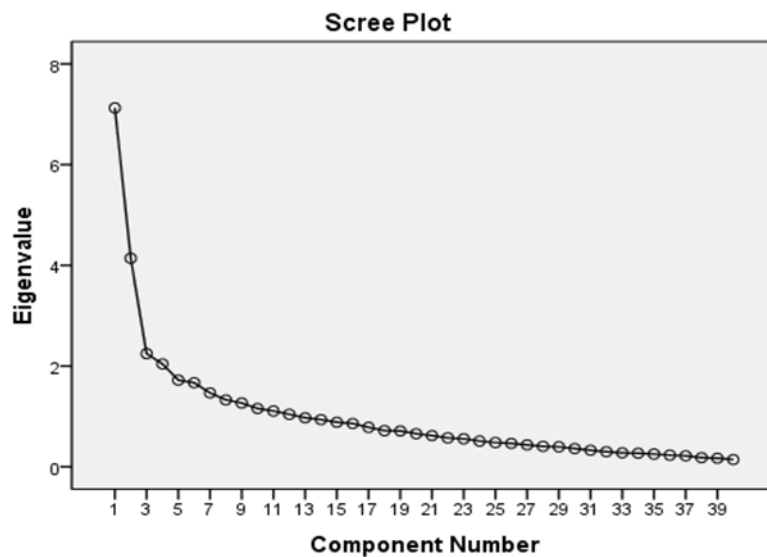


Figure 1. Cattell's Scree Test depicts the amount of variance explained by each component and identifies cut-off points by the elbowing of the Scree Plot.

Varimax rotation was used to increase interpretability and reveal items that landed on one component. The results of factor analysis yielded three components with Eigenvalues above 1.00, explaining 27.9%, 15.1%, and 8.4% (total variance 51.4%) of

the variance in the revised 13 item SA-DCQ. Items in the component matrix were suppressed at .55 to decrease the amount of items that loaded onto multiple components. Factor loadings that are .55 and have a shared variance of 30% are considered good (Comrey & Lee, 1992). This resulted in the number of items being reduced from 40 to 13 comprising three components. Table 8 lists the items, component loadings, and % of variance explained for the revised 13 item SA-DCQ.

Table 8. Component Loadings on Student-Athlete Degree Choice Questionnaire

Item	Component		
	1	2	3
My major matches my career interests.	.869		
I am satisfied with my major choice.	.832		
My major will help me get a job in my desired career field.	.805		
I enjoy taking courses in my major.	.779		
My major matches my personal interests.	.784		
I often think about jobs in my major field that I would like to have.	.674		
NCAA eligibility rules limit my time to explore different subjects and choose a major.		.820	
Maintaining compliance with NCAA eligibility rules limits my power to make different academic decisions.		.767	
I would rather pursue a different major, but I can't because I would not be eligible.		.619	
I chose my present major to be eligible for competition.		.610	
Most professionals in the career field I am interested in are the same gender as me.			.832
Most students in my major are the same gender as me.			.797
Most professionals in the career field I am interested in are from the same ethnic background as me.			.638
% of variance explained	27.9%	15.1%	8.4%

Scale Development

Three distinct components were identified, each of which accounted for a meaningful amount of the variance in student-athletes' responses to the SA-DCQ.

Component 1 comprised a total of 6 items (My major matches my personal interests; I

enjoy taking courses in my major; I am satisfied with my major choice; My major will help me get a job in my desired career field; My major matches my career interests; and I often think about jobs in my major field that I would like). This component explained the most proportion of the variance (27.9%) and together these items related to student-athletes' satisfaction with their current major and its connection to a designated career field and therefore the component was labeled, "Satisfaction with Major".

Component 2 comprised 4 items (NCAA eligibility rules limit my time to explore different subjects and select a major; I would rather pursue a different major but I can't because I would not be eligible; Maintaining compliance with NCAA academic eligibility rules limit my power to make different academic decisions; and I chose my present major to be eligible for competition). This component explained 15.1% of the total amount of variance in student-athletes' responses and comprised items that were seen as barriers to their desired major or impinged on their freedom to make decisions. Accordingly, this component was labeled, "Eligibility Barriers".

Component 3 comprised 3 items (Most students in my major are the same gender as me; Most professionals in the career field I'm interested in are from the same ethnic background as me; and Most professionals in the career field I'm interested in are from the same gender as me). This component explained 8.4% of the total amount of variance and comprised items that related to the demographic profiles of students and professionals. Thus, the component was labeled, "Demographic Matches".

Cronbach's alpha was calculated for each component to determine average correlations among items in the dataset. Cronbach's alpha calculations revealed three components (13 items) that matched theoretical constructs and met the standard .7

average for scales that utilize Cronbach alpha coefficients to determine correlations among Likert scaled items (Pallant, 2001). Table 9 shows the relabeled components and Cronbach's Alpha calculations. The Cronbach coefficient alphas for component 1, 2, and 3 range from acceptable to good ($> .7$ to $> .8$; George & Mallery, 2000) and substantiate their appropriateness for use as a scaled score.

Table 9. Relabeled Components with Cronbach's Alpha

Component	Number of Items	Cronbach Alpha
Satisfaction with Major	6	.894
Eligibility Barriers	4	.817
Demographic Matches	3	.722

Student-Athlete Demographic Differences

For the purpose of analyzing the scaled scores, student-athlete responses were collapsed and recoded as follows: (a) Strongly agree and agree were combined and were recoded as 1; (b) Strongly disagree and disagree were combined and recoded as zero; and (c) Undecided responses were coded as missing. Student-athlete responses to items that comprised component 1 were added to form a combined scaled score for Satisfaction with Major so that each participant received a single score for the component that ranged from 0-6. Items that comprised component 2 were added to form a combined scaled score for Eligibility Barriers so each participant received a single score for the component that ranged from 0-4. Finally, items that comprised component 3 were added to form a combined scaled score for Demographic Matches so that each participant received a single score for the component that ranged from 0-3.

Chi square analyses were used to examine differences in student-athlete demographics and scaled score responses for satisfaction with major, eligibility barriers,

and demographic matches. Demographic differences assessed were gender, ethnicity, sport, admissions status, household income, educational background of parents, and scholarship status. Alpha was set at 0.05 to test significance.

Table 10 shows all three scales and statistically significant chi square differences for gender. Significant differences were found between genders [$X^2(4, N=107) = 12.57, p=.014$] and the satisfaction with major scale. Significant differences were also found between genders [$X^2(4, N=74) = 22.88, p=.001$] and the eligibility barriers scale. Finally, significant differences were found between genders [$X^2(3, N=57) = 11.60, p=.009$] and the demographic matches.

Table 10 shows all three scales and statistically significant chi square differences for admission status. Significant differences were found between admission status (i.e., first-time freshmen, 2-year transfers, and 4-year transfers) and all three scales. Significant differences [$X^2(8, N=107) = 17.93, p=.022$] were found between admission status and satisfaction with major. Significant differences [$X^2(8, N=74) = 18.92, p=.015$] were also found between admission status and eligibility barriers. Finally, significant differences [$X^2(6, N=57) = 20.16, p=.03$] were found between admission status and demographic matches.

Table 10 shows all three scales and statistically significant chi square differences for sport. Significant differences [$X^2(56, N=107) = 84.85, p=.008$] were found between sport and satisfaction with major. Significant differences [$X^2(56, N=74) = 120.32, p=.001$] were also found between sport and eligibility barriers. Finally, significant differences [$X^2(42, N=57) = 62.26, p=.023$] were found between sport and demographic matches.

Table 10. Chi Square Differences between Scales and Participant Demographics

Scales	Demographics		
	Gender	Admission Status	Sport
Satisfaction with Major	$X^2(4, N=107) = 12.57, p=.014$	$X^2(8, N=107) = 17.93, p=.022$	$X^2(56, N=107) = 84.85, p=.008$
Eligibility Barriers	$X^2(4, N=74) = 22.88, p=.001$	$X^2(8, N=74) = 18.92, p=.015$	$X^2(56, N=74) = 120.32, p=.001$
Demographic Matches	$X^2(3, N=57) = 11.60, p=.009$	$X^2(6, N=57) = 20.16, p=.03$	$X^2(42, N=57) = 62.26, p=.023$

CHAPTER 5

CONCLUSION

Overview

This chapter discusses implications of SA-DCQ scales that examined student-athlete demographic differences based on satisfaction with major, eligibility barriers, and demographic matches. Instrumentation yielded 13 items with strong internal validity that comprises each scale (i.e., satisfaction with major [6], eligibility barriers [4], and demographic matches [3]). Next, a discussion of the study's limitations is provided. Subsequently, a discussion of the preliminary findings is provided to raise awareness for Division I student-athlete degree pursuit challenges and recommendations for future research is declared to build a pipeline for future research.

Implications of SA-DCQ Scales

The SA-DCQ scales allow the assessment of major factors related to Division I student-athlete degree pursuits and understanding of differences among student-athlete demographics. Results from student-athlete demographic differences on each scale show how critical gender, admission status, and sport are to socialization processes. These processes encompass student-athletes' upbringing, matriculation to an institution of higher education, and culture that is engrained in their sport. In this regard, gender, admission status, and sport can help us understand barriers to degree pursuits among different student-athlete demographics.

A brief discussion of each scale and plausible implications are provided in the following paragraphs. For *gender*, significant chi square differences were found between males and females for each SA-DCQ scale. In general, female student-athlete

participants' scaled scores differed from their male counterparts. It appears that female participants think more critically about their degree choice and preparation for the workforce. Also, the inability for most females to become professional athletes could influence their degree choice. For *admission status*, significant chi square differences were found between first-time freshman and transfers for each SA-DCQ scale.

Matriculation processes and/or time for academic exploration that is provided for first-time freshman differs from the experiences of transfers. Perhaps the time for transfers to become acclimated with the institution and academic life is the impetus for differences. For *sport*, significant chi square differences were found between sport and each SA-DCQ scale. Perhaps, the non-revenue nature of women's and Olympic sports lessens the pressure to win at all costs and provides a more balanced student-athlete experience. It seems that female and Olympic sport student-athlete participants are pursuing their desired major.

The SA-DCQ scales proved their utility and could be used by athletic support personnel to assess student-athletes' perception of their academic experience. Assessment could occur on a yearly basis or during the senior year. Division I athletic departments must have some type of internal assessment mechanism in place to share the accountability of providing athletes an equitable student and athlete experience. Professionals (i.e., administrators, coaches, and athletic support personnel) in the athletic domain influence student-athletes' at their institution. The type of influence can vary and the most influential source can be unknown without routine assessment. Ultimately, athletic directors are held responsible for academic violations and NCAA infractions.

Athletic directors should consider the utilization of instruments like the SA-DCQ to know how their student-athletes perceive their academic and athletic life.

Limitations of the Study

Although the study was endorsed by the athletic director and head coaches, it was challenging to recruit student-athletes. A small portion of surveys were obtained (N=170), far short of the participant recruitment goal of 300 student-athletes. The difficulty in recruiting student-athletes for participation and related observations is a phenomenon worthy of discussion because it relates directly to the study. The student-athlete participation shortfall can be attributed to a few mitigating factors. First, the late August to mid-October data collection timeframe could have been the cause for low participation rates. During this time period, some student-athletes could have been unavailable due to athletic travel or time constraints (e.g., class attendance, study hall, or practice). Second, student-athletes that did not participate in the pilot of the instrument may be consumed with their athletic life and have limited interest in academic pursuits. This behavior towards academic pursuits relates to the lax disposition that is discussed in the academic prioritization section in chapter 2.

Few transfer (i.e., 2-year) student-athletes (that are the most vulnerable to degree pursuit challenges) participated in pilot-testing. Moderate to high participation rates were desired for transfers because graduation is foreseeable for these student-athletes. Moreover, the plight of 2-year transfer student-athletes' who were classified as NQs (i.e., high school student-athletes who failed to meet NCAA initial-eligibility requirements for intercollegiate athletics) was documented thoroughly in chapter 2. Due to the sample size of 2-year transfers, findings in the literature could not be measured adequately. Efforts to

learn more about 2-year transfers (especially NQs) that are recruited by Division I institutions should continue to ensure they are provided with the opportunity to optimize their academic experience.

While findings in the literature stated that differences exist between race and SES, differences could not be identified due to a biased sample. The majority of student-athlete participants were female 108 (63.5%) and White/Caucasian 80 (47.1%) with household incomes in the \$80,000 or \$100,000 range and college-educated parents. A more diverse sample was desired for pilot-testing. Furthermore, findings in the literature (refer to Table 11) or assertions that were made about degree impingement were thought to be more prevalent with minorities, Football, and Men's Basketball student-athletes. Nonetheless, the sample distribution lacked representation of low SES families, 2 and 4 year transfers, and minority student-athletes.

Preliminary Findings

This study has made significant contributions to understanding the phenomenon of student-athlete degree pursuits. An instrument was validated that can help quantify the prevalence of degree pursuit challenges that student-athletes experience and it will help identify disparities that may exist within the student-athlete population based on demographics. Pilot data show statistically significant difference between males and female. Despite racial backgrounds and SES, more can be done in terms of intervention for male student-athletes. Results indicate that female student-athletes are more likely than male to pursue degrees that are linked to a career path.

The allure of professional sports and affluent lifestyle is an obvious distraction for male Division I student-athletes (especially football and Men's basketball). Pre-college

interventions (i.e., publications endorsed by professional athletes for parents and student-athletes, emails that communicate the expectations of an institution of high education, and webinars with professional athletes that talk about life after sports) during the recruitment and NCAA certification process are needed to make sure student-athletes are fully aware of the consequences for not pursuing a degree with a foreseeable career path. Extensive pre-college intervention is needed because few male student-athletes advance to the professional ranks and have worthwhile careers. More emphasis must be placed on career identified and preparation to expose historically underrepresented (i.e., low SES and racial minorities) student-athletes to careers that exist outside of professional sports. Authorities (i.e., NCAA, conference officials, and member institutions), male student-athletes, and parents share accountability for career advancement. Undoubtedly, the opportunity to pursue higher education is the student-athletes' payment for their athletic participation. However, without policies and procedures that have programmatic outcomes, some male student-athletes will inevitably miss the intended purpose of higher education. Authorities should continue to support studies that assess degree pursuit challenges within historically underrepresented (i.e., low SES and racial minorities) student-athlete populations because they are responsible for their well-being. Thus, authorities have the ethical and moral obligation to put student-athletes in the best position to be ready for life after intercollegiate athletics.

Although pilot data identified disparities among student-athlete degree pursuits based on demographic characteristics, replication will be needed to substantiate NCAA rule revision. Future related studies will need to delve deeper into the literature and include qualitative analysis to ascertain if student-athletes' understand the breadth and

depth of the professed degree impingements. Also, future related studies with larger sample sizes and robust statistical analyses are needed to assess student-athlete degree pursuits among populations (i.e., low SES families, 2-year transfers, and minority student-athletes) that are more vulnerable to degree pursuit challenges. Thus, further research is needed to validate this phenomenon and advocacy claims for vulnerable student-athletes in the academic realm.

APPENDIX A



Social/Behavioral IRB – Expedited Review Approval Notice

NOTICE TO ALL RESEARCHERS:

Please be aware that a protocol violation (e.g., failure to submit a modification for any change) of an IRB approved protocol may result in mandatory remedial education, additional audits, re-consenting subjects, researcher probation, suspension of any research protocol at issue, suspension of additional existing research protocols, invalidation of all research conducted under the research protocol at issue, and further appropriate consequences as determined by the IRB and the Institutional Officer.

DATE: May 9, 2012

TO: **Dr. Monica Lounsbury**, Sports Education Leadership

FROM: Office of Research Integrity - Human Subjects

RE: Notification of IRB Action
Protocol Title: **Division I Student-Athlete Degree Choice Assessment**
Protocol #: 1203-4091
Expiration Date: May 8, 2013

This memorandum is notification that the project referenced above has been reviewed and approved by the UNLV Social/Behavioral Institutional Review Board (IRB) as indicated in Federal regulatory statutes 45 CFR 46 and UNLV Human Research Policies and Procedures.

The protocol is approved for a period of one year and expires May 8, 2013. If the above-referenced project has not been completed by this date you must request renewal by submitting a Continuing Review Request form 30 days before the expiration date.

PLEASE NOTE:

Upon approval, the research team is responsible for conducting the research as stated in the protocol most recently reviewed and approved by the IRB, which shall include using the most recently submitted Informed Consent/Assent forms and recruitment materials. The official versions of these forms are indicated by footer which contains approval and expiration dates.

Should there be *any* change to the protocol, it will be necessary to submit a **Modification Form** through ORI - Human Subjects. No changes may be made to the existing protocol until modifications have been approved by the IRB. Modified versions of protocol materials must be used upon review and approval. Unanticipated problems, deviations to protocols, and adverse events must be reported to the ORI – HS within 10 days of occurrence.

If you have questions or require any assistance, please contact the Office of Research Integrity - Human Subjects at IRB@unlv.edu or call 895-2794.

Office of Research Integrity - Human Subjects
4505 Maryland Parkway • Box 451047 • Las Vegas, Nevada 89154-1047
(702) 895-2794 • FAX: (702) 895-0805

APPENDIX B

STUDENT-ATHLETE DEGREE CHOICE QUESTIONNAIRE

Gender (check <input checked="" type="checkbox"/> your response): Male _____ Female _____		Class Standing (SO, JR, or SR): _____
Admissions status (check <input checked="" type="checkbox"/> your response): First-Time freshman _____ 2-year transfer (junior or community college) _____ 4-year transfer (university or college) _____		GPA: _____ Sport: _____
Scholarship status (check <input checked="" type="checkbox"/> your response): Full _____ Partial _____ None _____		Current major: _____
Was this major selected during the admissions process? If no, what was your initial major? _____		
Ethnicity (check <input checked="" type="checkbox"/> your response): Black/African American _____ American Indian _____ White/Caucasian _____ Hispanic/Latino _____ Asian American or Pacific Islander _____ Other _____		
Educational background of parents (Circle your response): Mother: Doctorate Master's Bachelor's Associate's High School diploma GED Other Father: Doctorate Master's Bachelor's Associate's High School diploma GED Other		
Single or dual-parent household income (check <input checked="" type="checkbox"/> your response): _____ Less than \$30,000 _____ \$30,000 - \$49,999 _____ \$50,000 - \$79,999 _____ \$80,000 - \$100,000 _____ More than \$100,000		

DIRECTIONS:

Your responses to items on the Student-Athlete Degree Choice Questionnaire (SA-DCQ) should reflect your feelings and beliefs about subjects addressed in each item. There is no right or wrong answer.

Example:

I am satisfied with my major choice.

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

If you are satisfied with your major you would circle "SA" for strongly agree. If you are not satisfied with your major you would circle "SD" for strongly disagree. If the statement is confusing or does not apply to you, please circle "U" for undecided. If you have questions or concerns about this questionnaire, please contact the student investigator at 702-895-5354.

Thank you for completing the SA-DCQ.

THIS QUESTIONNAIRE WILL REMAIN CONFIDENTIAL AND PARTICIPANTS ARE NOT REQUIRED TO RELEASE ANY PERSONAL INFORMATION (NAMES, ADDRESSES, ID#, ETC). THE INFORMATION COLLECTED WILL ONLY BE USED FOR PRELIMINARY ANALYSIS.

SA Strongly Agree	A Agree	U Undecided	D Disagree	SD Strongly Disagree
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1	My major matches my personal interests.	SA	A	U	D	SD
2	I feel class attendance is only necessary during mid-term and finals weeks.	SA	A	U	D	SD
3	My major will help me get a job in my desired career field.	SA	A	U	D	SD
4	Academic athletic advisors are the best source of advisement for choosing a major.	SA	A	U	D	SD
5	I take notes and ask questions during class lectures.	SA	A	U	D	SD
6	Most students in my major are from the same ethnic background as me.	SA	A	U	D	SD
7	NCAA eligibility rules restrict my major choices.	SA	A	U	D	SD
8	My academic performance is my highest priority.	SA	A	U	D	SD
9	My parents support me financially (e.g., bills, transportation, spending money).	SA	A	U	D	SD
10	When I need help in a class, I visit my professor during his/her office hours.	SA	A	U	D	SD
11	I enjoy taking courses in my major.	SA	A	U	D	SD
12	My teammates highly influenced my major choice.	SA	A	U	D	SD
13	My college preparatory classes/workshops helped me prepare for the academic expectations of college.	SA	A	U	D	SD
14	My major matches my career interests.	SA	A	U	D	SD
15	NCAA eligibility rules limit my time to explore different subjects and choose a major.	SA	A	U	D	SD
16	My ultimate goal is to just graduate from college.	SA	A	U	D	SD
17	Most students in my major are the same gender as me.	SA	A	U	D	SD
18	I would rather pursue a different major but I can't because I would not be eligible.	SA	A	U	D	SD
19	My main interest in coming to college was to participate in my sport.	SA	A	U	D	SD
20	My parents were involved in the decision-making process for my major choice.	SA	A	U	D	SD
21	Beyond my academic athletic advisor, I seek academic help from other campus resources (e.g., tutoring, writing center, math lab).	SA	A	U	D	SD
22	My parents highly influenced my major choice.	SA	A	U	D	SD
23	I am satisfied with my major choice.	SA	A	U	D	SD
24	Maintaining compliance with NCAA eligibility rules limits my power to make different academic decisions.	SA	A	U	D	SD
25	My parents have high expectations for my career beyond athletics.	SA	A	U	D	SD
26	I felt prepared to attend college.	SA	A	U	D	SD
27	I often think about jobs in my major field that I would like to have.	SA	A	U	D	SD
28	Most professionals in the career field I'm interested in are from the same ethnic background as me.	SA	A	U	D	SD
29	Throughout my K-12 school experience, educators reinforced the importance of a college education.	SA	A	U	D	SD

SA Strongly Agree	A Agree	U Undecided	D Disagree	SD Strongly Disagree
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30	Most professionals in the career field I'm interested in are the same gender as me.	SA	A	U	D	SD
31	My parents' academic successes influenced me to attend college.	SA	A	U	D	SD
32	With the exception of athletic travel, I never miss scheduled classes in my major.	SA	A	U	D	SD
33	Members of my community promoted the importance of academic success and obtaining a satisfying career.	SA	A	U	D	SD
34	My coaches' input highly influenced my major choice.	SA	A	U	D	SD
35	My parents monitored my academic progress in high school.	SA	A	U	D	SD
36	I believe studying for a test or exam at the last minute is sufficient.	SA	A	U	D	SD
37	I chose my present major to be eligible for competition.	SA	A	U	D	SD
38	I came to college to increase my chances of becoming a professional athlete.	SA	A	U	D	SD
39	My parents would be disappointed if I didn't graduate from college.	SA	A	U	D	SD
40	I am well informed about the NCAA eligibility rules that pertain to my academic progress.	SA	A	U	D	SD

APPENDIX C

Table 11

Degree Choice Influences

Major Constructs	Author(s)	Study Summaries/Anecdotes	Major Findings/Assertions	SA-ADCO Item (s)
<i>Academic Prioritization</i>				
Awareness	Turner, Chandler, & Hefter (2009); Bowen & Levin (2003)	"the more a student believes she/he is capable of achieving in her/his academic studies, the more likely she/he is to actually succeed academically". Academic performance "depends on interests, motivation, time management skills, creativity, and other late-developing qualities that no battery of tests captures well".	Students who possess an inherent desire to perform well academically are active participants and not spectators in the classroom.	8. My academic performance is my highest priority. 5. I take notes and ask questions during class lectures. 12. When I need help in a class, I visit my professor during his/her office hours. 21. Beyond my academic athletic advisor, I seek academic help from other campus resources (e.g., tutoring, writing center, math lab). 26. I felt prepared to attend college.
Laxity	Snyder (1996); Simons, Van Rheenen, & Covington (1999)	"Division I sports serve as training and recruiting agencies for professional sports". Student-athletes who are recruited for a revenue generating sport (football or Men's basketball) have more difficulty (than their non-revenue counterparts) with transferring the work ethic that is required for performing at a high level for athletics to the academic realm. Precollege educators must find ways to assess the academic needs of "gifted athletes to balance the attention they receive for their athletics exploits".	Keeping a Division I student-athlete intrinsically focused on academic pursuits can be difficult when the extrinsic rewards (e.g., money, celebrity, preferential treatment, etc.) of professional sports is highly televised and woven into American culture.	2. I feel class attendance is only necessary during mid-term and finals weeks. 16. My ultimate goal is to just graduate from college. 19. My main interest in coming to college was to participate in my sport. 38. I came to college to increase my chances of becoming a professional athlete. 36. I believe studying for a test or exam at the last minute is sufficient.
<i>Sociocultural Influences</i>				
Match with interest	Beggs et al. (2008)	832 students surveyed. Match with Interest was the highest rated factor out of 6 factors for degree choice.	Students think critically about their degree choice and seek degree programs that appeal to their personal interest.	1. My major matches my personal interests. 11. I enjoy taking courses in my major. 23. I am satisfied with my major choice. 32. With the exception of athletic travel, I never miss scheduled classes in my major.
Career Attributes	Collins & Giordani (2004)	68.4% of students surveyed chose their major for its <u>Career Attributes</u> .	Students choose degree programs that coincide with their career aspirations.	14. My major matches my career interests. 3. My major will help me get a job in my desired career field. 27. I often think about jobs in my major field that I would like to have. 6. Most students in my major are from the same ethnic background as me. 30. Most students in my major are the same gender as me. 28. Most professionals in the career field I'm interested in are from the same ethnic background as me. 32. Most professionals in the career field I'm interested in are from the same gender as me.
Demographic Profile	Smith, (1983); Jacobs, (1986); Solnick, (1995); Lackland, (1995); (2001); Porter & Umbach, (2006)	"Race is the more preponent factor in determining one's status, income and career development". "Women usually select majors like education, English, and nursing because there is a strong female representation".	A student's race can shape their perception of the educational system and workforce. Students select majors that are traditionally pursued by people of their same gender and race.	

Funding Source	Kerr (1991); Vinyi, (2009)	<p>"Children from High SES families choose lucrative college majors".</p> <p>"Most parents push their children toward majors like business, engineering, and health fields. These majors are more predictable in terms of future jobs and earnings than liberal arts majors".</p>	Students from higher SES families are groomed to pursue college majors that provide career mobility. Families that fund their child's education are involved in academic decisions. Families that fund their child's education are usually involved in every academic decision the child makes. High SES parents have the educational background and resources to effectively manage their child's pre-college experiences.	<p>10. My parents support me financially (e.g., bills, transportation, spending money).</p> <p>20. My parents were involved in the decision-making process for my major choice.</p> <p>22. My parents highly influenced my major choice.</p> <p>25. My parents have high expectations for my career beyond athletics.</p> <p>31. My parents' academic successes influenced me to attend college.</p> <p>35. My parents monitored my academic progress in high school.</p> <p>39. My parents would be disappointed if I didn't graduate from college.</p>
College Preparatory Influences	Sharp & Shellely (2008); Kelly (2009)	<p>"Coaches can have a major impact on all facets of their student athletes' lives, with the influence extending well beyond the playing field or gymnasium".</p> <p>Academic advising is a necessity, and is linked to "student success".</p>	Without proper parental support and advisement from educators, a student-athlete's purpose for attending a 4-year institution can be purely athletic (rather than a balanced student and athletic mentality).	<p>13. My college preparatory classes/workshops helped me prepare for the academic expectations of college.</p> <p>29. Throughout my K-12 school experience, educators reinforced the importance of a college education.</p> <p>33. Members of my community promoted the importance of academic success in obtaining a satisfying career.</p>
<i>Athletic Participation</i>				
Demands	Singer, (2008); Steeg et al., (2008)	"You practice nine months for three months of games". They also have to realize, when they decide to pursue athletics; there are time commitments and parameters around that."	Division I student-athletes' exceed the NCAA's 20-hour rule for weekly practice/competition. Complaints are withheld to maintain status within the team or opportunity to compete for playing time.	<p>20. I would rather pursue a different major but I can't because I would not be eligible.</p>
Degree Choice Advisement	Fountain & Finley, (2009)	"You have to be somewhat directed. Everyone doesn't get in this world to do everything they want to".	Student-athletes likely receive counsel (i.e., from parents, coaches, academic athletic advisors, teammates, etc.) and some have no choice (i.e., NOS) to accept (rather than choose) their college major to stay eligible for competition.	<p>4. Academic athletic advisors are the best source of advisement for choosing a major.</p> <p>12. My teammates highly influenced my major choice.</p> <p>34. My coaches' input highly influenced my major choice.</p>
Eligibility	Meyer, (2005); Kutlus, (2006)	<p>"The 40/60/80 requirement forces student-athletes to stick to a major once they reach a certain point, even if they change their minds, otherwise, they forego competing".</p> <p>"1,000 student-athletes surveyed; the majority felt the 40/60/80 rule limited career options, caused anxiety during degree selection, or punished them for changing their major".</p>	The 40/60/80% rule requires student-athletes to complete their college degree in an expeditious manner. The 40/60/80% rule can impinge on academic decisions (i.e., degree choice) that prepare student-athletes for life after intercollegiate athletics.	<p>7. NCAA eligibility rules restrict my major choices.</p> <p>37. I choose my present major to be eligible for competition.</p> <p>15. NCAA eligibility rules limit my time to explore different subjects and select a major.</p> <p>24. Maintaining compliance with NCAA academic eligibility rules limit my power to make different academic decisions.</p> <p>18. I would rather pursue a different major but I can't because I would not be eligible.</p> <p>40. I am well informed about the NCAA eligibility rules that pertain to my academic progress.</p>

Research Questions

- a. What factors influence student-athlete degree choice?
- b. Does participation in intercollegiate athletics influence student-athlete degree choice differently based on demographic characteristics (i.e., gender, ethnicity, sport, admissions status, household income, educational background of parents, and scholarship status)?

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