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Success off the Field: Academic Strategies of High-GPA College Athletes

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A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Educational Specialist

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ABSTRACT

Success off the Field: Academic Strategies of High-GPA CollegeAthletes

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This study investigated the strategies academically successful college student athletes use to do well in their class work, where academic success was defined as a 3.5 GPA for 12 or more credits for the two semesters preceding the study. Data were transcriptions of individual interviews with five male and five female athletes in seven sports at an NCAA Division I university in the western United States. Independent coders analyzed the data and agreed upon themes related to challenges to academic success and strategies to meet those challenges. Findings add to the literature by detailing self-regulatory habits that academically underprepared athletes can adopt from their successful peers. Academic advisors can use these findings as they help athletes increase academic success and learn valuable life skills.

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DESCRIPTION OF THESIS STRUCTURE AND CONTENT

This thesis is titled: *Success off the Field: Academic Strategies of High-GPA College Athletes* and is written with elements of a traditional thesis format and elements of journal publication formats which is known as a hybrid format.

The beginning pages of the thesis are presented in a fashion the fulfills the requirements for submission to the university. The continuation of this thesis report is presented as a journal article which means that is meets standards for submission to educational journals.

In this thesis, the extended literature review is included in Appendix A. The standardized interview guide used with each participant is included in Appendix B. Lastly, the information regarding the IRB-approval Letter of Approval to Conduct Research is included in Appendix C.

This thesis also contains two reference lists. The initial list contains references included in the journal ready literature review and are found in the Introduction. The secondary list consists of citations found within the Extended Literature Review in the Appendix A.

Introduction

Adjustment to college academics can be a difficult transition for students. Research indicates that college catches most students off guard, even those who took advanced placement and concurrent college enrollment courses in high school (Yazedjian et al., 2008). The adjustment can be particularly difficult for academically underprepared athletes as they strive to balance athletics and academics. The challenge many entering college students encounter is to learn new skills or study strategies because those used in high school are no longer adequate (Yazedjian et al., 2008). The difficult transition to college-level study skills and habits is a probable factor in the relatively low rates of 4-year college graduation in the United States. Cohorts of freshmen who entered college in 2010 averaged 40% completion with bachelor's degrees in four years and 62% in six years (U.S. Department of Education, 2017). These rates compare to the study university in which the 2009-2011 cohort averaged 31% completion with a bachelor's degree in four years and 80% in six years (National Center for Educational Statistics, 2011). In 2011, National Collegiate Athletic Association (NCAA) Division I athletes averaged 82% graduation with bachelor's degrees in six years (NCAA, 2018).

Students struggle in college for a variety of reasons, including academic under preparation (Mann, 2016), hidden disabilities (Couzzens et al., 2015), psychological challenges (Eisenberg, Hunt, & Speer, 2012), failure to set and achieve goals (Friedman & Mandel, 2009-10), and lack of engagement with instructors and fellow students (Astin, 1984; Eikeland & Manger, 1992). Although within-person factors such as depression and anxiety are not easily addressed, other factors can be mediated by means of self-regulation in the learning process.

Self-Regulated Learning

The self-regulated learner who does well academically understands the strategies needed to perform well and implements those strategies properly and consistently. Self-regulation is a process by which individuals use metacognitive strategies to create action plans and then follow the plan (Schunk, & Zimmerman, 2012). Regulation of cognition allows students to control and take advantage of their learning (Vrugt & Oort, 2008). As students gain experience in college settings they learn the study habits and skills that yield academic success. Other students may know the behaviors that will make them academically successful, but fail to implement them. In one study, two students stated that they knew the importance of reading before class, but did not always read the material because they either felt that there was always another time to read or there were other distractions (Chilca, 2017). The knowledge of cognition and regulation of cognition can facilitate academic success.

One's perception of self-regulation plays a significant role in self-regulation. Schunk and Zimmerman (2012) discuss the ability to regulate self as either entity or incremental. Students on the entity side believe that skills cannot be taught and that one is born with them. Students with incremental mindsets believe that skills needed for success can be learned and developed over time. Entity and incremental beliefs correlate with fixed and growth mindsets. A fixed mindset is the perception that intelligence is unchangeable and effort will not affect outcomes (Dweck, 2007; Hochanadel, & Finamore, 2015) while growth mindset is the belief that one's intelligence, skills, and abilities can be developed with effort (Aditomo, 2015; Dweck, 2007). Adopting an incremental or growth mindset toward learning and self-regulation permits students to control their efforts (Zimmerman & Schunk, 2011).

Volition and motivation also play vital roles in self-regulatory behaviors. Volition is also referred to as purposeful striving (Zimmerman & Schunk, 2011). Volition combined with motivation takes individuals from a state of understanding what needs to be done to the active process of following through on goals and pursuits (Zimmerman & Schunk, 2011). Individuals who enact growth mindsets with volition will likely implement strategies for academic success.

Strategies for Academic Success

Students entering the collegiate education environment must develop skills for success at a more competitive level. High-achieving high school students reported that they did not have the skillset to be fully prepared for a college education even though they had taken advanced placement and concurrent enrollment courses (Yazedjian et al., 2008). It is often assumed that students who had preparatory college courses and performed well on entrance exams will perform as well in a college. An interview with academically successful college students shows that this is not always the case. Kim and Ra (2015) found that factors other than college preparation and exam scores played roles in academic success, including time management, note taking, goal orientation, and class preparation. Once admitted to a college or university it is the day-to-day behaviors that are necessary for academic success. Other researchers indicate that dispositions and strategies for success include study habits, goal setting and achievement, and time management (Bhat & Khandai, 2016; Chilca, 2017; Dvorak & Jia, 2016; Hsieh, Sullivan, & Guerra, 2007; Kim & Ra, 2015). Each of these is discussed below.

Study habits. Study habits are skills one develops over time to accomplish academic tasks (Bhat & Khandai, 2016; Dvorak & Jia, 2016; Kim & Ra, 2015; Schunk & Zimmerman, 2012). Study habits can be effective or ineffective depending on whether or not they help an individual learn. Bhat and Khandai (2016) stated, "Good study habits include being organized,

keeping good notes and reading textbooks, listening in class, and working every day. Bad study habits include skipping class, not doing work, watching too much TV or playing video games instead of studying, and losing work" (p. 2). Whether beneficial or detrimental, learned study habits impact how well a student performs academically.

Goal setting. Creating goals and making plans to complete them is typical of highly academically successful students (Hsieh et al., 2007). Elliot (1999) puts academic goal orientation into three categories: (a) mastery goals that motivate students to create and enhance their capabilities in different fields, (b) performance-approach goals that focus on one's skills, and (c) performance-avoidance orientation meant to conceal one's lack of abilities (Elliot, 1999). High-achieving students pursue mastery goals to achieve higher learning (Midgley, Maeher, & Urdan, 2000). Students who develop a sense for mastery goal orientation also report high self-efficacy and demonstrate hard work and perseverance (Hsieh et al., 2007). In contrast, students with poor goal orientation tend to develop performance-avoidance behaviors and avoid seeking help for fear of being perceived as incompetent (Hsieh et al., 2007).

Time management. Time management is valuable to all college students whether or not they participate in athletics. Highly academically successful students attributed much of their success to time management, whereas lack of management led to failure (Dvorak & Jia, 2016). Successful students manage time not only for study, but for other activities such as eating, sleeping, and meeting with friends (Bhat & Khandai, 2016). Britton and Tesser (1991) found that short-term planning was strongly correlated with achievement but long-term planning was not. The relationship between planning and academic success showed that as students employed short-range planning skills to achieve academic success their positive outlooks on time management improved.

Student involvement. Student involvement is defined by the time and energy that students invest in academic activities, extracurricular activities, interaction with peers, and interaction with faculty or administration (Astin, 1984). Student involvement contributes to academic success in college. For example, highly involved students utilize their time to study, participate in clubs or organizations, and interact with faculty or staff. In contrast, uninvolved students typically avoid studying or spending time on campus, do not participate in extracurricular activities, and seldom interact with faculty and staff (Astin, 1984). Student interaction with faculty is a strong contributor to success in college (Ullah & Wilson, 2007). Student-faculty interactions affect how students think, solve problems, and set long-term goals (Endo & Harpel, 1982). Those who experience positive interactions with faculty members tend to respond with higher commitment to academic endeavors because they sense that instructors care about their progression. Conversely, students who experience negative interactions tend to distance themselves from academics and become more involved in nonacademic pursuits (Cokley, 2000; Graunke & Woosley, 2005).

Varsity athletic competition is perhaps the most demanding form of involvement in college. The requirements of dual participation in school and sports mean that athletes have essentially two full-time endeavors that complicate behavioral self-regulation. Those who achieve academic success learn to regulate study, goals, time, and school involvement.

Academic Success for Athletes

The demands of athletic competition significantly alter students' lifestyles and daily schedules. Student athletes can spend 20 hours or more per week just in training and competition (Chen, Mason, Middleton, & Salazar, 2013; Miller & Kerr, 2002). With so much time devoted to sports, the task of managing classes, studying, chores, and other responsibilities

can be exhausting and trying. Though the tasks are demanding, student athletes can learn to manage multiple responsibilities to become both academically and athletically successful (Miller & Kerr, 2002). Some students reported that athletics taught them to be more organized and more focused, especially during their competition seasons (Miller & Kerr, 2002). One study of Division I athletes reported that academically successful student athletes spent more hours per week on academic activities than athletic endeavors (Chen et al., 2013), not always the case with the less successful.

Balancing academic and athletic success can be difficult but achievable as individuals regulate time, study habits, and school involvement. Student athletes who do not do these things well will likely benefit from learning and adopting strategies that work for academically successful peers.

Statement of Problem

The problem addressed by this study is that limited published research exists that describes the strategies that high-GPA student athletes employ to attain academic success. Participation in varsity athletics complicates academic endeavors, and while some athletes successfully navigate both, others do not. Knowledge of these strategies contributes to the resources that athlete academic support personnel can use to help struggling athletes learn productive self-regulated academic behaviors.

Statement of Purpose

The purpose of this study is to identify and describe the strategies that academically successful student athletes use to do well in their class work, where academic success is defined as obtaining a 3.5 GPA for 12 or more credits for the two semesters preceding the study. The results will inform athlete academic support personnel as they strive to help at-risk students learn

and use productive academic strategies, and will likewise inform the broader field of athlete academic support.

Method

The researcher employed naturalistic inquiry to investigate the various academic strategies used by highly successful student athletes. Naturalistic inquiry assumes that the phenomenon is studied in context, without preconceived expectations, and will lead to interpretation and explanation of the phenomenon (Frey, Botan, & Kreps, 1999). This approach elicits descriptions from each participant regarding their strategies without imposing the researchers' values and preconceived notions (Lincoln & Guba, 1985).

Participants

The purposive criterion interview sample was selected from a population of approximately 160 male and female collegiate student athletes from various sports who earned grade point averages of 3.5 or above for the two semesters prior to the study. The sample included five males and five females competing in volleyball, cross country, track and field, tennis, golf, football, soccer, or softball. They included two freshman, two sophomores, two juniors, and four seniors, and were majoring in computer science, exercise science, finance, business administration, elementary education, or pre-med biology. Investigators anticipated 10–12 participants would be necessary to reach the point of data saturation (Kvale, 2007). Purposive criterion sampling was appropriate because the study targeted student athletes meeting the specific criteria of participation on a collegiate varsity team and a minimum GPA for two consecutive semesters. This sample facilitated the study of the phenomenon of interest and provided rich data to answer the study questions (Patton, 1987). Researchers analyzed and

interpreted research findings only with regard to this group at the study institution (Lincoln & Guba, 1985).

Setting

The setting was a Division I university in the western United States sponsoring 19 men's and women's teams in 12 sports. To ensure confidentiality, interviews were conducted on campus in a private room in the student athletics center.

Data Collection

The researcher utilized a semi-structured interview guide to elicit participant responses. The interviewer and individual participant sat across a table from each other with an audio recording device placed between. The researcher explained the consent form, answered questions as needed, and asked the participant to sign two copies. The interviewer gave one copy to the participant and retained the other copy for evidence. The interviewer then engaged the participant using the questions and probing for clarification as appropriate. The interviews averaged about 30 minutes in length.

Upon completion of the interviews the researcher transcribed each audio recording for member checks and analysis. The researcher emailed each participant's interview transcript, asking the participant to read the transcript and verify that it represented the desired answers. When transcripts were returned the researcher and faculty advisor proceeded with the data analysis.

As described by Guest, Bunce, and Johnson (2006), data can be considered saturated when responses become redundant and no new information emerges. Ten interview respondents represented a small percentage of high-GPA student athletes at the time of the study, but the

responses were providing the same or similar information and therefore the interviewer closed the interview process.

Data Analysis

The researchers employed interpretive phenomenological analysis (Smith & Osborn, 2003) using the six-step thematic method described by Braun and Clarke (2006). The purpose of interpretive phenomenological analysis is to bring meaning to participants' statements regarding the phenomenon of interest; in this case, academic strategies used by high-GPA student athletes. Thematic analysis seeks to discover and interpret themes or patterns within the aggregate data which are then used to describe the phenomenon (Braun & Clarke, 2006).

The six-step approach to thematic analysis is comprised of becoming familiar with data, coding for information, finding themes and patterns, and ultimately compiling the results in a final report. The first step is to become familiar with one's data. Familiarization typically happens by reading the material multiple times before coding or analysis of the data. This tactic ensures that the researcher is immersed in the data and has a more complete idea of themes, patterns, and content. One important strategy in becoming familiar with a data set is to accurately transcribe it to create understanding and ensure that the information retains its meaning.

The second step is to begin coding by taking notes. Note taking for coding can be manual or through computer software, but the researcher must ensure that each part of the data has full and equal attention. This process allows researchers to begin to identify themes, patterns, and interesting portions derived from the collected data.

The third step involves identifying themes and sub themes. The researcher takes the numerous codes and begins organizing and identifying overarching themes and supportive categories of sub-themes.

The fourth step addresses how well the themes fit together and the accuracy with which they represent each interview. The validity of each theme is considered at this time as well.

The fifth step has the researchers clearly outline and define the themes for analysis, meaning that the researcher defines the meaning of each theme and what it entails, identifies points of interest, and explains why and how the theme fits into the overall analysis. In the sixth step the researcher creates a comprehensive report that explains the collected data, themes, patterns, and explains any other information gathered from the interview (Braun & Clarke, 2006).

Establishing Trustworthiness

Qualitative research requires assurance of data trustworthiness. Whereas quantitative research is concerned with validity and reliability, qualitative trustworthiness is founded on credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985). The trustworthiness of this study's data was addressed by performing member checks of transcription accuracy, by peer debriefing during analysis, and by establishing an audit trail.

Member checks. Member checks were performed multiple times throughout the study. The first check occurred after the first two interviews had been transcribed. The transcriptions were emailed to the participants and returned for verification that they accurately represented the intentions of participants' responses. Member checks via email were completed for each interview transcript thereafter, providing participants the opportunity to clarify, comment, and provide further explanation if needed (Cresswell, 2007).

Peer debriefing. A university professor served as peer debriefer to the lead researcher. The peer debriefer explored the primary researcher's biases, reviewed the field notes, and clarified the primary researcher's interpretations by forwarding counter arguments as appropriate to solidify understanding (Hanson & Newburg, 1992). The primary researcher and debriefer met regularly until the analysis was complete.

Audit trail. An inquiry audit was performed to strengthen the study. An audit trail is a transparent record describing the research steps from the beginning of a project through the development and report of the findings (Lincoln & Guba, 1985). The primary researcher tracks the data analysis and maintains the audit trail so that other researchers can follow and understand the rationale for decisions (Lincoln & Guba, 1985). To fulfill this requirement, the primary researcher kept track of multiple report drafts, meetings with committee members, and drafts of findings and conclusions.

Results

The raw data for this study consisted of the transcriptions and field notes from interviews with 10 high-GPA collegiate athletes about their strategies for academic success. The data ranged from short sentences to lengthy paragraphs. The two primary themes that emerged from the data were challenges to achievement and strategies for achievement.

Challenges to Achievement

Challenges to achievement fell into two categories: general distractions and sport participation. General distractions were defined as tasks or events that pulled the students away from their academic work. Participants described several general distractions, including using their phones, socializing with others, and being tired. Sports participation was defined as time spent on sport-related activities such as practicing, conditioning, competing, and traveling.

Students found that their academics began to suffer if they invested disproportionate amounts of time on their sport. One athlete stated, "There's a lot of distractions, I think just as a student, but then it doubles when you're a student athlete."

General distractions. One distraction athletes mentioned was spending excessive time on their phones. Phone time interfered with academics because it gave easy access to games, social media, and web searches. Participants stated that instead of using downtime to complete homework, they would sometimes spend time scrolling through social media posts or playing games. One athlete reported, "Sometimes when I'm bored or I've been studying for a long time, I'll play a game on my phone." Athletes stated that they often did not realize how much time they actually spent on their phones. Phone time became an issue when it detracted from time that could be spent studying, completing assignments, or sleeping. In addition to phones, social life also detracted from academic tasks.

Socializing with friends and teammates is normal and predictable for young adults involved in group activities. Study participants reported that spending time with others was not an issue unless it impeded academic tasks such as completing assignments or studying for exams. One participant stated, "I've had friends that just don't study because they're out every night with friends from the time they get off practice." Spending large amounts of time socializing not only distracted from daily tasks but also interfered when athletes were looking for places to study and focus. Students disclosed that they had difficulty finishing homework or other tasks when they were working in areas with their friends because they preferred to socialize. As athletes spent disproportionate amounts of time socializing while attempting to balance academics and sports, they can become fatigued.

Fatigue due to daily athletics was a notable distraction. Balancing academics and sport participation was exhausting because it was difficult to begin class assignments when they were tired from practice or competition. One student noted this by stating, "You're tired, or you don't have the energy to even want to do homework. You'd rather take a nap." Overcoming fatigue was difficult for many because they had worked hard to perform well in their sport and the exhaustion from competing, practicing, or training left them feeling drained and unmotivated to complete homework in the evening.

Sport participation. Athletes reported participation in their chosen sport as a significant distraction. Participation included practice time, conditioning, travel, and competition, as reported by others (Chen et al., 2013; Miller & Kerr, 2002). Many participants reported that balancing sports, academics, and socializing was tricky because they had more to accomplish than students who did not complete. One stated, "I think those are just the distractions of just wanting to relax when you can relax and not pick up your homework and start doing it when you have free time." As stated by several athletes, participation in sports is very time consuming, and travel adds a factor not affecting most other students. Traveling for competition was trying because it pushed athletes to adjust the way they manage their academic work while on the road. Traveling makes academic tasks difficult because students miss classes, tests, quizzes, and important information. It also allows only limited time to complete assignments. For example, a student noted that she rarely attends her Friday courses due to traveling. When she does travel, she has difficulty completing work between games because she is focused on the competition. Many athletes reported limitations in study time and academic focus due to the inherent demands of travel.

Overall, athletes reported multiple challenges ranging from general distractions to aspects of athletic competition. These are not unexpected when considering the demands on student athletes. However, this study focused on the strategies that participants employed to overcome these difficulties and to succeed academically.

Strategies for Achievement

Strategies for achievement are grouped here into three categories: time management, effective study, and communication. Robbins et al. (2004) define study skills "as those activities necessary to organize and complete schoolwork tasks and to prepare for and take tests" (p. 264). Athletes found that these skills for success were not innate, but were learned and developed throughout their time in college. The notion that skills for success are learned and malleable is noted in other research. Clark (2005) and Yazedjian et al. (2008) found that students need to adjust the skills gained in high school to meet the demands of college work. One demand was learning how to study, as stated by one participant in the current study,

> As a freshman you kind of come in with the mindset, oh I'm going to make these flashcards, I'm going to make this Quizlet©, and it's going to be everything I need to know. When in reality, college isn't about testing facts.

Athletes stated that they had to reteach themselves how to study in college because they either did not study or studied very little for their high school classes. As in Yazedjian et al. (2008), participants in the current study stated that strategies for academic success included attending class regularly, taking classes with friends, sharing class notes, participating in study groups, and meeting with professors or teaching assistants. These strategies are discussed below.

Strategies for managing time. Participants reported that learning to properly manage their time on a daily basis was a key component of performing well academically. Time

management consisted of disciplined time usage, flexibility, and initiative in task completion. Athletes reported that time discipline meant prioritizing tasks to complete the most important assignments first, dedicating time to completing remaining classwork, and reserving time for friends. Participants utilized planners to schedule class time, study time, practice time, and social time by the day or week. They noted that entering events such as group study, exams, or social plans helped them see how their time was utilized. One student stated, "Whatever it is that's important to you, schedule that time so that it happens." Participants knew that planning everything was essential in their busy lives.

Schedule awareness also allowed athletes to effectively use their downtime to study or finish assignments. Some participants checked their schedules for moments during the day when they could work and if something was canceled then they used that time to complete classwork or study for an upcoming exam. Scheduling helped students find time to meet with study groups or find quiet places to study for upcoming tests.

A part of schedule awareness was knowing when classwork was due and completing it prior to traveling for competition. Completing the majority of classwork beforehand was an effective strategy for travel. When athletes completed work early they could focus on competing. One stated, "What I typically try and do is try to get everything done before I leave, that's due." However, many participants stated that they could not completely avoid working while traveling. When they did have to work on assignments they prioritized the work and set aside time each day to complete it. Said one athlete, "If I'm not competing then I'm at the hotel doing homework. It's not always super fun, but that's the only way to stay on top of everything." The ability to use time efficiently was a valuable skill for athletes as they worked around their busy schedules to complete classwork, socialize, and compete in their sport.

Study. General collegiate study skills were important to participants. Athletes reported that consistently and promptly attending class, engaging with the learning material, and taking notes were important first steps. Attending class helped them grasp the class material, learn information that may have not been in the readings, and obtain important dates for tests or assignments. One participant reported,

> It's really just being there. Sometimes it's hard because it's easy to fall asleep in class or glaze over, but I think "Okay, well I'm only here for two out of the three days of the week so I need to make sure [I know] what's happening when I am here.

Attending class was important to mastering the information and an essential part of mastering information was taking notes. Participants found that note taking helped them stay focused when they found themselves disengaging from the material and helped them to understand difficult topics. Athletes stated that their note taking consisted of either handwritten or laptop notes composed of main ideas, important information, due dates, and questions not answered in class. Recording this necessary information in notes not only helped them stay engaged, but also helped them attend to the professor instead of just focusing on the information from the slides. One athlete expressed, "I write what I think is necessary because if I write a lot down, I have a hard time paying attention." The important information that students noted was usually composed of ideas that the professor mentioned multiple times, highlighted ideas on slides, diagrams, or concepts written on the board.

When deciding on the most useful format for taking notes participants based their choices on the course and the material presented. Athletes stated that they used their laptops to take notes when they were lecture based or they could download the slides and take notes directly on the slides. This helped them remember when they had questions or what the professor discussed

on the slides. A participant said, "The teachers have PowerPoint© that they put on Learning Suite© so I'll take notes on the PowerPoint© so that I can go back and look at them when I review for a test." In contrast, in science or math-based classes they took more handwritten notes because there were diagrams to label and understand and it would take too long to recreate them on their computers. An athlete explained this by saying,

> If I take a physics class or something where I have to draw, or… I don't know, even some of my biology classes, I write the notes because then I can draw on it too.

Choosing course-specific formats for taking notes helped students capture information in useful ways.

Organizing notes for study was another valuable strategy. Athletes stated that useful study strategies included reviewing notes, practicing problems, writing questions, meeting with staff or tutors, and utilizing other class materials. Students utilized these skills by scheduling time to study alone or with a group in distraction-free environments. Scheduling time to study ensured there was time to review the material and distraction-free environments helped them focus on the topic and thoroughly review the material.

Effective study included preparation. Athletes reported that they made sure they had needed materials and they had eaten or had water with them so that they did not have to interrupt the session. To focus on the material some participants physically separated themselves from others by going into another room. This strategy was well described by one athlete, who said,

> Sometimes I'll be hanging out in the locker room too long, or see friends and then just chatting with them for too long. When I see all my friends and we get talking and then they decide to go do this, I'll say that I actually need to go do homework.

Finding spaces to work alone and scheduling other time to meet with friends were both effective strategies.

Participants reviewed class material using a variety of techniques, including reading notes, reviewing passages in textbooks that pertained to upcoming exams, and practicing problems. Reviewing information helped students to develop deeper understandings of principles and to master class material, in contrast to just memorizing information (Midgley et al., 2000). One participant stated,

> As classes get harder, you just have to understand [the material]. Not just memorize it because they'll ask harder question than you can even expect, and if you don't understand it then it'll be really hard to get the right answer.

Athletes that sought to understand material beyond memorization were mastering rather than just reviewing the subject matter.

Peer involvement in studying helped participants succeed (Astin, 1984). Peer involvement included meeting with tutors and with study groups to review difficult topics or exam material. Athletes stated that meeting regularly with tutors helped them keep up with the class material and gain better understandings of difficult topics. Meeting with tutors or Teacher Assistants (TA) provided one-on-one time to ask questions and talk things through with someone that knows the class material and how to help learn it. One athlete noted, "They can help me understand it in an hour whereas it'll take me maybe two hours to figure it out by myself, and I usually don't try to figure it out on my own because I don't have time." Therefore, meeting with tutors and TAs helped students learn difficult material more effectively than working on it alone. This information correlates with literature stating that working with educational staff regularly

and focusing on goals helps students to achieve greater success in the classroom (Endo & Harpel, 1982).

Participants reported that interacting with groups helped them to better comprehend the material. Group studying helped them to catch missed information from readings or class lectures, to practice problems that may be on exams, and to complete homework. Athletes reported that essentials for group work included taking initiative to organize groups, choosing appropriate group members, assigning tasks, communicating with group members, explaining details aloud, and working as a team. Choosing appropriate group members set the tone for how study sessions progressed. Working with group members that were focused on learning the material and were willing to put in effort contributed to learning more than working with those that preferred talking to studying. One athlete noted, "Not everyone has to be your study partner." Inviting members that promoted mastery of the subject over chatting and off-task behaviors was key to forming good study groups.

Working with study groups involved a variety of tactics. One tactic was talking aloud, or teaching the subject matter to one another. Discussing or reciprocally teaching the subject material helped students notice and address the gaps in their knowledge. Teaching and discussing material with peers involved writing ideas, concepts, and diagrams on a white board, connecting one concept to another, and reviewing ideas that were difficult to understand. One participant stated,

> [I like] working with classmates, and friends and peers when you're allowed to because I feel like that allows me to actually talk through it, rather than just writing down answers, and it comes to life when you're doing it with other people.

Studying in groups helped athletes master content, but communicating with individuals outside of their study groups also helped them to perform better academically.

Communication. Participants stated that communication with key academic individuals such as peers, professors, coaches, and other administrative staff members were vital to achieving academic success (Astin, 1984). Communication with professors was a valuable tactic because it demonstrated academic commitment by communicating sport schedules and academic goals, asking questions when encountering difficult concepts, and working around schedules (Ullah & Wilson, 2007). Students noted that the first step to building a relationship with a faculty member was simply introducing oneself to the professor to facilitate later name recognition and to open the door for later assistance.

One athlete stated, "The best thing you can do is introduce yourself to the faculty. I've had professors that have gone out of their way to help me so that I could succeed in their class." Students stated that when meeting with a professor it was helpful to have an agenda for what they wanted to accomplish during the meeting. This helped them to organize their thoughts or questions to appropriately communicate with the professor. Agendas typically consisted of informing the professor about when they would miss class for travel, conveying ideas or questions about the class material, addressing personal goals, and communicating concerns about the class.

One athlete reported, "I've gone in and explained what are my goals, explained what it is that I want and that I'd like their help with. Then they're much more flexible to work [with me]." Creating relationships with professors and keeping in contact throughout the semester helped athletes obtain the support of the academic staff. Relationships with classmates provided support that professors could not.

Athletes reported that connecting with classmates and peers helped because they could ask questions, catch up on missed classes, and collaborate to complete assignments. Making friends in difficult classes made it easier to share notes or missed information. Communicating with class peers was easier than meeting with faculty because athletes found texting faster than sending emails or making appointments with professors or tutors.

One athlete noted," Get to know the people in your classes because there's always someone that understands a certain topic better, and things you understand better." Students reported that they shared information and asked questions of peers before turning to their professors because it was faster and more comfortable, but they communicated with professors to adjust test dates, submit work early, and prioritize assignments while traveling. One disclosed that, "Traveling makes it really difficult. I think the way to be successful when you're gone is just communicate with professors."

In addition to communicating with peers and professors, athletes reported the benefits of communicating with their coaches, noting that having an involved coach that supported them in their academic goals as well as their athletic goals helped them to achieve success. Involved coaches checked up on them regularly in both academics and athletics, and some coaches held them accountable for academic performance by dismissing them from practice when their grades were suffering, by reporting their grades once a semester, and by having team academic goals. Athletes noted that coaches who held school as a priority facilitated this by giving athletes breaks from practice if they needed to attend study sessions or focus on their classwork, by checking regularly to make sure students are attending class and getting good grades, by celebrating academic success, and by reinforcing good study habits and communication with others. One athlete described her coach by saying

She is a firm believer in making sure that we are not just athletes, that we're student

athletes. She'll remind us often to go to class, to do our homework, to work with our

professors, and she understands that there's more to life than running.

Athletes felt their coaches cared about their success as both athletes and individuals when they

valued academic success. One reported, "My coach always says you're a student athlete. He

said it doesn't go athlete student. It goes student athlete." Involved coaches create a supportive

atmosphere by fostering a mindset of school as a priority and supporting students in their goals to

achieve academic success.

Discussion

This study investigated the academic strategies that high-GPA college athletes employ to

achieve success in the classroom. Results were not surprising. Student athletes regulate their

behavior, like all successful people, in ways that result in desired outcomes. This study's

contributions to the literature consist of the participants' specific strategies used to balance

essentially two full-time endeavors and be successful in both.

The reported challenges to academic success are common to all college students.

Distractions in the form of cell phones with ready access to social media, games, and the

internet; social activities; and fatigue are part of life for all young adults venturing into

independent living. Balancing free time and study time is the age-old universal challenge of

college life. Participants in this study revealed that when pursuing both academics and athletics,

balance is challenging, but can be achieved.

It is notable that many participants mentioned participation in their sport as a challenge to

academic success. Division I athletics has become a social and economic juggernaut that brooks

no partial effort or halfhearted dedication. In a personal communication, one former Division I

star said that when student athletes have an extra hour and the choice between the gym and a study hall, many will invest in a potential athletic career rather than a degree. For these individuals, athletics and academics compete rather than complement each other and can lead to the exclusion of academics. This was not the case with the participants in this study who regulate their efforts to do well in both.

The reported strategies for achievement are encompassed by the theme of self-regulation. This aligns with research by others (Hartwig & Dunlosky, 2012; Kitsantas & Zimmerman, 2009; Komarraju & Nadler, 2013) and indicates that busy students are most successful when they can manage their time, engage in effective study, and communicate with crucial people. Self-regulation occurs when one uses metacognitive strategies to create an action plan and then enacts the plan (Schunk & Zimmerman, 2012). To illustrate, athletes in this study identified what needed to be completed while traveling, learned due dates, completed work before hand or found ways to study on the road, and communicated with others to obtain missed work. They organized and enacted plans to maintain their academic standing (Cubukcu, 2008; Flavell, 1979; Vrugt & Oort, 2008; Zimmerman & Schunk, 2011).

Athletes learned the places and situations in which they could and could not complete assignments and prioritized work to efficiently use available time. Whether studying on campus or while traveling they sought distraction-free areas like study rooms, quiet places in the library, or the SALLC facility. They noted that it was difficult to begin working on assignments, but knew it was necessary to performing well academically. One athlete stated, "You just gotta be diligent." This choice to do what needs to be done in the midst of other options shows the role of volition in achieving success (Frith, 2013; Heckhausen, 2007) and indicates a possible difference

in motivation between the highly successful and the less successful scholar athlete: motivation to excel in both pursuits.

Participants self-regulated their phone usage by deleting social media apps, using an app to block phone games or social media, putting the phone in another place, setting a timer for time spent on the phone, and turning off notifications. Participants understood what detracted from productivity and implemented tactics to control those distractions (Vrugt & Oort, 2008). Self-regulatory tactics also helped athletes create good habits to manage their time and homework, noting that habits or patterns helped them to cope. Habits included proper sleep patterns, time set aside to eat, and scheduled homework or study time.

Self-regulation is the hallmark of the academically successful student athletes in this study. This finding supports the notion that regulation of cognition and behavior helps students control and take advantage of their learning (McMillan, 2010; Vrugt & Oort, 2008). But can self-regulation be taught and learned? Zimmerman (2002) has submitted evidence that it can, and describes the process of helping individuals learn what to do before the task, during the task, and after the task. The processes of forethought, performance, and self-reflection are learnable through instruction and modeling. This concept warrants further investigation and implementation by those providing academic support to student athletes.

The findings from this study might also be applicable to the concept of mindset. Dweck (2007) studied the influence of growth versus fixed mindsets, or the belief that one can gain skills overtime in contrast to the belief that academic abilities are innate and unchangeable. These two mindsets explain why students that have developed more of a growth mindset tend to bounce back or try again in the face of academic adversities whereas students with a fixed mindset toward education are more likely to quit or give-up. The driving factor in the ability to

bounce back, or the skill to manage academic difficulties and setbacks is the way a student perceives that his or her skills and knowledge are changeable. Dweck and Leggett's (1988) sociocognitive theory suggests that students with a fixed mindset often focus on their performance ability. This means that they feel the need to prove their intelligence or skill in a specific area, and that much of their perception of their intelligence depends on how well they perform. If a student with a fixed mindset succeeds in a task, such as a high score on a test, then the student is likely to feel fully competent in that skill. But a low score on a test would cause the student to believe that the ability is out of reach.

In contrast to the fixed mindset, students with a growth mindset do not place their value of a skill on singular performances. They are more likely to engage with the learning material and view successes and failures as a means of learning or gaining knowledge. Having the belief that knowledge and ability is changeable can lead to better academic achievement because it reorients the student's views to focus on gaining skills and knowledge rather than proving their intelligence (Aditomo, 2015).

Learning how to reframe their pattern of thinking is a tactic that many students incorporated in order to attain academic success. Many students and student athletes have reported that they needed to change the way they thought so that they could develop the academic strategies necessary to succeed in college. One athlete from the current study reported that,

> As a freshman you kind of come in with the mindset, oh I'm going to make these flashcards, I'm going to make this Quizlet, and it's going to be everything I need to know. When in reality, college isn't about testing facts; it's about being able to conceptually apply it.

However, the ability to adjust one's mindset from fixed to growth takes time and effort. Wiersema et al., 2015, studied mindset change through mindfulness, a tactic to more fully engage students in their classwork by making the learning meaningful to them. Students were given questions such as *Why does this matter? How is this different? What is my evidence?* and *How does this connect/relate to*? The questions caused students to make more meaningful reflections about their work and provided a framework for greater intention about their education practices and learning processes. Through these questions students were given a chance to more fully engage with the learning materials and challenge their beliefs about how they learned. The study showed that over time, students became more aware of their learning by figuring out the specific difficulties in their education and making the proper adjustments to overcome those obstacles. The students reported that it took a great deal of effort to complete the questions but it helped them perform better in their classes as they learned what they lacked and took control of that weakness. This process of reviewing their most difficult classes through mindful questions also helped students to develop a more positive outlook on their education because they felt that they had more control over their learning.

As stated, it takes a considerable amount of effort to change one's mindset in order to persist through academic difficulties and to learn how to manage distractions as they come along (Hochanadel & Finamore, 2015). It takes self-regulation to manage distractions in order to live a more balanced life style. There is much effort exerted in order to use self-regulation to manage distractions such as phone notifications, social time with friends, fatigue, and even to spend more time on academic activities. It also takes effort to help an individual become aware of the academic factors that could prevent or inhibit full engagement with learning. In the current

study, participants' comments and high GPAs indicate a combination of self-regulation and a growth mindset that could be promoted by academic advisors to other students' advantage.

Limitations

This study was limited by using data at one university; it is not known if the results are generalizable to other institutions. Ten interview respondents represented a small percentage of the athletes with high GPAs, although the respondents represented both genders and several sports. The interviewer ended data collection when the responses seemed redundant, but further interviews might have yielded additional information. Future research should be conducted across a diverse set of universities and participants to determine differences according to region and the makeup of student athlete populations. Research on the different demands of various types of courses might also yield useful data about how to target strategy instruction for academic underachievers.

The researchers did not employ direct observation to verify reported practices. Although observation can strengthen the accuracy of data it would be difficult to accomplish in this type of study. The responses in this study were analyzed at face value.

Implications for Practice

Results of this study yield implications for teaching and mentoring underachieving student athletes by describing strategies used by their academically successful peers. Academic support personnel should assess students' learning, study, and work completion needs and then help the students learn and use strategies that are successful for reducing distractions, managing time, communicating with instructors and TAs, using mentoring services, and developing overall self-regulation. Student athlete clients should understand that these strategies are pertinent

because they were reported by individuals of the same ages, circumstances, and challenges as themselves and are therefore relevant and applicable.

Implications for Research

Research into less visible personal characteristics of academically successful athletes, such as volition, motivation, and mindset, would add depth to current knowledge and enhance advisors work with less successful athletes. Realizing that observable strategies are easier to teach and monitor, there is evidence that studying psychological and metacognitive aspects of self-regulation and mindset can be useful.

Conclusion

These findings describe academic strategies employed by high-achieving student athletes to address challenges to success at the study university. Writers have reported that students attending college can struggle with the transition regardless of their high school experiences and preparation (Mann, 2016; Yazedjian et al., 2008). Considering the challenges faced by student athletes, those who self-regulate distractions and effectively manage time, employ useful learning and study methods, and communicate with professors and teaching assistants are more likely to be successful than those who do not.

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APPENDIX A

Extended Literature Review

Adjustment to college academics can be a difficult transition for students. Research indicates that college catches most students off guard, even those who took advanced placement and concurrent college enrollment courses in high school (Yazedjian et al., 2008). The adjustment can be particularly difficult for academically underprepared athletes as they strive to balance academics and athletics. The challenge many entering college students encounter is learning new or additional skills or study strategies because those used in high school are no longer adequate (Yazedjian et al., 2008). The difficult transition to college-level study skills and habits is a probable factor in the relatively low rates of 4-year college graduation in the United States. Cohorts of freshmen who entered college in 2010 averaged 40% completion with bachelor's degrees in four years and 62% in six years (U.S. Department of Education, 2017). These rates compare to the study university in which the 2009-2011 cohort 31% averaged completion with a bachelor's degree in four years and 80% in six years (NCES, 2011). In 2011, National Collegiate Athletic Association (NCAA) Division I athletes averaged 82% graduation for bachelor's degrees in six years (NCAA, 2018).

Students struggle in college for a variety of reasons, including academic under preparation (Mann, 2016), hidden disabilities (Couzzens et al., 2015), psychological challenges (Eisenberg, Hunt, & Speer, 2012), failure to set and achieve goals (Friedman & Mandel, 2009-10), and lack of engagement with instructors and fellow students (Astin, 1984; Eikeland & Manger, 1992). Although within-person factors such as depression and anxiety are not easily addressed, other factors can be mediated by means of self-regulation in the learning process.

Self-Regulated Learning

A student who does well academically understands the strategies needed to perform well and implements those strategies properly and consistently. This student is a self-regulated learner. Self-regulated learning is a process by which individuals use metacognitive strategies to create action plans and follow the plan to be academically successful (Schunk, & Zimmerman, 2012).

Metacognition. A key factor in self-regulated learning is metacognition. Metacognition is the ability to identify the skills that permit individuals to be academically successful and choose to implement these skills in an educational setting (Cubukcu, 2008; Flavell, 1979; Vrugt, & Oort, 2008). For example, while reading a passage a student purposefully highlights or circles valuable information, creates images, and re-reads portions in order to retain information from the passage (Cubukcu, 2008). Flavell (1979) writes that metacognition includes knowledge of cognition and regulation of cognition. Knowledge of cognition is the ability to identify factors or skills that will affect the path and outcome of a specific cognitive endeavor. Regulation of cognition refers to actions taken to achieve an outcome (Flavell, 1979). Students understand the skills, strategies, or factors that will affect the end result of an educational activity and incorporates these tactics to be successful.

Knowledge of cognition includes the person, the task, the strategy, and the interaction (Vrugt & Oort, 2008). The person category focuses on what an individual believes about the nature of himself or herself (i.e., I am good at spelling), the task is concerned with information available during an educational task (i.e., the math homework will be easier to finish than the English paper), the strategy is the tactic the student the student uses to achieve a goal (i.e., memorizing or paying particular attention to details), and the interaction between two or more of these categories can happen in order to create the best success outcome possible (Flavell, 1979).

Metacognition and self-regulation. A student may understand how to be academically successful but controlling those habits allows students to implement the strategies. Regulation of cognition llows students to control and take advantage of their learning (Vrugt & Oort, 2008). As students gain experience in college education settings they learn the study habits and skills that yield academic success. Students may have ideas about the skills that will make them academically successful, but fail to implement these strategies consistently. In one study, two female students stated that they knew the importance of reading before class, but did not always read the material because they either felt that there was always another time to read or there were other distractions (Chilca & M. L. 2017). The knowledge of cognition and regulation of cognition can facilitate academic success.

One's perception of self-regulation plays a significant role in utilizing self-regulated habits. Perceptions of self-regulated learning fall within two categories, entity and incremental (Schunk, & Zimmerman, 2012). Students on the entity side believe that these skills cannot be taught and that one is born with them. Conversely, students whose perceptions of self-regulated learning fall within the incremental realm feel that the skills needed for success can be taught and developed over time.

Entity and incremental beliefs relate to fixed and growth mindsets. A fixed mindset is the perception that intelligence is unchangeable and effort will not affect outcomes (Dweck, 2007; Hochanadel, & Finamore, 2015). Individuals with fixed mindsets believe that they are born with certain abilities and these cannot be changed. Similar to the incremental perception, a growth mindset is the belief that one's intelligence, skills, and abilities can be further developed with effort (Aditomo, 2015; Dweck, 2007). This perception reflects the notion that intelligence and skills are malleable and adjustable (Aditomo, 2015; Hochanadel, & Finamore, 2015). Adopting

an incremental or growth mindset of learning and self-regulation permits students to take control of their learning. This outlook allows students to overcome self-limiting beliefs and ultimately choose to regulate behavior to achieve goals (Zimmerman & Schunk, 2011, p. 362). Theories of volition and motivation also play vital roles in self-regulatory behaviors. Volition is a choice more technically referred to as purposeful striving (Zimmerman, & Schunk, 2011, p. 361). Volition combined with motivation takes individuals from a state of understanding what needs to be done to actively follow-through on goals and pursuits (Zimmerman, & Schunk, 2011, p. 361). Volition and motivation are the driving forces that lead to accomplishment through trials, difficulties, and setbacks. An individual that takes advantage of and moderates these two factors in order to achieve goals is self-regulating and will likely learn and implement strategies for academic success.

Strategies for Academic Success

Students entering the collegiate education environment must develop skills that allow them to be successful at a more competitive level. High-achieving high school students reported that they did not have the skillset to be fully prepared for a college education even though they had taken advanced placement and concurrent enrollment courses (Yazedjian et al., 2008). These courses were supposed to give students a better idea of the expectations of college, but did not aid them in developing the proper study skills needed for college academics.

It is often assumed that students who had preparatory college courses and performed well on entrance exams will perform as well in a college. An interview with academically successful college students shows that this isn't always the case (Kim & Ra, 2015). The researchers found that factors outside of college placement courses and exam scores played roles in academic success: time management, note taking, goal orientation, and class preparation were necessary

skills for success in the college environment. Yazedjian et al. (2008) stated, "Attending class regularly, taking classes with friends, sharing class notes, participating in study groups, reading before class, and meeting with professors or teaching assistants are all strategies that students utilize to be academically successful" (p. 148) Other researchers indicate that dispositions and strategies for success fall into study habits, goal setting and achievement, and time management (Hsieh, Sullivan, & Guerra, 2007; Kim & Ra, 2015; Bhat & Khandai, 2016; Dvorak, & Jia, 2016; Chilca & M. L. 2017). Each of these is discussed here.

Study habits. Study habits are skills one develops over an extended period of time to accomplish academic tasks (Schunk, & Zimmerman, 2012; Kim & Ra, 2015); Bhat & Khandai, 2016; Dvorak, & Jia, 2016). Study habits can be effective or ineffective depending on whether or not they help an individual learn. As stated by Bhat & Khandai (2016), "Good study habits include being organized, keeping good notes and reading textbooks, listening in class, and working every day. Bad study habits include skipping class, not doing work, watching too much TV or playing video games instead of studying, and losing work" (p.2). Learned study habits, whether beneficial or detrimental, impact how well a student performs academically. Study habits can be grouped into three constructs: timeliness, regularity, and intensity (Dvorak, & Jia, 2016). Timeliness refers to when a student begins working on an assignment. For example, one who begins an assignment due at the end of the week may be more likely to complete it than who stars work the night before. Regularity deseribes how consistent a student is with the time of day that homework is completed, and intensity means how much the student interacts with the course. How well students manage the skills within each construct will affect their academic success. Study habits such as organization, active participation in class, and consistent daily effort aid learners' achievement (Bhat, & Khandai, 2016). These good study

habits also fall under the constructs of timeliness and intensity. Habits such as skipping class, postponing homework, and poor study scheduling fall within the same constructs but are considered bad study habits (Bhat, & Khandai, 2016). Managing study skills and habits within these constructs affect the self-control aspect of self-regulated learning.

Goal setting. Creating goals and making plans to complete them is typical of highly academically successful students. Goal orientation drives a student to be successful in certain endeavors (Hsieh, Sullivan, & Guerra, 2007). Academic goal orientation includes three categories: mastery goals that motivate students to create and enhance their capabilities in different fields, performance-approach goals that focus on one's skills, and performance-avoidance orientation meant to conceal one's lack of abilities in an area (Elliot, 1999). High-achieving students pursue mastery goals to achieve higher learning (Midgley, Maeher, & Urdan, 2000). Students who develop a sense for mastery goal orientation also have high self-efficacy, and demonstrate hard work and perseverance leading to academic success (Hsieh, Sullivan, & Guerra, 2007). In contrast, students with poor goal orientation tend to develop performance-avoidance behaviors. These learners avoid seeking help for fear of being perceived as incompetent (Hsieh, Sullivan, & Guerra, 2007).

Student definitions of success can determine how well they perform academically. Chilca (2017) found that the way students defined success was relative and depended on expectations or goals that each set. This in turn affected how well they performed in school because students only worked toward self-set goals and expectations of success. Chilca also found that successful students valued completing work on time, crossing things off of to-do lists, and giving their best effort to accomplish an assignment, indicating that students not only value good grades, but also value skills that move them toward independence and responsibility.

Time management. Time is time management is valuable to all college students whether or not they participate in athletics. In an interview of highly academically successful students researchers found successful students attributed much of their academic success to time management, whereas lack of management led to failure. And time management was not restricted to study; scheduling other activities such as eating, sleeping, and meeting with friends also aided in their academic success. Successful students scheduled academic and nonacademic activities into their daily lives.

Time management skills were typically studied using self-report methods (Britton & Tesser, 1991; Dvorak, & Jia, 2016; Kim & Ra, 2015). One study looked at skills that define time management and their impact on academic progress by comparison with grade point average (GPA). These skills included short-term and long-term planning, feelings about time use, and perceived control over time (Britton & Tesser, 1991). Analysis found that time management impacted academic achievement. Students with higher GPAs scored higher on the subscales pertaining to time management skills. However, this study found that short-term planning was strongly correlated with achievement but long-term planning was not. The relationship between academic success and short-term planning showed that as students employed short-range planning skills to achieve academic success their positive outlooks on time management improved (Britton & Tesser, 1991).

Student involvement. Research indicates that student involvement contributes to academic success in college. Student involvement is defined by the amount of time and energy that a student invests in academic activities, extracurricular activities, interaction with peers, and interaction with faculty or administration (Astin, 1984). For example, highly involved students utilize their time to study, participate in clubs or organizations, and interact with faculty or staff.

In contrast, uninvolved students typically avoid studying or spending time on campus, do not participate in extracurricular activities, and seldom interact with faculty and staff (Astin, 1984). Student interaction with faculty is a strong contributor to success in college (Ullah & Wilson, 2007). Student-faculty interactions affect how students think, solve problems, and determine long-term goals (Endo & Harpel, 1982). Students who experience positive interactions with faculty members tend to respond with higher commitment to academic endeavors because they sense that instructors care about their progression. Conversely, students who experience negative interactions tend to distance themselves from academics and become more involved in personal goals (Cokley, 2000; Graunke, & Woosley, 2005).

Varsity athletic competition is perhaps the most demanding form of involvement in college. The requirements of dual participation in school and sports mean that athletes have essentially two full-time endeavors that complicate behavioral self-regulation. The demands on student athletes are discussed in the following section.

Academic Success for Athletes

The demands of athletic competition significantly alter students' lifestyles and daily schedules. Student athletes can spend 20 hours or more per week just in training and competition (Chen, Mason, Middleton, & Salazar, 2013; Miller & Kerr, 2002). With so much time devoted to sports, the task of managing classes, studying, chores, and other responsibilities can be exhausting and trying. Though the tasks are demanding, student athletes can learn to manage multiple responsibilities to become both academically and athletically successful (Miller & Kerr, 2002). Some students reported that athletics taught them to be more organized with their time and more focused, especially during their competition season (Miller, & Kerr, 2002). One study of Division I athletes reported that academically successful student athletes spent more

hours per week on academic activities than athletic endeavors (Chen et al., 2013), not always the case with other athletes.

Balancing academic and athletic success can be difficult but achievable as individuals regulate time, study habits, and school involvement. Student athletes who do not do these things well will likely benefit from learning and adopting strategies that work for academically successful peers.

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APPENDIX B

Interview Guide

Introduction

Thank you for your time today. My name is Ashlynn and I will be conducting our interview. Before we begin, let's make sure you understand the consent form. **(give one copy to participant, interviewer <u>read</u> consent form aloud)**.

Do you have any questions? If you would like to proceed with the interview, please sign these two copies. (**give one copy to participant, keep one for self)**.
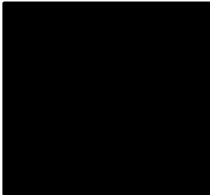
Interview

(start audio recorder)

1. Are there any strategies that you can describe or identify that have helped you be academically successful as a collegiate athlete?

2. What, if any, class strategies have you found useful?

   - How do you record information that you want to remember?
   - What do you do when you don't understand something?

3. What, if any, homework strategies have you found to be useful?

   - Where do you do your homework?
   - When do you do homework?
   - How do you decide which homework to do first?
   - How do you approach a new homework assignment?
   - How do you get assistance if you don't understand something?

4. What would you tell a freshman or incoming student athlete about preparing for tests and exams?

   - What helps you learn the material?
   - How do you memorize information?
   - When do you prepare for quizzes or exams?

5. Have you ever had to work on a group project or with a partner? (If so) What did you find to be effective?

   - What do you do when you work with a group in class?
   - What do you do when you are assigned to work with a group outside of class?
   - How do you schedule out-of-class group work?
   - How do you work with group members who are not as diligent as you would like?

6. I'm going to change the context a little. You say you do_____and_____.
When you travel for competition, do you change those strategies? How?

7. If you were asked to mentor a freshman athlete, what would you share about successful study strategies that you have found to be helpful?

8. Do you have a plan for how you organize your study time? If so, would you describe it to me?
   - How do you organize the materials needed to do your homework?
   - How do you focus on homework when traveling?
   - How do you separate homework from interactions with teammates?

6. What seems to be the most common distractions when trying to complete your academic work?
   - How do you manage those distractions?

9. If you had the opportunity to mentor a freshman teammate, what would you share about relationships with faculty?
   - Is it important to you that your class instructors know who you are? Why?
   - How do you make sure faculty members know who you are?
   - How do you interact with class TAs?
   - What benefits can come from relationships with faculty?

10. If you had the opportunity to mentor a freshman teammate, what would you share about relationships with classmates?
    - Is it important to you that interact with classmates? Why?
    - In what situations is it important to know your classmates?
    - What benefits can come from knowing your classmates?

11. Does the coaching staff play any part in your academics? If so, what do they do?
    - Do they have scheduled study times?
    - How would you describe your coach or coaches in regards to supporting your achievement in academics (classes)?

12. Is there anything you would like to share related to your academic success as a collegiate athlete that we have not talked about?

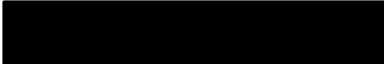APPENDIX C

Institutional Review Board Approval Letter

INSTITUTIONAL REVIEW BOARD
FOR HUMAN SUBJECTS

Memorandum

To: Ashlynn Erbe
Department: CP&SE
College: EDUC
From: ███████████████████

Date: March 8, 2018
IRB#: X18052

Title: *"Academic Strategies Used by High Achieving College Student Athletes"*

█████████████ IRB has approved the research study referenced in the subject heading as expedited level, categories 6-7. The approval period is from **March 8, 2018 to March 7, 2019**. Please reference your assigned IRB identification number in any correspondence with the IRB. Continued approval is conditional upon your compliance with the following requirements:

1. CONTINGENCY: Provide a letter from ███████████ specifically approving the staff at the learning center reviewing athletes' educational records and identifying as potential research subjects.

    • Furthermore, the letter should indicate that they are ok with staff using time on the clock to identify potential subjects.

2. A copy of the informed consent statement is attached. No other consent statement should be used. Each research subject must be provided with a copy or a way to access the consent statement.
3. Any modifications to the approved protocol must be submitted, reviewed, and approved by the IRB before modifications are incorporated in the study.
4. All recruiting tools must be submitted and approved by the IRB prior to use.

5. In addition, serious adverse events must be reported to the IRB immediately, with a written report by the PI within 24 hours of the PI's becoming aware of the event. Serious adverse events are (1) death of a research participant; or (2) serious injury to a research participant.

6.   All other non-serious unanticipated problems should be reported to the IRB within 2 weeks of the first awareness of the problem by the PI. Prompt reporting is important, as unanticipated problems often require some modification of study procedures, protocols, and/or informed consent processes. Such modifications require the review and approval of the IRB.

7. A few months before the expiration date, you will receive a continuing review form. There will be two reminders. Please complete the form in a timely manner to ensure that there is no lapse in the study approval.

IRB Secretary