

DISSERTATION

ACADEMIC ENGAGEMENT: UNIVERSITY STUDENT ATHLETES

META-ANALYSIS

Submitted by

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## ABSTRACT

### ACADEMIC ENGAGEMENT: UNIVERSITY STUDENT ATHLETES META-ANALYSIS

The purpose of this analysis was to understand the role of academic engagement for university student athletes' perceptions of how academic engagement influences their academic success. The meta-analytical process in this study focused on student athletes' awareness of the academic environment and opportunities for engagement and interpretation of how these factors influence their academic performance (e.g., comments like "Having an open study hall available every day, along my path to class and practice that includes study resources removes so many obstacles to staying focused on my class work.").

From the analysis of the students' perceptions, the intent was to review academic engagement constructs and their relationships with National Collegiate Athletic Association Academic Progress Rating, U.S. Department of Education, and National Student Survey of Engagement standards for the purpose of identifying how these are similar and different. Similarities and differences inform advising/guiding students' understanding of the scholarship expectations, their interactions with faculty and staff, and their performance as students. In addition, it was important that this study inform coaches, administrators, and faculty about pedagogical strategies and environmental conditions supporting scholarship student athletes' academic engagement and academic performance.

The analysis stage of this meta-analytical study systematically discovered data that answered this study's research questions in whole or part. Methodology provided guidance for

discovering key findings focused on the impact of environmental settings influencing academic engagement. Examples of prosocial environment influences on academic engagement, defined by social emotional learning theory, provided findings linked to improving student athletes' academic performance. That being said, there were no concrete literature intersections, but there were literature references implying that student athletes may connect prosocial environments to academic engagement or academic performance.

As the data crystallized themes and patterns emerged indicating that student athletes did not connect academic engagement or their academic performance to maintaining their scholarship or participation on their teams. In addition, this study found student athletes academically engaged in the presence of a socially and emotionally competent instructors. It was shown in the findings, pedagogical strategies used by instructors promoting social emotional constructs created an engaging and competent environment resulting in academic performance improvement.

Key words: Academic Engagement, Academic Performance Rating (APR), Social Emotional Learning, Social Emotional Competence,

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## DEDICATION

This study is dedicated to my wife first and foremost. Second, I could not have completed this study without the encouragement and challenge provided as rigorous guidance from Dr. Carole Makela.

I further dedicate this study and future research to student athletes who deserve to be considered as students preparing for their challenging roles as elite athletes.

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## PREFACE

*Tyler (a composite characterization of university student athletes) was recruited in the same manner any talented high school athlete maybe recruited for a Division One scholarship to play a major sport. Division One is the highest competitive level of college sports and for a high school football player the offer of a full ride scholarship (four years of college education paid in full) is the next step toward playing professionally. During my time as Tyler's academic advisor I realized earning a scholarship was especially important to Tyler. Regretfully his passion for graduating was not equal to his desire for a scholarship.*

*During freshman orientation I gave a presentation regarding college academic behavior expectations to student athletes. Tyler quickly discovered the National College Athletic Association (NCAA) rules which govern the level and type of academic support student athletes are allowed, did not meet/provide the advantages he expected. During one-on-one meetings Tyler would share frustration and confusion regarding not receiving enough "slack" regarding homework or more time to write papers. "I am a leet", he would say. Upon questioning I took that to have a dual meaning--elite, deserving special treatment and an athlete with expectations for rules that were different then non-athletes. As I observed interaction with his peers Tyler was not the only one who appeared surprised about the lack of instruction toward student athlete behavior. He was additionally shocked when university academic expectations were higher than the NCAA rules. I recall one academic performance meeting when Tyler was late for our appointment and he seemed to show no regret for his action.*

*The first student meeting, one on one or in a group, with academic advisors gathers information about the student athletes. A composite of student athletes' background, would resemble a description similar to this. Tyler was raised by his single mom in a large city and went to a high school with a student body that was almost 4,000 students. This was relevant because Tyler's athletic skills had provided him with a positive image in this large community. Tyler's positive school image influenced how he was viewed in his neighborhood. Tyler was offered free meals and clothes (from the community and school) and provided latitude in completing course assignments or attending classes on time. Hearing these stories gave me concern as I recalled student athletes' surprise that college academic behavior and expectations were not the same as their experiences in high school. Their stories suggested that high school experiences were not rigorous and student athletes' above average GPAs were not a true reflection of strong study habits or mastery of high school course material that were prerequisites for acceptance into college.*

*Tyler believed he was entitled and deserving of the advantages he had been given because of his status as an athlete. When he arrived at college, a thousand miles from home, he expected the same privileges should continue. As Tyler told me, "I am the fastest player here, and I've proved it, they owe me!" After a closer review of Tyler's course work--products he expected papers to be written for him, instructors to look the other way when he skipped class, and answers provided to course assignments.*

*A daily part of my role as academic advisor was monitoring student athletes' academic performance. After many reports, that Tyler was not attending class, asking other students to complete his assignments, and not requesting assistance from instructors, it was these types of behavior that I advised against and offered strategies for correction. With the repeated*

*occurrence of these behaviors Tyler's academic disengagement created a grade point average below eligibility limits and jeopardized retaining his scholarship. Eventually the pressure to remain eligible (NCAA) and meet the university academic guidelines was too rigorous. I recall increased tardiness and a GPA so low that there was not enough time to become academically eligible. During the second semester of his freshman year his scholarship was taken, and he was sent home to face the community that enabled him.*

*Tyler is no longer enrolled in college because he failed to maintain an acceptable grade point average. Perhaps that was fortunate for Tyler? Even if Tyler met his grade point average and went to class, he may have been in violation of academic integrity standards and been expelled. I was concerned that the lack of preparation and security gave Tyler too clear a path to violate the academic integrity standards as he looked to others to satisfy his academic requirements. I recall many conversations I overheard between students and the many times coaches or instructors contacted me regarding how to assist Tyler. Too often the word "assist" was not defined with any specific strategy.*

*Initially my interest in Tyler was to advise him to meet requirements and be successful as my position required, but as Tyler's behavior and story took form, I realized that Tyler was an extreme, but not isolated, set of circumstances that could impact student athletes' academic performance. It is behaviors and the story they create that has motivated me to discover more about the connections among student athletes' engagement, defining their interest in academics, and why they are motivated to be engaged academically.*

## CHAPTER ONE: INTRODUCTION

University student athletes sign a National Letter of Intent (NLI, Appendix B) to begin their intercollegiate journey. Each year in February, student athletes may also sign a scholarship agreement (Appendix C) for each of four years' eligibility. In each document there is language which details the terms and conditions for maintaining and renewal/continuance of the scholarship. The language in the scholarship agreement and National Letter of Intent do not include phrases that refer to (a) academic engagement, (b) academic performance, or (c) graduation rates. According to Svanum and Bigatti (2009), these are variables for evaluating academic performance and yet these same factors are not found in the National Letter of Intent or scholarship agreement. An example of this is shown in Table 1. Svanum and Bigatti (2009) stated the "skill-effort component" that creates conditions needed to promote academic engagement are contrary to the university's scholarship guidelines listed below in Table 1. (Appendix C, line 4, Part (e)). Institution scholarship guidelines are focused on rule compliance and not academic performance and engagement.

Table 1  
*Excerpted from Athletic Financial Aid Agreement*

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I am aware that the amount of this aid may be reduced or canceled during the period of this award if:

- (a) I become ineligible for intercollegiate competition.
  - (b) I give false information on my application, letter of intent or financial aid agreement.
  - (c) I engage in serious misconduct resulting in disciplinary action.
  - (d) I fail to abide by NCAA, MWC, CSU or Athletic Department rules and regulations, the specific written rules of my sport, or the CSU Student Conduct Code.
  - (e) I become academically disengaged; e.g., low or no class attendance, failure to participate in activities related to my academic success, failure to complete course work, failure to comply with Athletic Academic Services requirements and policies.
  - (f) I voluntarily withdraw from the sport.
-

The National Letter of Intent document (Appendix B) intersects with the scholarship agreement (Appendix C) by including phrases such as “violating institution rules” or “not attending classes,” and yet the intersections do not indicate that athletic scholarships are sustained by students being academically engaged. The scholarship agreement (Appendix C) references academic disengagement as not attending class, failing to participate in academic activity, failing to complete coursework, and failing to comply with Athletic Academic Services policies. Disengagement implies a lack of social emotional awareness for constructs such as self-efficacy and self-management (Elias, 2004) that define relationships derived from “school engagement” (Furlong, Whipple, St. Jean, Simenthal, Soliz, & Punthuna, 2003) while improving academic performance. In Tyler’s case, disconnection and academic disengagement resulted in eventual departure.

When student athletes have a disconnect and may be in violation of scholarship agreement and university academic guidelines, how can they be held totally responsible when clear definitions, guidelines, and implications/consequences were not shared regarding the scholarship? As athletic academic advisor, I was aware Tyler was not given a detailed explanation regarding his scholarship agreement and his behavior that led to invalidating that agreement. The consequences related to this outcome stopped financial support, which may or may not have resulted in the student athlete leaving school. That being said, coaches, academic advisors, and athletic administrators considered Tyler a responsible young adult, due to his age (18 or older), while presuming he had been informed about and understood the scholarship guidelines.

When student athletes sign the National Letter of Intent and the scholarship agreement, it is with the understanding that the agreement is renewable each year, and the necessary resources

to earn a college degree while playing sports will be available. Based on the National Letter of Intent guidelines and the scholarship agreement, student athletes are offered facilities, schedules, books, and tuition. That, according to Gaston-Gayles (2004), was not enough guidance or motivation for student athletes to create relationships with instructors, visit the campus library, or pursue any number of actions that define proactive academic engagement. According to Jennings and Greenberg (2009), building connections with instructors, student peers, and the physical layout of the campus were essential for maintaining a high level of academic engagement.

Tyler, based on his behavior and withdrawal, did not receive training for how to be academically engaged. Release from his scholarship was based on academic disengagement. Instructor attendance records and my experience as Tyler's academic advisor documented the evidence of his academic disengagement. So how were these constructs that make up the definition for academic engagement so unclear as they applied to student athletes' and Tyler's academic plans?

### Conceptual Framework

The conceptual framework for this meta-analysis study examines student athlete's scholarship eligibility by examining the depth of understanding student athletes have for academic engagement. Literature points to academic engagement, academic performance rating (APR), and grade point average (GPA) as indicators of academic disengagement. For example, Tyler's academic plan did not intersect the constructs of academic engagement with his academic eligibility requirements creating a situation where Tyler became academically disengaged.

Table 2 details three definitions for academic engagement. Comparing these definitions clarifies intersections between academic engagement and student athletes sustaining their

academic eligibility. For example, the NCAA’s National Letter of Intent definition section (e) in Table 1 is very similar to the compliance parameters listed in the student athlete’s scholarship agreement.

Table 2  
*Selected Student Athletes’ Eligibility Related to Academic Engagement Definitions*

<b>Author</b>	<b>Academic Engagement Definition</b>
NCAA-NLI (2011) Appendix B	<p>3. Provisions of Letter Satisfied.</p> <p>a. One-Year Attendance Requirement. The terms of this NLI shall be satisfied if I attend the institution named in this document for one academic year (two semesters or three quarters) as a full-time student.</p> <p>b. Two-Year College Graduation. After signing this NLI while in high school or during my first year of full-time enrollment at a two-year college, the terms of this NLI will be satisfied if I graduate from the two-year college</p>
Financial Aid Agreement (2014) Appendix C	<p>(a) I become ineligible for intercollegiate competition .</p> <p>(b) I give false information on my application, letter of intent or financial aid agreement.</p> <p>(c) I engage in serious misconduct resulting in disciplinary action.</p> <p>(d) I fail to abide by NCAA, MWC, CSU or Athletic Department rules and regulations, the specific written rules of my sport, or the CSU Student Conduct Code.</p> <p>(e) I become academically disengaged; e.g., low or no class attendance, failure to participate in activities related to my academic success, failure to complete course work, failure to comply with Athletic Academic Services requirements and policies.</p> <p>(f) I voluntarily withdraw from the sport.</p>
U.S. Department of Education (2009)	<p>CH-A5: In general, a week of instructional time is any seven-day period in which at least one day of regularly scheduled instruction or examination occurs; instructional time does not include vacation time, homework, or periods of counseling or orientation. Thus, in any seven-day period, a student is required to be academically engaged through, for example, classroom attendance, examinations, practicum, laboratory work, internships, and supervised studio work. In the case of distance education and correspondence education, academic engagement would include, <u>but not be limited to</u>, submitting an academic assignment; taking an exam, an interactive tutorial, or computer-assisted instruction; attending a study group that was assigned by the institution; contributing to an academic online discussion; and initiating contact with a faculty member to ask a question about the academic subject studied in the course. Merely logging into the electronic classroom <u>does not</u> constitute academic engagement.</p>

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NSEE (2013)	<p>The NSSE’s definition of engagement suggests that engagement is largely a matter of behavior on the part of students, something students can be observed doing.</p> <p>The NSSE measures “student behaviors highly correlated with many desirable learning and personal development outcomes of college.” These behaviors include such standard college experiences as faculty-student contact, participation in collaborative learning experiences, and number of hours spent per week on homework. Besides student behaviors, the survey assesses “institutional features” thought to correlate with learning, such as a “supportive campus environment.”</p>
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Comparing these definitions investigates the impact of academic engagement for college and university student athletes on their academic performance. This analysis was interested in determining student athletes’ awareness of factors common to both United States Department of Education (USDOE), National Survey of Student Engagement (NSSE), and the role of social emotional learning theory (SEL). The intent of this analysis was to identify and compare academic engagement factors and their relationships with National Collegiate Athletic Association (NCAA) Academic Progress Rating (APR), U.S. Department of Education’s and NSSE’s standards for academic engagement (NCAA, 2011; Svanum & Bigatti, 2009; U.S. Department of Education, 2009). SEL constructs brought attention to the influence of learning environments on academic engagement behaviors. Three different *learning* environments were integrated into this analysis—traditional classrooms, athletic training facilities (practice and game), and formal study halls. The analysis considered teaching methods that college teachers and coaches use with the intent to engage all students, which may not directly correlate to the definitions stated by agencies and institutions that issue and regulate the awarding, renewing, or withdrawing of academic athletic scholarships (Elias 2004; Goleman, 2002; Zins, Bloodworth, Weissberg, & Walberg, 2004).

Lack of clarity in the definition for academic engagement could produce inconsistent pedagogical practices as well as diminished development of enriching learning environments. Gunn, Richburg, and Smilkstein (2007) pointed to the impact and importance that an enriched environment has on students' academic engagement and their resulting academic performance. However, there is a greater body of literature focused on factors such as graduation rate, GPA, and athlete academic eligibility (referenced to eligibility from now on) with no inclusion or consideration for the factors relevant to academic engagement. These factors are known as *cognitive factors* and are used frequently by college academic advisors (Gaston-Gayles, 2004; Leslie-Toogwood, Gill, & Tinsley, 2009) to evaluate academic performance and behaviors that represent academic engagement (NSSE, 2013).

Gaston-Gayles (2004) cited seven *noncognitive factors* that student athletes may practice to be academically engaged: (a) positive self-concept, (b) realistic self-appraisal, (c) understanding and dealing with racism, (d) setting long term goals, (e) strong support system—such as family and friends, (f) leadership experiences, and (g) community service experiences. The connection of these factors to improved GPA, graduating from college in four years, and staying eligible over four years of college with social emotional behavior or as Gaston-Gayles (2004) stated “*noncognitive factors* are more accurate predictors of academic performance over four years than *cognitive factors* (GPA and standardized test scores—Scholastic Aptitude Test (SAT))” (p. 75). It is critical to compare and contrast cognitive student athletes' academic performance measures (grade point average and standardized test results) and measures that examine noncognitive performance (Gaston-Gayles, 2004). For example, Tyler's disengagement with instructors (strong support system) and other noncognitive factors such as low—and on specific occasion lack of—self-appraisal and leadership (Gaston-Gayles, 2004) may have

contributed to Tyler's low academic performance. Goleman (2004) described the consideration for cognitive and noncognitive factors as cognitive competency (p. 123). By considering student athletes' cognitive and noncognitive factors, the complete student athlete is considered and the intersections found in sources provide greater clarity to the discoveries of connections found in this study (Goleman, 2004, p.123).

Student athletes are asked to learn in both the classroom and the athletic arena. In each setting student athletes are evaluated by *cognitive* measures while simultaneously being influenced by *noncognitive* factors (Jennings & Greenberg, 2009). This study evaluated cognitive and the noncognitive factors discovered in published sources while abstracting intersections to workable definitions for academic engagement that is otherwise incomplete if only one set of factors is considered.

### **Research Problem**

Based on the review of published sources referenced in this study, the research problem is the disconnect among student athletes' perceptions of expectations to be successful as a student. The criteria specified in the scholarship agreements, and the academic engagement required for success in college academics do not agree to a path promoting academic engagement. Examining a deeper understanding for the student athletes' perceptions and expectations about academic success could discover if there is a disconnect.

### **Purpose Statement**

It was the purpose of this analysis to understand the role of academic engagement for university student athletes' perceptions of how academic engagement influenced their academic success. The meta-analytical process in this study focused on student athletes' awareness of the academic environment and opportunities for engagement and interpretation of how these factors

influenced their academic performance (e.g., “I liked the class but getting up at 8:00 a.m. did not motivate me to pay attention; the instructor always asked me to sit in the front of the class without understanding how distracting and physically uncomfortable it was to sit there.”).

From the analysis of the students’ perceptions of academic engagement, the intent was to review the academic engagement constructs and relationships among National Collegiate Athletic Association’s (NCAA) academic engagement and Academic Progress Rating (APR) definition while comparing U.S. Department of Education (USDOE) and National Student Survey of Engagement (NSSE) constructs for academic engagement to identify how these three are similar and different. Similarities and differences will inform advising/guiding students’ understandings of the scholarship expectations, their interactions with faculty and staff, and their performance as students. In addition, it was important this study inform coaches, administrators, and faculty about pedagogical strategies and environmental conditions supporting student athletes’ academic engagement and academic performance.

Three different sites were considered in this study: traditional classrooms, study halls, and team/position meetings. The traditional classroom and study classroom could, at times, include non-athletes as well as student athletes. In these three sites literature references to movement and interaction of students and student athletes were identified as factors that define academic engagement as stated by the U.S. Department of Education (2011), the NCAA (2011), and the published sources searched for higher education definitions of academic engagement. The analysis considered the concepts found in social emotional learning theory (Zins et al., 2004) as well as related theoretical strategies that discuss noncognitive measures of academic engagement to represent a holistic examination of student athletes’ interpretation of academic

engagement and the influence of environment (Csikszentmihalyi, 2008; Gardner, 2000; Gaston-Gayles, 2004).

### **Research Question**

Gaston-Gayles and Hu (2009) set the stage for this meta-analysis' primary research question, "For university sports student athletes, what role did perceptions and practice of academic engagement play in academic success and compliance?" As the literature search and ethnographic inquiry considered this question and the holistic image of the student athlete (cognitive and noncognitive metrics for academic engagement) (Comeaux & Harrison, 2011; Gaston-Gayles, 2004), additional questions were formulated. For example, as social emotional learning theory (Elias, 2004) or the noncognitive metrics for academic engagement were reviewed, the following questions were created (Goleman, 2004; Jennings & Greenberg, 2009; Zins et al., 2004) as the basis of meta-analysis consideration and interpretation.

- How does a Social Emotional Learning environment contribute to university student athletes' influence toward Academic Progress Rating (APR)?
- How do student athletes recognize academic engagement in maintaining their personal academic performances and compliance with NCAA scholarship guidelines for eligibility?

Using my experience, four years of academic advising student athletes' integrations into academic environments while comparing in-depth review of published sources and peer reviewed documents related to these questions and defining academic engagement. This process aided in compiling the literature into rich findings and a summary that compared and contrasted student athletes' academic engagement and academic success.

### **Delimitations**

In published sources, researchers shared both cognitive and noncognitive factors defining academic engagement. While student athletes' academic engagement was inconsistently

evaluated (cognitive) the student athletes' behavior consideration were consistently applied (noncognitive). The combination of GPA and class attendance were the traditional methods of evaluation review as a casual attempt to combine cognitive and noncognitive evaluation. (NCAA, 2011; U.S. Department of Education, 2011). Based on a literature review, this meta-analysis assumed disengagement is perceived as having limited consideration of both cognitive and noncognitive metrics. However, Gaston-Gayles (2004) and Leslie-Toogood, Gill, and Tinsley (2009) stated positive social and academic environments improve graduation rates and GPAs as well as a holistic view of the student athletes are considered by college athletic academic advisors (coach, administrator, professor, or academic coordinator). Gaston-Gayles (2004) and Leslie-Toogood et al. (2009) further stated academic advisors, administrators, and then professors, in this order, have the greatest insights toward student athletes' academic engagement.

The limited consideration of noncognitive metrics used in the classroom has been identified in several studies (Elias, 2004; Gaston-Gayles, 2004; Jennings & Greenberg, 2009; Joyce & Weil, 2008; Leslie-Toogood et al., 2009; Zins et al., 2004). Because of this limitation, student athletes are challenged to maintain an eligible grade point average over four years and/or graduate in four years. That being said, student athletes' graduation rates are greater than 70 percent (Hosick, 2018). Student athlete graduation rates are two to five percentage points higher than general student body graduation rates according to Hosick's (2018) report for the NCAA.

Hosick stated:

The federal graduation rate, however, remains the only measure to compare student-athletes with the general student body. Using this measure, student-athletes graduate at a rate 2 percentage points higher than the general student body — 68 percent compared with 66 percent. The difference is most stark among black women. Student-athletes in this demographic outpace their peers in the student body by 19 percentage points — 70 percent

for student-athletes compared with 51 percent for the student body. (2018, *Comparison with the student body*, para 4)

It should be noted that Hosick (2018) did not make any direct connection to academic engagement influencing graduation rates for student athletes. In addition, Hosick (2018) did not reference improvement in student athlete graduation rates to student athletes' motivation for maintaining academic eligibility.

### **Significance**

This meta-analysis discovered studies that defined academic engagement representing both cognitive and noncognitive metrics (the whole student) (Elias, 2004; Gaston-Gayles, 2004; Jennings & Greenberg, 2009; Joyce & Weil, 2008; Leslie-Toogood, 2009; Zins et al., 2009). The literature and corresponding analysis identified the intersections between athlete eligibility and academic engagement and recognized noncognitive social emotional constructs that impact academic engagement. By doing so, pedagogical practices that all educators who influence student athletes will be identified.

### **Researcher's Perspective**

Throughout this study I was comparing student athletes' (all athletes, not just football players) interactions from experiences at different universities to findings documented in studies referencing football player student athletes' behaviors that intersect with constructs defining academic engagement. Uniquely, I brought my experience and perspective of a trusted academic advisor, tutor, and coach. As a result, recalling this experience while reviewing data base insights, assisted the evaluation process discover studies that aligned with this meta-analysis.

I was academic advisor, tutor, and mentor to many student athletes across many sports and various university campuses. On occasions, I was academic advisor in a study hall and

monitored the interaction and integration of student athletes within a study environment. Advising and tutoring more than one student athlete created opportunities to evaluate how environmental influenced (students working with each, using of technology, using books, journals and academic research tools) academic engagement behaviors and how academic performance results were influenced when integrating three academic environments (classroom to study hall to sports practice). My perspectives were influenced first by environmental details and then the student athletes' responses to structure, participants, and conditions present in the environment (who was there, time of day, temperature, using /not using a computer, environmental physical conditions, etc.). Each environmental condition considered was based on academic engagement and academic performance constructs found in studies referenced in this study (NCAA, 2011; U.S. Department of Education, 2011).

### **Definitions**

For the purpose of this study several words or phrases were defined in terms that consider the context in which they are.

- **Academic Progress Rating (APR):** Academic Progress Rating is a team-based metric that accounts for the eligibility and retention of each student athlete, each term. For 2014-15, teams must have earned a 930, four-year average APR, or a 940 average over the most recent two years to participate in championships. In 2015-16 and beyond, teams must earn a four-year APR of 930 to compete in championships (Johnson, Wessel, & Pierce, 2012). This analysis considered athlete eligibility and not graduation rate as we consider APR's impact on academic engagement. This measure determines the increases or reduction of scholarship funding by the NCAA.

- Eligibility: The ability of student athletes to participate in athletic practices and contests based on their GPA staying equal to or greater than 1.900 on a 4.000 scale.
- Grade Point Average (GPA): A student's average of grades earned in all classes enrolled in for a specified period based on a 4.000 scale.
- Team/Position Meetings: When players meet to receive new information, skills, or strategies; the term "team" will be used to refer to all student athletes meetings compared to "position," which is when smaller groups of student athletes meet specifically to discuss their player roles (i.e., position).

### **Summary**

This meta-analysis reviewed three sources for the definition of academic engagement to discover foundational elements from the perspectives of student athletes. At this stage, analysis included a gross review of published sources from focused and general data bases such as *Sports Psychology Journal* and EBSCO, respectively. The sources discovered from these used key terminology found in the definition for academic engagement as stated by the NCAA, NSSE, and the USDOE.

There are differences among the definitions offered by the NCAA, the U.S. Department of Education, and the higher education studies completed by NSSE. It is because of these differences that the meta-analysis continued to filter the analytical process guided by this study's research questions. Given the context of the question, a finer set of filters were created to focus the literature and to add deeper understanding of how the three sources of definition are different while intersecting and relevant to the questions.

## **Framing the Issue**

The academic success and failure of any student and specifically student athletes have received significant attention in educational literature, particularly as student athlete academic performance relates to Academic Performance Rating (APR) and Graduation Success Rate (GSR) (Gaston-Gayles, 2004). Student athletes' understanding how their academic behavior influences APR and GSR may influence their academic eligibility.

Tyler's story and experience indicated he did not have a clear understanding of the impact these metrics would have on his eligibility. In other words, recognized standards for eligibility are clearly stated and understood, sharing them with student athletes would further assist their compliance with academic performance and eligibility. Without a clear understanding, student athletes, such as Tyler, would not comprehend the academic commitment made when he signed his letter of intent and scholarship agreement.

Additionally, student athletes' stories have framed how environments influence academic engagement and ultimately academic performance. Exploring student athletes' stories, specifically disengagement within any academic environment, led to published sources analysis that identified gaps of misunderstanding about the influence of academic engagement toward student athletes' eligibility and the consequences brought by disengaging academic behavior. In addition, student athletes' stories were discovered intersecting keywords and phrases. The use of a meta-analytical model and process defined this exploration.

## CHAPTER TWO: LITERATURE REVIEW

### **Academic Engagement**

There are many factors that influence university sports student athletes' academic performance. One of those influences is academic engagement. The motivation to become academically engaged is stimulated by both cognitive and noncognitive factors. The NCAA has specific standards for academic performance for student athletes to maintain athletic eligibility. What degree of understanding and motivation for academic engagement is needed by student athletes to influence their academic performance and impact eligibility?

### **Academic and Athletic Motivation**

Regarding academic engagement motivation, both academic and athletic motivation influence academic performance. Gaston-Gayles (2004) examined athletic and academic motivation and their impact on academic performance in a 30-item written survey. They found that ethnicity and academic motivation were significant predictors of college GPA. Additionally, they found white students had higher GPAs than minority athletes.

This meta-analysis points out many sources of literature that do not attribute improvements in academic performance to academic motivation. This analysis accounted for variance from pre-college influences as well influences during college and noncognitive factors, such as academic motivation, intersecting with cognitive factors resulting in improved academic performance.

Gaston-Gayles (2004) added to the limited body of knowledge concerning academic and athletic motivation of athletes by examining motivation as a noncognitive variable and its influence in predicting academic performance among college athletes at a university. Previous

researchers have not examined the influence of motivation on academic performance. Gaston-Gayles (2004) defined academic motivation to refer to students' desire to excel in academic-related tasks. Thus, academic engagement influences academic performance through cognitive and noncognitive factors originating from pre-college and college influences.

Based upon research, ethnicity and academic motivation are significant predictors of college GPA. Cognitive and noncognitive variables enhance the influence in predicting academic performance (Gaston-Gayles, 2004).

Noncognitive motivation variables include environment, ethnicity, and levels of athletic competition. While non-student athletes are not motivated by athletic competition (Snyder, 1996), student athletes' academic performance will change by the degree of athletic competition. Snyder (1996) concluded there are differences both in academic motivation (engagement) and academic performance. "The data are indicative of pronounced differences in academic/ athletic motivation among ethnic groups and levels of athletic competition" (Snyder, 1996, p. 661). Higher-level divisions, which are correlated to school size, show African American student athletes focused more on professional athletic careers and focused less on final exams and graduation.

Division I is the highest level of competition in NCAA division classification; Division I represents schools larger than Division II or III. Snyder's (1996) study pointed out the differences in GPA and graduation rates among white and African American student athletes become smaller in the lower divisions. For Division II schools, the differences were so small it would appear motivation and academic engagement were the same for each group. Snyder noted Division II student athletes are most aligned with NCAA philosophy and the lack of prediction of ethnicity in athletes' academic pursuits. A pursuit of balance in academic and athletic goals is

seen in those divisions where media attention for becoming a professional is less prevalent.

Snyder (1996) makes the point by saying:

In the larger scope of mass media promotions of college athletics, it would likely be beneficial to accentuate sports in the context of a Division III perspective. In this manner, the portrayal of college student-athletes, especially African Americans, would focus on the pursuit of academic goals at the diminution of athletic goals. (p. 663).

Thus, according to Snyder (1996), as athletic competition rises, academic goals and performance are challenged. Conversely, as athletic competition and media attention are diminished, academic engagement and performance improve and the influence of ethnicity on academic performance is equalized for white and African American football student athletes. Thus, contrary to some research (Gaston-Gayles, 2004; Snyder, 1996), GPA is not the only indicator for academic performance. It should be noted subsequent updated works were not readily available from Snyder (1996) related directly to research questions in this study.

### **Student Athletes' Experiences**

Based on historical academic performance research, football student athletes' motivations are influenced by variables they do not control. Variables such as course schedules influencing their use of time, the unexpected sports injury, or using athletic study hall facilities provide challenges to optimize academic engagement. It is the student athletes' actions and interaction they control (Gaston-Gayles & Hu, 2009). University student athletes' experiences include many individuals influencing their motivations and academic performance.

Gaston-Gayles and Hu (2009) examined who contributes to student athletes' experiences in relationship to student-faculty interactions, peer interactions, participation in student groups, and in academic related activities, and the impact of such experiences on a set of college outcomes. The set of college outcomes were Graduation Success Rate (GSR), GPA, and APR. Gaston-Gayles and Hu discovered student athletes' academic performance was positively

influenced by peer interactions (teammate and non-teammate), participation in non-sport activities, and meeting with academic staff and faculty (academic community). Additional insights into the academic community begin to bridge positive attitudes about oneself toward improving academic performance as well personal competence. Gaston-Gayles and Hu's (2009) study began to connect personal development with learning outcomes and how student life interactions are important to the positive development of student athletes' academic success.

Thus, Gaston-Gayles and Hu (2009) agreed with NCAA (2011) metrics for evaluating academic performance while adding the influence of student athletes' experiences (noncognitive). However, the NCAA (2011) did not include student athletes' experiences as variables that influence academic performance or scholarship eligibility. The perspective of the NCAA may be considered limited by their close perspective, (i.e., not at arm's length). This perspective could question the degree of independent bias NCAA metrics would report. Nonetheless, this intersection between academic performance and noncognitive student athletes' behaviors is relevant.

### **School Engagement**

A unifying framework, using a general student body that may include student athletes, presented by Furlong et al. (2003) captures multiple sources of academic engagement motivation by creating a positive environment at school. Furlong et al. (2003) examined three distinct perspectives related to school engagement: psychological, educational, and developmental. Based upon Furlong et al.'s (2003) research, the interaction of peers in a positive school environment raised students' motivation toward promoting academic performance.

Four main contexts of school-based engagement are identified: student, peer, classroom, and school environments. The connections between social emotional student development and

classroom and school environment examined the impact of positive environment and student engagement on academic disengagement. Student bonding to the academic environment details peer influence by examining peer motivation and social emotional impact and the connection to academic engagement (Furlong et al., 2003). Equal attention is given to environment, its influence on relationship development, and how relationships may influence academic engagement.

Furlong et al. (2003) discovered that as students became more deeply associated with the school, academic engagement improved. Self-efficacy was shown to influence the extent to which students associated with the school. The study identified four process areas that assisted individuals to develop their self-efficacy: (a) mastery experiences, (b) modeling promoting interaction with others in different settings, (c) verbal persuasion, and (d) physiological information that encompasses physical and emotional elements (i.e., do I feel positive or negative about doing this task). Their findings confirmed that school, peer group, and classroom context influence academic engagement, and when student context is considered in each of these three settings academic self-efficacy is influenced. According to the study,

The findings from this research are sometimes generalized to all students based on the premise that the absence of poor engagement is considered a protective factor. Following this line of thinking, school engagement is then considered to hold positive influences for all students.

The study of self-efficacy in education has brought to light the importance of not only considering the ability level of an individual, but the individual's belief that they will succeed on a task-in the context of this article, the goal is that a student will develop the belief he or she can learn now in school and later as new learning opportunities arise. (Furlong et al., 2003, p. 104)

The researchers concluded “school engagement” has the strongest and deepest links to schools as institutions for learning and to students as effective learners. When students connect with the institution in the ways discussed, engagement occurs socially, psychologically, and

academically. This intersects the definition for academic engagement as stated in the three definitions listed in this study.

Student athletes are in an optimal position to be engaged due to their participation, social bonding, and attachments to their sport, commitment to performing as a student and athlete, and identifying with the sports culture and connection to the surrounding community. Furlong et al. (2003) created the PACM model that outlines the environment of behavioral involvement that optimizes academic engagement (PACM is an acronym for Participation, Attachment, Commitment, Membership). Thus, according to the NSSE (2013) and the U.S. DOE (2009), Furlong et al. (2003) agreed with the variables that frame academic engagement while defining the characteristics that optimize an environment reinforcing interactions that are social, psychological, and academic.

**Standards.** The NCAA sets the standards for National Letters of Intent (NCAA, 2012) and establishes guidelines for university student athletes' scholarship agreements. There is one construct that intersects with all three academic engagement definitions—Class Attendance (Table 3).

There are 10 variables defining Academic Progress Rate (APR): (a) gender; (b) race; (c) distance from home; (d) high school GPA; (e) standardized test score—ACT or SAT; (f) major; (g) sport; (h) coaching change; (i) playing time; and (j) winning percentage (Johnson, Wessel, & Pierce, 2012). The 10 variables fit the definition for noncognitive variables (Gaston-Gayles & Hu, 2009) leaving no place for cognitive variables that deal with the student athletes' higher order mental processes such as critical thinking and academic achievement, which are typically measured by GPA.

Table 3  
*Academic Engagement Definition Constructs of NCAA, NSSE and USDOE*

Construct	NCAA	NSSE	USDOE
Attendance	*	*	*
Environment		*	*
Extra Credit		*	*
Discussions		*	*
Office Hours		*	*
Internet		*	*
Personal Computer		*	*
Rules Violation	*		
GPA/Stay Eligible	*		

The U.S. Department of Education (2009) defined academic engagement by looking at “any seven-day period in which at least one day of regularly scheduled instruction or examination occurs” (p. 1). In this defined period, a student is expected to be academically engaged by attending class and engaging in examinations, practicum, laboratory work, internships, and supervised studio work. A secondary component to consider is distance learning, or what is known as correspondence education. Examples of academic engagement in the distance learning environment would include submitting assignments; taking examinations, interactive tutorials, or computer instruction; attending study sessions; and meetings with a faculty member. An exception to this definition would be merely logging into the electronic classroom, which would not constitute academic engagement (U.S.DOE, 2009). This distinction is important, as we look for the frequency academic engagement is in the student athletes’

culture. U.S.DOE goes on to define academic engagement by reporting a high correlation to academic performance and attending class (seated in class or virtual; via computer).

The ten previously listed variables that define APR are not included in the constructs that define academic engagement for the NCAA (Table 3). APR variables (Johnson et al., 2012) appear to intersect with NSSE and U.S.DOE constructs for academic engagement. National Letter of Intent and student athletes' scholarship agreements may not include academic engagement constructs that positively correlate to improved academic performance and APR.

According to Gaston-Gayles and Hu (2009), the experiences of student athletes and the environments they experience are not considered as constructs for the National Letter of Intent or student athletes' scholarship agreements (refer to National Letter of Intent scholarship agreement Appendix B and Appendix C). Gaston-Gayles and Hu (2009) acknowledged a reduction in athletic-related activities per week in order to balance academic motivation with athletic motivation. The NCAA (2011) reported findings from their *Goals and Score Studies 2010* identifying influences on student athletes' academic success. Influences such as a designated time and space (environment) for studying as well as scheduled help sessions with instructors show findings having positive and negative influences on academic engagement and performance. The influence from these time commitments were stated in the same study that discussed the excess time commitments placed on student athletes as necessary to maintain athletic eligibility and challenge to academic eligibility (Paskus, 2011).

GOALS is a study of approximately 20,000 student athletes conducted in the spring of 2010 with a second component added, SCORES, which included 7,000 former student athletes focused on long-term academic outcomes while attempting to identify influences on eventual academic success (Paskus, 2011). Paskus delivered a report on the GOALS study to the 2011

NCAA annual convention in San Antonio, Texas. The GOALS study offered connections to the NCAA definition of academic engagement when it described *time demands* on student athletes. Football student athletes reported their time commitment to be in excess of 40 hours/week (43.3), where the NCAA mandates no more than 20 hours/week for required contact time with the sport.

The SCORES portion of this study offers references to NSSE and NCAA definitions for academic engagement throughout all six NSSE academic engagement categories examined. The reported hours of sport contact might indicate student athletes struggle to meet instructors for office hours and discussion of extra credit assignments. These are two constructs that are part of academic engagement defined by NSSE and Department of Education.

Time, a noncognitive variable, and its availability influences student athletes' attention to cognitive academic variables (Gaston-Gayles & Hu, 2009) such as completing extra credit or attending study groups. Paskus (2011) acknowledged the NCAA mandate reducing the athletic activities hours per week assuming the time is shifted to academic activities, and this change supports the student athletes' compliance with scholarship agreement constructs. Insights provided by Paskus (2011) begin to create a curiosity around the influence of prosocial classrooms impact on academic engagement.

### **Prosocial Classrooms**

Jennings and Greenberg (2009) examined classroom factors that created what they called a prosocial classroom, which highlights the importance of teachers' social and emotional competence (SEC). The authors' examination focused on high school (Jennings & Greenberg, 2009, p. 495) and college classroom environments that included student athletes. SEC teachers set a tone in the classroom by developing supportive and encouraging relationships with students, designing lessons that build on students' strengths and abilities, establishing and

implementing behavioral guidelines in ways that promote intrinsic motivation. The teacher/coach behaviors are associated with an optimal positive classroom climate (i.e., the condition of the environment, physically and emotionally) and promote less disruptive behaviors and strong interests and focus on task. Student supportiveness and responsiveness to individual differences and students' needs are enhanced in an environment filled with high instructor SEC (Jennings & Greenberg, 2009).

Jennings and Greenberg (2009) concluded that prosocial classrooms build trust and help manage environmental stress. The research further supports the SEC view that students learn better when they are happy, respected, feel cared for, feel bonded to school, trust people at schools who have their best interests at heart, and have high levels for teachers' self-efficacy (Jennings & Greenberg, 2009).

Jennings and Greenberg (2009) demonstrated that instructors deal with highly stressful emotional situations in ways that compromise their ability to develop and sustain healthy relationships with their students. The purpose was that attention be directed toward resources and actions to improve instructor SEC, and what may promote positive academic outcomes. Thus, connecting students'/student athletes' experiences with a SEC focused instructor in environments will raise academic performance.

The benchmarks of NSSE's (2013) effective educational practice outline powerful contributors to learning and personal student development. There are five areas of focus based on 42 key questions from the NSSE survey. The five areas of focus are Level of Academic Challenge, Active Collaborative Learning, Student Faculty Interaction, Enriching Educational Experiences, and Supportive Campus Environment.

Based on the survey data of college students, activities and services are identified that directly contribute to improving learning and personal development. For example, Level of Academic Challenge lists 11 activities and conditions that set high expectations for students to consider. Examples of such expectations include time spent preparing for class or the number of papers—either written or read—between five and 19. These patterns are repeated with each of the five focus areas. Setting expectations, conditions, or activities is a foundational necessity for NSSE to measure and evaluate students' engagement and it is from this foundation that literature intersections were identified and findings were discovered.

NSSE results considered engagement indicators such as Higher-Order Learning, Active Collaborative Learning, Student-Faculty Interaction, and Supportive Environment as categories that define High-Impact Practices. Examples of High-Impact Practices activities are field trips, research with a faculty member, and service-learning projects (NSSE, 2013). For student athletes, a field trip is a game or practice. Research with faculty members might include position meetings with coaches or a one-on-one meeting with a coach about academic performance. A service-learning project may be a visit to a hospital to read to children patients or a meet and greet session in the community to sign autographs while sending a message about study habits. Both serve as examples for service learning.

Student engagement results indicated first year students and seniors receive the greatest academic impact when engaged in the three activities identified. Thus, NSSE (2013) benchmarks intersect with environment, experience, and prosocial behavior outlined by U.S.DOE (2009), NSSE (2013), and the social emotional learning experiences in the Jennings and Greenberg study (2009).

**Role of academic engagement.** According to Johnson et al. (2012), the NCAA has defined APR as a measure of academic success yet. They stated, “Despite its far-reaching and practical influence, there have been no empirical studies, and relatively little reporting, on APR outside of the annual press releases provided by the NCAA” (NCAA, 2011). Johnson et al. pointed out their surprise for student athletes receiving aid and not being informed about APR’s impact on their academic performance or behaviors that intersect with the definitions for academic engagement.

**Academic performance.** Before student athletes begin their college academic and athletic experiences there are multiple influences that come together impacting their performance capability. Comeaux and Harrison (2011) identified three precollege conditions that influence academic performance: family background, educational experiences, and individual attributes. Comeaux and Harrison (2011) based their study on three areas supported by numerous studies.

. . . scholars have conducted a considerable amount of research in an effort to shed light on the complicated variations in their academic performance. Much of this work has attempted to relate these variations to demographic, precollege, and social factors... academic performance is influenced by college environmental characteristics... Failure to distinguish between these multiple influences on academic success has frequently led to assumptions about student—athletes that too often present them through a deficit lens. (p. 235)

The “deficit lens,” which Comeaux and Harrison (2011) referred to, begins to explain student athletes’ disconnect with understanding academic scholarship compliance variables and further defines how to clarify the “deficit lens” by understanding the complete environment that influences student athletes’ behaviors while in pursuit of academic success. The model in Figure 1 reflects how the environment influences students, and how social and academic behavior impacts the student athletes’ commitments. Developing clarity and connection of the influences in the environment that impact student athletes may be the essential model for comprehensive

improvement to student athletes' academic performance. Comeaux and Harrison (2011) reinforced this statement by saying: "These deliberate and intentional intervention strategies may translate into more empowered and engaged student athletes who traverse the educational terrain seeking opportunities to compete in the classroom and in life" (p. 242).

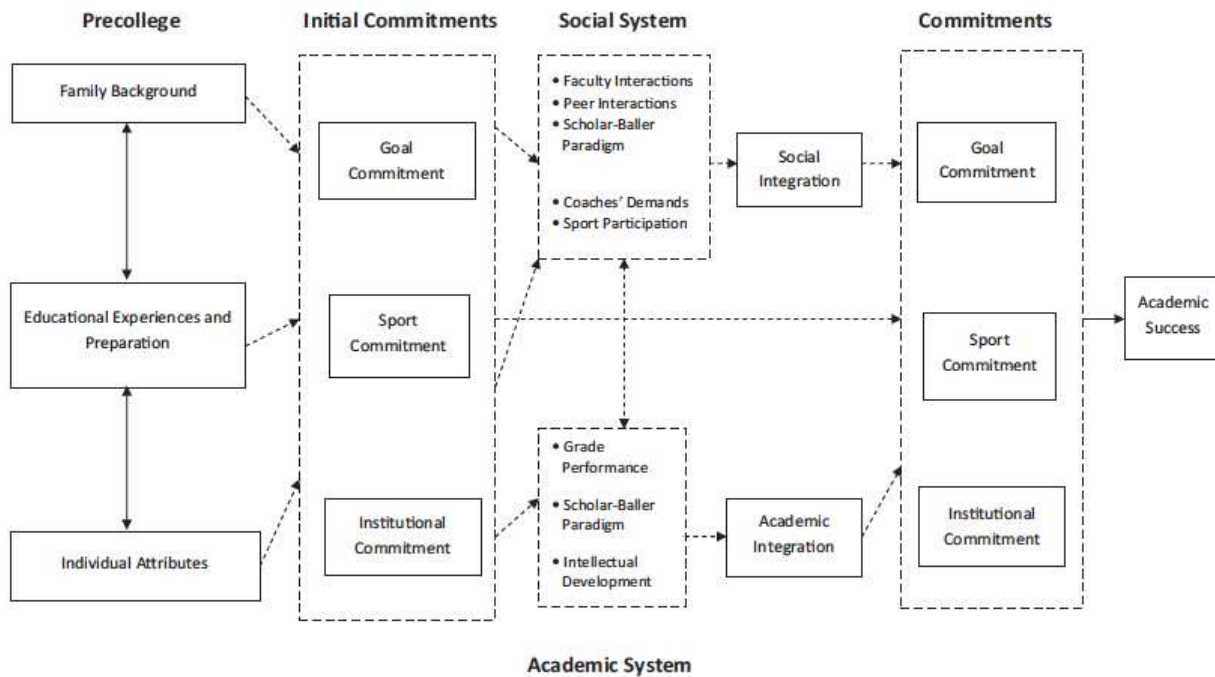


Figure 1 Model for College Student Athlete Academic Success. (See Appendix A)

Comeaux and Harrison (2011) pointed out that research regarding the influences on student athletes' academic performance is not integrated with all factors that influence academic outcomes. The primary indicator used by many studies is cumulative GPA. "This measure is used by some studies to create an association between academic engagement and academic performance" (Comeaux & Harrison, 2011, p. 242). Complete academic integration would include intellectual development along with a measure of academic performance (i.e., cumulative GPA) (Comeaux & Harrison, 2011).

Comeaux and Harrison (Figure 1, 2011) provided a model that illustrates complete

academic integration for college student athletes by reflecting on research studies. In doing so, critical analytical and theoretical variables in the understanding of student athletes' academic success were assessed. Comeaux and Harrison (2011) concluded "The lessons learned as we engage in this difficult and yet important work on the student–athlete integration process can be meaningful for the development of environments that are more supportive and inclusive" (p. 242). They continued

In doing so, student affairs leaders can adopt responsive intervention strategies such as the SB (Scholar Baller, i.e., student athlete) curriculum for student athletes, both to circumvent any impediments the students encounter and to improve their integration in the college setting and beyond. (p. 242)

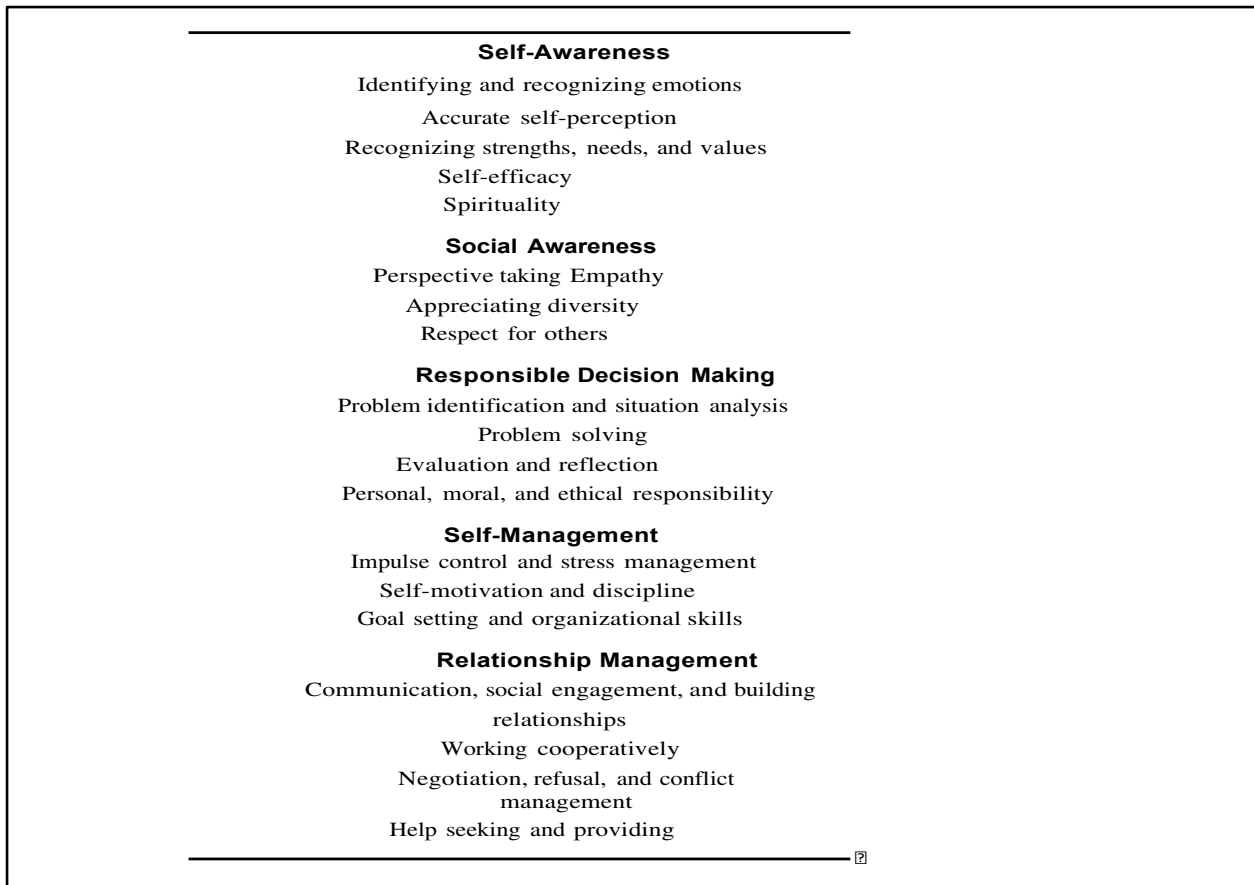
Thus, the Comeaux and Harrison (2011) model incorporated student athletes' experiences, emotional commitments, social/educational environments, and metrics that identify the intersections.

**Social emotional learning.** Zins et al. (2004) shared academic success is optimized with an integrated effort that promotes academic, social, and emotional learning thinking. Comeaux and Harrison (2011) agreed with Zins et al. (2009) and indicated environmental conditions influenced creating positive emotional conditions for all students academic, social, and emotional learning. Comeaux and Harrison (2011) continued to agree with Zins et al. (2004) and with Elias et al. (1997), when focused on learning as a responsibility of a learning community centered on collaboration with the school.

Zins et al. (2004) added to this insight by stating, "SEL is the process through which we learn to recognize and manage emotions, care about others, make good decisions, behave ethically and responsibly, develop positive relationships, and avoid negative behaviors" (p. 192). Managing emotions with positive intent while being aware of the influences in one's

environment reinforced behaviors, which is supported by many research studies.

In addition to clearly defining the five SEL constructs (Figure 2), Zins et al. (2004) shared how applying the constructs to methods that have positive impact on students' academic performance behavior creates practical influence. Zins et al. aligns with the academic engagement definitions by indicating school attitude (motivation), school performance (grades and subject mastery), and school behavior (engagement) contribute to effective school performance.



*Figure 2 Framework of Person-Centered Key Social Emotional Learning Competencies (See Appendix A)*

Zins et al. (2004) included data from collaborative programs using evidence-based SEL methods and strategies matching academic outcomes to corresponding evidence-based SEL interventions that support academic outcomes. Figure 3 illustrates a description of their academic outcomes and interventions.

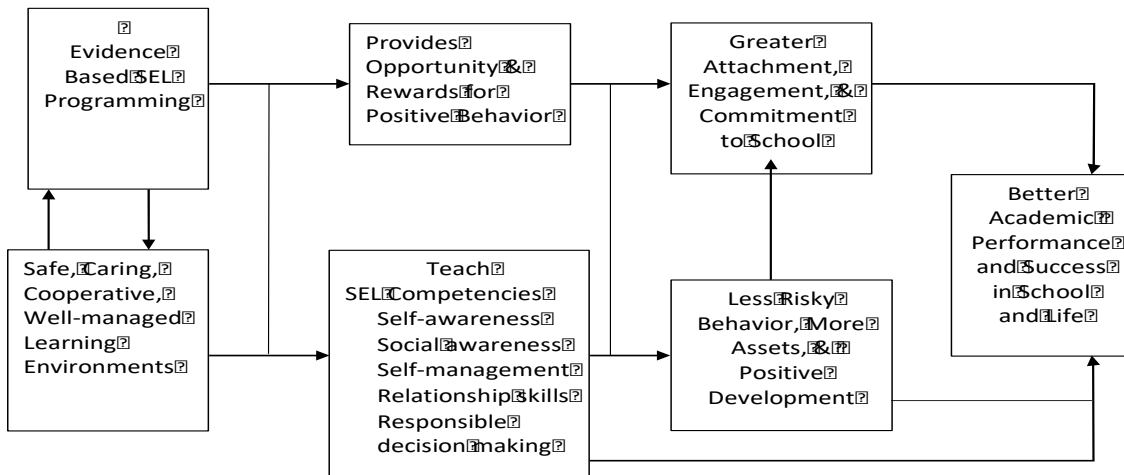


Figure 3 Illustrative Model for SEL Programming and School Success [Zins et al. 2004] (See Appendix A)

When the SEL competencies (Figure 2) are shared within a positive supportive environment (Figure 3), secondary and higher education students potentially experience better academic outcomes and success at school and in life (Elias, 2004; Gaston-Gayles, 2004).

Zins et al. (2004) collaborated with several studies as they considered evidence based SEL strategies for improving academic performance. One of these interventions was from J. David Hawkins who said, as a conclusion to his intervention study with higher education students.

Nevertheless, even one of the first examinations of the research on the connections between SEL and school performance concluded that the research base was strong enough that an important task for schools and teachers is to integrate the teaching of academic and social and emotional skills in the classroom. (Hawkins, 1997, p. 293)

Zins et al. (2004) connected SEL theory with improved school performance by aligning desired academic outcomes with a specific intervention. When university student athletes are socially emotionally competent, they are motivated to be academically engaged and their academic performance improves (Furlong et al., 2003; Gaston-Gayles & Hu, 2009; Jennings & Greenberg, 2009; Johnson et al., 2012).

### **Summary**

University sports student athletes sign a National Letter of Intent (NLI) beginning their athletic experience and a sport scholarship agreement to confirm financial aid and detail the guidelines and conditions necessary to comply with athletic eligibility and prevent forfeiture of their academic scholarship (NCAA, 2011). To prevent academic performance failure, the literature thematically presents positive learning environments, student athlete experiences, and academic engagement to infuse social emotional learning into academic settings (Comeaux & Harrison, 2011; Elias, 2004; Furlong, et al, 2003; Gaston-Gayles & Hu, 2009; Jennings & Greenberg, 2009; Zins et al., 2004).

There are more than five interventions that aid the infusion of social emotional learning resulting in specific improvements for academic performance (Elias, 2004). Elias (2004) looked at instructional design's use of social emotional skill development by using a SEL program—Social Decision Making and Social Problem Solving (SDM/SPS)—to create a framework for examining SEL influence on academic performance. The SDM/SPS curricula aligned with each of the five SEL constructs. The study used the curricula to discover the effectiveness and application for each of the five constructs and the academic connection. Elias (2004) stated in his concluding thoughts

Curriculum-based lessons provide structured opportunities for skill instruction and practice that then can combine with students' self-monitoring of their own skill

development, and ongoing external prompts by adults to promote skill use. These skills also must be integrated into everyday academic instruction if generalization is to be maximized. (p. 132)

When a model (Figure 1; Comeaux & Harrison, 2011) is provided for implementing specific social emotional intervention, the resulting outcomes identify specific environments promoting student athletes' experiences and curriculum-based lessons to improve academic performance. A significant by-product is the framework described here for replicating the process in all forms of classroom environments intersecting with SEL constructs resulting in better academic performance (Elias, 2004; Gaston-Gayles, 2004).

## CHAPTER THREE: METHODOLOGY

Collecting information and reviewing literature relevant to the study of academic engagement defines methodology (Mertens, 2009). In addition, this study continued by selecting construct intersections in secondary data from published sources in form of narratives, observations, and interviews. The intersections among sources, began to define the intra-rater reliability and the push/pull relationships created among published sources selected. Narrative researchers engage methods that “push and pull” between reported field text and published research text (Clandinin & Connelly, 2000). With this, narrative study data drawn from published sources were considered a transformative approach allowing student athletes’ voices that shared their experiences and stories. This meta-analysis to connected participants’ stories (second and third party) in making meaning of their experiences of academic engagement (Chase, 2003). Expanding this thinking, Denzin (2009) added these thoughts regarding guidelines that may connect qualitative studies with quantitative studies data intersections thereby a meta-analysis, “I favor flexible guidelines that are not driven by quantitative criteria. I seek a performative model of qualitative inquiry, a model that enacts a performance ethic based on feminist, communitarian assumptions” (Denzin, 2009, p. 140).

In this meta-analysis study, a set of intersection criteria were created using a model that defines the intersections between content sources discovered during identifying and selecting these published sources. Within each stage of the meta-analytical process (Figure 4), there was a constant comparative process looking for terms and phrases intersections as outcomes illustrating this comparative process.

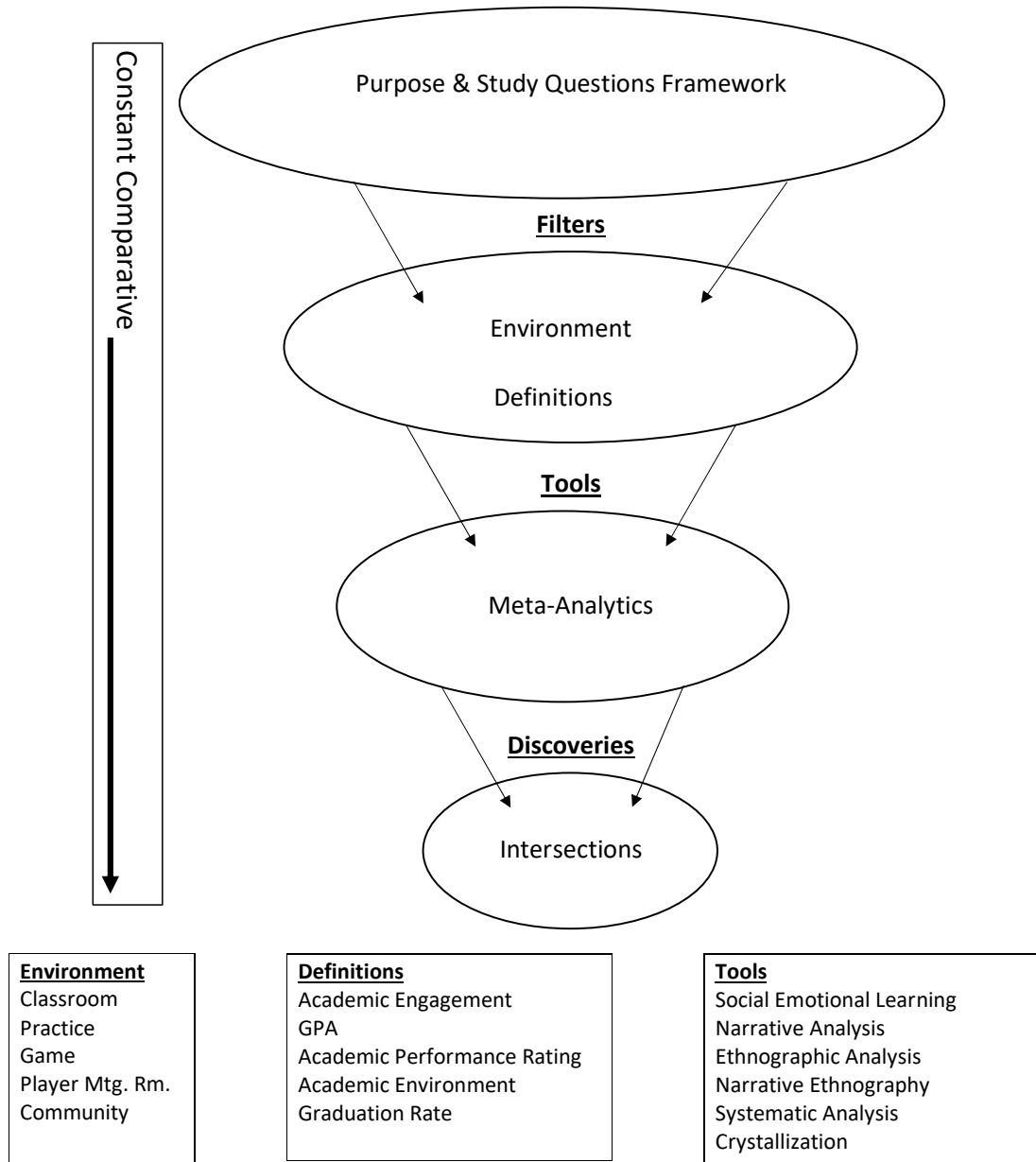


Figure 4 Illustrative Model for Study Flow

This study's framework and its filters and tools are used during the constant comparative process to intersect keywords and phrases selected from academic engagement definitions. The more keyword and phrase intersections found in sources, the higher degree of comparison there is with this study's questions from the published data to validate findings.

Based on Figure 4, published sources were considered a data source when they referenced terms found in this model, for example, if descriptions of learning environments were described as safe, caring, or cooperative. In addition, any reference to a positive opportunity, behavior, or engagement by college students or student athletes that directly related or implied better academic performance or success in school gave rise to selecting the published source even though the phrase "academic performance" was not referenced specifically. This is an example of constant comparative, a degree of wakeful and mindful review aided identification and selection when terms and phrases implied meaning to a keyword or phrase. For example, the phrase, academic performance may not be referred to, but GPA increases due to positive environmental conditions does reflect academic performance. Being mindfully reviewed, the published source with this phrase and its narrative was selected.

People share experiences and knowledge through many layers of thought "that are fluid and require ongoing reflection, what we call wakefulness" (Clandinin & Connelly, 2000, p. 184). In this study, wakefulness was used most often between the abstraction and analysis stages. The presence of multiple layers of thought as well as stories sharing how data within the published source reviewed or were intersecting equivalent with the keywords and phrases used to define academic engagement. Whether reported gray literature or research literature, wakefulness is challenged to create authenticity and capture a fluid story development of student athletes' academic engagement that is plausible and authentic (Clandinin & Connelly, 2000). Researchers

guided by meta-analytical process enriched by ethnographic theory apply wakefulness as they consider what Heath and Street (2008) called the constant comparative. Constant comparative, a reflexive approach, considers observations from historical and current published literature in which participants reflected on their responses questioning or affirming written data and oral data. In this meta-analysis study, constant comparative was used with sources that derived data from interviews. Considering all forms of data collection found in published sources provides a more complete application of constant comparative (Clandinin & Connelly, 2000; Heath & Street, 2008; Riessman, 2008). Being aware of the constant comparative provided added sensitivity during the meta-analytical process for the researcher to be objective and consistent in reviewing and comparing data from one study to another.

The constant comparative was done to filter through potential bias while aligning published source review insights directed to this study's research questions. (Creswell, 2015). Intersections are from stories in published sources, when evaluated within this study, created a degree of intra-rater reliability. The more keywords and phrases found in published sources creating intersections the greater degree of intra-rater reliability. This is not to say the more keywords and phrases the better the source, but it is to say the more intersections among sources provided greater alignment with the definition for intra-rater reliability. This study is not diagnostic in nature nor is it quantitative, but the more intersections among sources began a pattern for validating future findings.

### **Forms of Documentation**

Stories create knowledge (Savin-Baden & Van Niekerk, 2007). The published stories created knowledge that may or may not share data for intersections with other sources. Qualitative researchers gather data from many sources and perspectives. The stories formed and

formalized by using narrative methods define active roles researchers play while data recording (Chase, 2005; Glesne, 2011). Reported stories in book chapters, narrative research studies, or created by observations in a case study were sources reviewed by this study's four step meta-analytical process.

From published sources identified, varying methodological forms were discovered, aligned with Social Emotional Learning (SEL) while intersecting with all three or at least one academic engagement definition used in this study. SEL theory promotes the awareness of student athletes in five constructs (a) self-awareness, (b) social awareness, (c) responsible decision making, (d) self-management, and (e) relationship management (Elias, 2004; Zins et al., 2004). When these five constructs are compared to Comeaux and Harrison's (2011) Figure 1, intersections are identified. For example, self-awareness describes when pre-college students' experiences are needed to manage a new college environment. Using a SEL lens (Figure 3) to focus the constant comparative process (Figure 4) on complexities of the whole student athletes' environment while reflexively comparing academic engagement constructs, enriches the narrative and identifies connections from published sources that focused on reported cultural observations (Savin-Baden & Van Niekerk, 2007).

Specific to this study's meta-analytical method, an enriching methodological review of literature results when using an ethnographic lens to better examine the many influences that impact academic engagement and alter academic performance (Cortazzi, 2010). The methodology highlights historical differences in the definition of academic engagement by exploring social emotional learning strategies that promote academic engagement and improve academic performance. By reviewing university student athletes' stories sourced from reflexive insights validated by this process, words and phrases intersections were discovered among

published sources. I worked to co-construct meaning through filters provided by narrative inquiry, ethnography, and SEL, resulting in a deeper understanding of student athletes' academic engagement and academic performance (Chase, 2005; Creswell, 2007; Elias, 2004; Zin et al., 2004).

### **Key Terms and Phrases**

I identified keywords and phrases used to define academic engagement for this study. The primary keywords identified include academic engagement, academic performance, retention, eligibility, social emotional learning, environment, and learning environment. Intersections were identified as when two or more sources each contextually referenced a primary keyword or phrase.

There were many layers of thought in each source reviewed. An intersection was identified as a single set of outcomes, which did include feminist and masculine reflexivity toward social structures shared by student athletes. So, when published sources intersected with other published sources, a collection of thoughts came together that represent a community of thinking or communitarian framing. Then for component or section reviewed consideration for feminist, communitarian assumptions to provide a balanced and complete view of all types of criteria (qualitative and quantitative) while evaluating varied and perhaps differing voices discovered during the meta-analytic process (Denzin, 2009, p. 140). By definition, considering feminist and communitarian insights did not limit the review of any story discovered in published sources to strictly speak from a masculine position without consideration for community outside of athletics (football specifically). For example, student athletes' classroom engaged academic behavior is transferable to study habits and motivation in the athletic training environments (position room, practice field, and game).

In Figure 5, a keyword such as *academic engagement* in two sources, creates an intersection, and one of these sources intersects with a third source by the keyword *student athlete*. Proceeding further into the meta-analytical process the content related to academic engagement and student athletes are constantly compared by considering feminist or communitarian lens.

### **Methods**

In narrative inquiry (not used in this study, but identified), researchers may use observations and interviews as methods to elicit participants' stories and significant events related to interests of the researcher and participants (Clandinin & Connelly, 2000; Riessman, 2008). In this study, data were considered from published sources that utilized many forms of research methodologies where key terms or phrases intersected with the definitions of academic engagement found in the three sources (NCAA, NSSE, USDOE). Identifying narrative inquiry, according to Cortazzi (2010), is an important reviewing element of doing a meta-analysis (Figure 5).

In addition, aligning with the social emotional learning paradigm, identifying narrative inquiry added to ethnography and promoted development of a highly reflexive relationship between intersecting sources and researcher's perspective. This resulted in relevant, rich descriptions and opportunities for deeper understanding while intersecting with relatable environmental conditions. Figure 4 illustrates conditions which identify and promote academic engagement possibly resulting in improving academic performance (Chase, 2003; Elias, 2004; Mertens, 2010). Cortazzi (2010) added "Both these orientations to narrative—as text and as process—can inform reflexive analyses of various phases of doing ethnography" (p. 384).

A/D1

A/D2

A/D3

A/D4

**Identification Phase**

Key Words and Phrases: *Academic Engagement (AE), Academic Performance (AP), Environment, High Impact Activity, Student Athlete (SA), Eligibility, Scholarship, Football, Academic Performance Rating, Observation, Interview, GPA,*

**Selection Phase**

1st intersections

AE

AP

Environment

**Framework**

- wakefulness
- authentic

**Abstraction**

Recheck intersections  
Discover multiple intersects

High Impact  
Activity

AP  
GPA  
Environment

**Transformative  
Paradigm**

**Analysis**

Discover the stories  
Match intersections to research questions

SA  
AE &  
AP

**Crystallization**

- Discover Stories
- Patterns & Trends
- Observed Behavior

**Constant Comparative**

**Legend:**

**A/D** = Article or Document #, **AE** = academic engagement, **AP** = academic performance,  
**GPA** = grade point average, **SA** = student athlete  
**High Impact Activity** = defines academic engagement  
**Environment** = academic settings as identified and defined in this study.

Figure 5 Summary Meta-Analytical Process

When content of published sources intersect because of multiple keywords and phrases and published narratives describe outcomes, then this meta-analytical process delivered relevant outcomes.

Meta-analytical methods are a systemic process to:

- 1) identify and select published sources (selection)
- 2) identify intersections (abstraction)
- 3) create stories aligning with this study's research questions (analysis).

All three steps of this process may reflect stories from participants (narrative) or reflexively by referring to recall (ethnography) while contributing to the abstraction and analysis phases of the meta-analytical process (Figure 5). From stage one to four, each published source was compared and when intersections discovered between sources these published sources move to the next stage. The constant comparative process using keywords and phrases while comparing intersections to the three academic engagement definitions used in this study, provided connections to answering questions presented in this study.

As selected published sources were reviewed during the abstraction and analysis phases, details and descriptions indicated academic engagement constructs and conditions for improving academic performance (Comeaux & Harrison, 2011; Elias, 2004). Denzin (2009) added to this thought by referring to a performative model of qualitative inquiry, which identified characteristics in a select setting that may or may not have influenced participants' behavior. In this study the connection between setting characteristics and influencing academic engagement and/or academic performance were reviewed during the abstract and analysis meta-analytical phases.

## Setting

The setting or published sources context which in this study were NCAA college or universities located in the United States. Gray literature was referenced that discussed how college and university academic behavior influenced engagement and prosocial behavior with professional athletes. In addition to the physical location that defined setting, there is context, another aspect of setting, used in ethnography. The contexts for this study were environments in which student athletes experienced academic engagement and academic performance.

Methodologically, the meta-analytical process considered setting and/or context in every phase of the process as part of the constant comparative. Figure 5 shows the progression of selected sources intersecting using the constant comparative reviews for the intersections through a transformative lens and then crystallizing in the abstraction phase. It is in this final stage (analysis) the reflexive nature of ethnography was used to examine the intersection (Creswell, 2015).

For the purpose of this study, intersections in which keywords and phrases identified student athletes, football players, or student athletes who were football players enriched intersections by transforming them into a mindful authentic reference to engaging academic settings. For example, when two or more sources intersected with multiple keywords and the context created by these intersections defined keywords, the meta-analytical methodology authenticated a connection related to environmental influences. It should be noted here, frequency of references to any students were noted as those references intersected with keywords and phrases, in addition to references to student athletes.

In addition to keywords and phrases intersections found, I looked for the inclusion of terms such as academic engagement, academic progress rating, and graduation success rating, to

validate the integrity of each source. These terms were influence more than just student athletes' academic performance.

Environment was a keyword that formed the scope and intersections to other keywords that did or did not comply with inclusion criteria for sources or for keywords within published sources. In the event there were no direct references to keywords, during the selection leading into abstract phases, I evaluated sources that created a “trigger interest.” Renninger and Hidi (2016) describe “trigger interest” as:

Trigger interest” refers to the capturer of attention in response to the environment (which includes other people: e.g., Emma receiving the camera from her parents), which is likely to result in continued engagement. After a person’s attention is triggered, the activities of others as well as the conditions of the environment may (or may not) support continued focus and development of interest. (p. 33)

In this study, the concept of trigger interest was referenced to describe the intersection of selected keywords and phrases to environmental conditions, settings, identifying an interest or behavior intersecting with this study’s research questions. It was in the abstract and/or analysis phase that trigger interests were most likely discovered. Trigger interest discovery were associated with intersections between academic engagement and environment, classroom, study hall, or other settings that referenced academic engagement taking place. So, when keywords environment, classroom, or study hall intersected with athlete, athletics, or football, this indicated the possibility of a trigger interest relatable to answering questions in this study.

### **Inclusion Criteria for Published Sources**

Researchers performing systematic meta-analysis collect stories from published documents which have used various methods of data collection including observations, interviews, journaling, focus groups, reviews of artifacts, artistic and creative expression (music), and surveys (Chase, 2005; Clandinin & Connelly, 2000; Glesne, 2011). For this study, I

reviewed published works that referenced or created studies using qualitative, quantitative, and case study data derived from observations, interviews, surveying, and reflexive ethnographic methods. A source inclusion criterion was created over the five phases of the process. In addition, three types of published sources were considered.

The first type was peer reviewed empirical literature. The second type included newsletters, white papers, and sections of books. The third type was gray literature, which included newspaper or web-based articles (Appendix G). Gray literature differs from other sources used in two ways. The first is gray literature is not peer reviewed and second, the author has little or no voice because they are not a participant but merely an observer gathering insights from observations without necessarily using a theoretical framework or methodology.

### **Identification Stage Criteria**

The identification stage used a set of criteria for published source inclusion that was foundational to this study.

- Used the keywords and phrases derived from this study's research questions
- Used the keywords and phrases derived from the three academic engagement definitions referenced in this study (NCAA, NSSE, U.S.DOE).
- Found triggers in published sources intersecting keywords and phrases. Keywords and phrases that were synonyms or antonyms were considered as part of trigger interest.

### **Definition--Intersections**

As stated earlier, keywords and phrases were used as filters for searching in database libraries that included keywords and phrases selected in the identification stage. From the selection stage to the analysis stage, keyword and phrase intersection were identified by using preselected keywords and phrases found in this study's definition for *academic engagement* and

research questions. *Intersection* was defined as when two or more published sources referenced one or more keywords or phrases. For example, two published sources contextually referenced athlete, academic engagement, and grade point average (GPA). These two published works then moved from the selection stage to the abstract stage.

Once intersections were identified in the selection stage, each published source selected was reviewed completely for multiple intersections and contextual references to this study's research questions. For example, a document such as a student athlete scholarship agreement references GPA that intersects with a published source that referenced GPA and the influence of environmental factors on academic performance (GPA). Then, a third source intersected with both, one with keyword 'academic progress rating' and the second with the phrase "my study hall time helps me prepare for my exams." Intersections from published interviews and research observations identified trigger interests that enriched keyword and phrases intersections.

It is important to distinguish between the researcher's observational insights and keywords in student athlete interviews found in published sources reviewed to define student athletes' awareness for academic engagement. For the purpose of this analysis, stories' voices were discovered from published sources using interviews and data created from the interviews, corresponding behavior observations, and reported quantitative data that triggered intersections with keywords and phrases. Retrospectively, my earlier observations informed creation of enriched and specific insights that validated the intersections discovered from sources that used interview data.

### **Researcher's Connection**

One way to identify relevant, authentic stories is to collect stories or construct stories from what is found in published sources. Asking questions from a reflexive frame elicited

experiences relevant to the topics found in published works with intersections, which provided opportunities to understand student athletes' academic engagement phenomenon through the reflection thereby enriching the story (Chase, 2003; Glesne, 2011). As a part of selection criteria and analysis rigor, the intent was that other sources and reviewed sources included interview data and behavior observations that provided relevant findings related to academic engagement and academic performance. Once intersections within and between sources were discovered (Abstract and Analysis Stages), additional review for the influences on academic performance and eligibility was considered.

Focusing on intersecting analysis to relate themes found relevant to the research questions (Chase, 2003; Clandinin & Rosiek, 2007), Table 4 illustrates the progressive development modeling of reflection originating from intersections among published sources. Thereby, creating Table 4 provided a set of filters for selected published source using methods that contextually relate or intersect with this meta-analysis's research problem and purpose. Based on sources, making a connection to keyword or phrase intersections, defined data crystallization leading to a transformational paradigm (Figure 5), created by published stories intersecting, addressing unanswerable questions, and meaning generated by connections within sources to questions (also known as secondary data) (Clandinin & Connelly, 2000). Additionally, Table 4 provided a filter for evaluating published interview format and questions discovered in the published sources selected for this meta-analysis.

Table 4

*Relationship of this Study's Research Questions to Secondary Data--Interviews, Surveys, Observations and other Forms of Data*

<u>Research Question 1</u>	<u>Interview Questions</u>	<u>Surveys</u>	<u>Observations</u>	<u>Other</u>
<p>What role does perceptions and practice of AE play in Academic Athletic Scholarship academic success and compliance?</p> <p><u>Sub-questions</u>                      1.1 How do teammates/classmates help others stay academically eligible?                      1.2 What experiences led participants to practice academic engagement?</p>	<ol style="list-style-type: none"> <li>1. What are some examples of how student athlete teammates help with academic performance?</li> <li>2. What experiences help student athlete academic success?</li> <li>3. What turning points lead to beginning to incorporate AE into student athlete academic plan?</li> <li>4. How do student athletes know when they are out of compliance?</li> </ol>	<input type="checkbox"/> APR <input type="checkbox"/> GPA <input type="checkbox"/> GSA <input type="checkbox"/> AE Survey data reported by articles and documents reviewed in the abstraction stage.	<input type="checkbox"/> Classroom <input type="checkbox"/> Study Hall <input type="checkbox"/> Practice <input type="checkbox"/> Position Mtgs. <input type="checkbox"/> Game Community & Campus	<input type="checkbox"/> Self-awareness <input type="checkbox"/> Self-efficacy <input type="checkbox"/> Self-management <input type="checkbox"/> Relationship Management <input type="checkbox"/> Social awareness
<u>Research Question 2</u>	<u>Interview Questions</u>	<u>Surveys</u>	<u>Observations</u>	<u>Other</u>
<p>To what extent does a Social Emotional Learning (SEL) environment contribute to university sports student athletes' perception of academic success as well as the Academic Progress Rating (APR)?</p> <p><u>Sub-questions</u>                      2.1 What environmental factors influence academic success?                      2.2 What SEL strategies contribute to successful academic performance and APR?</p>	<ol style="list-style-type: none"> <li>1. How does student athlete GPA influence scholarship?</li> <li>2. What parts of academic environment support student athlete academic success?</li> <li>3. What are the people and things that influence student athlete academic success?</li> <li>4. How do student athletes know they are academically successful?</li> <li>5. How would student athletes define the NCAA term Academic Performance Rating or APR?</li> <li>6. How do instructors motivate student athletes to be academically engaged?</li> </ol>	<input type="checkbox"/> APR <input type="checkbox"/> GPA <input type="checkbox"/> GSA <input type="checkbox"/> AE Survey data reported by articles and documents reviewed in the abstraction stage.	<input type="checkbox"/> Classroom <input type="checkbox"/> Study Hall <input type="checkbox"/> Practice <input type="checkbox"/> Position Mtgs. <input type="checkbox"/> Game Community & Campus	<input type="checkbox"/> Self-awareness <input type="checkbox"/> Self-efficacy <input type="checkbox"/> Self-management <input type="checkbox"/> Relationship Management <input type="checkbox"/> Social awareness
<u>Research Question 3</u>	<u>Interview Questions</u>	<u>Surveys</u>	<u>Observations</u>	<u>Other</u>
<p>To what extent do College Football Student Athletes recognize academic engagement in maintaining their personal academic performances and compliance with NCAA scholarship guidelines for eligibility?</p> <p><u>Sub-questions</u>                      3.1 What are the consequences for not meeting academic compliance guidelines?</p>	<ol style="list-style-type: none"> <li>1. What are the minimum student athletes must do to maintain athletic scholarships?</li> <li>2. What non-academic behavior may influence student athlete academic performance?</li> <li>3. What do athletes do to stay eligible and compliant with their scholarship agreement?</li> <li>4. What high school experiences influenced student athletes college academic engagement and/or performance positively or negatively?</li> </ol>	<input type="checkbox"/> APR <input type="checkbox"/> GPA <input type="checkbox"/> GSA <input type="checkbox"/> AE Survey data reported by articles and documents reviewed in the abstraction stage.	<input type="checkbox"/> Classroom <input type="checkbox"/> Study Hall <input type="checkbox"/> Practice <input type="checkbox"/> Position Mtgs. <input type="checkbox"/> Game Community & Campus	<input type="checkbox"/> Self-awareness <input type="checkbox"/> Self-efficacy <input type="checkbox"/> Self-management <input type="checkbox"/> Relationship Management <input type="checkbox"/> Social awareness

**Published sources connection to observations.** The enrichment of the meta-analytical process was influenced when selected sources combined narrative inquiry with ethnographic narrative to explain keywords and phrase intersections, while explaining the connection to environmental influences. For example, there are three observation types that seem to be enriching researchers' field notes: (a) descriptive observations, (b) focused observations, and (c) selective observations (Spradley, 1980). All three-observation types were reported as a means to discover which type(s) best fits the setting referenced in the published sources reviewed in the abstract and analysis phases.

Observation data, from the part of published sources, were reviewed because some authors made observations in varying settings. Observation data intersections found between published sources created stories from the conclusions and finding of published sources intersected and reviewed in the analysis stage. Add to the published observation data intersections, reflexive insights and recall from my experiences as an academic advisor the connections between published sources selected, and intersecting were enriched.

I created a set of observation guidelines to maintain a nonparticipant reference role or what Spradley refers to as a member (an individual who is part of a group but does not interact with the group) (Spradley, 1980; Appendix F). During each review of selected sources with observation data, I maintained a dual purpose by reflexively recalling activities that would enrich the review and analysis reported of observing activities, people, and physical aspects and their influence on student athletes' academic engagement (Spradley, 1980). Connecting the semiotic published observations with student athletes' published narratives (interview data), found in the intersections between published sources, utilized what Glesne (2011) called *signifiers*, a sign that carries a message. For example, NSSE (2013) offered the use of computers during study hall. In

this case, the computer is a signifier for academic engagement. Glesne (2011) went on to say the integration of signifiers creates a system of signs and produces a *social code*. For example, student athletes who have computers in study hall while also having a discussion with peers may define a *social code* for studying for an examination. The keyword and phrases used to identify published sources were considered signifiers. Signifiers were reviewed in every stage of meta-analytical process.

### **Process: Meta-Analysis**

In summary, there are four basic steps to a meta-analysis (Barry & Ebell, 2016):

1. Identification of sources selected from data libraries using a key word filter. Example: Academic Engagement, Student athletes, academic performance, etc.
2. Selection of sources filtered from the identification process that intersect with this study's research questions.
3. Abstraction from one source intersecting with another source derived from the selection process.
4. Analysis of sources discovered during constant comparative process intersecting keywords and phrases from the abstraction process.

Each of these steps are discussed below in terms of what was done to implement and complete this meta-analytical study.

The first step was to find published research sources addressing higher education academic engagement, student athlete academic performance, as well as psychological data bases (reference to the actual data) examining student athlete academic and social emotional learning behaviors.

The search for published sources began by searching database resources available through the university library:

1. Academic Search Premier

2. Web of Science
3. Business Source Complete
4. LexisNexis Academic
5. Google Scholar
6. Gale Virtual Reference Library

Review of this list of databases led to more specific databases and library resources. Examples of these sources would be the NCAA, NSSE, and the United States Department of Education (USDOE). Add to this numerous journals and books focused on sports, athletics, sport psychology, and academic focused literature, referencing academic engagement related to influences on athletic academic performance (Appendix G).

### **Selection**

Once published sources were identified by using keywords and phrases, it was important to select sources based on relevance per the criteria (meeting all or some of the criteria).

- Studies were published from 2000 to present (studies prior to 2000 would be considered if data and methods had not changed). For example, Benjamin Bloom was referenced from 1985 and the taxonomy referenced was revised in 2001. So, all cites to Bloom include the revised versions as well.
- The sources must include one or more of the keywords or phrases whether in title, abstract, or text and contextually referencing academic engagement and/or academic performance.
- An empirical study could be qualitative, quantitative, or mixed methods. If not an empirical study the source must include one or more keyword or phrase as defined in this study.

- Preference was for study findings with summary comments or conclusions addressing insights regarding academic engagement and/or academic performance.
- The study setting, context, or data related to classrooms, study halls, practice and/or game day environments.
- One study on its own merit may not meet the above criteria. If a study was not selected it either had no keywords or phrases, or keywords and documents did not intersect with any other published source selected.

When one source connected with another and there was an intersection connecting key terms found during identification and this connection begins to answer research questions then the intersection was of note rather than the individual studies being notable. For example, a source not meeting the above criteria but included insights and enrichment, but did not intersect with any sources selected during abstraction would not have been selected. This type of secondary inclusion related to my position as an advisor to the athletic department as well as adding deeper insights aided in the development of findings for this study.

Identifying and selecting published sources created a filtering of studies prior to identifying intersections that aided identifying keywords and concepts associated to academic engagement.

Table 5 is a summary of sources filtered in identification and selection steps prior to the abstraction process. In Figure 5, the progression of the process indicated that sources could be included in one or more of the columns. For example, in this study, a published source that was identified in the NCAA library and the U.S.DOE library was counted in the first column it was identified in. It should be noted that the other three columns could include gray literature. For

example, a NCAA article maybe a newspaper report on GPAs’ impact on eligibility. This is a gray literature item found in a NCAA database library search.

In Table 5 the number of sources found with the keywords or phrases after searching a selected database such as NCAA, NSSE, etc. The significance of this table is identifying trends by topic and database sources.

Table 5  
*Identification of Filtering Number of Sources*

Keyword/Phrases	NCAA	NSSE	USDOE	Gray Literature
Academic Engagement	9	140	86	48
Academic Performance	30	45	55	28
Eligibility	43	18	22	27
Athlete/Athletic	110	28	33	48
Total	192	231	196	151

That being understood, the information indicates that NCAA databases have fewer published sources on academic engagement and more references to keywords and phrases for Athlete/Athletics. Table 5 shows that NSSE, USDOE, and gray literature resources reference eligibility less often than academic engagement or academic performance.

Examples of gray literature (also known as Fugitive Literature) are typically sources such as articles in papers, magazines, or sourced in social media (Appendix G). To complete the definition, a *piece* of gray literature would not have involved peer review. It would include white papers, blogs, and dissertations or theses (Mason, 2016). Examples of social media used would be websites directly related to keywords and phrases referenced in this study. Words such as

academic performance, academic engagement, eligibility, Division 1 Football, NCAA, Academic Progress Report (APR), and Grade Point Average (GPA) (Report, 2016).

For example, NSSE has the greatest number of published sources including keywords and phrases discovered through the identification stage of the meta-analysis at 231. The topic most often intersecting with the NSSE published sources was academic engagement followed by academic performance, 140 and 45 respectively. During the identification process, the intent was to find published sources that had keywords and phrases that met criteria in their context as the meta-analysis process continues to the analysis stage. Table 5 created a pattern for use during the selection process. For, example intersections between published sources on academic engagement would be with NSSE and U.S.DOE libraries according to Table 5.

In the selection process, I looked for intersections between published sources discovered during the identification stage. Table 5 shows academic engagement and Athlete/Athletic have the greatest potential for intersections across four major library resources. Empirical research was discovered within all categories except gray literature, by definition. During the abstraction stage published sources were identified by the number of topics intersecting in the sources. The greatest number of intersections found was four.

### **Abstraction**

The steps for the abstraction process were:

1. Appropriate published sources were chosen from the identification and selection phases.
2. Assessed the sources' quality. Assessed quality in two ways. The first way was considering all published sources discovered during the identification and selection phases. Next, looked for inclusion of terms and resulting intersections with keywords and phrases from academic engagement definitions and this study's research questions.

3. Reviewed all sources coming from the selection stage for contextual reference and keyword and phrase intersections with one or more sources. Started reviewing published sources that intersect with three or more topic intersections. Three intersections indicated that published sources intersect with each of the research questions.
4. Reviewed the published sources for stories (same as above) or other sources that would enrich the intersections. During this review, looked at gray literature sources, as well as other sources, not selected so that the intersection maybe enriched by contextual student athlete stories and experiences.

The stage for using keywords and documents was a first step in managing potential clarity. For example, without a constant comparative between all steps of the meta-analytical process, selection bias and inter-rater reliability may not be addressed. Also,

- Accurate identification of keywords, and/or concept intersection between sources could be misinterpreted. For example, keyword/phrase GPA should be identified with academic performance as well as eligibility, athletics, student athletes, study hall, environment, etc.
- Translation of study intersections into student athlete stories could be misinterpreted.
- Typographical errors while transferring data or in originals.

Applying some of the following steps could minimize errors:

- Use multiple reviewers. This was not done for this study because one researcher reviewed the sources.
- Reviewers meet to gain consensus and resolve conflicts. This was not a strategy for this study for the same reason mentioned earlier, one researcher. By using gray literature

sources and contextual consideration for sources not selected (no intersections), trends and patterns have been seen that acted as if reviewers met and gained consensus.

- Use standard formats, sources, or databases which constrains entries of behaviors.

Example, *Sport Psychology Journal*, standard data base, constraints would be toward academic engagement, academic performance, etc.

- Use keywords and concepts that standardized the intersections between sources;

Example: Keyword academic engagement defined and contextually referenced the same way.

- Repeated comparisons among sources looking for inconsistencies. During this process step, bias could be present due to reviewer selection (for or against) a well-known study or author. In addition, there is the possibility for citation and publication bias. During the abstraction phase, an assessment of each study's quality is prepared for study analysis and interpreting results (intersections between studies selected).

## **Analysis**

There were several models and methods to be considered for the analysis of meta-analytic data. This study considered a sensitivity analysis. A sensitivity analysis is a way of looking at sources from the perspective of "what if." Looking at student athletes and whether certain variables influence student awareness to academic engagement provided a setting for applying a sensitivity analysis. For example, environment influencing academic performance, an environment where a student athlete practiced high impact activities, such as office visits with an instructor to remain academically engaged, complete extra credit assignments, or create study groups to prepare for examinations (NSSE, 2013). At first glance, a high impact practices (HIP) could be considered a reviewer's bias as stated earlier. This is less likely when the HIP was

contextually referenced and identified as an intersection between one or more published sources. In addition, HIP are components that define academic engagement for NSSE when repeated more than once over time. So, intersections discovered between multiple literature sources may or may not represent a HIP.

The analysis looked for common ground and intersections among sources to create a narrative for answering the research questions. Discovering the stories was aided by the meta-analytic process. As each step in the process was completed the intersections among published sources began to align, or validate, student athlete behavior regarding academic engagement and academic performance. To some degree, each source reviewed described a part of a story. When analyzed, relatable parts of stories intersected with keywords or phrases used in this study began to answer this study's research questions.

Abstraction and Analysis steps used trend and theme guidelines represented in Appendix D along with cognitive prompts found in Appendix E and F for studies that reported published interviews or observations. Appendix F was especially helpful when sources used ethnographic observations to report a case study or a reflexive story about how the data were selected.

### **Published Sources Analysis**

Examined sources included interviews and ethnographic protocols for reviewing observation data, which created a connection with the student athletes' stories (narrative) and the environments they study and deliver their skills (Creswell, 2007; Glesne, 2011). When reviewing sources for themes and patterns, thematic analysis was used to create the codes needed to identify subtle data differences (Appendix D) (Glesne, 2011; Spradley, 1980). Data analysis is not a linear process (Glesne, 2011).

As previously described in the meta-analysis process section, the analytic process included the following steps:

1. Source preparation (identification),
2. Source series exploration (selection),
3. Source reduction (abstraction), and
4. Source interpretation (analysis) (Mertens, 2009).

In analyzing the sources reviewed, all four steps were equally weighted. Through each of these steps, I labeled domains (Appendix F) that identified specific semantic relationships for the student athletes' culture and academic environments (Spradley, 1980). As sources were being analyzed, more sources were being reviewed. Before the analysis was complete, I explored interaction, continuity, and environment situations throughout the review process. According to Creswell (2007)

This analysis is useful in designing detailed descriptions for case studies, ethnographies (stories), and narrative research projects [connecting] a process model, advance a drawing of the specific research citation (as in ethnography). (p.189)

Thereby enriching the narrative with themes and patterns with detailed environment descriptions.

### **Criteria for Rigor**

Qualitative research is ever changing and dynamic while scholars are constantly reviewing the analysis of sources to identify intersections between members (myself or those in the sources who observed participants), participants, and environments (Guba & Lincoln, 2008; Lincoln, 2009). Rigor, or authenticity, relates to the research paradigm used in the study, specifically aligning with ethical guidelines, associated with a paradigm that refers to the

connections student athletes make with their environment and the intersections between environment and constructs that define academic engagement (Richardson, 2000).

Research scholars challenge the notion that qualitative research should mirror positivist research and recognize the importance of establishing rigor independently in ways that connect to the paradigms most often used (Guba & Lincoln, 2008; Lincoln, 2009). For the purposes of this analysis, I engaged methods that aligned crystallization and authenticity criteria.

### **Crystallization**

Crystallization promotes multiple perspectives, “Inconsistencies can help to reveal the complexity of a situation” (Glesne, 2011, p. 47). Further, crystals change over time, yet are solid shapes like a triangle (triangulation; Ellingson, 2009). Crystals look different from different angles and reflect the inside as well as refracted externalities. Each of these qualities described tenets of the social emotional learning (SEL) paradigm and methods used. In SEL research, scholars recognize the ways educators, coaches, and students consider the many environmental influences that impact academic engagement and ultimately academic performance (Comeaux & Harrison, 2011; Elias, 2004).

### **Authenticity Criteria**

The more traditional criteria for rigor include transferability, dependability, credibility, and confirmability (Lincoln, 2009). While these criteria are regularly emerging and changing (Glesne, 2011), I employed each in this study to ensure scholars accept this work as valid. I established dependability by using multiple sources that used data gathering methods of individual interviews, setting observations, and document checks (Appendices B & C; NCAA letter of intent; Scholarship agreement). Next, I established credibility by conducting the constant

comparative process. Given this study is a hybrid of both (meta-analytic) that used interviews from scripts intersected with keywords and phrases found in multiple sources.

I satisfied the confirmability criteria through pattern and theme review of the preliminary literature intersections. Finally, the transferability criteria were addressed by providing thick, rich descriptions from which readers can draw inferences and understandings (Lincoln, 2009). Thus, according to SEL theory research, I identified intersections with the five SEL constructs offered by combining a constant comparative of all sources (Appendix I) to research problem and questions.

### **Summary**

In this chapter, I explored a transformative paradigm, including wakefulness (Claudine & Connelly, 2000, p. 184) and authenticity, as the framework for this meta-analytical study. The transformative paradigm focused on a reflexive approach introducing a constant comparative ethnographic narrative (Charmaz, 2012). The constant comparative was used during the selection stage, clarified during the abstraction stage, and enriched in the abstraction stage when published sources crystallized into intersections with this study's research questions. In this case, constant comparative was to crystallize all sources after deep reflexive selective coding had been completed.

For example, the four sources chosen in the selection stage (Figure 5) summarize the progression of the meta-analytical process. The complete process was a constant comparative from identification to analysis stage. In addition, Figure 5 aligns where the transformative process and consideration for crystallization are focused upon during the process.

Additionally, I described the use of narrative inquiry as a filter and tool. Narrative inquiry encouraged the use of stories as a form of teaching and learning. By exploring the commonalities

of stories from student athletes' experiences, both student athletes and readers gain insights related to the intersections of social emotional learning, academic engagement, and academic performance. The connections between signifiers identified within sources of observation studies and student athletes' interviews intersected with keywords corresponding to behavior patterns and themes related to academic engagement constructs (Figure 4). As seen in Figure 5, the analysis stage, transformation of source intersections into crystallized themes yielding stories about student athletes' connecting academic engagement to their roles as a student, academic performance, and their student athletes' voices. The voices of the student athletes as a part of the constant comparative resulted in crystallized patterns and themes that may or may not intersect with this study's research questions.

The crystallized patterns and themes had varying degrees of intersection and the degree of intersection was enriched by keywords and phrases that intersected within selected sources. For example, when a number of published sources intersect with keywords and phrases, such as environment, academic performance, eligibility, and graduation an alignment is thematically created with these intersections (data) and Figure 1 (Comeaux & Harrison, 2011). The alignment was created by matching environment with Pre-College heading and repeating the alignment with the remaining three headings. In addition, aligning eligibility to Social Systems, specifically sub-heading grade performance, while adding graduation alignment to Initial Commitment and Commitment headings begins to align student athlete academic engagement to environmental and social influences.

By definition, crystallization is an examination of many layers of insight while methodically identifying where the layers of the crystal intersect to define a shape. For this study, transformation of the crystal offers insights to answers for this study's research questions.

## CHAPTER FOUR: FINDINGS

### **Introduction**

As previously stated, this study's problem focuses on disconnects between the student athletes' perceptions of expectations as a student and the criteria specified in the scholarship agreements as related to academic engagement for success in the college classroom, college study hall, and athletic performance centers (game, practice and meetings). This chapter first reports the problem many university student athletes have perceiving and practicing academic engagement to ensure academic scholarship compliance. It continues to detail Social Emotional Learning (SEL) contributions to learning environments and student athletes' responsibility for the team's Academic Performance Rating (APR). The final inquiry asks whether student athletes recognize academic how engagement influences academic performance and scholarship compliance (eligibility). Answers to this inquiry reveal why academic engagement constructs influence student athletes' behaviors and how that influence impacts academic performance.

Based on intersections found in sources, findings were discovered for each of the three areas of interest by using meta-analytical methods. For example, keywords or phrases created intersections when identified in published sources. Examples include academic performance and academic engagement; these connect student athletes' prosocial behaviors informed by observational experiences compared to published sources of onsite locations (classroom, study hall, etc.). Because onsite locations are prosocial, I concluded student athletes' behaviors contributed to improving academic engagement and potentially academic performance (Jennings & Greenberg, 2009). When any academic environment variables intersected with positive academic outcomes supported by, sources and conclusions indicated directly or indirectly student

athletes' improved academic performance (Comeaux & Harrison, 2011; Jennings & Greenberg, 2009).

In addition, this study reflexively reviewed intersections for recurring patterns and themes in reported student athletes' behaviors related to academic engagement in selected sources. As the intersections' frequency increased among sources, recursive reflective check points indicated student athletes' attention toward academic engagement increased. It is with tools and filters that qualitative clarity is maintained between reflexive insights and recursion of themes and patterns that validate student athletes' awareness confirming a gap between student athletes' understanding and application for academic engagement and its impact on academic performance (Hibbert, Coupland, & MacIntosh 2010).

It should be noted, pictures in figures 8, 9 and 12 to 15 are part of the researcher's photo library. These are used to illustrate relevant examples of environments.

### **Intersections**

The purpose of this study was to understand the role of academic engagement for university student athletes' perceptions of how academic engagement influences their academic performance. The meta-analytical process focused on reporting of student athletes' awareness of the academic environment and opportunities for engagement and the researcher's interpretation of how these factors influence student athletes' academic performance. Published *sources*, defined as any peer reviewed study that referenced keywords and phrases, *documents* that were not peer reviewed such as white papers, newsletters, or book passages, along with *gray literature* (web and newspaper articles) were identified to begin the selection process leading to identifying intersections of keywords and phrases.

Using a constant comparative approach within the four step meta-analytical process enriched the abstraction of multiple keyword or phrase intersections within and among sources. The systematic identification and selection of each intersection crystallized the analysis while collectively transforming intersections for interpretation to address answers to this study's research questions.

Table 6 shows that academic engagement, eligibility, and GPA were the most frequently referenced keywords or phrases from and across the sources identified and abstracted in the meta-analytical process. The abstraction stage was used to discover which published sources have multiple intersections with other sources. Intersections among published sources were supported by using Appendices D through F. Using these tools and additional filters moved the meta-analytical process from abstraction stage to analysis stage.

Starting the analysis stage, connections were found in sources that intersect with keywords and phrases discovered in the abstract stage. The count of keywords for the respective sources represent the number of intersections found for each keyword in that type of literature. There were 133 intersections found in peer reviewed articles with the keyword 'academic engagement.' During the abstraction process, constant comparative was done across all published sources for each keyword with the ultimate goal to identify sources that intersected with all five keywords.

The published sources that intersected with at least one of the five keywords were closely reviewed in the analysis stage. Some published sources inferred intersection to a keyword and were considered enrichment to student athletes' stories about the impact of their environments. An example was finding references to academic engagement in the form of phrasing similar to

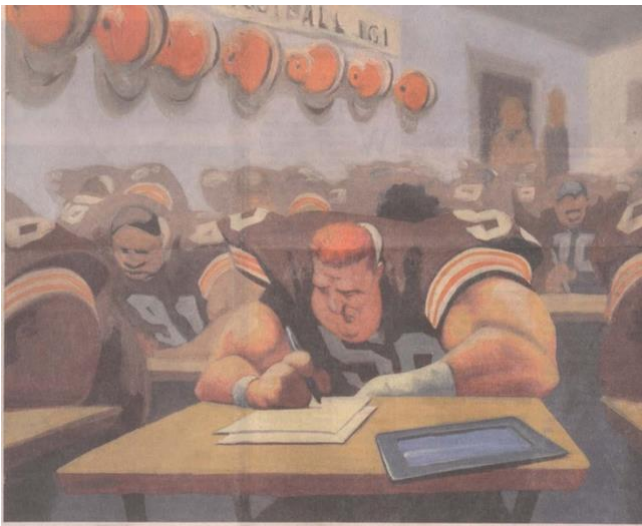
“study habits” or “using a computer for \_\_\_\_\_” that indicated a student athlete was practicing higher order learning (NSSE, 2013) and implying academic engagement.

Table 6  
*Intersections of Five Keywords Within Published Works--Articles, Documents, and Gray Literature*

Keyword/Published Work	Articles Peer Reviewed	Documents White Papers	Gray Literature Periodicals/Web	Totals
Academic Engagement	133	88	62	283
APR or Academic Perf	49	74	35	158
Eligibility	105	113	50	268
GPA or Grades	96	90	33	219
Graduation or GSR	33	74	23	130
Totals	416	439	203	1058

Table 7 provides examples of the intersections between keywords and phrases, during the analysis stage. Sources one, two, four, and five are framed with the keyword ‘environment,’ creating an intersection among these four references. Source four directly framed to answering one research question by intersecting with keyword ‘environment.’ This represents a “one word” intersection with social emotional learning (SEL). These two intersections may not be contextually related, however, during the analysis stage contextually comparing sources with more than one keyword or phrase intersections created a better-defined environment for academic engagement. This is not to say one intersection to student athlete academic engagement is not a relevant reference, but more than one intersection provides greater confidence identifying behaviors representing academic engagement.

Now consider Table 7. Rows one, two, and five have multiple keyword or phrases intersections with ‘environment’ as the only common intersection. With ‘environment being’ the common intersection, other keyword and phrases identified provide enrichment to the definition of environment as it relates to academic engagement.



*Figure 6 Browns' Position Meeting*

As the intersections among keywords and phrases connect/intersect within sources, additional analysis using filters and tools was done. Appendices D-F searched for patterns and themes that identified the voices of student athletes. For example, Kevin Clark’s article in the *Wall Street Journal* (2014) about the professional football team Cleveland Browns, shared an image that illustrated professional athletes writing as though they were taking notes. Add to this image another that resembles a tablet computer. Each of these images are considered trigger signifiers (Appendix F). The image triggered a thought that would be directly related to actions that resemble taking notes with or without the presence of a laptop defining components of the NSSE definition for academic engagement.

In Figure 6, this illustration was referred to as a position meeting and yet is similar to a representative academic setting. In this setting, triggers that signified academic engagement may be camouflaged by a cartoon theme set with muscular football players. In Table 7, source four could use Figure 6 as a visual representation for connecting a position meeting setting (athletic academic) with a university academic setting diminishing the notion that student athletes are unfamiliar or misunderstanding of the academic connection to their sport. The obvious differences between these two environments are the similar appearance of student athletes in Figure 6. So, comparing Figure 6 to Figure 7 the images illustrate the intersections found in Table 7. Examples would be students and student athletes using academic tools (pencil, paper, tablets, etc.) as well as posturing that resembles engaged behavior.



*Figure 7* Traditional College Classroom

When Jennings (2009) refers to instructor social emotional competency (SEC), Figure 6 could confuse instructors with low SEC because the instructor is not seen and yet each student athlete is engaged in SEL behaviors and has access to using a tablet computer. The intersections between the position meeting (Figure 6) and the university classroom (Figure 7) define potential gaps for student athletes to understand that the degree of academic engagement needed is the same required for improving success in both settings. Figure 7 shows a traditional university

classroom and the intersections to Figure 6 found with writing tools, calculators, and body attentive posturing. These images accurately depict academic engagement in different environments. Showing the similarities align with the constructs that define academic engagement.

References one through four in Table 7 illustrate the intersections among four published sources with framing that would include images shown in Figures 6 and 7. For example, reference two in Table 7 is Gaston-Gayles (2004) article, which shares concern that student athletes' academic engagement and interaction with peers are relevant factors for improving academic performance and ultimately remaining athletically and academically eligible.

A comprehensive review of Table 7 will show that environment intersects with all six sources. So, intersections do not occur among all sources that contribute, directly or indirectly, to findings. Table 7 shows that each research question presented in this study is contributed to. Using additional filters and tools influenced the strength of each intersection during the abstract stage while offering additional enrichment during the analysis and ultimately to each research question. These common intersections show the connection and influence between environment, SEL, and constructs student athlete eligibility is evaluated.

Table 7  
*Intersections Between Keywords and Phrases to this Study's Research Questions*

<b>Sources</b>	<b>Keyword Intersections</b>	<b>Framing of the study</b>	<b>Research Question</b>
1). Comeaux, E., & Harrison, C. (2011). A conceptual model of academic success for student-athletes. <i>Educational Researcher</i> , 40(5), 235-245.	environment, AP, SEL, academic engagement	Environment influence on freshman to graduation, connection between goal setting, environment, and academic performance results, goal setting impact on eligibility	How do student athletes recognize academic engagement in maintaining their personal academic performances and compliance with NCAA scholarship guidelines for eligibility?
2). Gaston-Gayles, J. (2004, January/February) Examining academic and athletic motivation among student athletes at a college university. <i>Journal of College Student Development</i> , Jan/Feb, 75-83.	environment, academic engagement, AP, GSR, APR	Athlete eligibility, managing sport demands with academic demands, engaging with peers and professors  Sport time demands influencing APR, eligibility	How do student athletes recognize academic engagement in maintaining their personal academic performances and compliance with NCAA scholarship guidelines for eligibility?  For university sports student athletes, what role did perceptions and practice of academic engagement play in academic success and compliance?
3). Jennings, P., & Greenberg, M. (2009). The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. <i>Review of Educational Research</i> , 79(1), 491-525	SEL, AP, academic engagement environment	Educator competency influence on the academic environment, academic engagement, and academic performance	How does a Social Emotional Learning environment contribute to university sports student athletes' Academic Progress Rating (APR)?  For university sports student athletes, what role did perceptions and practice of academic engagement play in academic success and compliance?
4). Elias, M. (2004). Strategies to infuse social and emotional learning into academics. <i>Building academic success on social and emotional learning: What does the research say?</i> Teachers College Press, Columbia University, New York, Chp7, 113-134.	SEL, AP, academic engagement, environment	Pedagogical strategies, SEL, academic engagement, APR, connection between instructor social emotional competency, academic performance and student behavior	How do student athletes recognize academic engagement in maintaining their personal academic performances and compliance with NCAA scholarship guidelines for eligibility?
5). Paskus, T. (2012). A summary and commentary on the quantitative results of current NCAA academic reforms. <i>Journal of Intercollegiate Sports</i> , 5, 41-53.	APR, GSR, Environment, eligibility	Influence of athletic performance on GSR, APR, and does sport performance influence academic engagement and academic outcomes	For university sports student athletes, what role did perceptions and practice of academic engagement play in academic success and compliance?
6). Clark, K. (August 12, 2014). The Brown's Strategy: Write This Down, Why Cleveland Prefers Pen and Paper to Tech; "To Write Is to Learn". <i>Wall Street Journal</i> .	environment, academic engagement, technology, study hall	Pedagogical strategies to promote academic engagement and how altering the environment has a positive influence on performance	How does a Social Emotional Learning environment contribute to university sports student athletes' Academic Progress Rating (APR)?

## Filters and Tools

Using a systematic approach in the analytical stage of this study's meta-analysis process required a framework for analyzing published interviews, observations, and the discussions in those sources for discovering intersections in the abstract stage (constant comparative).

Observations included in Table 7 were analyzed using the protocol found in Appendix F. When environment was mentioned any details that defined the environment as a study hall, traditional classroom, or athletic meeting or practice area were analyzed with a semiotic focus (i.e., on symbols, signs and, artifacts that possess information about academic engagement) (Glesne, 2011).

Table 7 Sources two frames observations of student athletes that crystalized when an intersection with Sources four's key findings. Instructors' social emotional competency further crystalizes when student athletes' interview remarks (Sports News, 2015) frame views on academic engagement and performance. Richard Sherman, NFL player, for the Seattle Seahawks, reflected during an interview on his time as a student at Stanford University in the environments influencing his academic engagement and academic performance (Sports News, 2015).

0:58you know and you are sitting here you make from rooms give me  
1:02arm you may spend a few hours studying on the most spend a few hours at library  
1:06checking out books in just doing casual reading  
1:09then you may go hang out with friends and have a coffee when you are a student  
1:12athlete you don't have that kind of time  
1:13you wake up in the morning you have weights at this time then after weights you  
1:17go to class after class you go  
1:18you go maybe to grab a quick bite to eat if you get a quick bite to eat go  
1:23straight to  
1:23meetings after meetings to practice after practice you gotta try to get all  
1:27the work done you  
1:28you had throughout the day you got from your from your lectures and

1:32and from the focus group those aren't the things that people focus on when talking  
1:37about student athletes

Sherman continued to comment about the struggle he and his teammates at Stanford had managing the many environments and instructors (instructor definition includes coaches) who may have been social emotionally competent.

2:27but as Jim, Jim Harbaugh [head coach at the time] would attest we were also there for  
2:31football there are but there were still guys like Andrew  
2:36who majored in engineering are incredibly tough road to take  
2:40when you're when your football because a lot of the classes conflict [with the practice schedule]

The key findings in Table 8 include keywords and phrases found in intersections that connect sources, of interviews and observations referenced here (National Collegiate Athletic Association, 2015). These intersections enriched the meta-analytical process while further validating framing of this study (Table 7).

Tables 7 and 8 define social construct cites, the presence of signifiers that trigger intersections defining stories and aligning keywords and phrases as findings reported here. During the crystallization of each intersection, social constructs are identified in the form of environment sites where student athletes demonstrate academic engagement (Riessman, 2008). Based on interviews and observation sources, each defined citation was examined with a narrative ethnographic framework, to find published representative figures and make connections among sources that define academically engaging environments.

Table 8  
*Key Findings Based on Trigger Signifiers*

<b>Authors</b>	<b>Year</b>	<b>Journal</b>	<b>Key Findings</b>	<b>Trigger Signifiers</b>
1. Comeaux, E., & Harrison, C.	2011	<i>Educational Researcher</i>	Environments pre-college, during college, and within their sport influences student athletes' academic engagement and academic performance. The degree of academic performance impact arises in graduation rates and academic performance ratings.	Environment, academic engagement
2. Gaston-Gayles, J.	2004	<i>Journal of College Student Development</i>	The environment does not discriminate among ethnic groups. Student athletes who manage and plan how the environment influences their academic and athletic performance excel and stay eligible.	Environment, academic engagement
3. Jennings, P., & Greenberg, M.	2009	<i>Review of Educational Research</i>	SEL connects specific behaviors (constructs) to environmental influences. When SEL behavior is diminished or missing (disengagement) academic performance is diminished.	Environment, academic engagement
4. Elias, M.	2004	<i>Teachers College Press</i>	The capability of academic environment and instruction to develop SEL constructs creates an environment of academic engagement. Each SEL construct has relatable positive behavior.	Environment, academic engagement
5. Paskus, T.	2012	<i>Journal of Intercollegiate Sports</i>	Team Graduation rates and the corresponding students' GPA improve team APR when student athletes are provided environments that promote SEL constructs. Self-efficacy was reported to be the most desired and influential for increased academic engagement.	Environment, APR
6. Clark, K.	2014	<i>Wall Street Journal</i>	By encouraging the use of high impact practices such as taking notes, using tablet computers, and being present in the academic environment athletes (professional or college) improve their athletic performance by engaging	Environment, academic engagement

For example, Kendall Spencer during the NCAA 2015 leadership conference shared his thoughts as a student athlete regarding the influence of environment on enriching academic engagement and shrinking the gap between engagement and disengagement (National Collegiate Athletic Association, 2015).

0:16and so really what is the student athlete experience when I think that I think  
0:19of what mine was  
0:20course and um you know I came out of high school and you know I wasn't  
necessarily  
0:25the strongest student I was intelligent  
0:27had a lot of potential but I hadn't really showed it and mainly it  
0:31was because my athletic ability that I ended up getting to a great  
0:34university  
0:35and from there I just blossomed um I was in an *environment* that helped  
0:40that helped me to feel the support and the love to really grow and mature as an  
0:45adult  
0:45and I think that when you think about the student athlete experience that's what  
0:49it is

In line 0:35, Spencer shares the academic environment helped him to *blossom* after admitting that he was not the best student even though he was intelligent (line 0:25). Grabowski and Sessa (2014) share researcher insights supporting Spencer's feelings that the higher education academic environment contributed to his blossoming as a student athlete,

Researchers are beginning to understand that engagement is a function of student characteristics and environment and is associated with certain positive academic and well-being outcomes. (Grabowski & Sessa, 2014, p. 37)

Environment and the characteristics that define students and student athletes begin to define positive academic outcomes. Mr. Spencer blossomed as an example of his positive outcomes. Looking back at Table 6, Spencer's interview excerpt comments contributed to this study regarding student athletes identifying environments that improve academic engagement and academic performance. If student athletes are in socially constructed academically engaging environments, does the student athletes' words and/or behavior acknowledge they are

academically engaged? If so, what do the three site environments, of interest to this study, look like?

A review of Table 9 yielded intersections between trigger signifiers found in sources to three environments significant to this study. Significance is cited in sources where intersections among sources identified academic environments that provide potential for student academic engagement. So, academic engagement could be discovered by students and student athletes.

### **Site One- Athletic Academic Center- Study Hall**

According to the National Association of Athletic Academic Advisors (Academic Programs & Practices Committee, 2016; Mankin, 2015), study halls have mandatory attendance for some student athletes who are at risk of ineligibility. Each sport may vary the required hours in study hall over a minimum of six hours per week (a week is defined as Monday to Friday) based on students' GPAs and other conditions that influence eligibility. Based on personal observations, requiring student athletes to complete hours of attendance demonstrates a high degree of awareness for attending study hall even when the student athletes were not required to record their time. In Table 9, items two and four, student athletes' study hall attendance, required or not, resulted in academic engagement and improved academic performance.

Item five in Table 9 (Paskus, 2012) refers to individuals assisting student athletes in athletic academic centers (study hall) who are often referred to as Learning Coordinators (part time or volunteer adults) along with Academic Advisors (full time university staff) responsible for facilitating and providing academic assistance to student athletes. A common practice is that student athletes, who have mandatory hours, are assigned a Learning Coordinator and an Academic Advisor. Each of these support persons has scheduled times to meet with each student athlete. The Learning Coordinator advises and creates weekly plans for each student athlete

assigned to them. Each of these support persons has scheduled times to meet with each student athlete.

Table 9  
*Trigger Signifiers Intersecting to Academic Environments*

<b>Authors</b>	<b>Year</b>	<b>Sources</b>	<b>Triggers Signifiers</b>	<b>Environment</b>
1. Comeaux, E., & Harrison, C.	2011	<i>Educational Researcher</i>	Environments pre-college, during college, and within their sport	Traditional Classroom
2. Gaston-Gayles, J.	2004	<i>Journal of College Student Development</i>	The environment does not discriminate among ethnic groups. Student athletes who manage and plan how the environment influences their academic and athletic performance	Position Meeting and Traditional Classroom, Study Hall
3. Jennings, P., & Greenberg, M.	2009	<i>Review of Educational Research</i>	SEL connects specific behaviors (constructs) to environmental influences.	Athletic, Position Meeting, Traditional Classrooms
4. Elias, M.	2004	<i>Teachers College Press</i>	The competency of the environment and instruction to develop SEL constructs creates an environment of academic engagement.	Traditional Classroom, Position Meeting, Study Hall
5. Paskus, T.	2012	<i>Journal of Intercollegiate Sports</i>	Graduation rates and the corresponding GPA improves APR when student athletes are provided environments that promote SEL	Athletic, Position Meeting, Traditional Classroom
6. Clark, K.	2014	<i>Wall Street Journal</i>	Pedagogical strategies to promote academic engagement and how altering the environment has a positive influence on performance.	Athletic, Position Meeting, Traditional Classroom

The Learning Coordinator advises and creates weekly plans for each student athlete assigned to them. The Academic Advisors focus was on oversight of course work, academic review, registration, eligibility, and tutoring services (eligibility, GPA, study hall, etc.). These intersect with keywords and phrases connecting the academic advisor to instructional social emotional competency (Elias, et al. 1997; Elias, 2004). The intersections between study hall environment and high impact practices (e.g., meeting with an academic advisor) complete connections for

student athletes that define an optimal set of environments for academic engagement. What is not clearly discovered is whether student athletes recognize these connections; which support their eligibility, graduation success, and honor their scholarship agreement.



*Figure 8 Athletic Academic Center*

Figure 8 is an example of study hall or academic environment center that matches the intersections referenced in Table 9 and shows a computer lab and private study areas representing a prosocial learning environment supporting each student athlete to be academically engaged by using social emotional competent environments (Comeaux & Harrison, 2011; Jennings & Greenberg, 2009; Zins et al. 2004). Figure 9 challenges the look of a traditional classroom and yet is just as engaging and known as an Athletic or Position Meeting space. Given the connection between images such as Figures 7 (Traditional Classroom), 8 (Study Hall), and 9 (Athletic or Position Meeting), keywords and phrases, validate student athletes academically engaged, but not necessarily realizing how academic engagement may or may not improve academic performance.



*Figure 9 Athletic Classroom*

### **Site Two- Traditional Classrooms**

Classrooms include both athletic and traditional classrooms. Figure 9 is a form of athletic classroom and Figure 7 captures the image of a traditional classroom. According to research question two, does a SEL environment contribute to university student athletes' APR? According to Paskus (2012), student athletes' eligibility and GPA are the primary factors that influence changes in APR. In Figure 9, student athletes identify with their sport (by what they wear), high self-identity, and while considering the positioning of players to a central figure (instructor/coach) have high academic engagement identity similar to Figure 9's focus on an instructor/coach. In both cases, the images have specific trigger signifiers (Table 9) that connect academic engagement to academic performance (Jennings & Greenberg, 2009).

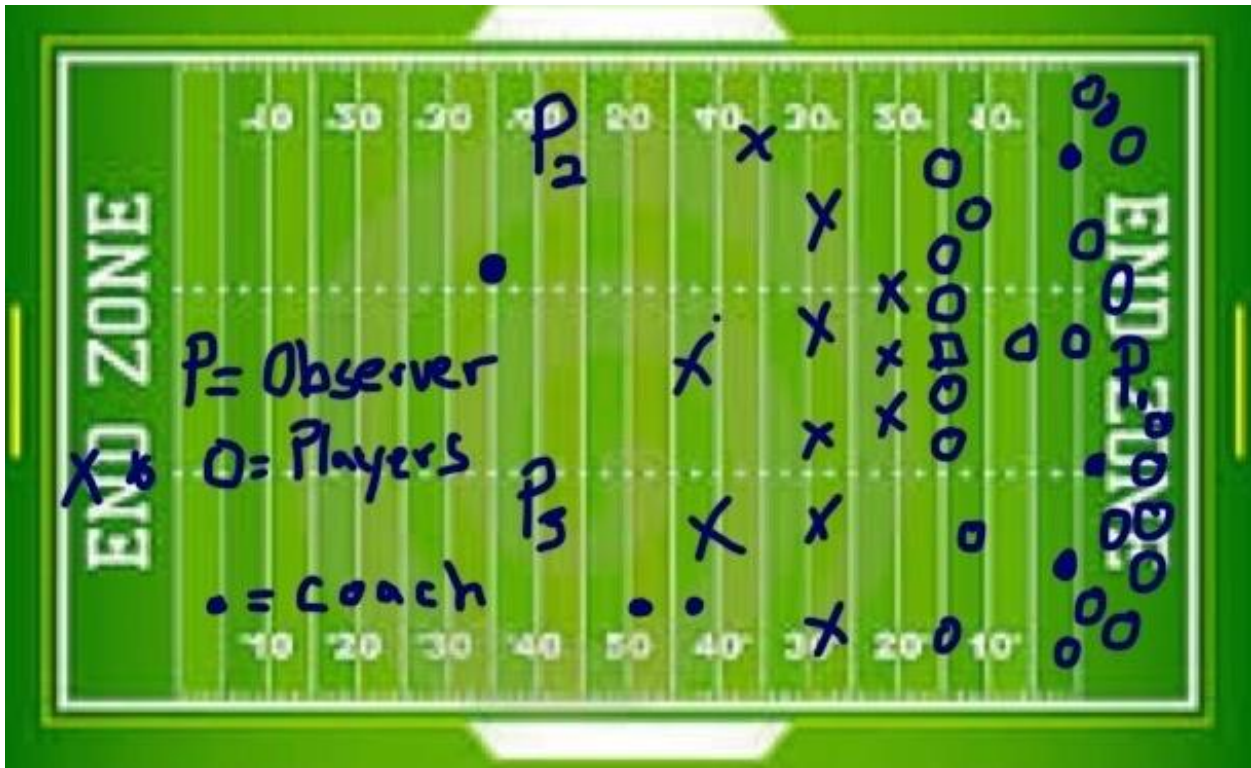


Figure 10 Practice Field/Classroom Diagram

Behavior examples such as students' posture directed toward the instructor/coach, as behavior appearing to be engaged, illustrates a positive environment. There are notable classroom differences, however. In the athletic classroom, everyone dresses alike and has their sport as a common point of reference. In this example, the classroom environment influences student athletes. Csikszentmihalyi (2008) and Jennings and Greenberg (2009) seem to agree that a classroom that does not provide a positive purposeful environment will distract students from academic engagement and retaining knowledge. However, the engagement in the traditional classroom may be less than the engagement in the athletic classroom and yet in both settings it is difficult to assess students' academic engagement.

It should be noted that the athletic classroom implies a higher degree of prosocial classroom energy based on body posturing and the impression of movement as compared to the traditional classroom (Figure 7) in which students are seated and yet eye contact and posture are

directed toward the instructor. Also note, classroom size numbers of students in the classroom space may influence academic engagement.

Gray literature (Mankin, 2015; Mason, 2016) helped create Figure 10, a composite drawing showing the position of student athletes on the practice field (athletic classroom), placement of coaches/instructors (dark dot), student athletes (X and O), and advisor/observer (P). In a more traditional classroom setting, Figure 10 could be the equivalent of a seating chart. Figure 10 implies movement as well as the student athletes' positions for the beginning of class. Once class begins Figure 10 (as a seating chart) becomes dynamic as positions may change throughout the lesson. Figure 7, the traditional classroom, implies very little movement. So, when student athletes go from class to class without a concrete pattern, as illustrated by Figure 10, are they engaged from one class to another? The same could be said for students coming from lab classes or a field trip.

Considering Figure 10, where this form of 'seating chart' has structured placement, student athletes' positions imply that movement is needed for the delivery of each portion of lesson plans. Csikszentmihalyi (2008) called this interaction "Flow" and Bloom (1985) (Anderson, Krathwohl, & Bloom, 2001) said the same interaction provides opportunity to optimize the student athletes' physical performance due to the integration of cognitive awareness. So, movement within prosocial, positive academic environments promotes academic engagement. Intersections discovered during analysis indicate that some movement is distracting and may diminish student athletes' "Flow," academic engagement, and academic performance.

From lines 1:13 to 2:40, Richard Sherman (Sports News, 2015) reflects on how time management is difficult when there are many places to visit that may not be conveniently located

to maximize effective use of student athletes' time. So, student athletes' desire to be academically engaged is challenged.

1:13you wake up in the morning you have weights at this time then after weights you  
1:17go to class after class you go  
1:18you go maybe to grab a quick bite to eat if you get a quick bite to eat go  
1:23straight to  
1:23 meetings after meetings to practice after practice you gotta try to get all  
1:27the work done you  
1:28you had throughout the day you got from your from your lectures and  
1:32and from the focus group those aren't the things that people focus on when talking  
1:37about student athletes  
2:27 but as Jim, Jim Harbaugh (head coach at the time) would attest we were also there for  
2:31football there are but there were still guys like Andrew  
2:36who majored in engineering are incredibly tough road to take  
2:40when you're when your football because a lot of the classes conflict (Sports News, 2015)

Richard Sherman commented that class conflicts are present with athletic schedules due to traditional classroom locations (Sports News, line 2:40, 2015). Sherman's comments also indicate an awareness for disengagement due to conflicts with environment that are not prosocial. Sherman's comments both imply and explicitly name possible scheduling conflicts. Scheduling academic classes and sport meetings should consider the time it takes to get from one location to the next. By doing this, student athletes such as Richard Sherman (Sport News, 2015), his teammate Andrew (Line 2:31), and Kendall Spencer (National Collegiate Athletic Association, 2015) may improve their academic performance because the environment would be connected and prosocial (Comeaux & Harrison, 2011; Jennings & Greenberg, 2009). So how does a centrally located Athletic Academic Center (i.e., study hall) diminish time management burden and improve academic engagement as prosocial environment?

Utilizing study halls integrates student athletes into meaningful and prosocial environments by influencing their use of academic engagement constructs (Comeaux & Harrison 2011; Jennings & Greenberg, 2009). This is enhanced by the location of classes or study

resources available in a timely manner. For example, study halls create a prosocial environment if located near training space (next door), Figure 11, allowing student athletes to schedule physical training and academics without delays. This setting may offer better management, if the proximity of study hall and training center reinforce time management and study skill development (Elias, 2004; Leslie-Toogood et al., 2009).

Figure 11 is an example of how an environment, as a signifier, triggers student athletes' awareness for a prosocial academic environment due to proximity. The red arrows identify the path student athletes would take to go from the training areas to arrive at the academic athletic center. Figure 11 does not imply a proximity connection, which would create a prosocial environment. This same connection is no guarantee that each student athletes' awareness for academic engagement is retained or positively impacts academic performance. However, this study's question: For University Sports Student athletes, what role did perceptions and practice of academic engagement play in academic success and compliance, is not definitively answered based on the location or conditions of the environment, but Richard Sherman's (Sport News, 2015) remarks implied the proximity of prosocial environments may have diminished academic engagement.

Throughout all phases of the meta-analysis there were very few direct references to disengagement associated with distances between classroom, study hall, or practice facilities. The intersections between academic engagement and environmental factors were directly and indirectly referenced to prosocial environmental constructs.

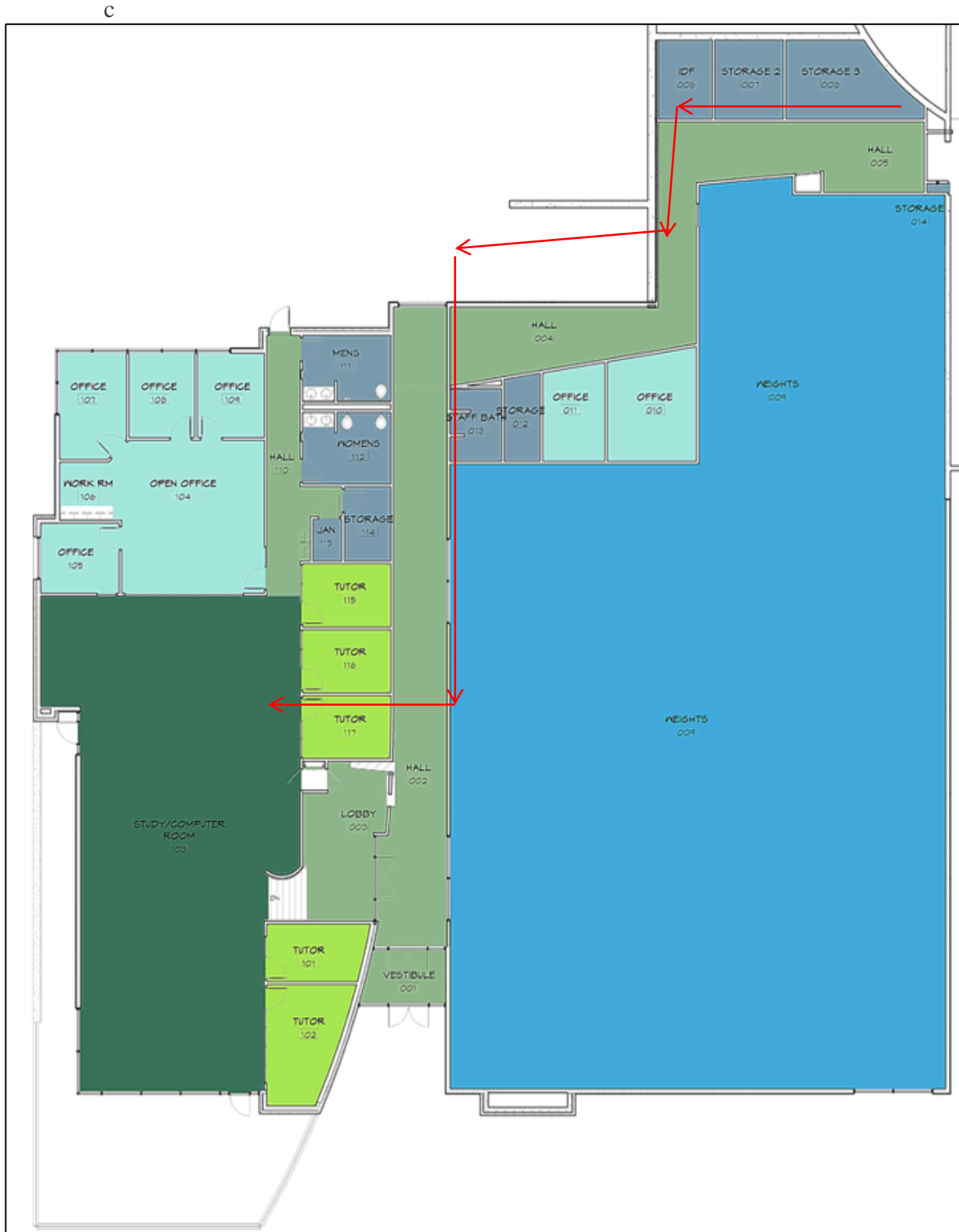


Figure 11 Athletic Academic and Training Center

### Site Three- Games, Practices, and Meetings

There are many games, practices, or team/position meetings where academic engagement is needed for the student athletes to retain and recall facts and concepts related to their academic and athletic activities. For example, student athletes may be asked to join a press conference after a practice or game. The location of these sessions varies as do the conditions in Figure 12, the student athlete has microphones, cameras, and lights pointed at them and are asked to have responses. This site and the various locations are included as influencers to the student athletes being observed.



*Figure 12* Media Session Practice or Game



*Figure 13* Team/Position Meetings

During team/position meetings, student athletes are exposed to large amounts of information in a short period of time prior to a game or practice. As seen in Figure 13, the site appears much like Figure 7, (traditional classroom) with student athletes in small groups. The activity in this site appears to be a game plan (curriculum driven) focused on specific learning objectives promoting cognitive academic engagement while expecting athletic performance sometimes influenced and guided by a prosocial classroom environment. It is the connection of this type of environment (prosocial) and the behavior illustrated in Figure 14 that promotes student athletes' social emotional competency (Jennings & Greenberg, 2009).



*Figure 14 Practice Site*

Table 9 lists six references to signifiers that discovered prosocial environments while crystallizing the definitions for academic engagement. While environments may vary, each site has designs and layouts that become familiar creating comfort and common expectations for the student athletes. For example, each practice or game field is labeled with yardage markings (Figure 10), a goal post at each end, and footballs to play with. In Figure 14, a practice setting shows student athletes positioned similarly to Figure 9 as well as the presence of instructor/coach positioned to deliver a lesson/practice. Figures 9 through 14 define prosocial

environments that intersect with references discovered and analyzed through the meta analytical process.

Table 7 item one (Comeaux & Harrison, 2011) addressed research question; *How do student athletes recognize academic engagement in maintaining their personal academic performances and compliance with NCAA scholarship guidelines for eligibility?* Figure 15 reflects a game environment where athletic preparation is given formative assessment (i.e., an examination or test). The meta-analytical process found no intersections in the sources among game environments, formative assessments, and traditional classroom environments. However, the presence of prosocial conditions in the three environments provide intersections to improve academic engagement and academic performance. Table 7 sources two (Gaston-Gayles, 2004) and five (Paskus, 2012) provided intersections to improving graduation success rates (GSR) and academic progress rating (APR).



*Figure 15* Game Day Environments

### **Discoveries**

Tables 7 and 8 crystallize intersections into a thematic story about student athletes' behaviors indicating they integrate their academic environments with the use of academic resources and behaviors promoting academic success (Comeaux & Harrison, 2011). Observing behavior and interactions that demonstrates an integration of environment with academic engagement supports this study's purpose. This same integration provided another finding

contradicting content of students' scholarship agreement. The interview scripts from Sherman (Sports News, 2015) and Spencer (National Collegiate Athletic Association, 2015) summarize many intersections regarding these two discoveries.

Both Sherman and Spencer spoke to the challenges of time management and how convenient location and prosocial condition of academic environments were positive influences on being academically engaged. They continued to say there was a productive influence on academic performance at levels that maintained academic eligibility. Sherman emphasized his focus on eligibility was to earn an academic degree and the secondary benefit was complying with his scholarship agreement. In other words, given prosocial environments, students and student athletes discovered and applied academic engagement methods with little to no awareness toward their scholarship obligation. Spencer added to Sherman's remarks by saying his sport provided opportunity, but his focus on being academically engaged came first and this generated academic performance that kept him eligible. What is not clearly stated by either Sherman or Spencer was how mindful they were about their scholarship obligation as student athletes.

Class attendance was the only construct that intersects all three academic engagement definitions. Based on intersections, it was found that Rules Violation and GPA, compliance variables found listed in the student scholarship agreement, had a low observation frequency based on sources. It may be possible to conclude that student athletes increase risk of disengagement with low frequency behaviors because of Rules Violations and low GPA, but Gaston-Gayles and Hu (2009, p. 330) disagreed by writing, "Helping these student athletes find ways to participate in academic related activities to the extent that they are involved in athletic related activities will likely lead to gains in student learning" (p. 330). Tables 7, 8, and 9 connect

academic related activities such as office visits, discussions, and using computers as high impact practices (HIP) crystallized into challenging student athletes' stories validated by the excerpts of Sherman (Sports News, 2015) and Spencer (National Collegiate Athletic Association, 2015). More specifically, the findings suggest that some activities have a greater impact on student athlete academic performance than those compliance variables listed in the student scholarship agreement (Appendix C). So why does the student athlete scholarship agreement include compliance variables that do not intersect with most prevalent academic behaviors discovered in academic environments?

Gaston-Gayles (2004) shared thoughts about student athletes' academic motivation promoted by prosocial environments that included people and environments uniquely aware of student athletes' academic engagement needs (Jennings & Greenberg, 2009). For Sherman, motivation to perform academically was not centered on fear of academic disengagement, as stated in the student athlete scholarship agreement (Appendix C), but rather from his teammates, head coach, game performance, and eligibility.

The interview script excerpts were found to show frequency of behavior patterns indicating student athletes' awareness of proactive academic engagement motivated by prosocial academic environments and people who are socially emotionally competent (Comeaux & Harrison, 2011; Gaston-Gayles & Hu, 2009; Jennings & Greenberg, 2009).

### **Summary**

The research problem focused on disconnects among student athletes' perceptions of expectations to be academically successful, the criteria specified in the student athletes' scholarship agreements, and the amount and/or types of academic engagement required for

academic success. Student athletes were not adequately informed about scholarship guidelines and their responsibilities to remain eligible and retain their scholarships.

The purpose of this study was to explore the role of academic engagement and the perceptions student athletes have regarding its influence on academic performance. Comparing sources that define academic engagement with interview scripts crystallized intersections into many angles but with one shape (Ellingson, 2009).

Keywords and phrases created intersections among selected sources that were both helpful, conclusive, and confusing. The Constant Comparative Model delivered an abundance of keywords and phrases. Using a word cloud helped identify source intersections enriching the meta analytical process. Figure 16 shares a summary of key words and phrases discovered during this meta analytical study.

The origin for each word comes from any one of literature sources used for this study and has at least one intersection with the constructs that define academic engagement. It should be noted that these same words intersected with keywords and phrases that define anyone of the academic engagement definitions used in this study. As you review the word cloud you will see words that associate with people and environments that directly relate academic engagement and academic performance improvement. Terms such as coach, professor, power book, and classroom are examples of keyword and phrase intersections that connect to answering this study's research questions.



Figure 16 Keyword Intersections Word Cloud

## CHAPTER FIVE: SUMMARY AND CONCLUSION

This chapter presents a summary of insights and conclusions drawn from the findings presented in chapter four. This chapter shares the connections discovered from the perceptions of journalists, researchers, and authors cited in literature or referenced in this study. In addition, the chapter provides a discussion of implications for future action, recommendations, and research.

The purpose of this study was to explore the role of academic engagement with university student athletes' perceptions of how academic engagement influences academic success. The focus was to review a selection of literature offering perceptions about academic engagement while discovering intersections of concepts and their influence on academic success and student athletes' behavior while academically engaged. I was interested in student athletes' awareness of academic environments and opportunities for engagement and interpretation of how these factors influenced their academic performance. Conclusions and findings were based on how and when selected literature sources intersected around keywords and phrases.

Discovering intersections between literatures sources provided insights. Some insights provided all or part of an answer for this study's research questions while other insights provided direction toward future studies. I divided all insights into three categories; Process Insights, Cognitive Insights, and Findings Insights.

### **Insights**

The research questions for this study focused on disconnection/gaps between student athletes' perceptions of expectations to be successful, the criteria specified in the scholarship agreements regarding academic performance, and academic engagement relevant for the student athletes' role in the academic environment (i.e., classroom).

For this study, ‘engaging academic behavior’ included examples such as applying the use of computers while studying, requesting office hours with professors, or participating in study groups (NSSE, 2013). The inverse of each of these engagement examples would be disengaging academic behavior (i.e., not taking advantage of instructor office hours). By applying the process outlined in chapter four, engaging behaviors as listed by the NSSE (2013) were confirmed and in those cases where the behaviors were confirmed with intersections found in the sources, a partial or complete answer were matched to this study’s research questions. As examples of academic engaging behavior were discovered, contextual references sources indicated the opposite could be a disengaging action. For example, a student athletes' scheduling and attending office hours with a professor to review extra credit is engaging. The opposite action, using office hours to discuss nonacademic activities would be disengaging behavior (i.e., the instructor is interested in discussing the student athlete’s sport). Each step in identifying engaging behavior with intersections that defined these behaviors confirms the use of the process defined in chapters three and four.

When the keywords and phrases intersected/connected with academic engagement, student athletes, and improved academic performance, the inference was an absence of disengaging behavior. The methodological processes applied in this study achieved desired outcomes, and offered additional insights for process, cognition, and findings.

### **Process Insights**

Through the four phases of this study, it was determined the process was an analytical structured review of sources. Process insights were derived from using four phase meta-analytical process: Phase 1- Identification, Phase 2- Selection, Phase 3- Abstraction, and Phase

4- Analysis. Each of the four phases will be referenced with the most insights from Phase 3- Abstraction.

During the Abstraction phase, one goal was discovering intersections from among the sources with the authors' voices related to academic engagement and the environment providing relevant enrichment to the context of the intersections. The authors' voice are contextually relevant when I considered how guidelines or standards may change over time. Author tone in a sources reinforced contextual relevancy to academic engagement when the author(s) described disengaged behavior as alternative engaging behavior. For example, Sherman (Sports News, 2015) shared experiential reference that provided tonal impressions (Sherman's interview a written script and audio files on the Internet) about a sense of urgency that distracted student athletes from academic engaging activities. In his interview excerpts, Spencer (National Collegiate Athletic Association, 2015; Sports News) presented a similar tone to that of Sherman when he described managing the demands of his sport to demands presented in the classroom. In both cases, Sherman and Spencer were challenged with disengagement.

Both athletes shared that prosocial awareness from coaches and academic instructors reduced or removed pressures to be disengaged. Sherman used the challenge to be disengaged as motivation to work harder as an athlete and as a student. In my experience, higher education students who pursue activities outside of their academic role will feel the pressure of academic disengagement. Student athletes' awareness to their academic engagement was the focus of this paper.

The year an influence of a source is written or published may represent an ideology and principles influencing academic environments in ways that diminished or enhanced any student's awareness to being academically engaged. A diminishment example, Bloom (1985) (Anderson et

al., 2001) discussed developing talent in young people by seeing academic performance influences by removing their activity/sport and then monitoring the impact on academic performance. Bloom took a viola savant who was an elite tennis player and diminished her access to playing tennis. This action changed her environment and showed lowered academic engagement and corresponding diminished academic performance. Then, Elias (2004) began applying social emotional learning constructs to educational setting environments, building on what Bloom (1985) studied. There was an intersection between Bloom (1985) (Anderson et al., 2001) and Elias (2004) with keyword “academic engagement”. Elias’ voice in 2004 added constructs to the academic environment and it is these additions that promoted academic engagement instead of disengagement.

In addition, over time, guidelines and expectations have changed and may change at the university or governing bodies such as the NCAA. A common example of this is GPAs, which may change up or down as a criterion of eligibility for sport participation. As stated in this study, NCAA (2019) has one minimum GPA for eligibility and the college or university may establish another GPA. For example, a college or university may define eligibility with a GPA higher than what is required by the NCAA. NCAA (2019) defines eligibility as the privilege to practice and play. So, a student is not eligible and not allowed to practice or play until their GPA is compliant.

It has been my experience that when a college or university has a higher GPA standard for eligibility (greater than NCAA guidelines), they connect it to being eligible to play in games but continue to allow student athletes to practice. The NCAA (2019) varies their GPA standard sophomore to senior year. According to Table 10, by the start of the sophomore year, student athletes must have a GPA of 1.8 on a 4.0 scale and have 36 credits (NCAA, 2019).

*Table 10*  
*NCAA Academic Standards by Year*

Year	GPA	Credits	% Degree Requirement
Start Sophomore	1.8	36	Declare a Major
End Junior	1.9	72	40
Start Senior	2.0	108	60
Start Fifth	2.0	144	80

As the data in Table 10 represents varied GPA process changes, so may university academic eligibility criteria and the context provided by prosocial academic environments. After that students’ academic engagement and academic performance of the student athlete may also shift.

Intersections discovered through all phases of this study validate key process insights regarding the structured review process and crystallization of the intersections to enrich contextual intersections among published sources with multiple intersections. I felt insights and conclusions were clarified when the sources selected represented a cross section of research methods. Early in stage one, identification, the primary component for “structured review” was application of keywords and phrases, which set the foundation for discovering frequency of intersections in sources. As the meta-analytical process continued to stage four, analysis, keywords and phrases were enriched through systemic analysis and crystallization of content.

These two processes validated intersections and aligned the frequency of each intersection to contextually provide valid insights. Meta-analytical or qualitative methodology research provided a qualitative synthesis of earlier studies findings directed at students’ behaviors intersecting with keywords and phrases.

By systemically analyzing the intersections of keywords and phrases between and throughout sources intersections were clarified. Example, Table 6 captured the intersections

among keywords and phrases in sources (meta-analytical stage 3). During the abstract stage, signifiers and triggers were reviewed to guide the analysis stage and that identify student athletes' behaviors supporting either academic engagement or academic disengagement (Tables 7 and 8). Signifiers and triggers are more similar than different. A difference between the two terms that may influence findings or conclusions is that signifiers provide guidance toward a finding or conclusion where a trigger is more specific and would identify an intersection among keywords and phrases.

Environment and academic engagement were the most frequent signifiers and triggers, respectively, associated with intersections providing a partial or complete answer to this study's research questions. As the meta-analytical process progressed through all phases, I discovered that more recent sources had more specific intersections to academic engagement directly related to student athletes rather than to all students. The process demonstrated this most often when a set of keywords or phrases intersected with two or more sources categories for example, when a source intersected with a research paper and each intersected with gray literature, such as interviews, newspaper or magazine articles.

Outcomes from this study and corresponding insights were discovered from the keyword and phrase intersections among sources processed through the methods applied. The intersections highlighted the voices of the researchers and journalists who were authors of the stories. For example, Richard Sherman's (Sports News, 2015) own words reflected the same duality of mindset—or what could be considered confusing for student athletes—creating a gap of understanding between academic engagement and how it influences academic success and eligibility. According to Sherman, ... “[it] was because [of] my athletic ability that I ended up

getting to a great university, and from there I just blossomed. Um, I was in an environment that helped me to feel the support and the love to really grow and mature.” (Sports News, 2015).

The use of meta-analytical methodology reviewed sources over a ten-year time frame such as 2006 to 2016, brought additional focus to Sherman’s quote and time span that offered sources reflecting similar students’ awareness of academic engagement. According to Ahn, Ames, & Myers (2012), this time frame is significant for adequate sources to review. During this time period, the source’s frequency of referencing academic engagement and student athlete academic performance increased. The basis for this discovery was from the increased number of sources referencing the keywords and phrases. This is significant because it began to show increased awareness of academic engagement by a subset of student athletes.

### **Cognitive Insights**

Gaston-Gayles and Hu (2009) set the stage for this study’s primary research question, "For university student athletes, what role do perceptions and practice of academic engagement play in academic success and compliance?" As the study considered this question and the holistic image of student athletes (cognitive and noncognitive metrics for academic engagement) (Comeaux & Harrison, 2011; Gaston-Gayles, 2004), additional questions were formulated. For example, this study reviewed social emotional learning theory (Elias, 2004) and noncognitive metrics for academic engagement offered formulation of research questions similar to the following.

To what extent:

- did Social Emotional Learning environment contribute to student athletes’

Academic Progress Rating (APR)?

- did student athletes demonstrate academic engagement in maintaining their personal academic performances and compliance with NCAA scholarship guidelines for eligibility?

This study's process encouraged discovering more questions from interview script sources highlighting student athletes' awareness of academic engagement. Student athletes admitted practicing time management, study group participation, and seeking professor support according to Sherman's and Spencer's (National Collegiate Athletic Association, 2015; Sports News) interviews. In addition, researchers such as Jennings and Greenberg (2009), Comeaux and Harrison (2011), and Gaston-Gayles and Hu (2009) who pointed out how prosocial environments encourage positive development of the whole students' improved academic performance consistent with this study's finding of intersections . That being staid, this study introduced a discussion about connecting academic environments systematically so student athletes would be less likely to feel disconnected from scholarship compliance guidelines while clearly connecting academic environments with classmates and tools that promote academic engagement such as using study halls, computers, study groups, and visiting professors' office hours.

The review and analysis of each intersection provided opportunity for discovering answers and new keywords and phrases. A direct relationship was keyword 'academic engagement' versus 'academic performance' or 'eligibility.' The review process did not address keyword or phrases [not directly] unrelated to this study's research questions. Academic performance and eligibility were directly unrelated parts of the keyword list aligned with research questions. Discovering new keywords and phrases was a beneficial insight providing opportunities for me to consider additional research questions. Research depth was as broad or

narrow as the research questions allowed. The meta-analytical research method process was thorough considering how many new questions were implied from new keywords and phrases.

### **Finding Insights**

Insights gained from the findings are focused in the following areas:

- Student athlete and non-athlete comparisons
- Engagement compared to disengagement
- Prosocial environment influence on academic engagement and disengagement.
- Influence of source authors' voices on findings

### **Student athlete versus student**

Student athletes are students first. So, findings based on when intersections referenced student athletes gave rise to considering the same findings may apply to all students. As sources were discovered specifically referencing student athletes, I discovered influences on academic engagement and disengagement unique to student athletes and fully unrealizable by non-athletes. For all students, when the instructional goal is maximizing academic engagement, student awareness to engaging behavior challenges academic behavior and academic performance. A common example is asking for extra credit assignments versus not asking (NSSE, 2013). The surprise from limiting contact with instructors by any student, athlete or nonathlete, was diminishing benefits from taking advantage of academic engagement constructs that positively influence academic performance (NSSE, 2013). For student athletes, failure to comply could mean losing eligibility to play. For students not held to NCAA academic guidelines, the consequences for academic disengagement may have the same degree of consequences that impact student athletes (i.e., for students not held to NCAA academic guidelines; participation in extra-curricular activities may be open due to non-compliance with academic grade criterion).

For example, a non-athlete who participates in drama or music, is evaluated by different academic credit and GPA guidelines than the restrictions placed on student athletes, thereby allowing for more flexibility for non-student athletes to participate. Participation was defined by the NCAA (2019) guidelines listed in Table 10 and college or university members. At the inception of this study, references to student athletes in all literature reviewed was the primary focus. I discovered keyword and phrase intersections that could be applied to all students. With this realization, I placed more attention on intersections that may imply disengagement.

### **Engagement versus disengagement**

Realizing disengagement was possibly present when keyword and phrase intersections were discovered caused me to look at each intersection again. This study identified sources intersecting to define academic disengagement as a strategy promoting academic and athletic compliance (i.e., eligibility). These findings identify connections to behaviors within a prosocial environment that trigger academically engaging outcomes, such as student athletes asking for extra credit or attending instructors' office hours. An additional implication, instructors, coaches, and administrators may need to consider is the lack of prosocial behavior/environments to promote behaviors that reinforce more proactive and engaging actions. Insights derived from processes begin to formulate findings through the abstract phase, literature intersections, and then making connections to academically engaging behaviors triggered by environments that included instructors or coaches practicing prosocial pedagogy. I gained insights for future research related to academic performance, as this study explored improving academic performance. This study was asking about student athletes' awareness of academically engaging behaviors, rather than how to specifically use those behaviors to increase performance.

## **Prosocial environment**

To discover intersections that validated academic engagement while indicating positive environments influence academic performance of any student, including student athletes. However, the prosocial environment for student athletes was even more influential when associated with proactive academic engagement. My surprise was in finding limited sources that listed the challenges for student athletes to sustain academic engagement that were undisclosed challenges for non-athletes. Non-athletes are not asked to schedule practice, games, media events, sponsor appearances or honor the requests of coaches, teammates, administrators and fellow students as responsibilities of their 'athlete' role. Additionally, non-athletes may be just as busy with the same potentials for academic engagement and disengagement as student athletes. As this study presents, there are sources that say being connected to or engaged with prosocial environments does relate to academic performance. What I did find were a scarcity of sources that stated disengagement of non-athletes' influenced their academic and extracurricular activity eligibility.

This study did not consider non-athletes who have high demands on their time similar to those demands of student athletes. Students such as music, art, drama (performance demands), students who must work to fund their education and/or family were not considered. Finding that indicate student athletes do realize when they are academically engaged provided insights on the obstacles for all students to be academically engaged. An implied finding is that all students may choose to be academically engaged and it is the environment that provides challenges to being engaged or disengaged. Comeaux and Harrison (2011) speak about the influence of a prosocial environment potentially improving academic performance for students in these conditions. Each student is not assured a prosocial academic classroom environment. Student athletes have the

practice field/venue and games as environments providing non-classroom academic engagement opportunities.

The speed of engagement during practice and games creates a challenge, to adjust and adapt the learning process while information is being exchanged without hesitation. Non-athletes have limited time demands for playing or practicing a sport/activity (i.e., student athlete has more scheduled time and less discretionary time), so student athletes must manage their time while they apply engagement methods to the academic and sport classrooms. One difference between practice and game classrooms is the level of activity. My experience has shown that classroom people do-- academic engagement practices are limiting adaptations or adjustments to pedagogical methods for accommodating student athletes. Instructors should take needs of all student athletes into consideration, to adapt within the constraints, especially when class sizes and routine instructional demands would be limiting.

This study's findings provided insights for instructors to consider for prosocial environment. Such as when the class size is large with a number of student athletes in attendance. I discovered an example of this when crystallizing intersections with published student athlete interviews from Spencer (National Collegiate Athletic Association (Producer), 2015) and Sherman (Sports News, 2015).

### **Authors' voice**

Both published interviews were used to crystallize and validate answers to this study's questions. The interview scripts introduced voices of two student athletes' insights to time demand differences for student athletes as compared to lesser time demands placed non-athlete schedules. For example, an athlete may have practice from 2:00 p.m. to 5:00 p.m. every day and then meet with coaches over a meal until 8:00 p.m. In this example schedule, when does the

student athlete include an academically engaging action such as meeting with a professor or attending a study group (NSSE, 2013)? The sources reviewed excluded discovered insights regarding the influence of course selection and academic majors on prosocial environments and academic performance. If an instructor were aware of time demands of any student, consideration for a prosocial environment as well as flexible office hours may consider students' schedules.

On the occasions when intersections lacked specificity for inferred conclusions toward academic performance behavior from non-athlete students the presumption was non-athletes could choose academic engagement or another activity. For example, without time demands challenging academic engagement skills, student athletes may choose to become disengaged while non-athletes have non-academic choices (i.e., "Oh, I have plenty of time. I will get to my assignments later.") The student athlete may make these same choices, but academic disengagement would result in forfeiting scholarships, playing eligibility, and eventually expulsion if disengaging behavior continues.

What was surprising to and caused hesitations for me were the clashes with historical views on qualitative theory, methods, and analysis. Answering this study's research questions using meta-analytical processes was accomplished, in part, by understanding the comparisons between qualitative theory and quantitative theory. Ahn, Ames, and Myers (2012) and Ludvigsen (2016) looked at qualitative and quantitative studies (mixed methods) while discussing how meta-analytical methods and processes crystallized findings and clarified the focus of future studies. Given these insights, this study applied narrative, ethnographic, and meta-analytical frameworks to create crystallization of data so future research potentials are identified. An

example of this, as previously stated, is the influence of academic engagement on academic performance.

It is with equal surprise that crystallization processes defined connections between keywords and terms when sources not selected provided insights about how a quantitative study could be reviewed with a qualitative research mindset. Ahn, Ames, and Myers (2012) point out that quantitative methodologies are preferred most often for studies related to medical issues. Continuing by saying, a growing trend to use qualitative analysis strategies to evaluate quantitative findings reveals more questions promoting future study opportunities. So why is this relevant to this study? This study reviewed sources using quantitative methods with the same insights recommended by Ahn, Ames, and Myers (2012) and suggested by Ludvigsen (2016). So, findings benefitted from considering all types of varied sources including gray literature and research methods.

This study's research questions would not have been answered if meta-analysis methods did not consider varied sources following a process that analyzed the keywords and phrases intersections without consideration toward quantitative, qualitative, or mixed methods studies. Reviewing a variety of sources contributed to adding student athlete voices found in gray literature (Sports News, 2015) as well as the various perspectives on learning and academic engagement cited in literature displayed in Appendix G. That was fortunate and a great surprise. Published interview scripts and gray literature enriched the more concrete intersections found in qualitative and quantitative studies of a current or former student athlete voices which validated literature intersections such as academic engagement by providing experiences emphasizing why student athletes should be academically engaged (National Collegiate Athletic Association, 2015; Sports News, 2015).

## Conclusions

At the onset of this study the problem and purpose statement were created with broader tones than the research questions. Both statements were clarified resulting in plausible explanations, future insights, and conclusions supported by this study's findings. This may be discovered in any study. I find this study significant based on findings that go beyond answering the research questions.

For example, the source review provided insights into environments that would enrich academic engagement for all students including student athletes. Equally relevant was the realization that time management for student athletes was a greater challenge than for non-athletes because academic schedules may conflict with athletic schedules. It has been my experience student athletes select a major and discover its course schedules conflict with their sport schedule demands so they may unwillingly change majors due to inflexibility of course offerings. However, sport schedules may not be shared with academic departments in an effort to lessen or avoid schedule conflicts; this failure compromises student athlete degree seeking goals. Based on sources reviewed, there were no indications that sports participation schedules were shared with academic faculty on behalf of student athletes.

The insight gained from this time management conclusion was for systems and environments to adapt and adjust to all students and especially students with extra-curricular demands on their time, such as student athletes. Without this support, students and student athletes find themselves racing from one end of campus to another suffering the consequences of diminished academic engagement. Without schedules successfully managing their time, academic engagement may be set aside in favor of being on time, or in the case of Taylor not going to class to be to practice on time. These conclusions give rise to questions about student

athlete maturity; having to balance leaving class early or arriving at practice late? In either case academic engagement is compromised. Which choice has the greatest influence on student athlete academic engagement?

### **Implications**

This study was used to define academic engagement representing both cognitive and noncognitive metrics of the whole student. The significance of this definition identifies the intersection between athlete eligibility and academic engagement and recognizes noncognitive social emotional constructs that impact academic engagement. Recognizing the wholistic needs of student athletes suggest pedagogical practices for educators that promote academic engagement and shrink the gap student athletes may have for connecting academic engagement to academic performance. Ultimately then influencing their eligibility and influence on Academic Performance Ratings.

Based on the findings, there were intersections among academic environments, instructional pedagogical methods, and the social emotional constructs influencing student athletes' academic engagement. Regretfully, there was no intent to identify measurable links to academic success. However, there was a clear message for administrators, instructors, and coaches to be aware how instruction is delivered in a prosocial environment. Such environments may influence student athletes' attention to academic engagement and correspondingly influence their graduation rates and academic eligibility.

NCAA (2010) has a minimum GPA, per athlete, that must be maintained to be eligible to play during a game. In the life of a student athlete, eligibility is ongoing and that comes before a review of graduation rates. In this study, I found no intersections that indicated student athletes

comprehend the influence of APR or graduation rates on their academic engagement or academic eligibility.

Should the student athlete understand how their GPA influences scholarships available to future student athletes? The Academic Performance Rating (APR) (Johnson, et al 2012) is an academic rating for teams. So, each individual student athlete's grade point average goes into calculating the APR (APR can be calculated at any time but is typically reviewed prior to graduation dates and when offering athletic scholarships). This value combined with graduation rates provides a score the NCAA uses for allocating scholarship monies to each member college or university. Being aware may or may not improve academic engagement by student athletes, but it is a point for additional research addressing what influences athletes' GPAs have on increasing or reducing scholarship dollars for his or her sport.

From the moment student athletes commit and sign their academic scholarships they begin their compliance with the institution and the athletic department that governs eligibility for their sport. The awareness by a student athlete to meet academic and sport eligibility may vary. As stated in chapter one, Tyler's awareness was not clearly understood and resulted in suspension and loss of his scholarship.

Samad Hinds is an example that contradicts the experience of Tyler. Debbie Pitner Moors (2018) captures Samad's academic success story as a student athlete for University of Northern Colorado's football team. Samad received his undergraduate degree in criminal justice spring of 2018 with a 3.10 GPA. Samad had similar challenges to Tyler—the most notable difference between them were mentors who emphasized the need for academic engagement in environments that were prosocial for Samad.

According to Associate Director for Academic Success, Jimmy Henderson, Samad did the following to remain academically engaged: checking in with professors weekly, spent time in study hall, mentored and studied with teammates, and routinely attended planning meetings with Mr. Henderson. The mentoring Samad received was from many, but the mentoring that most resonated was from head coach Earnest Collins. “He told us football is going to be over, you need to get your education and use your resources while you’re here. He just wants us to be on the right path and the right thing. And be what you’re supposed to be” (Pitner Moors, 2018, p. 22). When presented with resources and environments that promote academic engagement Samad shared this thought, “I just felt so much opportunity that I knew I was going to make something of my life once I came here (UNC)” (Pitner-Moors, 2018, p. 20).

Regretfully, Tyler was not provided or taught the constructs that support engagement. The lack of a prosocial environment, supporting academic engagement was seen in Tyler’s first year of college. Based on personal experiences, Tyler’s classroom, study hall, football practice, and team meetings did not include environmental influences, as shared in this study. For student athletes, NCAA officials or athletic administrators notify them of their status when eligibility is revoked due to non-compliance of academic guidelines (NCAA, 2010). Regretfully, encouraging messages or warnings about disengagement have not been provided prior to being notified. The consequences for failing sport eligibility is not playing.

The implication for student athlete academic engagement is influenced by many factors and when one or more of those factors intersect, connect, or even collaborate, the resulting impact may be a student athlete who graduates in less than four years, has continuing athletic eligibility, and seeks a master’s degree. When these factors do not intersect (disengagement) the first consequence could be noncompliance with the scholarship agreement.

In Appendix C line 4 (e), the athlete financial aid agreement (scholarship) references disengagement and lists examples of disengagement that would produce noncompliance.

Students and in this case student athletes' awareness of all factors that create disengagement and noncompliance to financial aid agreements may be assumed simply because they sign their financial aid agreement. Samad Hinds was empowered to focus and direct behaviors toward academic and athletic success, provided an example reinforcing awareness of factors sustaining academic engagement. Samad's transformation started the minute, maybe before, he left home going to college miles away. Samad's own words stated clearly how a prosocial environment was recognized as an opportunity. There was no guarantee either Tyler or Samad would succeed academically or athletically, but the presence of mentoring, positive reinforcement, and factors that define academic engagement increase the probability students will have academic success and graduate.

This study avoided a look closer at intersections indirectly relate to student athletes' academic engagement, disengagement and their influences on sport or academic eligibility. Given this somewhat narrow scope, there could be many questions defining further research. For example, the reference to mentoring connected to prosocial environments and academic engaging activity-- how do these connections influence academic success? In this study there were no conclusions or findings showing an influence on academic success. That is not to say influences were not there, it is a question for study.

### **Further Research Action**

This study choose to delay interviewing student athletes as could be completed for a quantitative or a mixed methods study by selecting a student athlete sample and including more

than one university and/or sport. First, limiting this study to a qualitative inquiry was a good foundation but avoided the benefits from quantitative or mixed method research.

Doing a quantitative study that compares student athletes, coaches, instructors, and academic administration around the same questions asked in this study could measure the influences of factors of academic engagement. For example, how much influence does the physical environment versus pedagogical strategies have on undergraduate non-athletes and student athletes' academic engagement? A study addressing this question may indicate changes needed for the location of classes or the types of seating needed for comfort of the 300-pound offensive lineman and the five feet two, 100-pound track and field athlete. Quantitative data may provide insights emphasizing pedagogical methods and strategies and support services that are inclusive and considerate to the varying needs of all students -- mentally, physically and emotionally.

In the intersections related to findings and/or answering this study's research questions, I found no intersections directly or indirectly connecting gender, ethnicity, or social influence on academic engagement or disengagement. Studies should consider all female and male participants as well as ethnic and social economic differences and similarities. Gaston-Gayles (2004) pointed out there are variables that influence African American student athletes differently than white athletes as to pedagogical methods for promoting academic engagement. Gaston-Gayles (2004) shared less competitive pressure and downplaying the "win at all cost" mindset were variables that influenced academic engagement and performance with student athletes of color.

## **Closing**

One of the limitations of this study was the lack of the voices of student athletes need to be heard and their questions during the signing of scholarship agreements. These same voices need to be challenged and requested during academic and athletic classroom time. How does an instructor or coach know when to differentiate a lesson if they do not ask for student/student athlete input?

The insights for further study are clearly present. The challenge is to continue focusing the questions and gathering data that will foster pedagogical strategies for coaches, instructors, and administrators in support of engagement by student athletes' and their academic performance. Student athletes are beneficiaries from being academically engaged in a prosocial environment and form improved academic performance that comes when increased awareness motivates them. Students who have similar demands on their time or the distractions provided by a sport or activity can improve academic engagement from references cited in this study. For example, Samad Hinds' experience as a student athlete could resonate with any student or student athlete (Pitner Moors, 2018). Samad's story, as a student athlete from high school throughout college, provided evidence of his success from being academically aware while adapting and accepting the demands of his sport. Connections to this study and Samad's story are made when Pitner Moors (2018) states

Samad worked closely with Associate Director for Academic Success, Jimmy Henderson; checked in with his professors weekly; talked with them about his career path; spent time in study hall and continued to thrive. Smith says Samad mentored teammates and encouraged them to do well, academically, but added that Samad doesn't always see his own role in his success. (p.21)

Each of these acts of engagement, both academic and personal, echoed the conclusions in this study.

Samad's and Tyler's stories are examples reflecting which purpose (influence from pro social environments) and conclusions discovered (academic engagement influencing academic performance) in this study, they do represent two ends of the spectrum of success not a norm rather than standard for all non-athletes or student athletes . There are variables not examined that may influence students, to varying degrees. The sources selected for this study were narrowly focused and by no means were all questions that could be considered. Comparing Samad and Tyler, I conclude students from similar conditions at a point in time may have different perceptions of consequences as to positive outcomes (i.e., Tyler did not benefit the same as Samad).

## EPILOGUE

I tell elite athlete/performers two things when I first meet them. Your attitude through each process I take you is and will be all about you. You must create a “swagger” that uniquely defines who you are. The second thing I tell them is the only way you improve yourself is to challenge yourself. I told Tyler this often. Given the opportunity to speak to Samad (Pitner Moors, 2018) I would have said the same having no guarantee that either one would heed my insights and improve their academic or physical performance. Pitner Moors (2018) introduction to Samad supports my insights (p. 1)

Football provided a path to college and an escape from the violence of his hometown. When adversity threatened to derail him, Samad Hinds summoned determination and resiliency and found a support network to keep his goal in sight.

This quote captures the positive influence of environment (football) while referencing degree of influence when Samad was challenged (Pitner Moors, 2018). Finally, a network of people and supports kept Samad engaged toward his goals.

When I went to college, it was the expectation to graduate. Now, it is far too common to have college athletes leave school with short-sighted goals of multimillion dollar contracts waiting for them. The opportunity for a professional sports contract is not a construct of a prosocial learning environment and is a distraction to those factors that promote an academically engaging environment. The simplest action is going to class.

I have applied and seen pedagogical strategies put into practice that enrich academic engagement while clearly communicating mindful purposes to student athletes. Applications of such strategies are no guarantee student athletes will delay the lure of a professional contract, but the strategy may illustrate how being academically engaged will help them keep eligibility in college with a greater potential for a contract if and when offered. Second, if they are not offered

a contract, they did a plan to replace the “no offer.” For the majority, student athletes do not receive a professional sport contract, I then wonder how many were not academically eligible in college?

I believe there are studies that could examine the prevalence of student athletes who do not complete their university degree in order to sign professional contracts and/or how many student athletes who finish a college degree do sign professional sports contracts. Within each of these studies I would like to know how frequently student athletes were academically ineligible. Based on my experience, I believe student athletes with the lowest frequency for being academically ineligible have a longer history with their professional career than the student athlete who was frequently academically ineligible.

Throughout this dissertation process I have challenged myself to be resilient while consistently presenting who I am. I believe there are many more challenges to be faced as strategies are discovered for improving academic retention by all students, but specifically student athletes.

There are future studies that I have yet to discover and write. With each one and others I complete it is my hope that activities, student athletes, and coaches are connected in ways that all participants are enriched and improved through their participation.

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## APPENDIX A: Statement on the Fair Use of Images and author permission

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### Use of diagram/figure for my dissertation

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**Eddie Comeaux** <eddie.comeaux@ucr.edu>  
To: "Lowell Wightman (360 Mindset)" <coachlkw@gmail.com>

Congratulations! I approve.

---

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My new textbook, College Athletes' Rights and Well-Being:  
<https://www.amazon.com/College-Athletes-Rights-Well-Being-Perspectives/dp/1421423855>

My textbook, Intro to Intercollegiate Athletics:  
<http://www.amazon.com/Introduction-Intercollegiate-Athletics-Eddie-Comeaux/dp/142141662X>

My textbook, Making the Connection: Data-Informed Practices in Academic Support Centers for College Athletes:  
<http://www.amazon.com/Making-Connection-Data-Informed-Practices-Academic/dp/1681230240>

The following email is the background for “fair use” and classroom application for figures 2 and 3 in this dissertation.

**From:** Thomas, Khaleedah <[Khaleedah.Thomas@colostate.edu](mailto:Khaleedah.Thomas@colostate.edu)>  
**Sent:** Thursday, March 26, 2020 6:20 PM  
**To:** 360 Mindset  
**Subject:** Re: Help!

Hello Lowell,

I am not familiar with the reference to a "one time non-commercial use for educational purposes," but it sounds like you may be relying on a fair use argument for including these images. The first factor of fair use, Purpose and Character, does make a distinction between commercial and educational uses, with educational uses tending to skew more towards fair use (see [Fair Use](#) section of my Copyright Guide for more info). However, educational use in and of itself will not assure that your use is a fair use, and not every commercial use will fail as a fair use. Also, in order to make a complete fair use analysis you have to consider all four factors when making your determination. I cannot provide you with legal advice as to whether or not including these images constitutes fair use, but I can refer you to several resources that may help you make this determination.

- [Statement on the Fair Use of Images for Teaching, Research, and Study](#)  
Created by the Visual Research Association, this statement provides useful information about re-using copyrighted figures and images in theses and dissertations (see pages 11-12).
- [Code of Best Practices in Fair Use for Scholarly Research in Communication](#)
- [Code of Best Practices in Fair Use for the Visual Arts](#)

Collectively, the resources above appear to be proponents of invoking a fair use argument for incorporating figures and images in scholarly work without seeking permission, as long as proper attribution is used and certain conditions are met.

Hopefully, these resources help you make your determination. Otherwise, you may want to request permission from the copyright holder. [See this section of my guide](#) for tips and resources for requesting permission.

Please let me know if you have any other questions.

Best,  
Khaleedah

## APPENDIX B: Letter of Intent



**2011-12**

Administered by the NCAA Eligibility Center on behalf of the Collegiate Commissioners Association (CCA).

**Do not sign prior to 7 a.m. (local time) on the following dates or after the final signing date listed for each sport.**

<u>SPORT</u> (Place an "X" on the proper line.)	<u>INITIAL SIGNING DATE</u>	<u>FINAL SIGNING DATE</u>
_____ Basketball (Early Period)	November 10, 2010	November 17, 2010
_____ Basketball (Regular Period)	April 13, 2011	May 18, 2011
_____ Football (Midyear JC Transfer)	December 15, 2010	January 15, 2011
_____ Football (Regular Period)	February 2, 2011	April 1, 2011
_____ Field Hockey, Soccer, Men's Water Polo	February 2, 2011	August 1, 2011
_____ Track and Field/Cross Country		
_____ All Other Sports (Early Period)	November 10, 2010	November 17, 2010
_____ All Other Sports (Regular Period)	April 13, 2011	August 1, 2011

**IMPORTANT - READ CAREFULLY**

It is important to read this entire document before signing it. One copy is to be retained by you and the other copy is to be returned to the institution, which will file a copy with the appropriate conference office. **Copies transmitted by facsimile or electronically are considered to be valid.** The National Letter of Intent (NLI) is a voluntary program with regard to both institutions and prospective student-athletes. No prospective student-athlete or parent is required to sign the NLI for a prospective student-athlete to receive athletics aid and participate in intercollegiate athletics.

1. **Initial Enrollment in Four-Year Institution.** This NLI applies only to prospective student-athletes who will be entering four-year institutions for the first time as full-time students. It is also permissible for 4-2-4 transfer student-athletes who are graduating from a two-year college to sign the NLI. No prospective student-athlete enrolling at midyear shall sign an NLI, with the exception of midyear two-year college transfer student-athletes in football, who must graduate at midyear for this NLI to be valid.
2. **Financial Aid Requirement.** At the time I sign this NLI, I must receive a written offer of athletics financial aid for the entire 2011-12 academic year from the institution named in this document. The offer must list the terms, conditions and amount of the athletics aid award. (A midyear football two-year college transfer student-athlete must receive a written offer of athletics financial aid for the remainder of the 2010-11 academic year. If the institution does not renew the athletics aid for the following academic year, the student-athlete must be released of the NLI). In order for this NLI to be valid, my parent/legal guardian and I must sign the NLI and I must also sign the offer of athletics aid (see institutional policy for parent/legal guardian signature) prior to submission to the institution named in this document, and any other stated conditions must also be met. If the conditions stated on the financial aid offer are not met, this NLI shall be declared null and void.
  - Professional Sports Contract.** If I sign a professional sports contract in the sport in which I signed the NLI, I remain bound by the NLI in all sports, even if NCAA rules prohibit the institution named in this document from providing me with athletics financial aid.
3. **Provisions of Letter Satisfied.**
  - a. **One-Year Attendance Requirement.** The terms of this NLI shall be satisfied if I attend the institution named in this document for one academic year (two semesters or three quarters) as a full-time student.
  - b. **Two-Year College Graduation.** After signing this NLI while in high school or during my first year of full-time enrollment at a two-year college, the terms of this NLI will be satisfied if I graduate from the two-year college.
4. **Basic Penalty.** I understand that if I do not attend the institution named in this document for one full academic year and I enroll in another institution participating in the NLI program, I may not compete in intercollegiate athletics until I have completed one full academic year in residence at the latter institution. Further, I understand I shall be charged with the loss of one season of intercollegiate athletics competition in all sports. This is in addition to any seasons of competition expended at any institution.
5. **Early Signing Period Penalties.** Prospective student-athletes who will participate in football are prohibited from signing an NLI during the early signing period. A student who signs an NLI during the early period in a sport other than football will be ineligible for practice and competition in football during the first year of enrollment at an NLI member institution and shall forfeit one season of competition in football. In circumstances where a student's primary sport is not football, but the student anticipates participating in football, the student should delay signing an NLI until either the football signing period or during the regular signing period for all other sports.
6. **Release Request and Appeal Process.** In the event I wish to be released from my NLI obligation, the NLI release request form and appeal process information can be reviewed on the NLI Web site at [www.national-letter.org](http://www.national-letter.org). I understand that the NLI Policy and Review Committee has been authorized to issue interpretations, settle disputes and consider petitions for complete release from the provisions of the NLI when

2011-12 - 1

## APPENDIX C: Financial Aid Agreement



### ATHLETIC FINANCIAL AID AGREEMENT

**Name:** «First» «Last» **CSUID #:** «CSU\_ID»  
**Home Address:** «Address»  
 «City\_State» «Zip\_Code» **Sport:** «Sport»

**Aid by Elements:** \_\_\_\_\_ **Tuition** (see 1 below)  
 \_\_\_\_\_ **General Fees** (see 2 below)  
 \_\_\_\_\_ **Room & Board** (see 3 below)  
 \_\_\_\_\_ **Books** (see 4 below)  
 \_\_\_\_\_ **Special Fees** (see 5 below)

**Aid by Percentage:** \_\_\_\_\_ **Percent of NCAA Full Athletic Grant**  
1 Includes base tuition and supplemental tuition; for Colorado residents, amount will not include the stipend provided through the College Opportunity Fund (COF)  
 2 Includes fees to support general student services, the University facility fee and the all-University technology fee  
 3 Based on double suite room and Meal Plan A  
 4 Includes the loan of required course-related text books (must be returned in conformity with established deadlines)  
 5 Includes technology fees assessed by individual colleges and special course fees; provided with full scholarships only

**Period of Award:** \_\_\_\_\_ **2012-13** \_\_\_\_\_ **Academic Year** \_\_\_\_\_ **Semester**  
(NCAA regulations prohibit awarding athletic aid for a period in excess of one academic year.)

\_\_\_\_\_  
Sport Coach Date

\_\_\_\_\_  
Director of Athletics (or Designee) Date \_\_\_\_\_  
Director of Financial Aid Date

#### Terms, Conditions and Requirements

1. I understand that to receive this financial aid, I must fulfill Colorado State University's regular admission requirements and comply with all requirements for athletics participation established by the NCAA, the Mountain West Conference and Colorado State University.
2. NCAA regulations restrict the total amount of financial aid I can receive. If I receive other scholarships, grants or financial aid, I will notify the Athletic Department. These funds may require a reduction in my athletic financial aid to meet NCAA regulations.
3. If I am unable to participate in intercollegiate athletics but continue to receive this award, I understand that I may be required to undertake work-related duties in the Athletic Department in lieu of time spent in athletically related activities.
4. I am aware that the amount of this aid may be reduced or canceled during the period of this award if:
  - (a) I become ineligible for intercollegiate competition
  - (b) I give false information on my application, letter of intent or financial aid agreement.
  - (c) I engage in serious misconduct resulting in disciplinary action.
  - (d) I fail to abide by NCAA, MWC, CSU or Athletic Department rules and regulations, the specific written rules of my sport, or the CSU Student Conduct Code.
  - (e) I become academically disengaged; e.g., low or no class attendance, failure to participate in activities related to my academic success, failure to complete course work, failure to comply with Athletic Academic Services requirements and policies.
  - (f) I voluntarily withdraw from the sport.
5. I understand that I will be notified in writing if my Athletic Financial Aid Agreement is to be terminated or reduced during the period of its award or recommended for nonrenewal and that I will have an opportunity to appeal to the Athletic Appeals Committee.
6. I understand that I may be responsible for any charges associated with course work I fail to successfully complete.

**I have read, understand and agree to abide by the above statements regarding this financial aid agreement. Failure to promptly sign and return this agreement may jeopardize my athletic financial aid.**

\_\_\_\_\_  
Student-Athlete

\_\_\_\_\_  
Date

\_\_\_\_\_  
Parent or Guardian (Required for entering freshman)

\_\_\_\_\_  
Date

Copy to: Financial Aid Office/Student-Athlete/Athletic Department

## APPENDIX D: Analysis Constructs

### Analysis Constructs for Crystallizing Themes and Stories

Literature Source	Peer Reviewed	White Papers	Gray Literature	Total
Academic Engagement				
Eligibility				
Study Hall				
Using Computer				
Instructor Meeting				
Extra Credit				
Environment				
Disengagement				
Scholarship				
Interview				
Observation				

Purpose: This table was used during the selection and abstract phases of the meta-analysis. As each source was identified in a library search the intersection of keyword and phrases were looked for. For example, if academic engagement was discovered in peer reviewed, white papers, and gray literature they were grouped together.

A second review of the keyword and phrase intersection would look for intersections among other keyword or phrases. For example, if academic engagement group also had eligibility and using computers as intersection points with other sources those intersections would create an enriched group of intersections beginning a theme or story, crystallization.

## APPENDIX E: Triggers and Signifiers

### Systemic Literature Analysis – Evaluation Triggers and Signifiers

#### Purpose:

Identify from sources rich purposeful descriptions of student athletes within specific academic environments that influence academic engagement. Academic engagement being defined minimally by NCAA scholarship agreement constructs and up to including all variables defined by NSSE and USDOE.

Triggers and Signifiers– What images (signifiers) and/or behavior triggers identify academic engagement.

- Reference to study hall or group study activities
- Student athlete bringing a computer device (laptop, tablet, or smart phone) to study hall or class.
- Direct or implied reference to student athlete formally scheduling meeting with instructor to discuss assignments and/or extra credit
- Direct reference or implication that student athletes meet with students and/or student athletes for study groups
- Student athlete meeting with coach or coaches to study athletic participation
- Description of student athletes' behavior aligned with academic engagement definition referenced in this study.
- Reference to student athlete behavior that is directly related to academic engagement or attempting to improve academic performance. For example, describing conversation in a study hall or describing a student athlete using academic tools, (i.e., computer, paper and pencil, etc.).
- Identify diagrams that illustrate placement of academic resources, (i.e., classroom location in relationship to athletic training facilities).

This list of triggers and signifiers provides thematic guidance associated with the constructs defining academic engagement as used in this study.

The guidelines were used during the abstract and analysis phases of meta-analysis process while reviewing data gathered by using appendices D and F.

Note: No individual student athlete was observed in an environment noted in this study methodology. Furthermore, observation focused on factors defining academic engagement by NCAA, NSSE and the USDOE with intent to enrich the evaluation of intersections between sources.

APPENDIX F: Systematic Literature Analysis With Examples

Domains: Traditional Classroom, Study Hall, Practice, Games, and Meetings.

Sub-domains: Academic Engagement, Eligibility, Academic Performance, Grade Point Average., Academic Performance Rating, Graduation Success Rate, Environment, Student Athlete, Scholarship, Interview, Observation.

Domains	Classroom	Study Hall	Practice	Game	Meetings
Sub-Domain					
Academic					
Engagement					
Eligibility					
Academic					
Performance					
Grade Point					
Avg.					
Academic					
Performance					
Rating					
Graduation					
Success Rate					
Environment					
Student					
athlete					
Scholarship					
Interview					
Observation					

Purpose: Appendix F was used to enrich a theme when triggers and/or signifiers are implied or referred to in the context of the five environmental domains listed here (Classroom, Study Hall, Practice, Game, or Meetings)

For example, a source intersecting with academic engagement, student athlete, and eligibility referenced classroom and eligibility, but in what context. Using the 6 evaluation criteria the relevance of domain and sub-domain to student athlete academic engagement gives rise to a student athlete behavior theme in a listed environment.

#### 1. Strict Inclusion

X is kind of Y

- Student athlete is a kind of student.
- Academic Advisors are a kind of advisor
- Learning Coordinators are a kind of tutor, advisor, mentor, friend, and planner.

#### 2. Spatial

X is a place in Y

- Computer lab is a place in the study hall.

X is a part of Y

- Private study room is a private part of the study hall.

#### 3. Location for action

X is a place for doing Y

- Study Hall is a place for doing class assignments.

#### 4. Function

X is used for Y

- Learning Coordinators are used for planning academic engagement.

#### 5. Function

X is used for Y

- Group discussions are used for enriching academic engagement.

#### 6. Sequence

X is a step (stage) in Y

- Going to professor's office hours is a step toward improving academic engagement.)

APPENDIX G: Gray Literature Keyword Collage





## APPENDIX H: IRB Exempt Status Confirmation



Research Integrity & Compliance Review Office  
Office of Vice President for Research  
Fort Collins, CO 80523-2011  
(970) 491-1553  
FAX (970) 491-2293

Date: July 7, 2016

To: Carole Makela, Ph.D., School of Education  
Lowell Wightman, School of Education

From: IRB Coordinator, Research Integrity & Compliance Review Office  
(RICRO\_IRB@mail.colostate.edu)

Re: Academic Engagement: University Sports Student Athletes

After review of information regarding the continued analyzing of secondary de-identified data, it was determined that this activity does not meet the requirements of the federal definition of human subject research. "Human subject means a living individual **about whom** an investigator conducting research obtains data through **intervention or interaction with the individual, or identifiable private information**" 45CFR46.102(f).

Living individual – N  
About Whom – N  
Intervention/Interaction – N  
Identifiable Private Information – N

Thank you for submitting this information. If you have more projects that are similar, please contact us prior to submission. The IRB must determine whether a project needs to have IRB approval.