RELATIONSHIP BETWEEN ATHLETIC IDENTITY AND CAREER DECISION-MAKING
SELF-EFFICACY AMONG KOREAN COLLEGIATE STUDENT ATHLETES

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by

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Keywords: Korean collegiate student athletes, Career decision-making self-efficacy, Athletic identity, Career development, Career transition
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ABSTRACT

This study explored barriers that Korean collegiate student athletes confront with regard to pursuing careers outside of professional athletics. More specifically, the purpose of the study was to identify the barriers to Korean student athletes’ career development, as well as to examine the relationships among the psychological constructs of athlete identity and career decision making self-efficacy. A total of 321 Korean student athletes participated in the study, including 263 men (81.9%) and 59 women (18.1%). Participants completed demographic information along with a parental influence questionnaire, the Athletic Identity Measurement Scale, Career Decision Making Self-Efficacy Scale Short Form, and two open-ended questions.

Stepwise regression analyses were employed to examine the research questions of interest. The results showed that gender \( (p < .001) \), self-appraisal \( (p < .001) \), planning \( (p < .001) \), and goal selection \( (p < .001) \) were significant positive predictors of social identity. Gender \( (p < .001) \), type of sport \( (p < .05) \), self-appraisal \( (p < .01) \), planning \( (p < .001) \), and goal selection \( (p < .001) \) were significant positive predictors of exclusivity. Finally, gender \( (p < .001) \), planning \( (p < .05) \), and goal selection \( (p < .001) \) were significant positive predictors of negative affectivity.

The study also explored Korean collegiate athletes’ needs and barriers as they impact their future careers. Korean collegiate athletes felt they needed to improve their personal capability and ability, be more committed and hardworking, have qualifications and certifications, improve their athletic skills and English skills, and obtain more financial support to pursue their future careers. Injury or slump by injury, low salaries or lack of financial support
from their families, military service, surroundings, and English skills were also perceived barriers to their future careers.

The combined findings suggest that more in-depth qualitative inquiry is needed. A deeper understanding of the Korean student experience and how national priorities for athletes interface would further extend this literature which is in its infancy in the Korean context. Nevertheless, this study represents the first of its kind to attempt a comprehensive investigation of the Korean student athlete and the intersection of athletic identity and career decision-making self-efficacy.
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CHAPTER 1

INTRODUCTION

Each year, more than 400,000 National Collegiate Athletic Association (NCAA) student athletes in the United States participate in athletic programs and almost all of them seek professional employment outside of sports (NCAA Eligibility Center, 2009). Many collegiate student athletes dream to play professional sports as a career; however, most of them are not selected (Stankovich, Meeker, & Henderson, 2001). According to the NCAA (2009), 1.2% of men’s basketball, 1 percent of women’s basketball, 1.8% of football, 9.4% of baseball, 3% of men’s ice hockey, and 1.7% of men’s soccer collegiate student athletes were able to play at the professional sports level. If those collegiate student athletes had not been thinking about other careers except professional sports athlete, they would have been in big trouble post-college given the extreme unlikeliness of becoming one.

Korean collegiate sports have similar problems to the United States’ sports. There are not enough jobs in professional sport fields; therefore, collegiate student athletes struggle to find jobs after they graduate (H. K. Lee, 2009). Approximately 5% of the national athletic representatives achieved a medal from an international sport competition such as the Olympics, the Asian Games, or world championships (H. K. Lee, 2009). Those who win medals are recognized to be honorable, receive rewards, and able to a secure a professional sports job. However, the remaining 95% generally end up being training partners to the other 5% and receive hardly any
societal benefits. In addition, Korean collegiate student athletes do not have a right to choose their own major since a change in registration in 2000 (H. K. Lee, 2009). They all major in the Department of Physical Education. The requirement was ordered by the Ministry of Educational Science and Technology (H. K. Lee, 2009). Therefore, even though the collegiate student athletes want to pursue another field that is not sports related, they do not know how to approach alternative jobs.

In the United States, intercollegiate sports began shortly before the Civil War. In 1852, Harvard and Yale Universities started the competitive sport of rowing or what is known as crew (Clotfelter, 2011). According to Clotfelter (2011), “The three other principal sports, along with the date and institutions that competed in the first contest, were baseball (1859, Amherst-Williams), Football (1874, Harvard-McGill), and basketball (1895, Minnesota State School of Agriculture-Hamline)” (p. 44). It was not just the teams that enjoyed the sports. The general populace showed up in force to cheer on their team, and the final scores were often printed in local newspapers (Clotfelter, 2011). For example, the Princeton-Yale football game played in Manhattan drew 50,000 spectators in 1893 (Smith, 1988). Because of big-time college sports success and popularity, college athletics is one of the biggest high-profile promotional assets that colleges and universities can have (Suggs, 2009a, 2009b).

By 1920, the major sports at many of the large colleges and universities were not run by student bodies anymore. The major sports were taken over by universities and colleges (Clotfelter, 2011). The transformation of football laid the groundwork for big time collegiate sports. In the 1890s, the rugby version of football had won out over the soccer version in college competition (Clotfelter, 2011). The modern football rule had been reformed through mutual agreement over time, mostly by an association of northeastern institutions. The game continually
appeared to be violent play. The roughness was typically defined by one rule; a player would be thrown off the field only after the third occurrence of hitting another player with his fist (Clotfelter, 2011).

On October 7, 1905, during a football game between the University of Pennsylvania and Swarthmore College, Swarthmore's Tiny Maxwell was severely injured with his nose broken, eyes swollen, and blood dripping from his face (Watterson, 2001). In 1905, 18 student athletes died playing college football and 149 were severely injured (Crowley, 2006). According to Clotfelter (2011), “Theodore Roosevelt called to the White House representatives from three of the collegiate football powerhouses, Harvard, Princeton, and Yale, admonishing them in no uncertain terms to rewrite the rules so these injuries would cease” (p. 46). This meeting drew a conclusion: setting standardized rules. In addition, within a few months, Yale University took the initiative to reach agreement among universities in order to create a reform-minded organization of universities that would later become the NCAA (Clotfelter, 2011).

In Korea, modern sports were introduced and developed in 1876 when the country opened its doors to foreign countries (Koh, 2003). During the Joseon Dynasty (1392-1897), the nation had maintained a national isolation policy from late 1860s to 1876 (Sung, 1984). A number of the modern sports was introduced between 1897 and 1909 (Korean Empire) by missionaries (Korea Amateur Sports Association, 1990). Modern sports rapidly broadened into Korea as a means of attaining self-discipline, because people thought that modern sports helped to build the strength of Korea against foreign powers (Koh, 2003). However, during the early period of the modernization, Korea became a subordinate state of Japan. During the period of the Japanese colonization of Korea from 1910 to 1945, physical education had been used as a tool
for the Japanization of Koreans (Ok, 2005). At that time, Japanese suppression prevented Koreans from competing in sports at a national level (Hong, 2011).

After the Korean War (1950-1953), South Korea started to compete in international sports, but the chaos of war existed in every part of the country, and entire infrastructures and facilities had been destroyed. Also, the Korean capital stock value was useless (Hong, 2011). Therefore, sports were not central in Korean minds.

After the post war reconstruction, President Jung-Hee Park ruled Korea through a military dictatorship from 1961 to 1979. During his presidential term, he emphasized the importance of elite sports; that includes sport competitions at the highest international level, such as the Olympic Games, and periodic world championships, including team sports such as world baseball classic and the World Cup (Hong, 2011). President Park, addressing the opening ceremony of the Korean Sports Council Hall in 1966, said, “We must know that our athletes going abroad to participate in international sport games and achieving splendid records have achieved more than hundreds of our foreign diplomats spending large budgets ever have” (N. G. Ha & Mangan, 2002, p. 231). The speech showed that President Park valued elite sport athletes, and he thought about the athletes as ambassadors (Hong, 2011).

The military government emphasized the development of elite sports based on sports nationalism (H. I. Kim, 2007). The government secured funding for national sport development and used the fund for sport infrastructures. In addition, the government fostered elite athletes and awarded athletic scholarships to universities (Hong, 2011). Because of the will of the government, student athletes were only athletes, even in college, and did not study. Athletes focused on how to become an elite athlete. The will of the government also did not change through the next presidency government known as the 6th Republic (H. I. Kim, 2007).
Physical education policies in K-12 also have restrictions from the government’s tendency to look up to elite sports, and consequentially, K-12 physical education become stagnated (H. I. Kim, 2007). According to H. I. Kim (2007), “Under President Park’s military government, the physical education curriculum had pursued external values rather than intrinsic ones” (p. 12). It meant that sports were taken at their face value, which was acquisition of sports skills or building young students’ physical strength; but underneath, it had an additional value as a tool of nationalism. This mindset has persisted even to today (N. G. Ha, & Mangan, 2002).

**Statement of the Problem**

There are plenty of sports-related jobs in the United States, unlike in Korea (H. R. Lee, 2010). According to the Ministry of Education and Science Technology (2009), there were more than 10,000 collegiate student athletes in Korea. As in the United States, almost all collegiate athletes work in something other than sports. Korea has a very small sports market; therefore, student athletes could not generally find jobs in the athletics field (H. R. Lee, 2010). College students who are not selected for professional sports fields confront the need to redefine their personal identity and career development. Also, college and university administrators need to address responsibilities to attend to student athletes’ career development skills, in part because they contribute to the school’s reputation and brand awareness.

Researchers have studied various effects of academic and athletic performance of collegiate student athletes according to gender, socioeconomic status, sports participation, and athletic identity (Blann, 1985; Kennedy & Dimick, 1987; Martens & Lee, 1998). Researchers also suggested that collegiate student athletes have lower levels of career maturity than non-student athletes (Blann, 1985; Kennedy & Dimick, 1987). Another important feature of career development is the idea of career decision making self-efficacy. Taylor and Betz (1983)
introduced the idea that students can successfully accomplish the tasks necessary to make career choices. While these topics have been studied in the United States, they are without precedent in South Korea.

**Purpose of the Study**

The purpose of this study was to reveal what kind of barriers Korean collegiate student athletes face when pursuing careers outside of professional sports. More specifically, the purpose of the study was to identify the barriers of Korean student athletes’ career development, as well as to examine the relationships between the psychological constructs of athlete identity and the Korean student athlete’s career decision making self-efficacy.

**Research Questions**

Guided by the purpose of the quantitative study, the specific research questions were

1. Is there a relationship between athletic identity and career decision making self-efficacy among Korean collegiate student athletes?

2. What are the perceived barriers to Korean student athlete’s career development?

**Significance of the Study**

This study addressed the current challenges facing Korean student athletes. Korean collegiate athletes have played an important role in developing Korean sports. Notwithstanding, Korean collegiate student athletes have had trouble finding job resources and have not had training or how to make their careers successful (H. R. Lee, 2010). Korean college sports are in need of reform. Recently, the Korean Broadcasting System (KBS) televised a current affairs program about student athletes. Yunsei University started to create an environment that gave the student athletes equal study opportunities under "the college athletic normalization project" (H. K. Lee, 2009, p. 1). The program showed the circumstances that collegiate athletes faced. The
collegiate athletes had not had enough academic study opportunities. Yunsei University’s athletic department initiated giving study opportunities, and the KBS televised how the student athletes reactions to the opportunities they had never had before. The program revealed that collegiate student athletes needed to have the right to learn like other non-athlete students (H. K. Lee, 2009). Moreover, Korean higher education institutions’ administrators need to understand the various barriers that collegiate student athletes confront.

Definition of Terms

Career development. “Career development is the process of growth through various life stages that an individual undergoes throughout a lifetime, including the selection of occupations that allow for functioning in a role consistent with a person’s self-concept” (Finch, 2007, p. 7). According to Super (1990), the implementation and cultivation of the self-concept was the most important theme in career development, and the self-concept is portion of a general developmental pattern that one goes through over his or her lifetime.

Career decision-making self-efficacy. This term was defined as a person’s confidence that he or she can successfully navigate career choices (Betz, Klein, & Taylor, 1996).

Athlete identity. “Athlete identity is the degree to which an individual identifies with the athlete role” (Brewer, Van Raalte, & Linder, 1993, p. 237).

Plan of the Dissertation

In this introductory chapter, a brief history of collegiate student athletes in the United States and Korea and the problem collegiate student athletes confront were explained. In addition, the problem statement, purpose of the study, research questions, significance of the study, and definition of terms were presented. In Chapter 2, the literature review is presented. The chapter discusses who student athletes are, the role of collegiate student athletes, the history
of Korean collegiate student athletes, career development of collegiate student athletes, career maturity levels of collegiate student athletes, athletic identity, and career decision-making self-efficacy. In Chapter 3, the research methodology is described. In the chapter, the researcher of this study discusses the research design, sample, instrumentation, variables, and procedures for data collection and analysis. In Chapter 4, research findings are discussed. Finally, in Chapter 5 includes the discussion of findings, implications, study limitations, opportunities for future research, and study summary are presented.
CHAPTER 2
LITERATURE REVIEW

The purpose of this study was to examine the relationships among the psychological constructs of athletes’ identity and the Korean student athletes’ career decision making self-efficacy as well as to identify the barriers of Korean student athletes’ career development. This chapter reviews previous research on college student athletes’ career development as well as identity development problems that are related to Korean collegiate student athletes. The purpose of this review is also to connect career and identity development theories. The chapter introduces student athletes and their role in collegiate student athletes. The chapter also tracks South Korean college student athletes and history of South Korean athletics. Finally, the study reviews career development theories, decision making, and self-efficacy as well as athlete identity development theories.

**What are Student Athletes?**

The differences between student athletes and other college students are important to note. The most obvious difference is that a student athlete plays an intercollegiate sport that other students do not play (Watt & Moore, 2001). However, in attempting to define student athletes, there are several concerns. Collegiate student athletes often face additional challenges that do not affect the traditional college student. For example, they must attend practice almost every day, travel for away games, and study how to be a part of a team. In addition, when student athletes
are injured, injury treatment might be required and they are more prone to physical injury by
to virtue of practices and playing time than traditional students are (Klossner, Corlette, Agel, &
Marshall, 2009). At the same time, collegiate student athletes have to still complete their
assignments, take exams, and attend classes and social events (Watt & Moore, 2001). In
summary, collegiate student athletes face many difficulties while balancing the roles of a student
and athlete.

In addition, many other factors, such as division classification, sex, race, ability, and the
type of sports they participate in, influence collegiate student athletes (Watt & Moore, 2001).
According to these factors, the workload student athletes face in their sport differs as well as the
importance of the sport for the student athletes’ future careers. For example, one might assume
that a collegiate student athlete who happened to be a very good basketball player in a Division I
school might try to play in the National Basketball Association (NBA).

For a few decades, the NCAA has made important decisions for intercollegiate athletes in
order to “reform specific rules regarding student athletes’ eligibility to participate in sports, and
to receive financial aid in doing so” (Watt & Moore, 2001, p. 9). These rules have critically
influenced higher education institutions and collegiate student athletes (Hamilton, 2005). In
addition, the NCAA made another major decision in 1991. The NCAA ordered that student
athletes should not make up more than 49% of the students in a residence hall (Watt & Moore,
2001). This rule was meant to improve student athletes’ academic performances and promote
other skills like socialization rather than only playing sports. However, collegiate student athletes’
academic performances were still questionable in the college environment (Watt & Moore, 2001).
Role of Collegiate Student Athletes

Frank Cuervo, the Assistant Director of Athletics for External Operations in Indiana University at Bloomington said, “Every Saturday, we have the opportunity to catch the eye of millions of people and make a great impression. In that sense, your department of athletics is the ‘front porch’ of the university” (Indiana University, 2007, p. 1). Clotfelter (2011) questioned if there was any impact of the “astonishing athletic display” on the performance of a university and if universities should still continue their involvement in this activity. He also believed that there was no noticeable connection between colleges and universities other than the name on the school uniforms. However, he recognized that very often the school is known due to “existence of big-time college sports, university leaders” (Clotfelter, 2011, p. 7); in addition, outside observers usually justified it by a number of reasons.

First, college students participate in varsity college sports mostly as spectators. Few of those college students will have the benefits of participating in these big-time sports. For those who take part in one of the revenue sports, this participation often allows the student athletes to be considered as an employee, more than recreationists. Notwithstanding the student athletes’ official amateur condition, their role has changed like a professional player even though, undoubtedly, they cannot earn the professional’s salaries. Second, the most common justification for big-time athletic operation among university leaders and outside observers is money (Clotfelter, 2011). It is highly visible especially in men’s football and basketball programs that are run by universities and colleges. For example, the basketball program of the University of Connecticut brought in 12 million dollars in 2008 (Clotfelter, 2011).

Additionally, according to Clotfelter (2011) universities and colleges often attracted public attention to ensure their investment in commercialized spectator sports. Because
popularity of big-time college sports begets public attention, it brings pay back in quite tangible ways. Some admissions directors believed that the success of the athletic program can boost student applications for admission, donations, and support from state and local government. One more justification is that big-time athletics can induce huge loyalty to build the bonds of community on a campus (Clotfelter, 2011). Having a successful school sports team creates a feel-good effect for current students and alumni that can develop valuable solidarity while they attend and continue in later years as alumni. According to Olson (2010), “Sports teams can foster a deep sense of community and social solidarity, even when those teams lose more often than they win” (p. 3).

South Korean College Student Athletes

“I am sorry. I am a student-athlete,” is a common statement written on mid-term and final examination papers by South Korean college student athletes when they did not know the answer (KBS, 2007). It was characteristic of a circumstance where talented student athletes have been pressed to pursue a sporting career from a young age rather than being educated (S. C. An, 2006; B. H. Lee, 2006; J. W. Park, Lim, & Bretherton, 2012). This disconnect from educational opportunity usually begins in secondary schools. One male college student athlete interviewed for a current affairs television program noted that he had done little other than focus on sports since secondary school (KBS, 2007). After he became a college student, he took an examination. He had no idea what the contents of the class were, so he did not know what he needed to write for the answer. He wrote that “I am sorry. I am a student-athlete.” in the answer sheet. He mentioned that he was embraced by the sports establishment and sneaked away from the classroom. He asked himself why he had to snuck away (KBS, 2007)
Context and Case Study Examples

After the Athletic Specialist System started in 1972, top athletes were permitted to enter colleges and universities without an academic standard (J. Y. Chung, & Won, 2011; H. R. Lee, 2003). In other words, student athletes could, and can to this day, secure admission to outstanding colleges and universities’ as a function of excellent athletic performance, not academic merit. Athletic training and performance are emphasized over studying. J. W. Park (2011) argued that “student athletes are degenerated into training machines by being forced to give up studying and their human rights due to the result-oriented elite sport policy” (p. 151).

A case study example of this problem involved Hee-Jin Chang, a 14-year-old female student athlete, who was selected to be one of the South Korean national swimming team members for the Sydney Olympics in 2000 (S. C. An, 2000). Since she wanted to continue both her school and training, she refused to join the Taenung Athletic Training Center, a training center for all members of national teams. Due to her absence at the center, she was disqualified from the Sydney Olympics and suspended for a year from the national swim team by South Korea’s Swimming Federation (Jung, 2009; S. H. Lee, 2014; Na, 2004; J. W. Park, Lim, & Bretherton, 2012). Her only request was to be able to continue her school while attending the training center (S. C. An, 2000; Jung, 2009; S. W. Lim, 2005).

According to Hong-Tak Shim, the resident of the South Korea Swimming Federation, Hee-Jin Chang was disqualified (S. C. An, 2000). The Federation could not make an exception for her so that she could study since it was not acceptable and fair in regards to other athletes. In addition, it could have exerted an unfavorable effect on other national team members, and the training would have been ineffective for the athletes (S. C. An, 2000). Chang-Sun Jang, the chief of Taenung Athletic Village, mentioned during his interview with Yoon and Park (2008) that all
national team members had to stay at the Taenung Athletic Training Center together to discipline and train each other in order to obtain medals in the Olympics or the Asian Games. He compared the Athletes Training Center with a military training camp. J. W. Park et al. (2012) mentioned that “it is not difficult to deny that the state has been both explicitly and implicitly encouraging national athletes to be willing to sacrifice themselves to help achieve the nation’s ultimate goal of international sporting success” (p. 256). The typical story of Korean elite sports showed how sports agencies and administrators treat student athletes as a tool to build a strong sports nation instead of as students who needed to learn more for his or her future career.

Another window into this circumstance for South Korean athletes was how Korean junior-high and high-school student athletes deal with academic study. S. Y. Lee and An (2004) interviewed one student who stopped playing basketball during his high-school years. The former student athlete used to attend classes only in the morning until May. After that, he stopped attending classes almost entirely during the rest of his semester. When he entered high school, he attended classes only one month and was absent from classes for the rest of the semester (S. Y. Lee & An, 2004). Usually, he went to school at 8am, had practice from 9am to 6pm, and then practiced again in the evening from 8pm to 10pm. When the team had a practice camp, they worked out four times a day in the early morning, morning, afternoon, and evening.

Several interviews from former student athletes conducted by S. W. Lim (2005) found that they could not understand the content of their classes since they never tried to study hard. The interviewees took naps during their classes since they were very tired due to their training early in the morning before classes started. As a result, most South Korean junior-high and high-school students have exceedingly poor results in their academic work (M. S. An, 2006).
Table 1 includes information on 729 student athletes’ GPAs from 7th to 10th grade in various courses during the spring and fall of 2005 and spring 2006. The data were collected from junior-high and high schools that won first, second, or third place at the nationwide sports contests. The junior-high and high schools were selected from the cities of Seoul, Kyunggi-do (province of Kyunggi), Busan, and Chungcheongnam-do (province of Chungcheongnam) in South Korea (M. S. An, 2006). The Korean GPA system is comprised of the grades from A to E, and even if a student achieves a score below 60%, the grade is still E.

Table 1

Academic Performance of Junior and High School Athletes

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>Junior High School</th>
<th>High School</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n = 527)</td>
<td>(n = 202)</td>
<td>(n = 729)</td>
</tr>
<tr>
<td>Korean</td>
<td>49.2</td>
<td>34.6</td>
<td>41.9</td>
</tr>
<tr>
<td>Ethic</td>
<td>53.6</td>
<td>39.5</td>
<td>46.6</td>
</tr>
<tr>
<td>Social Study</td>
<td>44.6</td>
<td>32.0</td>
<td>38.3</td>
</tr>
<tr>
<td>Mathematics</td>
<td>32.7</td>
<td>31.6</td>
<td>32.2</td>
</tr>
<tr>
<td>Science</td>
<td>45.3</td>
<td>35.7</td>
<td>10.5</td>
</tr>
<tr>
<td>Basic Mechanics &amp; Household Management</td>
<td>52.9</td>
<td>42.0</td>
<td>47.5</td>
</tr>
<tr>
<td>Physical Education</td>
<td>82.2</td>
<td>83.1</td>
<td>82.7</td>
</tr>
<tr>
<td>Music</td>
<td>59.2</td>
<td>59.1</td>
<td>59.2</td>
</tr>
<tr>
<td>Art</td>
<td>60.4</td>
<td>64.8</td>
<td>62.6</td>
</tr>
<tr>
<td>English</td>
<td>39.5</td>
<td>34.0</td>
<td>36.8</td>
</tr>
<tr>
<td>Average</td>
<td>53.1</td>
<td>46.1</td>
<td>49.6</td>
</tr>
</tbody>
</table>

In South Korea, the GPA is not calculated on a 4.0-scale as it is in the United States. As the data show, even though a student gets below a 60% score for a class, the student does not fail the class. According to the Ministry of Education and Human Resources Department, students cannot fail a certain class unless they are absent more than 33% of the number of school days in a year by Article 50 of the 25,375th President Decree (Reliable Ministry of Government Legislation, 2014). Therefore, if a student attends enough number of school days (more than 67%) in a year, the student automatically moves up to next level, such as from junior to senior year. Even if a student athlete acquires 46.1 average score, his or her GPA stays E, if the student has a sufficient attendance rate. This rule refers to every student (Reliable Ministry of Government Legislation, 2014). Out of the 729 students discussed above, 459 students reported their scholastic standing. The table does not present a counterpart of non-athlete students group, because the research only examined student athletes. Those results are shown in Table 2.

Table 2

*The Order of Merit in Their Schools From 7th to 10th Grade in 2006*

<table>
<thead>
<tr>
<th>The order of merit</th>
<th>7th to 9th-grade No. of Student Athletes</th>
<th>10th-grade No. of Student Athletes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within 5%</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>6%-15%</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>16%-20%</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>21%-25%</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>26%-30%</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>31%-35%</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>36%-40%</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>41%-45%</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>
According to the data presented in Table 2 (M. S. An, 2006), 97.8% of 10th-grade and 76% of 7th to 9th-grade student athletes scored below 80% in the order of merit in their schools. In 10th grade, only 3 out of 134 student athletes scored above 40% and the rest of them scored poorly. Table 2 shows that the majority of student athletes scored critically lower than non-athletes because the athletes spent huge amount of time on sport participation, leading to the lack of proper academic skills (M. S. An, 2006).

According to the interviews M. S. An (2006) conducted, as student athletes transitioned from junior-high to high school and high school to college or university, they gradually had more training responsibilities. As a result, their time for studies got further reduced and that often
made them lag behind in all classes. M. S. An (2006) argued that this puts athletes at even greater downstream disadvantage when they discovered their under preparation for career opportunities outside of sports and for causing difficulties in their ability to socialize with peers. In addition, if student athletes could not enter colleges or universities as a member of a college sport team, it was almost impossible for them to pass entrance exams to universities due to their academic absences during their high school years. In 2006, 1,833 high-school student athletes graduated from high school, but only 1,123 student athletes (61.3%) entered colleges or universities as student athletes. The rest of them (28.7%) were not able to enroll in higher education because their GPA or the college entrance exam scores were too much below the average for non-student athletes.

**Scale and Scope**

As noted earlier, in 1972, the South Korean government, by the 6,377th Presidential Decree, changed the college entrance system for athletes, enabling student athletes to be exempt from college entrance exams (B. H. Lee, 2006). In fact, student athletes had to take an exam, but the passing score was very low, so the procedure was nominal. Since that time, student athletes have been able to enter colleges and universities without a college entrance exam. Previously, student athletes were required to take exams similar to the SAT in the United States and a high school academic report by presidential enforcement ordinance (B. H. Lee, 2006). Since 1997, the criteria for special admission for student athletes were left to the discretion of colleges and universities, and most of the schools in South Korea did not require either minimum GPA at high schools or a minimum score on the college entrance exam (M. S. An, 2006). According to the Citizen Physical Education Promotion Amendment of 1983, college student athletes must register with a sports organization or association as a member of a collegiate athletic team (B. H.
Lee, 2006). B. H. Lee (2006) argued that college student athletes are a very special group, created and promoted to achieve successful results such as bringing in more gold medals at the Asian Games and the Olympic Games.

As shown in Figure 1, in 2008, 14,142 college student athletes were registered in the South Korea Sports Council, a number that was more than one-half of all elite athletes (26,567) registered in the Sports Council (J. K. Park, 2009). Furthermore, approximately 182 colleges and universities have operated sports teams in Korea (H. K. Lee, 2009). In 2009, there were 344 colleges and universities in South Korea, 197 that offer four-year degrees and 147 that offer two-year degrees (Ministry of Education and Science Technology, 2009). Among the 184 schools with registered athletes, 68 had more than five sports teams, 59 at four-year institutions and nine at two-year institutions (Ministry of Education and Science Technology, 2009). The number of college student athletes gradually increased until 2003, and since then, it has stayed around 14,000 (H. K. Lee, 2009).

Figure 1. Registered college student athletes from 1995 to 2008. Source: J. K. Park (2009).
In 2008, 56 various sports and 2,006 teams (1,114 men’s and 861 women’s teams) such as soccer, taekwondo, and baseball were present at 182 colleges and universities. The most college student athletes participated in soccer (2,464), taekwondo (1,412), baseball (987), kendo (872), judo (529), golf (486), track and field (465), and basketball (437). The most college teams appeared at taekwondo (131 teams), and followed by boxing (106 teams), golf (101 teams), kendo (95 teams), swimming (90 teams), and squash (89 teams). The average hours Korean student athletes trained were 4.02 hour per day (H. K. Lee, 2009). H. K. Lee (2009) surveyed 67 colleges and universities and found that 21 schools offered supplementary classes and only 5 schools provided tutoring. The survey showed that 73.7% of the student athletes obtained full scholarships and 15.3% of them could acquire a partial scholarship.

The Ministry of Education and Human Resources Development (2006) found that only 42 universities and colleges (38.2%) had rules to manage student-athletes’ GPA, among the investigated 110 schools. Some schools did huge favors to student athletes, because most of them had shown lack of academic abilities for years. There are five most common student athletes’ GPA management policies. The first one states that student athletes have to let the professor know on the exam answer sheet that they are student athletes. According to the second policy, the schools grade student athletes based on their results at sport events. At some universities, even if student athletes do not get medals, the school will still give them a minimum grade (higher than C) if the student works hard at training and games. Sometimes, even though student athletes get an F-grade for a class because of their absences, university administration can give them a minimum grade without their professor’s agreement. And finally, even when the student athletes cannot meet the minimum GPA requirement, the school will not expel or place them under academic probation (M. S. An, 2006). From 2002 to 2006, 510 student athletes (24.7%)
out of 2,066 dropped the status of student athletes in 25 colleges and universities. Only 11 student athletes out of 510 advanced to get a job in professional sports leagues before they graduated from the colleges and universities. As discussed above, it is almost impossible that the student athletes can study like other non-student athletes because of their previous educational history as student athletes.

**Admission and Retention**

Informing this study was an examination of admissions and retention on South Korean student athletes. Table 3 presents these data.

Table 3

*Admission and Retention of South Korean College Student Athletes*

<table>
<thead>
<tr>
<th>Collegiate Institutions</th>
<th>Students Admitted</th>
<th>Student Who Left</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gyeongsang National University</td>
<td>18</td>
<td>1</td>
</tr>
<tr>
<td>Kangnung National University</td>
<td>30</td>
<td>14</td>
</tr>
<tr>
<td>Kongju National University</td>
<td>54</td>
<td>5</td>
</tr>
<tr>
<td>Gwangju National University of Education</td>
<td>20</td>
<td>0</td>
</tr>
<tr>
<td>Kunsan National University</td>
<td>57</td>
<td>15</td>
</tr>
<tr>
<td>Mokpo National University</td>
<td>75</td>
<td>18</td>
</tr>
<tr>
<td>Bukyong National University</td>
<td>38</td>
<td>7</td>
</tr>
<tr>
<td>Pusan National University</td>
<td>41</td>
<td>2</td>
</tr>
<tr>
<td>Seoul National University of Technology</td>
<td>21</td>
<td>4</td>
</tr>
<tr>
<td>Chonbuk National University</td>
<td>44</td>
<td>7</td>
</tr>
<tr>
<td>Jeju National University</td>
<td>72</td>
<td>23</td>
</tr>
<tr>
<td>Changwon National University</td>
<td>66</td>
<td>20</td>
</tr>
<tr>
<td>Chungbuk National University</td>
<td>103</td>
<td>13</td>
</tr>
<tr>
<td>Hankyong National University</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>Kangwon National University at Samchok</td>
<td>31</td>
<td>13</td>
</tr>
<tr>
<td>Kangwon National University at Chuncheon</td>
<td>93</td>
<td>5</td>
</tr>
</tbody>
</table>
The data showed that from 2002 to 2005, almost 25% of student athletes had given up their college experiences due to various reasons (M. S. An, 2006). The student athletes walked a very special path, including a huge amount of dedication for their sports, enduring repressive sport team’s top down climate for many years to be college student athletes. However, according to the data, 25% of the student athletes gave up their athletic statuses and had reported difficulty of adjustment to college cultures because of the lack of relationship skills, lack of academic skills, and more importantly, lack of career plans (M. S. An, 2006).

### Majors and Governance Structure

According to H. K. Lee (2009), the Ministry of Culture, Sports, and Tourism made a regulation that college student athletes could major in anything but physical education, because
the Ministry believed that student athletes did not have enough academic ability to major in areas such as law, business, and engineering. South Korean college student athletes have not had the right to choose their own major since 2000 (H. K. Lee, 2009). A majority of professors complained about student athletes’ performance in other majors because student athletes did not need to study to enter a college (H. K. Lee, 2009). The professors felt that athletes were not prepared to be college students. H. K. Lee argued that this rule hinders student athletes’ scholarly interest of other study area and is unfair. The rule might obstruct college student athletes’ career opportunities (H. K. Lee, 2009).

There is no official South Korean athletic association like the NCAA in the United States that governs how universities and colleges manage student athletes (H. R. Lee, 2010). The Korean version of the NCAA, the Korea University Sport Federation (KUSF), established in 2010 and started work in 2011, currently has 92 member universities and colleges in the federation (KUSF, 2017). According to J. W. Park (2011), 182 South Korean universities and two-year colleges had student athletes out of a total of 344 collegiate institutions in the country. Sixty-eight universities and colleges had more than five types of competitive sports and there were more than 5,000 collegiate student athletes in South Korea (Ministry of Education and Science Technology, 2008). In the next section, I examine the circumstances under which student athletes have become a tool to improve sports nationalism and the nation’s sports polish.

**History of South Korean Athletics**

South Korea has had a successful journey, especially since 1984, in international sports competitions (Hong, 2011). For example, South Korea has had favorable results in the Summer Olympics: ranking 10th in Los Angeles, 1984; 4th in Seoul, 1988; 7th in Barcelona, 1992; 10th in Atlanta, 1996; 12th in Sydney, 2000; 9th in Athens, 2004; 7th in Beijing, 2008; and 5th in London,
2012. Also, since 1992, South Korea has become a powerful nation in the Winter Olympics: 10th in, 1992; 6th in Lillehammer, 1994; 9th in Nagano, 1998; 14th in Salt Lake City, 2002; 7th in Torino, 2006; 5th in Vancouver, 2010; and 13th in Sochi, 2014 (Korea Olympic Committee, 2016). To make this happen, South Korean student athletes have become an important asset enabling the country to become one of the powerful sports nations in the world (J. W. Park et al., 2012). The nation’s focus on sports polish has also resulted in student athletes concentrating on their roles as athletes rather than students (J. W. Park et al., 2012).

**Early Beginnings**

South Korean sports and its history cannot be separated from the nation’s politics and economy (Hong, 2011). Joseon Dynasty (1392-1897) people thought exercising (moving) was not for nobleman; Koreans called the nobleman “Yangban” (Jung, 2009). Upper-class society considered moving and doing exercises to be for the lower-class. For example, Gisun Shin (1851-1909), who was a nobleman of the Joseon Dynasty era, after having attended a tennis match, asked two missionaries who wanted to teach him how to play tennis that “why are you running hard and sweating? Let my servant do that for you” (Jung, 2009, p.16). At that time, aristocrats in Korea would not run except when it came to life-and-death crises. That was the way they lived. After Korea was invaded by Western and Japanese powers during the Joseon Dynasty, Joseons were forced to sign the Treaty of Ganghwa to open three ports of trade and to grant the Japanese extraterritoriality in 1876. The nation’s leaders realized that Koreans needed to obtain physical strength in order to fight back the Japanese. In 1895, gymnastics was included in the school curriculum. Later, soccer, baseball, and tennis were introduced to Korean students (Jung, 2009).
The Modern Era

With the introduction of modern sports by missionaries from Western countries in the late 19th century, sports quickly expanded in Korea (Ok, 2005). At that time, modern sports were used to build Korean’s physical strength and to obtain self-discipline (Koh, 2003). Leaders of the Joseon Dynasty period sought to provide knowledge to young people in the school, something designed to inspire patriotism (Jung, 2009). Therefore, a first version of a gymnastics class in Korea was rather similar to army training. From 1896 to 1910, there were 213 sports events in Korea (Jung, 2009). However, the Japanese Empire ruled Korea from 1910 to 1945, and hence, soon after modern sports was introduced. The Japanese occupiers did not let Koreans have open-air meetings. The Japanese were afraid of national unity by the Korean people through an outdoor sports event (J. S. Noh & Lee, 1996).

Physical education in the early colonial period (1910-1920) had not been introduced to a school curriculum. However, when the colonial period got well underway, the Japanese encouraged indoor gymnastic classes in school. The Japanese used indoor gymnastic classes instead of outdoor sports to emphasize collectivism as well as to make Koreans obey the emperor of Japan. Korean leaders, however, tried to encourage patriotism through army gymnastics, and the Japanese noticed this. So, the Japanese in 1911 forced a change in the content of physical education to ordinary gymnastics (J. S. Noh & Lee, 1996). In 1922, the Japanese allowed Koreans to have longer school years and more educational opportunities.

On July 13, 1920, the Joseon Dynasty Athletic Association was founded, and interscholastic athletic games were propagated. The Association played a very important role for introducing and improving modern sports such as hosting the Joseon National Sports Festival in 1934. However, the Association was dispersed by Japan in 1938 (Jung, 2009). At that time,
major school physical education games were track and field, baseball, and basketball. In the late colonial period (1940-1945), the Japanese wanted to merge the Koreans with Japanese. The Japanese forced Koreans to improve their military abilities rather than education. “Japan pronounced guiding principles of school physical education on April 18, 1942 and decided the basic direction of physical education. They also abolished ball games in colleges and universities, and restricted inter-school ball games in secondary schools” (J. S. Noh & Lee, 1996, p. 129). Therefore, physical education was used for military training.

During the colonial period, modern sports were secretly used to encourage anti-Japanese sentiment and as a tool to encourage nationalism among the Korean people (B. J. Lim, 1997). It was also used to enhance mental strength to support the recovery of the nation’s sovereignty. Koh (2003) also pointed out that “Sports Contest between Korean and Japanese athletes became opportunities for symbolic battle between the two countries” (p. 70). It remains a symbolic battle even today. N. G. Ha and Mangan (1994) pointed out that old-fashioned conservatism and a strong sense of nationalism, formed during the early years of sports, still remains beneath the surface of Korean sport culture. In addition, after independence, curriculums and teaching methods which instructed through Japanese style uniformity and absolute authority remained in the Korean education system and influenced physical education classes and student athletes (Yoo, 2001).

**Post Korean War**

After the Korean War (1950-1953), sport was not the main issue in South Korea. Koreans could not concentrate on sport and could not afford to allocate enough national budget for sports until the 1960s. N. G. Ha and Lim (2001) argued that it was impossible to develop South Korean sport organizations because of the political chaos, social instability, and economic poverty. After
the Korean War, South Korean physical education was close to military training, and military officers taught physical education classes because of the lack of qualified personnel (N. G. Ha & Mangan, 1994). The government used sport for the purpose of defending the country from North Korea (Kang, 1990). In 1954, the Ministry of Education promoted physical education classes to be held for three hours a week for middle and high schools and to two sports related credits for college students required by the curriculum (N. G. Ha & Mangan, 1994). President Rhee’s regime officially introduced the term “Taekwondo” on April 11, 1955, which became popular in South Korea (Hong, 2011). However, after President Park had taken over the political power by military coup d'état in 1961, heavy attention was paid to flourishing elite sports including school sports (J. W. Park, 2011).

On May 16th, 1961, Jung-Hee Park’s army delivered the coup d'état and established South Korea’s Third Republic. During this period, Korean society faced drastic transformation and improvement of politics, economy, culture, and sports (J. W. Park, 2011). The authoritarian government enthusiastically promoted nationalism in order to achieve political legitimacy and a foundation for a self-supporting economy (O. H. Lee, 2002; J. W. Park et al., 2012). President Park revealed an interest in sports and expressed sporting nationalism (H. R. Lee, 2003). The following statement in President Park’s opening speech at the National Games in 1970 showed how his regime valued sporting ideology:

We must realize that high physical fitness is very important to building a strong nation, and high physical fitness of the Korean people is the symbol of a strong nation. We all should accumulate a great store of energy by building physical fitness and sound minds through national games. (S. Kim, 2000, p. 1)
President Park attempted to connect sports to all other problems that South Korea had (Hong, 2011). Park’s military regime planned to use sport and physical education as evidence for the following slogan, “physical strength is national power” (J. W. Park, 2011, p. 112). The slogan revealed the government’s intention to not only solve economic poverty, as well as political and social disorder, but also emphasized the need to overcome the nation’s ideology against North Korea and Japan (J. W. Park, 2011). In June 1966, President Park demonstrated his view about elite sport at the opening ceremonies of the Korean Sports Council Hall. He said, “We must know that our athletes going abroad to participate in international games and achieving splendid records have achieved more than hundreds of our foreign diplomats spending large budgets ever have” (N. G. Ha & Mangan, 2002, p. 231). The speech showed how much he valued elite athletes as ambassadors (Hong, 2011). S, Kim (2000) mentioned that “sport was relatively cheap and fitted well with President Park’s ruling ideology” (p. 82).

President Park’s personal philosophy that sport and physical education would help build a strong country made elite and school sports prosper (J. W. Park, 2011). The government secured national sport development funding and built supporting system for elite athletes (Hong, 2011). In 1961, the government legislated the National Sports Promotion Law and began to provide funding for the Korea Sports Council (KSC). In 1966, the KSC invested resources in constructing the Tae-Neung Athletics Village, helping develop the pool of elite sports athletes, train elite sports coaches, and promote welfare programs (O. H. Lee, Joo, & Kim, 2001). The resources from the legislation were also used for the athlete’s pension system and athletic scholarships for college student athletes (Hong, 2011).
In 1962, the government proclaimed the enactment of the National Sports Promotion Law (O. H. Lee, 2002). The law was comprised of two parts with 17 articles (J. W. Park, 2011). In the second part, the articles explained in details how to support national sports. For example,

- Act 7. The establishment of a national sports day on October 15 each year and a regular sports week the last week of each month
- Act 8. Support for provincial sport events
- Act 9. The promotion of physical education and sport at work
- Act 10. The training of instructors
- Act 11. The extension and improvement of facilities
- Act 12. The foundation of national sport complexes
- Act 13. The utilization of currently available facilities
- Act 14. Support for athletes
- Act 15. The state subsidy for a local autonomous entity (government)

Other elite sport policies established by President Park’s government are the Athletic Specialist System in 1972, the Military Service Exemption Law in 1973, and the lifelong pension system (renamed performance enhancing research pension) in 1974. These are the examples of how the government supported elite sports and was committed to link sports and nationalism (J. W. Park et al., 2012).

In 1974, the Korean Amateur Sports Association (KASA currently Korean Sports Council) announced the Lifelong Pension System for medal winners at international sports events, for example, the Olympic Games, the World Athletic Championships, the Asian Games, the Universidad, and the Military World Games (Ok, 2004). The two tables below show how the
system was designed to encourage high performance. The tables also show the government strategic plan in order to encourage the nation’s athletes to pursue sport excellence. It showed the government’s philosophy toward elite sport success and sports nationalism (J. W. Park, 2011).

Table 4

**Points of Performance Enhancing Pension**

<table>
<thead>
<tr>
<th>Points</th>
<th>Gold Medal point</th>
<th>Silver Medal point</th>
<th>Bronze Medal point</th>
<th>4th Place point</th>
<th>5th Place point</th>
<th>6th Place point</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Olympic Games</td>
<td>90</td>
<td>70</td>
<td>50</td>
<td>8</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>The Paralympics</td>
<td>90</td>
<td>70</td>
<td>40</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4 year cycle</td>
<td>45</td>
<td>12</td>
<td>7</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>The World Athletic Championships</td>
<td>30</td>
<td>7</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2-3 year cycle</td>
<td>20</td>
<td>5</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1 year cycle</td>
<td>10</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Korea Sports Promotion Foundation (2014).

Table 5

**Performance Enhancing Pension Payment**

<table>
<thead>
<tr>
<th>Points</th>
<th>Monthly Payment</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 - 30</td>
<td>Approximately $282 – $423</td>
<td>Approximately $141 per 10 points after 20 points</td>
</tr>
<tr>
<td>Over 30 - 100</td>
<td>Approximately $493 – $916</td>
<td>Approximately $71 per 10 points</td>
</tr>
<tr>
<td>(940 dollar for an Olympic Gold Medal Winner)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over 30 - 100</td>
<td>Approximately $493 – $916</td>
<td>Approximately $71 per 10 points</td>
</tr>
<tr>
<td>(940 dollar for an Olympic Gold Medal Winner)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over 100 -110</td>
<td>Approximately $940 (maximum)</td>
<td>Approximately $24 per 10 points</td>
</tr>
</tbody>
</table>

Source: Korea Sports Promotion Foundation (2014).
President Park’s administration endeavored to improve the level of physical fitness of young students. In 1961, the Third Republic presented the Temporary Measurement Act which was enacted to boost the value of physical education in school by making a physical test grade as one category of the high school and college entrance examinations (O. H. Lee, 2002). The government then introduced the Physical Aptitude Test for South Korean collegiate entrance examinations in 1969 (S. Kim, 2000). The Ministry of Education actually adopted the exam in 1973, and the score included South Korean collegiate entrance exam results in five events, the 100 meter dash, standing long jump, sit-up, ball throwing, chin-up for men, and lingering from the horizontal bar for women from 1973 to 1994 (J. W. Park, 2011).

During that period, school sports in South Korea had two functions, to boost general young students’ physical fitness and to foster potential student-athletes. School sport in South Korea was the foundation for nurturing young talented student athletes who would advance to the elite level (J. W. Park, 2011). Act 14 of the National Sports Promotion Law guaranteed support of elite athletes in order to regain national confidence over North Korea and Japan through successful results in international sports events. According to J. W. Park (2011), “following the Korean War, the extreme tension between South and North Korea had driven South Korea to value sports confrontation as a proxy for war in order to express the superiority of its social and political structure” (p. 117).

After the poor performance at the Tokyo Olympics in 1964, Kwan-Sik Min who was the president of the Korean Amateur Sports Association (KASA) insisted that sport could not survive without science and facilities (H. R. Lee, 2000). KASA created a six-year plan to improve the circumstances that South Korean sports had at that time. One of the goals was to find a hidden sporting talent (H. R. Lee, 2003). President Park’s administration established the
Seoul Physical Education High School in 1971 and the Korea National Sport University in 1976. Also, the government encouraged universities and colleges to create the physical education departments beginning in 1969 (O. H. Lee, 2002). In addition, the administration aggressively supported the field of sports medicine, sports psychology, and mechanics of sport in order to manage athletes’ strengths and improve sports skills (Song & Kim, 1997). Moreover, the government opened a coach’s academy with the aim of fostering competent sports coaches (Song & Kim, 1997).

During the military regime, the function of school sport focused not only on physical education for all students but also on cornerstones for talented children at sports. School sport had been the cornerstone for elite sport development because many young talented school students were found and nurtured (J. W. Park, 2011). In the 1960s and 1970s, almost all of school-based sport clubs existed for elite sport and hardly recognized private sport clubs because of the poor economic circumstances. Therefore, school-based sports were the only path to find talented young athletes and were important elements of the basic structure for elite sports (J. W. Park, 2011). Therefore, those who participated in sports as elite student athletes had to focus on their athleticism rather than study (J. W. Park et al., 2012).

In the 1960s and 1970s, the political tension between South and North Korea was severe, therefore, the South Korean government recognized the necessity of elite sport development in connection with nationalism (O. H. Lee, 2002; Mo, 1990; J. W. Park, 2011; J. W. Park et al., 2012). It was a very common policy at the time of Cold War ideology among countries (Bairner, 2001), such as the United States and Soviet Union, and West Germany and East Germany (J. W. Park, 2011). The sports promotion rules and regulations, and the government’s attention to connect sports and nationalism, created successful elite athletes who had successful results at
international sports events such as a gold medal in the Olympics and were considered people of national merit like war heroes (O. H. Lee, 2002). This mind-set stimulated many successful results in international sports competitions. When South Korea faced the financial crisis in 1997, two Korean elite athletes Chan-Ho Park, a former major league baseball player for the Los Angeles Dodgers, and Se-Ri Pak, a Ladies Professional Golf Association player, became national heroes for their high professional achievements (H. S. Cho, 2008). Olympic gold medalists, the national soccer team members in the 2002 World Cup, and other extraordinary elite athletes who performed well for the country abroad were considered national heroes (Y. H. Cho, 2008; N. Lee, Jackson, & Lee, 2007).

**Post President Park – The Chun Era**

After President Park’s assassination in 1979, another military coup was staged by Doo-Hwan Chun in 1980. The new government’s legitimacy was questioned by the public because of the way President Chun took over the presidency (J. W. Park et al., 2012). The continuation of the military government brought the public anti-government movement in the 1980s, so President Chun’s administration was threatened severely (J. W. Park, 2011). Moreover, South Korea suffered from high unemployment and a high inflation rate. President Chun’s regime needed to secure the administration’s legitimacy and the public support (C. W. Lee, 2002). The government used sports to divert the public’s attention from the political situation in the country (Y. H. Cho, 2008; J. W. Park et al., 2012).

The government in 1981 submitted an application for the 1988 Olympic Games to the International Olympic Committee (IOC) and the 1986 Asian Games to the Olympic Council of Asia (OCA) and won the right to host both of them. All the media controlled by the government were covering the top story that the Olympics and Asian Games would be the turning point in
South Korean history and helped the country join the roster of developed countries (C. W. Lee, 2002). President Chun emphasized that South Korea had been waiting for 5,000 years for the Seoul Olympics (C. W. Lee, 2002). His regime changed the initial goal of the National Sports Promotion Law of just making people cheerful and happy by participating sports (The Ministry of Culture and Sport, 1986). In 1982, the Promotion Law emphasized a different idea of sport as a means to “contribute to the enhancement of the national prestige through sports” (C. W. Lee, 2002, p. 55). The amended National Sports Promotion Law officially revealed the government’s intention to foster national prestige with the help of elite sports (N. G. Ha & Mangan, 2002; C. W. Lee, 2002).

The official goal of sports policy by President Chun’s administration was enhancing national prestige through promoting national physical fitness and a fostering of national harmony through successful management of the 1986 Seoul Asian Games and the 1988 Seoul Olympic Games (C. W. Lee, 2002). The goal showed the government’s intention to value sporting events as an important policy concern. Moreover, the government made an administrative change that school sports officially became under control of the Ministry of Sports from the Ministry of Education. Therefore, the Ministry of Sports had easy to control school sports and student athletes in order to pay attention to creating a pipeline of athletes for the Seoul Asian Games and the Seoul Olympic Games (J. W. Park, 2011). As a result, the government took advantage of school sports as a resource for elite sports rather than physical education for a general student population (C. W. Lee, 2002). Physical education high schools were established during the Fifth and Sixth Republics throughout the country (J. W. Park, 2011). These specially purposed sports high schools were built to nurture talented high school student athletes. The schools have played
a very important role for years in nurturing future elite athletes (H. R. Lee, 2000). Furthermore, the Armed Forces Athletic Corps, called Sangmu, was established in 1984 (J. W. Park, 2011).

The Chun regime conducted policies, called 3S policy (Sex, Screen, and Sport) to spread out South Korean citizens’ political attentions (J. W. Park, 2011; J. W. Park et al., 2012). For example, the Korean professional baseball league in 1982 and Korean Professional Football League in 1983 were launched (Y. H. Cho, 2008; J. W. Park, 2011). The leagues initiated by President Chun’s regime shifted Korean citizens’ eyes from political issues. Despite that intention, though, Chun was instrumental in making sports popular for people’s leisure life and played an important role in shaping South Korean sports infrastructures (J. W. Park, 2011). The political power and strong leadership of President Chun’s government played an enormous role in developing South Korean elite sports, despite severe criticism of the reason they endeavored to promote elite sports (W. Y. Ha, 1997; G. Ok, 2004). However, even if South Korean sport infrastructures and elite athletes progressed under President Chun’s administration, the reasons behind them, i.e. decreasing people’s interest in the political issues, cannot be ignored (J. W. Park et al., 2012).

The official sports policy of the next political regime, President Tae-Woo Roh’s, was similar to the previous government. He was the Minister of Sports in the Chun’s administration. Minister Roh restored the policy of discovering hidden sporting talent in 1982. The policy had been terminated in 1971 because of the budgeting problems during President Park’s administration (O. H. Lee et al, 2001). The policy enabled the development of a plan to identify young talented student athletes to ensure favorable results at the Asian Games in Seoul in 1986 and the Seoul Olympics in 1988 (J. W. Park, 2011). Among 100,000 students who got the first grade at Physical aptitude tests, 4,395 students were nominated as elite athletes in 1982.
According to the Korea Sports Council (2000), there were about 18,600 students who were selected as student athletes from 1982 to 1993. During President Chun and Roh’s administrations (1980 to 1193), athletic specialized high schools were established from coast to coast, schools such as Gyeongnam Physical Education High School in 1984, Chungbuk Physical Education High School in 1988, Kangwon Physical Education High School in 1991, and Chungnam Physical Education High School in 1992 (J. W. Park, 2011). The goal of the schools was to nurture and promote future elite athletes, and the plan ensured that the student athletes focused on only athletic excellences (H. R. Lee, 2000).

The Kim Era

In 1993, the civilian government established a new democratic age (J. W. Park, 2011). President Young-Sam Kim’s regime (1993-1998) reformed all the government functions, including sports (H. R. Lee, 2003). The government announced its intention to restructure its administrative components by reducing the government authorities and jurisdictions so that the administrative organizations would be contracted (H. R. Park, 2005). The government carried out a reorganization of the government agencies. In 1993, the Ministry of Culture and the Ministry of Sports were united as the Ministry of Culture and Sport. In addition, the administration cut the sport-related budget for South Korean elite sports because the government switched their focus towards the sports for all citizens rather than just elite sport athletes. Furthermore, since the civilian government took over the power of South Korea, Korean secondary school sports have been hindered and downsized by the government, as well. Hours of physical education classes in junior high and high schools decreased and the physical aptitude test was revoked by the government in 1994 (J. W. Park, 2011).
However, ironically, the government announced the Five-Year National Sport Promotion Plans that emphasized advancement of elite sports for achieving favorable results in the Olympics and other mega sport events around the world (J. W. Park, 2011). The government wanted to retain the image of South Korea as a strong sports nation, but with less investment. Actually, each government sports related department (Ministry of Culture and Sport, 1993; Ministry of Culture and Tourism, 1998; Ministry of Culture and Tourism, 2003) announced their five-year national sport promotion plans that had continually supported elite sports for the country’s goal of high rankings at the Olympic medals table, the top ten, in particular (J. W. Park, 2011).

When President Dae-Jung Kim’s administration came into power, the Asian financial crisis hit South Korea severely in 1998. The government decided to trim down departments from the Ministry of Culture and Sport to the Ministry of Culture and Tourism. The International Monetary Fund (IMF) intervention resulted in a huge national crisis and negative impact on sports bureaus and investment in sports (J. W. Park, 2011). Therefore, all sports bureaus (sports policy team, sport-for-all team, sports industry team, international sports team, and disabled sports team) were assigned to be under the Ministry of Culture and Tourism. The sports sector suffered immense harm as a result of the IMF intervention (H. R. Lee, 2003).

From 1997 to 1998, more than 50 sports teams stopped their operation with 212 male and 143 female athletes dropped. In addition, 39 head coaches and 35 assistant coaches lost their jobs (Bang, 1998; Hong, 2011; H. R. Lee, 2003). The disbanded teams were typically categorized as unpopular sports such as handball and gymnastics which used to be nurtured by the South Korean governments from 1980s to early 1990s for favorable results at the upcoming mega sports events, such as the Olympics (J. W. Park, 2011). Hong (2011) pointed out that “this meant
that athletes lost opportunity to continue their careers and young talents had to change their direction to non-sporting pathways due to their uncertain future” (p. 986).

After the crisis passed, President Mu-Hyun Roh’s administration promoted sports and leisure activity participation among the general population (J. W. Park, 2011). The government revived the policy of discovering hidden sporting talent in 2002, which had been abolished in 1997 (Bang, 1998). According to Bang (1998), the Korea Sports Council selected 163 young student athletes in three kinds of sport, track and field (80), gymnastics (39), and swimming (44). In addition, the International Association of Athletic Federations approved the city of Daegu, South Korea to host the World Athletic Championships in 2011. The next President of the country, Myung-Bak Lee (2008-2013), spent 3,900 billion Korean won (more than 3.5 million U.S. dollars) for the mega sporting event (J. W. Park, 2011).

**Summary Perspective**

In conclusion, South Korean elite sports have been heavily impacted by each Korean government. Each Korean administration since President Park has promoted and supported elite sports success through political ideology (J. W. Park, 2011). Korean student athletes in school based teams have played an enormously important role in the development of Korean elite sports, young talented student athletes, in particular (B. H. Lee, 2006; Hong, 2011; J. W. Park, 2011; J. W. Park et al., 2012). J. W. Park (2011) argued that “politicians, officials and sport administrators have entirely focused on improving athletic performance in pursuit of winning a gold medal, rather than reforming unfavorable circumstances to the human rights of student athletes” (p. 152). The promising achievements from mega sports events like the Olympics, for over several decades have affected each government decision-making process in favor of an elite
sport system. Therefore, every government has largely ignored the educational needs of young, talented student athletes.

**Career Development Theory, Decision Making, and Self-Efficacy**

With the history and context for athletics in South Korea as a backdrop, the literature review now shifts to a discussion of career development and decision making. This is requisite given the focal research questions undergirding this study. This section of the literature review first explores the broader theory base and then shifts to career decision making specifically, and finally to career self-efficacy, ultimately linking it to athletes.

The meaning and concept of a career has changed over time. Within Parson’s (1909) time, the term “career” was often synonymously used to mean vocation and occupation (McDaniels & Gysbers, 1992). The traditional definitions restricted career to professional work, including both prevocational and post-vocational life. However, the meaning of a career has broadened during the last 20 years (Patton & McMahon, 2014). Arthur, Hall, and Lawrence (1989) defined career as “evolving sequence of a person’s work experiences over time” (p. 8). Other authors explained the concept of career as work and other features of a person’s life (Collin & Watts, 1996; Miller-Tiedeman, 1999; Miller-Tiedeman & Tiedeman, 1990).

Patton and McMahon (2014) agreed on the viewpoint that people’s careers are developed by them based on their perceptions, attitudes, and behaviors. They defined a career as “the pattern of influences which coexist in an individual’s life over time” (Patton & McMahon, 2014, p. 265). Richardson (1993) insisted that career should be defined based on an individuals’ perception of work, jobs, and careers in their lives. Richardson and Schaffer (2013) discussed both paid and unpaid works which were of great social value in capitalist nations. Blustein
(2001, 2006) proposed that people needed to address the limitation issues about social class, gender, family background, and cultural characteristics when it comes to defining career.

**Career Development Theory**

This subsection examined several important career development theories including Parson’s trait and factor theory, Holland’s theory of vocational personalities in work environment, Super's theory of developmental self-concept over life span, and social-cognitive career theory.

**Trait and factor theory.** Career development and counseling have had a relatively short history, but they have developed for more than 100 years (Leung, 2008; Patton & McMahon, 2014). Parson (1909), the pioneer of career development, approached vocational counseling scientifically. He was the first director of the vocational guidance center in the United States who developed the framework for the theory of occupational choice (Bailey & Stadt, 1973). The theory was characterized by measurable human traits as predictors of educational and vocational success (Patton & McMahon, 2014). Put another way, individual psychological differences became a basic method of determining occupational ability according to Parsons’ theory. He outlined three elements of career selection: self-understanding, knowledge of occupations, and “true reasoning on the relation between these two groups of fact” (Parsons, 1909, p. 5).

A number of career choice theories developed later that focused on relationship between individual characteristics and workplace environments’ fits, which were known as trait and factor theories (Patton & McMahon, 2014). Proctor (1920) insisted that an individual’s intelligence level could be used to predict particular job success. He argued that “the best way in which to arrive at an estimate of a given pupil’s probable success in a specific high school
subject was to discover the general level of his intelligence” (Proctor, 1920, p. 381). Later, occupational-intelligence level was established to help vocational counseling (Bailey & Stadt, 1973). Fryer (1922) developed five vocational levels that include professional, technical, skilled, semiskilled, and unskilled. He developed 96 various occupations based on a vocational intelligence standard score; for example, “engineer 161; clergyman 152; teacher 122; fireman 27; sheet metal worker 22; and fisherman 20” (Bailey & Stadt, 1973, p. 60). The various occupations were indexed by average intelligence scores that were collected from a few hundred cases (Bailey & Stadt, 1973).

In 1929, as the Great Depression began, scholars of the University of Minnesota developed a broad outline for a scientific occupational testing program (Paterson, 1949). They studied unemployed workers in a large number of cases to apply the new testing technique. The five-year-long research was one of the first large scale studies to utilize various psychological measurements. The study delivered plenty of individual studies, including related fields of “social work, vocational psychology, industrial medicine, industrial education, and personnel administration and management” (Bailey & Stadt, 1973, p. 61). The research brought more knowledge and attention to “important vocational measures of standard intelligence, clerical aptitude, mechanical ability, manipulative dexterities, vocational interest and personalities” (Bailey & Stadt, 1973, p. 61).

Another five-year research study was launched by the United States Employment Service in 1933 to develop job aptitude test measurements through analysis of jobs and workers (Bailey & Stadt, 1973). The researchers of the United States Employment Service assumed that largescale research could narrow down human traits to several factors, and all kinds of various occupations could be grouped by similar characteristics and necessary abilities for a certain job
(Dvorak, 1956). The way job aptitude test measurement using the General Aptitude Test Battery worked was, first, analyzing individual aptitude, and then matching with 20 occupational aptitude patterns to determine the best fit between fields of work and individual abilities (Dvorak, 1947). The main goal of the research was to provide a useful tool for counseling of public employment agencies and other related offices. The tool helped the agencies and offices to guide and match counselee’s abilities and interests with vocational requirements (Super, 1954). After World War II broke out, the trait approach became more important in the process of selection of the right person for the right position (Bailey & Stadt, 1973).

These trait-and-factor approach studies reached their height after World War II (Bailey & Stadt, 1973). Thorndike and Hagen (1959) found out there was no profound evidence that trait-and-factor analysis theory or biological information could predict degree of success. The researchers insisted that people got into occupation for exceedingly varied reasons, and the reasons could not be related to their abilities or fittingness. The trait-centered method might be useful in terms of getting plausible data for career counseling, but individuals’ future work they determined was a much more complicated phenomenon than the test results itself (Bailey & Stadt, 1973). The contribution of the trait-and-factor theory has been acknowledged, but its value to use in counseling is debatable (Chartrand, 1991).

**Holland's theory vocational personalities in work environment.** During the past five decades, Holland’s (1959, 1973, 1985, 1992, 1997) vocational theory has become a very important tool for guiding career development and counseling all around the world (Leung, 2008). Nauta (2013) insisted that Holland’s vocational theory had been one of the most authoritative theories in the field of career counseling. The theory was simple and practical because of its user-friendliness and testability (Nauta, 2010). Holland explained that one’s
personality or behavioral style related with vocational interest (Leung, 2008). In other words, when the time had come to choose vocational decision-making, the person interacted with many cultural and personal forces such as parents, friends, the person’s social class, and other environments (Bailey & Stadt, 1973). Holland’s theory postulated that the vocational selecting process was not random. He insisted that people of a vocational group had similar personalities and behavioral styles. The personality or behavioral style could be grouped into six typologies (Leung, 2008). Table 6 illustrates examples of vocations that match each of the six types.

Table 6

*A Summary of Types, Descriptors, and Occupations According to Holland’s Typology*

<table>
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<tr>
<th>Type</th>
<th>Description</th>
<th>Typical Occupation</th>
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<tr>
<td>Realistic</td>
<td>has practical abilities and would prefer to work with machines or tools rather than people; enjoys activities requiring physical strength; aggressive; good organization skills; lacks verbal and interpersonal skills; prefers concrete to abstract problems; unsociable.</td>
<td>mechanic; farmer; builder; surveyor; pilot; laborer; aviator; truck driver; carpenter.</td>
</tr>
<tr>
<td>Investigative</td>
<td>analytical and precise; good with detail; prefers to work with ideas; enjoys problem solving and research; task oriented, attempts to organize and understand the world; abstract orientation.</td>
<td>chemist; geologist; biologist; researcher; physicist; mathematician; anthropologist.</td>
</tr>
<tr>
<td>Artistic</td>
<td>artistic or creative ability; uses intuition and imagination for problem solving; prefers indirect personal relationships; prefers dealing with environmental problems through self-expression in artistic media.</td>
<td>musician; artist; interior; decorator; writer; industrial; designer.</td>
</tr>
<tr>
<td>Social</td>
<td>good social skills; friendly and enjoys involvement with people and working in teams; prefers teaching or therapeutic roles; likes a safe setting; possesses verbal skills.</td>
<td>nurse; teacher; social worker; psychologist; counsellor; foreign missionary.</td>
</tr>
<tr>
<td>Enterprising</td>
<td>leadership, speaking and negotiating abilities; likes leading others towards the achievement of a goal.</td>
<td>salesperson; television producer; manager; administrative assistant; lawyer; auctioneer; politician.</td>
</tr>
<tr>
<td>Type</td>
<td>Description</td>
<td>Typical Occupation</td>
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<tr>
<td>Conventional</td>
<td>systematic and practical worker; good at following plans and attentive to detail; performs structured verbal and numerical activities and subordinate roles; achieves foals through conformity.</td>
<td>banker; secretary; accountant; statistician; post office clerk.</td>
</tr>
</tbody>
</table>

Source: Patton and McMahon (2014).

Those six typologies were Realistic (R), Investigative (I), Artistic (A), Social (S), Enterprising (E), and Conventional (C). Holland (1985, 1992, 1997) claimed that the six types were related to an individual’s major needs. He insisted that people were looking for work environments that were congruous to their values and practicable skills and abilities. He proposed that individuals in similar jobs would have similar personalities (Holland, 1985, 1992, 1997). He concluded that some factors such as job satisfaction, stability, and achievement could be predicted by personality types and their cultural environments, including “peers, biological heredity, parents, social class, culture, and the physical environment” (Holland, 1992, p. 2).

As illustrated in Table 6, based on the description of six types of people, it is possible to match them with a certain kind of vocation. Holland utilized vocational environment as a structural frame to classify vocational choices (Bailey & Stadt, 1973). When a person has characteristics of three prevailing types, it is possible to create a three-letter code; for instance, SIA or RIA to illustrate the person’s career interest (Leung, 2008). The first letter addresses the person’s main vocational interest type which plays a primary role when the person makes a career choice and later, gets satisfaction. The second and third letters are less important, but should still be considered during the occupational decision making process (Leung, 2008).

Holland claimed that people did not belong to only one type; however, there would be a dominant type, and one or more other types (Nauta, 2013). Thus, people would have characteristics of each of the six types; however, there would be three most prevailing types that
describe the person best. Nauta (2013) claimed that the most significant part of Holland’s theory is the degree of fit between the person’s personality and his or her occupational environment. The theory proposed that if individuals’ needs matched with their work environment and if they achieved the needs, the individuals would be more satisfied and have a successful career, and would stay in that vocational environment longer (Nauta, 2010; 2013).

Holland’s theory has had a huge impact on career research and assessment for over 40 years, and there were hundreds of studies conducted to investigate the theory (Spokane, Meir, & Catalano, 2000). In addition, cross-cultural studies examined how valid the theory was in other cultures (Leung, 2008). For example, Tak (2004) surveyed the Strong Interest Inventory (career assessment questionnaire developed in 1927 by psychologist Edward Strong, Jr.) to Korean college students and found a good fit with Holland’s model. Another study by Sverko and Babarovic (2006) applied Holland’s self-directed search for 15 to 19-year-old Croatian adolescents and observed supportive results for the theory as well.

On the other hand, the theory has been criticized because the theory did not fully address women, racial, and ethnic groups (Fouad, 2007; Law, Wong, & Leong, 2001; Leung & Hou, 2005). For example, women score greater than men on the social type when men score greater on the realistic type. Watson, Stead, and Schonegevel (1998) claimed that the theory needed to be reconsidered “in the context of relevant information about possible cultural, gender, and socioeconomic status differences in the structure of interests of their clients” (p. 26). Nonetheless, Holland’s vocational theory stays one of the most significant theories in the field of career guidance and counselling (Nauta, 2013).

**Super’s self-concept theory of career development.** Holland and Super are the most recognized scholars in the career development field (Patton & McMahon, 2014). Super insisted
that the process of developing and applying a person’s self-concept during his or her life-span is essential in one’s career choice and development, while Holland focused on a person’s trait, vocational type, and career choice (Leung, 2008; Patton & McMahon, 2014). Leung (2008) pointed out that Super’s life-stages approach was recognized in the United States, as well as other parts of the world. Super (1990) indicated that career development could not be completed in young adulthood. People would develop continually their vocational self-concept throughout their life-span (Patton & McMahon, 2014). Super explained self-concept as a complicated outcome which interacts with factors such as one’s physical and mental growth, his or her personal experiences, and the person’s environment.

Super (1990) proposed five life stages and vocational development tasks (Table 7).

Table 7

<table>
<thead>
<tr>
<th>Stage</th>
<th>Characteristics</th>
<th>Tasks</th>
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| Growth (Birth to 14 year old) | - Exploration of the world around those ages of children.  
- “Development of self-concept, capacity, attitudes, interest, needs, general understanding of the world of work” (Poh Li, Sue Fin, & RazakZakaria, 2013, p. 179).  
- Begin to develop interest and awareness of their abilities.  
- Understand the meaning of work. |  
| Exploration (15 to 24 year old) | - Vocational choices need to be narrowed down.  
- Need to embark training or education for preparing his or her narrowed occupational choices.  
- “Trying out through classes, work experience, hobbies. Tentative choice and related skill development” (Poh Li et al., 2013, p. 179).  
- Crystallizing a vocational preference transition.  
- Specifying a vocational preference and implementing. | - Crystallization is “the cognitive process of forming a vocational goal on the basis of vocational information, and awareness of traits, such as interest and value”.  
- Specification is “the actual selection of a specific career”.  
- Implantation: is “individuals train for their selected vocation and begin employment” (Patton & McMahon, 2014, p. 73).  
- Developing, planning, and firming tentative vocational goal. |
The five stages were growth, exploration, establishment, maintenance, and decline. Each stage had developmental tasks which would be faced at some point during one’s life. Super (1992) believed when a person successfully handles and achieves the tasks, it would lead to the person’s success and satisfaction. Thus, the concept of career maturity refers to the degree of a person’s ability to accomplish the occupational development stages (Poh Li et al., 2013).

However, Super (1990) added that not every person developed through these steps. He postulated that the series of life stage would not necessarily sequentially progress for individuals. Sometimes individuals at some stage of their career development might have to go back to the initial stage, referred to as a mini-cycle. For example, people could decide to change their job due to some unexpected personal or socioeconomic circumstances and then have to go through the mini-cycle from the start again, sometimes even more than once (Savickas, 2002).

Super’s theory also identified that different life roles created complications of self-concept implementation when one needed to take different role or other roles at the same time throughout life stages. Super (1990) described the circumstance as life space. According to Leung (2008), “life space is the constellation of different life roles that one is playing at a given..."
time in different contexts or cultural “theatres”, including home, community, school, and workplace” (p. 121). Super and Sverko (1995) indicated that the relationship between work role and other life role is very important for one’s major life role. Super identified the importance of work role to an individual, so he and other international collaborative researchers conducted a work importance study to prove work role salience across different cultures (Leung, 2008). A study among nations of North America, Europe, Africa, Australia, and Asia confirmed that work value and work role revealed a similar structure (Super & Sverko, 1995). Super, Savickas, and Super (1996) pointed out that “to understand an individual’s career, it is important to know and appreciate the web of life roles that embeds that individual and her or his career concerns” (p. 129).

Super’s theory has been highly respected among career guidance professionals and researchers not only in the United States, but also around the world, because his theory covers occupational developmental tasks, developmental stages, career maturity, and life roles (Leung, 2008). Leung (2008) pointed out that “it offers a comprehensive framework to describe and explain the process of vocational development that could guide career interventions and research” (p. 121). In addition, Super extended previous ideas of career development by not limiting it to a certain age of young adulthood, concluding that it might cover the entire life span of an individual (Patton & McMahon, 2014). Also, while Super (1992) had developed the theory, he expanded his focus from vocational guidance to embracing career counseling. Savickas (1994) pointed out that the changing focus of Super’s theory was reflected in how Super developed and expanded his career theory by renaming his series of theories from career development theory to developmental self-concept theory, and finally to the life-span, life-space
theory. Super has made a huge contribution to both the theoretical and practical aspects of the career (Leung, 2008; Patton & McMahon, 2014; Poh Li et al., 2013; Savickas, 2002).

**Social cognitive career theory.** Social cognitive career theory (SCCT) was primarily rooted by Bandura’s social cognitive theory (1986; 1997) which postulated interaction relationship between an individual and his or her environment (Leung, 2008). SCCT also derived from Hackett and Betz’s (1981) self-efficacy theory (Patton & McMahon, 2014). SCCT provided three interlocking segments of career development: (a) the process how academic and vocational interest develops, (b) the process of how people make and enact their educational and career choice, and (c) the process of how educational and career performance outcomes are achieved (Leung, 2008; Patton & McMahon, 2014). By using the three segmental models, Lent, Brown, and Hackett (1994, 1996, 2002) described how the three models are complicatedly related to three social cognitive variables, which are self-efficacy beliefs, outcome expectations, and personal goals. Also, they presented how a person’s gender, ethnicity, related environmental issues, and his or her educational experience can affect those three cognitive variables.

According to Lent (2005), self-efficacy is “a dynamic set of beliefs that are linked to particular performance domains and activities” (p. 104). Self-efficacy expectations seek to initiate and maintain specific behaviors while an individual faces difficult circumstances and barriers (Leung, 2008). Self-efficacy expectations are made up of four primary sources which are personal performance accomplishment, vicarious learning, social persuasion, and physiological and affective states (Bandura, 1977; Betz, Borgen, & Harmon, 1996; Hackett & Betz, 1981). Among the four sources, personal performance accomplishments have been show to influence self-efficacy the most (Lent, 2005). Outcome expectation was defined as “personal belief about the consequences or outcomes of performing particular behavior” (Lent et al., 2002, p. 262). In
addition, Lent (2005) defined personal goals as an individual’s aim to participate in specific activity or produce a certain result.

The three social cognitive variables interact with an individual’s interest, career choice, and career-related performance (Lent & Hackett, 1994). Career interests are influenced by one’s self-efficacy and outcome expectation. That means people’s interests can make them act when they think they are good at performing, and that performance should make for a valuable outcome (Patton & McMahon, 2014). Therefore, individual’s interest with positive self-efficacy and good outcome expectations would encourage the person to participate in certain activities throughout the life-span. Most of an individual’s interests would be set up before adolescence or early adulthood (Lent & Hackett, 1994; Leung, 2008; Patton & McMahon, 2014).

Leung (2008) proposed that “career choice is an unfolding process in which the person and his or her environment mutually influence each other” (p. 126). According to the SCCT, individual’s career choice would not always be related to interests, but also the person’s environment which does not have to always be supportive. Personal and cultural circumstances could interfere with personal interests (Lent, 2005). Therefore, choices are made by what options the person had and how the person’s environment supported him or her (Lent, 2005). The SCCT defined ability as one’s achievement, talent, and past performance (Leung, 2008). Interaction between ability, self-confidence, and outcome expectation were very important because unbalance between self-efficacy and ability such as over and under confidence would cause undesirable performance (Lent, 2005).

The SCCT has been studied by many researchers including some international ones (Leung, 2008). For example, the SCCT career choice model was examined among Italian high school students who attended a program for college preparation (Nota, Ferrari, Solberg, &
Soresi, 2007). The study ascertained that career search self-efficacy had a positive relationship with family support and career self-efficacy and a negative relationship with career indecision. This study revealed how important social support is in making a career decision and promoting self-efficacy (Leung, 2008). Another study applied career decision-making self-efficacy and career decision to eighth-grade high-school students in Australia and was applied again two years later when they were tenth-graders (Creed, Patton, & Prideaux, 2006). The study showed that earlier self-efficacy experience might not influence a future career decision making process when the person faced conflicts (Leung, 2008). Recently, many practical reviewed and studied from career counseling and development fields have affirmed the SCCT’s growing ascendancy (Bikos, Dykhouse, Boutin, Gowen, & Rodeny, 2013; Creager, 2011; Erford & Crockett, 2012; Hartung, 2010; Patton & McIlveen, 2009).

Lent and Hackett (1994) remarked that “any truly comprehensive approach to career development should account for the complex connections between the person and his or her context, between intrapsychic and interpersonal mechanisms, and between volitional and non-volitional influences on the career development process” (p. 78). The career theory field has developed considerably over one hundred years. Some of the theories have been expended and refined, and some have been continually developed (Patton & McMahon, 2014). However, most of these substantial broad studies neglected such important groups as women, the LGBT population, and disabled people (Patton & McMahon, 2014). In addition, career development studies across cultures are in demand because cross-cultural differences and limitations of career development theories should be clearly evaluated to identify cultural divergence or common ground when researchers and career guidance practitioners imply the theories to other cultures (Leung, 2008).
Career Decision Making

“Career-related choices are among the most important decisions people make during their lifetime. These choices have significant long-term implications for their lifestyles, emotional welfare, economic and social status, and their sense of personal productivity” (Gati & Tal, 2008, p. 157). After Parson introduced his career theory, vocational choice and career decision-making have been described as logical and rational psychological processes which are influenced by objective information (Patton & McMahon, 2014). However, theorists recognized that career decision-making processes are frequently and repeatedly influenced by other factors, not necessarily just by logic (Bandura, 1982; Lent, 2013; Lent & Hackett, 1994; Leung, 2008; Patton & McMahon, 2014; Savikas, 2002). Lent and Hackett (1994) mentioned that in career decision making it is “well known that people’s career trajectories and not just the result of their cognitive activity” are important (p. 77). Emotional reaction, social and economic status, cultural influence, accomplishment task histories, self-efficacy, and unexpected life events are factors that possibly interact with an individual’s career decision-making process (Lent & Hackett, 1994).

The career decision making process is an integration of an individual’s self-knowledge and vocational knowledge that leads to a vocational choice (Peterson, Sampson, Reardon, & Lenz, 1996). From the 1960s through the 1970s, researchers such as Gelatt (1962), Janis and Mann (1977), and Katz (1963, 1969) proposed that career decision-making process consists of five steps: “(a) define the problem, (b) understand its causes, (c) formulate plausible alternatives, (d) prioritize the alternatives and arrive at a first choice, and (e) implement the solution and evaluate the outcomes” (Peterson, Sampson, & Reardon, 1991, p. 71). Harren (1979) proposed that there were three career decision-making styles. First, rational style is one in which a person
makes decisions logically and intentionally. Second, intuitive style is when a person makes a decision based on personal feeling or emotional react. Third, dependent style is when an individual makes a decision based on other people’s opinions.

In contrast to the three career decision-making types, the theoretical approach underlying the career decision making profile (CDMP) approach proposed that people’s behaviors of career decision-making differ, so theoretical development needs to be approached accordingly. The CDMP approach was identified by empirical tests (Gati, Gadassi, & Mashiah-Cohen, 2012; Gati, Landman, Davidovitch, Asulin-Peretz, & Gadassi, 2010; Gati & Levin, 2012) that individual’s career decision making profiles were comprised of 12 dimensions, such as

- information gathering (minimal vs. comprehensive),
- information processing (holistic vs. analytic),
- locus of control (external vs. internal),
- effort invested in the process (little vs. much),
- procrastination (high vs. low),
- speed of making the final decision (slow vs. fast),
- consulting with others (rare vs. frequent),
- dependence on others (high vs. low),
- desire to please others (high vs. low),
- aspiration for an ideal occupation (low vs. high),
- willingness to compromise (low vs. high),
- and using intuition (little vs. much). (Gati & Levin, 2014, p. 103)

An individual’s career decision making style is a very important asset to evaluate a person, because all people have different skills, abilities, vocational confident rates, and job values; therefore, people make career decisions in different ways (S. D. Brown & Lent, 2013; Gati et al., 2010; Harren, 1979).

People make career decisions in different life transitions. Individuals need to make career decision planning more carefully during transitioning from school to work (Gati & Levin, 2014). Even though most people already have an academic major or occupation, they still struggle to
plan their professional career (Gati & Levin, 2014). Mourshed, Patel, and Suder (2014) recognized that 16% of young adults in the United States, and up to 56% in some European countries, could not secure jobs in their fields of study. Differences in career preparation between college student athletes and non-athletes may be rooted in some student athletes’ expectations of continuing playing their sport after they graduate. Kennedy and Dimick (1987) found that although only 2% of all collegiate athletes could play at the professional level, 48% of college student athletes who played basketball and football ($n = 112$) believed they could play in professional leagues after they graduated. The unrealistically high hope of college student athletes showed that they were in the need of a realistic career transition plan.

**Career Self-Efficacy, Measurement, and Application for Athletes**

**Bandura’s social cognitive theory.** Bandura (1986) proposed that people behave based on what they believe and on how they think and feel. Bandura’s social cognitive theory posited that people have a system of self-beliefs that makes them regulate their thoughts, emotions, and acts (Bandura, 1986, 1997). The theory insisted that people are goal oriented creatures who are motivated by their self-efficacy beliefs and outcome expectations (Bandura, 1997). According to the theory, human behavior is decided by interaction among personal attributes, overt behaviors, and external environmental influences (Mills, Pajares, & Herron, 2007). Bandura (1997) argued that “in this transactional view of self and society, internal personal factors in the form of cognitive, affective, and biological events, behavior, and environmental events, all operate as interacting determinants that influence each other bi-directionally” (p. 6).

Self-efficacy refers to “belief in one’s capabilities to organize and execute courses of action required to produce given attainments” (Bandura, 1997, p. 3) or “Can I do this?” (Bandura, 1986, p. 391). Self-confidence refers to “the belief or degree of certainty individuals
possess about their ability to be successful” (Vealey, 1986, p. 222). Therefore, self-efficacy may be considered a situationally specific form of self-confidence (Feltz, 1988). Self-efficacy and self-esteem are often defined as having exchangeable meaning. However, Bandura (1997) clarified that “perceived self-efficacy is concerned with judgments of personal capability, whereas self-esteem is concerned with judgment of self-worth. There is no fixed relationship between beliefs about one’s capabilities and whether one likes or dislikes oneself” (p. 11).

Bandura (1997) identified that one’s personality significantly influence self-efficacy belief, outcome expectations, and self-regulated learning. Self-efficacy beliefs are one of the major components of social cognitive theory that impacts the accomplishment of one’s goals. Outcome expectations are another major factor that would influence one’s career choice. Bandura (1997) believed that these two major parts of the theory lead to action, performance, and outcome. He accentuated that self-efficacy beliefs are the better accurate predictor of one’s success than other factors, such as prior accomplishments, educational backgrounds, and skills. Higher levels of self-efficacy have been found to be linked to higher levels of performance (Bray, Jones, & Owen, 2002). Researchers have found self-efficacy has strong effects on persistence with career options and effects personal academic goal setting (Lent, Brown, & Larkin, 1996; Zimmerman, Bandura, & Martinez-Pons, 1992).

**Applications of Bandura’s theory to career decision-making.** Taylor and Betz (1983) adapted Bandura’s self-efficacy theory to develop the career decision-making self-efficacy (CDMSE) concept which was defined as a person’s confidence level, influenced by accomplishment of career decision-making tasks. In other words, CDMSE refers to self-assurance in a person’s ability to make a career decision (C. Brown, Glastetter-Fender, & Shelton, 2000). Taylor and Betz (1983) developed the CDMSE scale to identify the concept
which is also available in short form (Betz et al., 1996). The CDMSE scale is a frequently used survey instrument in the field of career guidance and occupational counseling (Reddan, 2015). The scale consists of 50 items divided by five factors for career proficiencies, which are constituted by self-appraisal, gathering occupational information, goal selection, making plans for the future, and problem-solving (Taylor & Betz, 1983). Taylor and Betz (1983) noted that the five factors were brought from Crites’s (1978) career maturity theory.

Each of the five stated factors present 10 behavioral items and a person who takes the questionnaire selects competency level. The 50 tasks obtained on a 10 level confidence continuum ranging from no confidence (0) to complete confidence (9), so the maximum score for the CDMSE scale was 450 (Taylor & Betz, 1983). The scale was shown to have high internal consistency reliability with a “standardized value of coefficient alphas of .97 within each subject group and for the total group of 346 subjects” (Taylor & Betz, 1983, p. 71). The five subscale’s coefficient alpha were “.88, .89, .87, .89, and .86 for Self-Appraisal, Occupational Information, Goal Selection, Planning, and Problem Solving, respectively” (Taylor & Betz, 1983, p. 71).

Betz et al. (1996) created a 25 question short-form of the CDMSE with the same five subscales which reported .94 values for coefficient alpha for the total scale, nearly as high as the original version. The short form eliminated 5 of the 10 statements from each of the 5 subscales. Other studies and reviews had reported that Cronbach’s alphas of the total scale of the CDMSE ranged from .91 to .97 (Betz et al., 1996; Y. B. Chung, 2002; Nam, Yang, Lee, Lee, & Seol, 2010; Osipow & Gati, 1998). Several cross-culture studies have shown the CDMSE and the CDMSE short form (CDMSE-SF) had good reliability and internal consistency (Gardron, 2011; Jin, Ye, & Watkins, 2012; Peng & Long, 2001).
In addition, researchers have recognized a positive relationship between the CDMSE scores and various career scales such as vocational identity (r = .30; Gushue, Scanlan-Kolone, Pantzer, & Clarke, 2006), career commitment (r = .45; Y. B. Chung, 2002), self-esteem (r = .58; Robbins, 1985; Betz & Luzzo, 1996), and career exploration activities (r = .31; Gushue et al., 2006). Other scales also had strong correlations with the CDMSE-SF scale, such as measures of career search activity, vocationally exploratory behaviors, career indecision, and patterns of career choices (Miller, Sendrowitz Roy, Brown, Thomas, & McDaniel, 2009). The CDMSE-SF scale can indicate people’s confidence level when they are involved in career decision making capability (Betz et al., 1996; Taylor & Betz, 1983). The scale can be used to help college students who have difficulties making their career or academic choices, and it can be used to recognize helpful educational and career interventions (Reddan, 2015).

**Application of theory to student athletes.** According to Taylor and Pompa (1990), career decision-making self-efficacy was the only noteworthy one among three other related measures (career decision-making self-efficacy, career salience, and locus of control) tested to investigate predictors of vocational decidedness among college undergraduate students. Researchers have found that college student athletes, who were reported as being behind traditional college students with respect to vocational planning, were expected to have benefited from strong sense of self-efficacy levels (Blann, 1985; Kennedy & Dimick, 1987). C. Brown et al. (2000) suggested that college student athletes who spend more time on their sports possess lower levels of career decision-making self-efficacy. C. Brown et al. (2000) found that “student athletes who were less foreclosed in their identity possessed greater confidence in their ability to make career decisions” (p. 58).
Parental influence on career decision making process among Korean students

One of the most crucial factors people make when deciding to enter occupation is environmental factors (Crites, 1969). Lent and his colleagues (2002) explained that college students make their career choice based on their environment, friendships, financial circumstance, and parental influence. They found that the parental and family influences was the most crucial factors among them. In addition, Reynolds (1992) insisted that parental involvement is an important factor in the development of career success. Ferry, Fouad, and Smith (2000) emphasized that verbal suggestion and encouragement from parents play a very important role in a child’s academic and career development. Osipow, Walsh, and Tosi (1980) suggested that during career decision-making process, young adults unavoidably experience discomfort, anxiety, and confusion but good parental attachment may help adolescent keep pursuing career exploration, and endure psychologically difficult moments.

The majority of Korean young adults have little opportunity to think and explore about their career through their K-12 school years because of the competitive circumstance to take the college entrance examination (Lee & Kim, 2015). According to S. L. Kim and Lee (2007), Korean parents are invested in their children's career development and also, their children want their parents to help with career exploration, financial support to development their careers, and decision-making processes. Traditionally, Korean has a collectivist culture which tend mutually to encourage dependent family relationships (H. Y. Lee, 1999; J. B. Lee, 2007). Values of collectivistic culture often demonstrate a strong respect and obedience to one’s parents and family (K. C. Lee, 1991). J. Lee and Kim (2015) found that a better parental attachment is related to greater dedication to career choices and higher self-efficacy in career decision-making among 207 Korean college students.
Athlete Identity Development

The final section of this literature review shifts back to athletes. More specifically, the section examined the unique identity development that is associated with being an athlete, particularly an elite one as is at the center of this study. Salient research is reviewed and then closes with a discussion of career development of athletes in particular. Since this literature was limited in the South Korean context, what is known from the literature on U.S. college athletes is discussed, although with context from the South Korean circumstance integrated where possible.

Identity Development

Erickson’s identity theory. The concept of identity has been fairly recently developed in modern psychology (Gromova & Alimbekov, 2015). Erikson (1964) constructed the concept of identity to provide a practical framework in order to understand personality development from adolescence to adulthood. He defined identity as “the ability to experience one’s self as something that has continuity and sameness, and to act accordingly” (p. 42). The core of the identity theory was in developing a person’s ego, which is part of his or her personality that brings order out of the person’s experience (Torres, Howard-Hamilton, & Cooper, 2003). Erikson (1964) insisted that one’s identity is appearance of who he or she really is. He believed that the process of developing identity goes along with building ego strength. According to Torres et al. (2003), Erikson’s theory was rooted in the concept of ego epigenesis, which requires “examination of a person’s (1) physical stage, (2) encounter with society and the social roles played, and (3) internal ordering of those experiences (ego functioning)” (p. 10). Erikson’s identity theory presented eight stages that are divided by age.
Table 8

*Erikson’s Eight Stage Theory*

<table>
<thead>
<tr>
<th>Stage (age)</th>
<th>Basic conflict</th>
<th>Important events</th>
<th>Virtue</th>
<th>Developmental tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infancy (0 to 18 months)</td>
<td>Trust vs. Mistrust</td>
<td>Feeding</td>
<td>Hope</td>
<td>Develop basic trust to the caregiver</td>
</tr>
<tr>
<td>Early childhood (2 to 3)</td>
<td>Autonomy vs. Shame and Doubt</td>
<td>Toilet training</td>
<td>Will</td>
<td>Develop physical skills including walking, and controlling the sphincter</td>
</tr>
<tr>
<td>Play age (3 to 5)</td>
<td>Initiative vs. Guilt</td>
<td>Exploration / independence</td>
<td>Purpose</td>
<td>Develop self-control and ability to increase accuracy and planning</td>
</tr>
<tr>
<td>School age (6 to 11)</td>
<td>Industry vs. Insecurity</td>
<td>School</td>
<td>Competence</td>
<td>Learning to work and being productive</td>
</tr>
<tr>
<td>Adolescence (12 to 18)</td>
<td>Identity vs. Role Confusion</td>
<td>Social relationships</td>
<td>Fidelity</td>
<td>Develop new skills and deal with a sense of failure and inferiority; be independent form family and self-supportive</td>
</tr>
<tr>
<td>Early adulthood (19 to 40)</td>
<td>Intimacy vs. Isolation</td>
<td>Intimate relationships</td>
<td>Love</td>
<td>Achieve identity and be capable to emotionally attach to another person</td>
</tr>
<tr>
<td>Adulthood (40 to 65)</td>
<td>Generativity vs. Stagnation</td>
<td>Work and parenthood</td>
<td>Care</td>
<td>Focus on preserved values of professional life, and support and guide the next generation</td>
</tr>
<tr>
<td>Maturity (65 to death)</td>
<td>Ego Identity vs. Despair</td>
<td>Reflection on life</td>
<td>Wisdom</td>
<td>Accept and integrate one’s own life emotionally and face inevitable death</td>
</tr>
</tbody>
</table>

Each stage is built according to a relationship with one’s environment, in other words, what a person feels about their environment and its link to positive or negative emotions (Erikson, 1984). Each stage presents the experience of a crisis that a person must resolve in order to move to the next stage. A number of researchers have recognized that Erikson was one of the pioneer theorists who found out that environment was an important factor for creating a sense of self (Malone, Liu, Vaillant, Rentz, & Waldinger, 2015; Marcia, 1966; Torres et al., 2003). Two conflict outcomes exist in each stage, such as trust versus mistrust. If a person accumulates positive views at a given stage, he or she can build ego strength, which refers to “virtues” (Torres et al., 2003). However, if one fails to deal with these developmental tasks, the individual’s emotional wellbeing would not be going well (Malone et al., 2015).

A number of researchers have criticized Erikson’s theory due to its lack of consideration of gender differences (Gilligan, 1982; Helson, Stewart, & Ostrove. 1995; Malone et al., 2015; Whitbourne, Sneed, & Sayer, 2009). Erikson (1984) believed that men and women have equal developmental stages and order by same sequence, and women would develop identity later than men. In contrast, Gilligan (1982) argued that women can pass several stages more simultaneously than men.

Nevertheless, Erikson’s model addressed one’s observable adjustability function when they deal with the upcoming challenges or crises during lifetime (Malone et al., 2015; Marcia, 1966). Erikson (1968) believed that identity could be developed through a series of crises while physical and psychological changes interact with one’s surrounding circumstances. Erikson (1968) did not define crisis as physical or psychological emergency instead he called it as a time for important decision making among alternative choice lists. Erikson (1950) built eight levels of developmental stages, where each stage presupposed climbing up to the next stage. Torres et al.
(2003) insisted that Erikson’s fifth stage (identity versus role confusion) in young adults is essential in the most college student development theories. In addition, student athletes also must experience this crisis in their own identity development (Houle, Brewer, & Kluck, 2010).

**Marcia’s identity theory.** Expanding Erikson’s identity theory, Marcia (1966) developed identity status consisting of four categories. First, identity achievement individuals have passed through crises independently and with strong commitments that enable them to take another risk (Marcia, 1966; Torres et al., 2003). Second, moratorium individuals have experienced crises but never challenged the status quo (Karkouti, 2014; Marcia, 1966). This group of people have started building their identity by questioning their parental values; however they have not been engaged in desirable commitments (Karkouti, 2014; Torres et al., 2003). Third, foreclosed individuals have committed to developing identities, yet experience crises. This group of people have not been separated from their parents so they are not influenced by other circumstances such as classmates, class materials, or other experiences (Torres et al., 2003). Marcia (1966) explained that if foreclosed individuals faced incongruent circumstances of parental value, they would experience a severe confusion. Fourth, identity-diffusion individuals are unwilling or unable to make commitments as effectively since they are not engaged in crises related to developing identities. Karkouti (2014) pointed out that “people in the stage of diffusion ignore the consequences of the decisions they make, and surrender to conformity, in addition, they construct their identity through relying on the external environment” (p, 259). Torres et al. (2003) argued that diffusion individuals need to experience a crisis and commit to build their own identities through the college life.

**Chickering’s college student development theory.** Arthur Chickering has had a tremendous influence on college student development (Pascarella & Terenzini, 2005).
Chickering (1969) proposed seven vectors of development, which are developing competence, managing emotions, developing autonomy, establishing identity, freeing interpersonal relationships, developing purpose, and developing integrity. Chickering (1969) pointed out that “each seems to have direction and magnitude—even though the direction may be expressed more appropriately by a spiral or by steps than by a straight line” (p. 8). Young adult college students face the first three vectors in their first few years of college lives, and junior and senior students deal with next four steps (Torres et al., 2003).

The first vector is developing competence. Chickering (1969) insisted that colleges can make significant contributions to increase student’s competence level in intellectual powers, physical and hand-operated abilities, and interpersonal relationships with others. Developing intellectual competence is particularly crucial, because it enables to increase along other vectors (Chikering & Reisser, 1993). Educators can make students develop critical thinking to solve presented problems by active student engagement during the learning process (Higbee & Dwinell, 1996).

The second vector is managing emotion. Students of any level, a freshman or returning student, will face emotional crises such as “excessive anger, fear and anxiety, depression, guilt, shame, and dysfunctional sexual or romantic attractions” (Reisser, 1995, p. 507). College students in this vector area learn how to control and respond to their emotions in appropriate ways (Pascarella & Terenzini, 2005). Emotional development can help college students to deal with a full range of emotions (from negative to positive), to understand what cause them, and to learn how to counteract and overcome negative emotions (Reisser, 1995).

The third vector is moving through autonomy to independence, which focuses primarily on establishment of independence. Later, the vector emphasizes the recognition and acceptance
of interdependence (Reisser, 1995). Torres et al. (2003) pointed out that “dealing with family members and maintaining connections to significant others while becoming autonomous are also important tasks related to the vector” (p. 13). In addition, Gilligan (1982) found gender differences of independency: males wanted autonomy more by separation with their parents, individual rights, and playing by the social rules, but females generally asserted autonomy to preserve relationship and harmony.

The fourth vector, developing mature interpersonal relationship, involves awareness of other people’s differences and capacity to create intimacy with others, which is one of very significant purposes of college experience (Chikering & Reisser, 1993; Torres et al., 2003). Reisser (1995) insisted that “relationships provide powerful learning experiences about feelings, communications, sexuality, self-esteem, values, and other aspects of identity, for both men, and women” (p. 508). Higbee and Dwinell (1996) proposed that college educators have a chance to impact students’ attitudes by addressing topics, such as racism and other social issues to open the students’ eyes.

The fifth vector is establishing identity. In this step, students are encouraged to build positive sense of selves with appreciating of manner to other’s differences (Torres et al., 2003). If college students have well developed and stable self-images to keep their values and beliefs, they will be well prepared to crises or new challenges (Higbee & Dwinell, 1996). In addition, Chickering (1969) claimed that students would not truly achieve establishing identity, before they achieved the previous four steps.

The sixth vector, developing purpose, included three elements, which are “clarifying a vocational plan, sharpening priorities based on personal interests, and making initial lifestyle choices” (Reisser, 1995, p. 510). In this vector, students will ask themselves these questions:
“what is really important in life?, what would you really like to accomplish?, and what gives life meaning?” (Higbee & Dwinell, 1996, p. 65). Student must be encouraged to build abilities to make important choices based on their clear life purposes and goals (Reisser, 1995). In addition, Torres et al. (2003) pointed out that students may begin to ask the questions during their college years, but will keep trying to find the answers throughout their lives.

The last vector is developing integrity and that would also be developed during one’s entire life (Torres et al., 2003). The central issues in this vector are clarification and congruence between personal beliefs and behaviors as well as humanizing and personalizing (Reisser, 1995; Torres et al., 2003). Students need to stick with their beliefs and values while they behave in socially responsible ways (Reisser, 1995). Humanizing values involves an individual who rearranges from uncompressing beliefs to balancing with more relative or situational revision of their interest in the individual’s fellow human beings (Reisser, 1995; Pascarella & Terenzini, 2005). Personalizing values involves an individual that declares his or her values and beliefs while respecting other people’s points of views (Reisser, 1995).

Chickering and Reisser’s seven vectors provide a good understanding of the way of psychological change for college students (Torres et al., 2003). Reisser (1995) mentioned that more research is needed for the theory in order to apply various student groups based on race, gender, and ethnicity. “Who am I? and “how does the identity develop?” are the important questions among the previous theories discussed. The identity development theories are very important because the researchers could explain how students will interpret new challenges and knowledge relating to their past experiences (Karkouti, 2014). Karkouti (2014) mentioned that if students fail to realize the importance of identity development, they would show lower
performance in and out of class and will be dissatisfied with their college experiences. Student athletes also must experience this crisis in their own identity development (Houle et al., 2010).

**Identity Development in Athletes**

Any identity that is strongly possessed by a person can be a powerful motivation that influences the way people think, feel, and act (Hogg, 2000). Individuals’ identities control how they view themselves in various ways through social circumstances they faced. By utilizing their identities, people match others who have similar religious beliefs, ethnicity and nationalism (McGregor, Haji, Nash, & Teper, 2008). People develop this characterization of others throughout their life span (Benson, Evans, Surya, Martin, & Eys, 2015). As athletic careers are relatively shorter than other careers, an individual who has strong athletic identity needs to prepare to transition out of competitive sport world, and often the individual has a hard time re-characterizing him or herself outside of sports (Brewer et al., 1993).

Several researchers have proposed that personal values determine the person’s perceived competence or incompetence and influence self-esteem and motivation (Harter, 1990; James, 1892; Rosenberg, 1979). According to Brewer et al. (1993), perceived incompetence at a high level can affect a person’s self-esteem. Therefore, a person who highly values participation in athletic competition is influenced by successes or failures in sport games. A person who has a strong athletic identity links their self-perception to the athletic side of themselves (Brewer et al., 1993).

Understanding athletic identity is very important to develop career development theories and models. Athletic identity is defined as “the degree to which an individual identifies with the athletic role” (Brewer et al., 1993, p. 237). Grove, Lavalle, and Gordon (1997) found a significant relationship between degree of athletic identity and level of career development.
According to the aforementioned researchers, student athletes who have a stronger athletic identity also faced more anxiety in regard to career search and decision making. If one can understand college students’ motives behind sports participation, one can understand better the reasons why a lack of career maturities develops among college student athletes (Sandstedt et al, 2004).

Collegiate student athletes’ identities are formed and maintained within their college, sports teams and teammates, classes, and friends (Yukhymenko-Lescroart, 2014). The student athletes are expected to have both student and athlete identities at the same time (Sturm, Feltz, & Gilson, 2011), but usually one particular identity would be preferred (Lally, 2005). Student athletes might identify themselves as student athletes or athlete students (Yukhymenko-Lescroart, 2014). Yukhymenko-Lescroart (2014) insisted that one group, student athletes, primarily valued their academic success rather than athletic success. The other group, athlete students, valued more the athlete side. Sturm et al. (2011) argued that when student athletes have difficulty balancing between their academic and athletic sides, often athletic identity dominates over student identity especially within Division I student athletes.

The potential benefits of sports participation are opportunities to develop athletic skills, social interaction, and self-confidence (Petitpas, 1987). Sonestram (1982) insisted that sport participation can provide autonomy, achievement, initiative, leadership skills, increased competence, and enhanced self-concept and self-esteem. Sandstedt et al. (2004) mentioned that at the college level, student athletes’ motives would be potential scholarships or other types of financial supports, and spectator recognition locally and nationally. A strong athletic identity would provide positive influences on athletic performance (Danish, 1983; Werthner & Orlick, 1986) but it has dark side as well.
A number of researchers have reported that individuals who have strong and exclusive athletic identity can easily face emotional disturbances when they experience injuries and/or athletic career terminations (Deutsch, 1985; Eldridge, 1983; Heyman, 1986; Ogilvie, 1987; Pearson & Petitpas, 1990). The individuals might have less interest in other careers and education because of their absolute loyal commitments to sports (Petitpas, 1978). In addition, any student athletes experience difficulty in transition when they lose special or preferential treatment, athletic identity, status, or their protective environment (Wooten, 1994).

Student athletes can have no propensity to broaden their identities through career development, because they get pleasure from a privileged status on campus (Lanning, 1982; Petitpas & Champagne, 1988). Student athletes are often given favorable social reinforcements because of their physical abilities so possibly the athletes identify themselves based solely on athletic performances; others define the student athletes only as athletes (Beamon, 2012). Hinkle (1994) stated that most college student athletes thrive to act and take up the role of being an athlete. Nelson (1983) posited that many student athletes experience identity foreclosure, which means a person totally commits to being an athlete without considering other alternatives. Marcia (1967) found that an individual who has foreclosed identity would assign unrealistic goals. Other researchers insisted that some college student athletes may be at an unusually high risk for identity foreclosure (Adler & Adler, 1989; Murphy, Petitpas, & Brewer, 1996; Sparkes, 1998).

Korean student athletes would have experienced identity foreclosure because of Korean athletic policies discussed earlier this chapter. As discussed in Hee Jin Chang’s case, Korean national sports organizations and governors wanted to regulate student athletes’ progress only in sports, not in academics; sports progress was their main concern (S. C. An, 2000; S. H. Lee, 2014; Park, 2011; J. W. Park et al., 2012). The chief of the Taenung Athletic Training Center
compared the center to a military camp and national and Korean national athletes were encouraged to sacrifices to achieve the Korean government’s goal of international sporting success by the leaders of Korean sports organizations (J. W. Park et al., 2012). In addition, S. Y. Lee and An’s (2004) research showed that Korean high-school student athletes did not have enough time to study, because the students’ coaches and school administrators forced them to make commitments to sports first. This type of Korean sports culture of student athletes could create identity foreclosure.

Brewer et al. (1993) invented the Athletic Identity Measurement Scale (AIMS) to measure athletic identity. Brewer et al. (1993) recognized the need of athletic identity measurer to determine the relationship between athletic identity and emotional adjustment after one’s sport career termination, and possible physical and psychological benefits of athletic identity. The AIMS is composed 10 items on a 7-point Likert scale from strongly agree to strongly disagree (Brewer et al., 1993). The scale can be divided into three subscales, which are social identity, exclusive, and negative affectivity (Proios, 2012). First, social identity refers to the degree that an individual views themselves as a athlete. Second, exclusivity refers to the degree of one’s value of participating in athletic activities. Third, negative affectivity refers to the degree of an individuals’ negative emotions due to undesired results at sporting events (Proios, 2012). According to Brewer et al. (1993), the AIMS obtained a coefficient alpha of .93, which provided verification of its internal statistical consistency.

Career Development of Athletes

College life is a very important period of time for students’ career choices. Undergraduate students choose their majors with specific interests and their major usually leads to their future careers (Martens & Lee, 1998). In their junior or senior year, college students
usually spend some time developing their resumes, search for internships, or look for other experiences. The efforts help them to survive in a competitive job market. Martens and Lee (1998) pointed out the “uncertain of how to even begin selecting or pursuing a career; these students may become quite anxious or despondent” (p. 123).

College student athletes, especially Division I university students, may not exert the same effort to develop their careers as non-athletes because of their expectation to play at a professional level, even though only a small number of student athletes can compete professionally (Carodine, Almond, & Gratto, 2001; Martens & Lee, 1998; Shurts & Shoffner, 2004). For these reasons, college student athletes have very special and unique culture and they need support for their academic and personal needs (Broughton & Neyer, 2001). Therefore, supportive services and counseling programs are needed to assist student athletes in their success (Storch & Ohlson, 2009).

In addition, since college student athletes need to spend huge amount of time and energy in sport events, this is only one of the reasons why career exploration and planning may not be priority for them (Sandstedt et al., 2004). Sandstedt and his colleagues insisted that “considering the time commitment and multi-faceted obligations of student-athletes, it is plausible to assume that even if student-athletes were looking to engage in career exploration, they simply may not have the time or energy to do so” (p. 81). In addition, because of the large amount of time and energy that they need to spend, college student athletes might not have any time to go to the career center during its office hours (Martens & Lee, 1998).

Over the last 30 years, college student athletes have been reporting lower scores on their future educational and career plans than average non-athletes (Blann, 1985; Kennedy & Dimick, 1987; Smallman & Sowa, 1996; Sowa & Gressard, 1983). Moreover, college professors often
recognize lack of academic skills in student athletes that are needed for academic success (Hobneck, Mudge, & Turchi, 2003). Sowa and Gressard (1983) found that college student athletes scored significantly lower than non-athletes on the Student Developmental Task Inventory scales about their plans in terms of education and career as well as mature relationship with peers.

Blann (1985) indicated that male college student athletes “did not formulate mature educational and career plans to as great an extent as did freshman and sophomore male non-athletes” (p. 117). Kennedy and Dimick (1987) also found that college student athletes who participate in revenue-producing sports, such as football and men’s basketball, scored critically low on career maturity measurement compared to non-athlete students. Specifically, college student athletes had the same average score as the average ninth-grade (Kennedy & Dimick, 1987).

In addition, Smallman and Sowa (1996) showed the difference between the career maturity levels of college student athletes in revenue-producing sports and non-revenue-producing sports through the Career Development Inventory scales. There were no differences between those two student athlete groups. This result presented that “the career readiness of student-athletes along these dimensions is not dependent on the type of sports played” (Smallman & Sowa, 1996, p. 4). However, more recent research demonstrated that career maturities of student athletes were slightly lower than non-student athletes (Linnemeyer & Brown, 2010). Even though the research contained only 11% of revenue producing sports such as men’s basketball or football, Linnemeyer and Brown (2010) obtained a different result from previous studies (C. Brown & Hartley 1998; Kennedy & Dimick, 1987; Smallman & Sowa, 1996), namely that student athletes scored critically lower in career maturity than non-athletes.
A number of researchers noted that student athletes’ identities possibly are prematurely formulated and foreclosed before the athletes’ interests are exposed to other various careers. (Good, Brewer, Petitpas, Van Raalte, & Mahar, 1993; Harris, 1993). Career foreclosure refers to a lack of exploration of other vocational alternatives (Rivas-Quinones, 2002). However, a couple of recent research studies showed that there were no significant career maturity and foreclosure differences between student athletes and non-student athletes (Linnemeyer & Brown, 2010; Rivas-Quinones, 2002). Linnemeyer and Brown (2010) proposed that the possible reason for the no significant career foreclosed differences could be due to a backup plan for an alternative occupational career. College student athletes would consider backup plan less seriously during their time in college since their coaches want the athletes to focus on only their athlete’s role in order to maintain scholarship status, but reduced or less playing time makes the student athletes shift to a different area of interest on occupational opportunities (Linnemeyer & Brown, 2010).

Moreover, Smallman and Sowa (1996) mentioned that minority college student athletes needed special attention to one particular factor of career development—the knowledge of preferred occupation. This factor scored lower than all other factors. They found that minority college student-athletes need an assistant who can guide them after they made a decision on their occupational plans (Smallman & Sowa, 1996). Moreover, Smallman and Sowa (1996) recommended that “program administrators may want to help identify minority role models and mentors in student-athletes’ preferred occupational choices to provide the necessary sources of information” (p. 4).

Actually, in the categories of graduation and academic success rates between student athletes and non-student athletes, student athletes show favorable results (Gaston-Gayles, 2004; Umbach, Palmer, Kuh, & Hannah, 2006). One of the important factors of student athlete
academic success are the various student service programs including life-skill development, academic advising, student athlete counseling, and learning experiences and strategies leading to new skills (Carodine et al., 2001; Gaston-Gayles, 2004; Shurts & Shoffner, 2004). Moreover, the NCAA changed their policy in 2008 that increased the number of courses for incoming freshman student athletes (Storch & Ohlson, 2009).

Korean college student athletes, in contrast, have very little support to develop their careers either from their colleges or the South Korea Sports Council, the Korean version of the NCAA, established in 2008. According to an interview with Korean college student athletes conducted by the KBS (2007), the student athletes were disconnected from educational opportunity even after joining higher education. A number of researchers insisted that young talented student athletes have only pursued excellence in their sporting career rather than being educated (M. S. An, 2006; B. H. Lee, 2006; J. W. Park et al., 2012). It seems that career development programs for student athletes have not been developed well in Korea because of the lack of support programs for student athletes and the absence of organizations that could regulate colleges.

Historically, eligibility monitoring, academic advising, tutoring, personal and career counseling, and mentoring are common services that U.S. colleges have provided for college students (Gunn & Eddy, 1989; Lenz & Shy, 2003). Carodine et al. (2001) proposed that the most needed programs for student athletes are life-skill development, academic advising, and student athlete counseling. A number of researchers insist that student athletes are not ready and not independent enough for a future career, because they have less time to dedicate for their career development (Carodine et al., 2001; Kennedy & Dimick, 1987; Kornspan & Etzel, 2001; Shurts & Shoffner, 2004; Smallman & Sowa, 1996).
First, life-skills development program could help student athletes to enhance their independence and guide the athletes to current and future success (Kornspan & Etzel, 2001; Shurts & Shoffner, 2004). The examples below are desirable activities.

• Promote student athletes’ ownership of their academic, athletic, career, personal, and community responsibilities. • Meet the changing needs of student athletes.

• Promote respect for diversity and inclusion. • Assist student athletes in identifying and applying transferable skills. • Foster an environment that encourages student athletes to effectively access campus resources. • Encourage development of character, integrity, and leadership skills (Storch & Ohlson, 2009, p. 77).

The life-skill program could be the most important program for college student athletes, because it provides transferable skills from the required virtues of athletes such as dedication and teamwork, to academic and professional skills (Storch & Ohlson, 2009).

Second, an academic advisor is supposed to find out every possible detail about student athletes (Storch & Ohlson, 2009). Storch and Ohlson (2009) noted that advisors need to evaluate and monitor the academic progress of each athlete, and a faculty member must be informed about the athletes’ academic progress. Third, student athlete counseling programs could help to manage the student athletes’ problems and barriers (Storch & Ohlson, 2009). Balancing athletic and academic demands have been very difficult issues to handle for young college student athletes (Cantor & Prentice, 1996; Hewitt, 2002). To solve this problem, athletic department and academic advisors should work together (Martens & Lee, 1998; Shurts & Shoffner, 2004). Martens and Lee (1998) pointed out that “any outreach program will be stronger with the unified,
organized support of both the career center and athletic administration behind it” (p. 129). All, or most of this is absent in Korea.

Chapter Summary

This chapter reviewed the relevant literature to this study and divided into the following sub-sections: who student athletes are, role of collegiate student athletes, South Korean college student athletes, history of South Korean athletics, career development theories, and decision making, self-efficacy, and athlete identity development theories. The scholarship reviewed informs the reasons why Korean student athletes have had and continue to experience unusual barriers to find their career paths inside and outside of sports fields throughout the history of South Korean athletics. Therefore, examining the relationships between the psychological constructs of athlete identity and the Korean student athletes’ career decision making self-efficacy is needed.
CHAPTER 3
RESEARCH METHODOLOGY

The purpose of this chapter is to explain the research strategy and specific methods for the study. Several researchers (Fouad, Cotter, & Kantamneni, 2009; Scott & Ciani, 2008; Taylor & Pompa, 1990) found that the CDMSE was related to vocational indecision. The researchers also found that the CDMSE and vocational decidedness had a moderately positive relationship. In addition, Taylor and Pompa (1990) insisted that the CDMSE was the only significant predictor of vocational indecision in college students among measures of career decision-making self-efficacy, occupational self-efficacy, locus of control, career salience, and career indecision in counterbalanced order.

C. Brown et al. (2000) found that among student athletes in their study that the standard deviation of the CDMSE-SF was lower (M = 167.3, SD = 29.7) than Betz et al.’s (1996) reported sample for college men (M = 184.6, SD = 27.7) and college women (M = 178.2, SD = 31.6)” (p. 58). However, a recent study in Australia showed that there was no evidence of career decision-making difficulties among 117 elite Australian athletes (Fogarty & McGregor-Bayne, 2008). Fogarty and McGregor-Bayne (2008) noted that the mean CDMSE score was 3.74 out of 5.0, which meant that Australian elite athletes had moderate confidence in their career related decision abilities. The means were higher compared to the previous research by Betz et al. (1996).
The specific instruments included in the Betz et al. (1996) study helped to understand Korean collegiate student athlete’s level of career decision-making self-efficacy and athletic identity. As noted in Chapter 1, the purpose of this dissertation study was to examine the reasons why Korean collegiate student athletes had an apparent difficult time pursuing careers outside of sports. The study utilized two questionnaires, namely the CDMSE-SF and the AIMS.

This study addressed the following research questions:

1. Was there a relationship between career decision making self-efficacy and athletic identity among Korean collegiate student athletes?
2. What were the perceived barriers to Korean student athletes’ career development?

This chapter begins with examining the research design and research method. These are followed by a discussion of the sample and the explanation of the survey instruments. The dependent and independent variables are then presented with operational definitions of each variable. Next, the analytic procedures deployed and data analyses used are described.

**Research Design**

Three types of research designs are dominant paradigms. These are quantitative, qualitative, and mixed methods. Creswell (2009) defined that “quantitative research is a means for testing objective theories by examining the relationship among variables” (p. 4). The variables could typically be measured using an instrument which allowed one to have numerical data. The data could be analyzed using statistical procedures that enable protections against bias, and in turn, having potentially generalizable findings (Creswell, 2009). Qualitative research, by contrast, allows a researcher to explore and understand “the meaning individuals or groups ascribe to a social or human problem” (Creswell, 2009, p. 4). The qualitative paradigm involves emerging questions that are optimally answered through interviews, field observations, or focus...
groups. The researcher collects data to analyze “from particulars to general themes” (Creswell, 2009, p. 4). Mixed methods research is basically a combination of qualitative and quantitative forms (Creswell, 2009). This research approach enables one to both understand a phenomenon in breadth (quantitative analysis) while also in depth (qualitative analysis).

I utilized a quantitative methods approach because it matched the purpose of the study and research questions of interest. It also allowed for studying a large sample of student athletes as well as how their identities influenced variables. It led to descriptive and inferential findings suitable for generalizing outcomes. With respected to descriptive findings, this was achieved through the two open-ended survey questions that focused on student athlete perceptions of their career development needs as well as the perceived barriers to their ability to make effective career decisions post-college. These questions were the focus of Research Question 1 and answered via coding the answers into common responses for summing. This data helped to understand the climate of student athletes’ experiences and perceptions that otherwise would not be as sufficiently clear from the multiple choice instrument answers, namely responses from the CDMSE-SF and the AIMS.

Several researchers (Beaton, Bombardier, Guillemin, & Ferraz, 2002; Borsa, Damásio, & Bandeira, 2012) recommend that even though a single translator has a good reputation because of his or her previous translation work, a translation process should include at least two bilingual independent translators for completion. This process minimizes the risk of linguistic, psychological, and cultural biases. In addition, many translations rely on procedures back, or what is known as reverse translation, to check reliability (Institute for Social Research, 2011). The two language versions are compared to try to find out problems for the target language text. “Comparisons of an original source text and a back translated source text provide only limited
and potentially misleading insight into the quality of the target language text” (Institute for Social Research, 2011, p. viii). The AIMS has been translated into Korean and then back-translated into English and validated by J. G. Park’s study (2012). The CDMSE-SF was translated into Korean and then back-translated into English and validated by Lee and Lee’s study (2000). “The total scale score of CDMSE-SF was .92, and the reliability of the subscale scores were .76 (SA), .68 (OI), .75 (GS), .79 (PL), and .70 (PS)” (Nam et al., 2011, p. 151).

**Research Method**

The research method of this study was a non-experimental design that uses both descriptive and inferential analyses. Non-experimental research designs involve “variables that are not manipulated by the researcher and instead are studied as they exist” (Belli, 2009, p. 60). A reason why researchers use non-experimental research design is that most variables of interest (such as age, gender, socioeconomic status, or other personal traits) cannot be manipulated in social science (Belli, 2009). Also, in some cases, manipulating variables can be unethical; for example, a researcher cannot study the effect of smoking by assigning test subject population into smoking or non-smoking groups (Belli, 2009). The data collection for my dissertation study was enabled by my connecting with universities and colleges in Korea where collegiate student athletes are enrolled.

**Sample**

The population for this study consists of Korean college student athletes enrolled in 2016, a number that is estimated to be over 4,100 across 184 four-year institutions that are members of the Korean University Sport Federation (KUSF). The sample was drawn from approximately 10 Korean four-year institutions selected because each has five or more sports teams. The rubric of five was chosen to ensure a minimum level of institutional engagement with athletes. All 10
institutions are members of the KUSF which was initiated in 2010. Athletic directors and/or other senior administrators from participating institutions were asked to encourage student athlete participation in the study and if/as willing, to provide me an email roster of their athletes so the instrument could sent electronically. A series of three follow-up emails were sent by me to non-respondents. Approximately 200 collegiate student athletes participated in the study, and based on sport distribution data, approximately one-half that played sports with professional leagues and one-half did not. The sample was somewhat disproportionally made up by men given gender demographics in Korean college sports.

**Instrumentation**

The questionnaire began with a general demographic page that inquired about class standing (i.e., year in college), gender, GPA, sport played, and parental influence on future career. The questionnaire then shifted to the CDMSE-SF (Betz, Klein et al., 1996) followed by the AIMS (Brewer et al., 1993). The two open-ended questions were at the end of the survey. The full questionnaire can be found in Appendices A-D.

**The Career Decision-Making Self-Efficacy Scale-Short Form (CDMSE-SF)**

The CDMSE-SF (Betz, Klein et al., 1996) was used to evaluate self-efficacy expectations for career decision-making tasks. The CDMSE-SF was initiated by Taylor and Betz as “the individual’s belief that he or she can successfully complete tasks necessary to making career decisions” (Paulsen & Betz, 2004, p. 354). Betz (2004) noted that the CDMSE-SF derived inspiration from Bandura’s self-efficacy theory. Bandura (1977) proposed that self-efficacy expectations refer to a person’s belief in his or her abilities to successfully engage in a given task or behavior.
The CDMSE scale was designed to examine the practicality of the concept of self-efficacy expectations to understand career indecision (Taylor & Betz, 1983). The goals of the scale were

1. to develop a method for the assessment of self-efficacy expectations with respect to career decision-making tasks,
2. to examine the psychometric and normative properties of the measure, and
3. to examine the relationships of career decision-making self-efficacy expectations to career indecision. (Taylor & Betz, 1983, p. 65)

The scale consists of 50 items, organized into five factors labeled self-appraisal, gathering occupational information, goal selection, making plans for the future, and problem-solving (Taylor & Betz, 1983).

The CDMSE-SF consists of 25 items to discover “the degree of confidence an individual has in his or her ability to make career related decisions” (Finch, 2007, p. 15). The short form eliminated 5 of the 10 items from each of the 5 subscales. Internal reliability data on the subscales are shown in Table 9.

Table 9

<table>
<thead>
<tr>
<th>Scale</th>
<th>50-Item form</th>
<th>25-Item short form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Appraisal</td>
<td>.88</td>
<td>.73</td>
</tr>
<tr>
<td>Occupational Information</td>
<td>.89</td>
<td>.78</td>
</tr>
<tr>
<td>Goal Selection</td>
<td>.87</td>
<td>.83</td>
</tr>
<tr>
<td>Planning</td>
<td>.89</td>
<td>.81</td>
</tr>
<tr>
<td>Problem-Solving</td>
<td>.86</td>
<td>.75</td>
</tr>
<tr>
<td>Total CDMSE score</td>
<td>.97</td>
<td>.94</td>
</tr>
</tbody>
</table>

Source: Tayor and Betz (1983).
The table shows that coefficient alpha value scores of both the original 50-item CDMSE and 25-item of CDMSE-SF (Taylor & Betz, 1983). Career decision-making tasks use a 10-point Likert scale ranging from “complete confidence (9)” to “no confidence (0)” (C. Brown et al., 2000). Higher scores indicate greater confidence in career decision-making tasks (C. Brown et al., 2000). The scales in both case show high internal consistency reliability with coefficient alphas ranging from a low of .73 to a high of .97 within each subject group among the total group of 346 subjects (Taylor & Betz, 1983). The five subscale’s actual coefficient alpha for the 50-Item CDMSE were .88 (Self-Appraisal), .89 (Occupational Information), .87 (Goal Selection), .89 (Planning), and .86 (Problem Solving); (Taylor & Betz, 1983). All of the five subscales of the CDMSE-SF had acceptable coefficient alpha values above the minimum of .70 (Nunnaly, 1978). The coefficient alpha values of the CDMSE-SF ranged from .73 (Self-Appraisal) to .83 (Goal Selection); (Taylor & Betz, 1983). The total values of the CDMSE-SF’s coefficient alpha were .94, which is nearly as high as the 50 items’ scales (Taylor & Betz, 1983).

**The Athletic Identity Measurement Scale (AIMS)**

A number of studies as noted earlier have revealed that athletes who have strong and exclusive athletic identities can have emotional difficulties when they are deprived of their athletic abilities or experience their sports career termination (Gilligan, 1982; Helson et al., 1995; Malone et al., 2015; Pearson & Petitpas, 1990; Whitbourne et al., 2009). Brewer et al. (1993) perceived the necessity to explain the relationship between athletic identity and emotional adaptation after injury or termination from one’s athletic career. In addition, the researchers noticed that participants who had a strong athletic identity often realized physical and psychological benefits.
Brewer et al. (1993) recognized that existing measures such as Kendzierski’s (1988) Exercise Self-Schema Measure, Anderson and Cychosz’s (1990) Exercise Identity Measure, and Curry and Weaner’s (1987) Sport Importance Rating addressed identity with athlete roles but did not indicate strong and exclusive athletic identity (Brewer et al., 1993). The AIMS was developed to evaluate athletic identity, and the strong and exclusive athletic roles (Brewer et al., 1993). The AIMS consists of 10 questions that are scored on a 7-point Likert-type scales ranging from strongly agree (7) to strongly disagree (1); (Finch, 2007). Higher scores indicated greater identification with the athlete role (Brown, C. et al., 2000).

Previous research (C. Brown et al., 2000) has shown that no significant relationship was found between career decision-making self-efficacy and athletic identity, $r = .062, p > .05$. The possible explanation by the researchers (C. Brown et al., 2000) for why there was no significant relation between CDMSE and athletic identity was due to the fact that “student-athletes with strong and exclusive commitments to their athlete role may view career planning as a threat to their athletic identity and/or dream of becoming a professional athlete” (p. 59). The researchers assumed that the relations between athletic identity and student athletes’ career behavior could become milder because a student athlete stated high athletic identity while the student athletes also possessed strong student role identity.

As noted earlier, the AIMS consists of 10 questions scored on a 7-point Likert-type scales ranging from strongly agree (7) to strongly disagree (1); (Finch, 2007). Higher scores indicate greater identification with the athlete role (C. Brown, et al., 2000). Table 10 provides the psychometric data for the AIMS.
Table 10

*Descriptive Statistics, Factor Loadings, and Corrected Item-Total Correlations of AIMS*

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Factor Loading</th>
<th>Corrected Item Total Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.68</td>
<td>2.01</td>
<td>.83</td>
<td>.78</td>
</tr>
<tr>
<td>2</td>
<td>4.09</td>
<td>2.08</td>
<td>.88</td>
<td>.83</td>
</tr>
<tr>
<td>3</td>
<td>4.37</td>
<td>1.85</td>
<td>.76</td>
<td>.70</td>
</tr>
<tr>
<td>4</td>
<td>3.06</td>
<td>1.85</td>
<td>.86</td>
<td>.80</td>
</tr>
<tr>
<td>5</td>
<td>2.72</td>
<td>1.84</td>
<td>.83</td>
<td>.77</td>
</tr>
<tr>
<td>6</td>
<td>3.72</td>
<td>1.98</td>
<td>.77</td>
<td>.71</td>
</tr>
<tr>
<td>7</td>
<td>3.14</td>
<td>1.92</td>
<td>.84</td>
<td>.79</td>
</tr>
<tr>
<td>8</td>
<td>4.23</td>
<td>1.93</td>
<td>.62</td>
<td>.55</td>
</tr>
<tr>
<td>9</td>
<td>1.73</td>
<td>1.23</td>
<td>.53</td>
<td>.46</td>
</tr>
<tr>
<td>10</td>
<td>4.07</td>
<td>2.09</td>
<td>.78</td>
<td>.73</td>
</tr>
</tbody>
</table>


Brewer et al. (1993) found that internal consistency of the AIMS was .93 (Cronbach’s alpha) and a test-retest reliability coefficient was .89 over a two-week period. Murphy et al. (1996) also observed that internal consistency of coefficients ranged from .80 to .93. The data in Table 10 show that all corrected item total correlations were above .45 and generally above .70. According to Nunnally’s (1978) criteria, an alpha coefficient of .70 or greater is an acceptable level of internal consistency.

Table 11 shows that studies from 1990 to 2003 employed a multidimensional model of the AIMS that provided authors with the year of publication, number of items the researcher used, number of dimensions, internal consistency of the AIMS, and items omitted. The abbreviations were as follows: Self-Identity (SE), Social Identity (SI), Exclusivity (EX), and Negative Affectivity (NA); (Tunçkol, 2015, p. 179).
Table 11

*Empirical Studies Applying the AIMS as a model*

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Year</th>
<th>SE</th>
<th>SI</th>
<th>EX</th>
<th>NA</th>
<th>Omitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brewer, Van Raalte, and Petitpas</td>
<td>1993</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brewer, Van Raalte, and Petitpas</td>
<td>1990</td>
<td>1, 2, 3</td>
<td>4, 5, 6, 9</td>
<td>8, 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brewer, Boin, and Petitpas</td>
<td>1993</td>
<td>1, 2, 3</td>
<td>4, 5, 6, 9</td>
<td>8, 10</td>
<td>7, 9</td>
<td></td>
</tr>
<tr>
<td>Martin, Mushett, and Eklund</td>
<td>1994</td>
<td>1, 2</td>
<td>3, 7</td>
<td>4, 5, 9</td>
<td>8, 10</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.72)</td>
<td>(.64)</td>
<td>(.65)</td>
<td>(.72)</td>
<td></td>
</tr>
<tr>
<td>Martin, Eklund, and Mushett</td>
<td>1997</td>
<td>1, 2</td>
<td>3, 7</td>
<td>4, 5, 9</td>
<td>8, 10</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.66)</td>
<td>(.87)</td>
<td>(.73)</td>
<td>(.78)</td>
<td></td>
</tr>
<tr>
<td>Smith, Hale, and Collins</td>
<td>1998</td>
<td>1, 2, 3, 7</td>
<td>4, 5, 6, 9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hale, James, and Stambulova</td>
<td>1999</td>
<td>1, 2, 3</td>
<td>4, 5, 6, 9</td>
<td>8, 10</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Hurst, Hale, and Collins</td>
<td>2000</td>
<td>1, 2, 3, 7</td>
<td>4, 5, 6, 9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.87)</td>
<td>(.88)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brewer-Cornelius</td>
<td>2002</td>
<td>1, 2, 3</td>
<td>4, 5</td>
<td>8, 10</td>
<td>6, 7, 9</td>
<td></td>
</tr>
<tr>
<td>Ryska</td>
<td>2002</td>
<td>1, 2, 3, 7</td>
<td>4, 5, 9</td>
<td>8, 10</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.82)</td>
<td>(.79)</td>
<td>(.77)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ryska</td>
<td>2003</td>
<td>1, 2, 3, 7</td>
<td>4, 5, 9</td>
<td>8, 10</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.78)</td>
<td>(.81)</td>
<td>(.72)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Cieslak (2004).

Cieslak (2004) chose the 9 item-factor analysis that was used by Ryska (2002, 2003). The first, second, third, and seventh questions loaded to the social identity factor; the fourth, and fifth, and ninth loaded to the exclusivity factor; and the eighth and tenth questions loaded to the negative affectivity factor. Following the pattern of most of the researchers listed in Table 11, I
also dropped the sixth question. According to Ryska (2002, 2003), the average AIMS score of internal consistency was reported for social identity subscale, alpha coefficient = .82 (2002), .78 (2003); exclusivity subscale, (alpha coefficient = .79 (2002), .81 (2002); and negative affectivity subscale, (alpha coefficient = .77 (2001), .78 (2002).

Variables

This section describes and defines the variables used in this study. There were two dependent variables, four control variables, and five independent variables. These are all described and operationalized in the following subsections.

Dependent Variables (AIMS)

Athletic identity. Athletic identity (all nine items on the scale) is “the degree to which an individual identifies him or herself with an athlete’s role” (Brewer et al., 1993, p. 237). Martin, Eklund, and Mushett (1997) defined athletic identity as a “relevant psychological construct to examine because of the potentially important psychological, social, and behavioral ramifications of an athletic identity” (p. 75). The scale performed on the total scores of all items which range from 9 to 63 with higher score indicating stronger athletic identity. In this dissertation study, only the subscales as dependent variables were investigated.

Social identity. Social identity is the degree to which an individual views him or herself as an athlete from a social standpoint. This 4-item social identity scale (items 1, 2, 3, and 7) scores each questions by a 7-point scale ranging from 4 to 28 (Ryska, 2002). The four items were “I consider myself an athlete”; “I have many goals related to sports”; “Most of my friends are athletes”; and “Other people see me mainly as an athlete” (Brewer et al., 1993, p. 243).

Exclusivity. Exclusivity is the degree to which an individual’s self-worth is determined solely by his or her performance within the athletic role (Proios, 2012) and was measured by
items (4, 5, and 9) which were “Sport is the only important thing in my life”; “I spend more time thinking about sport than anything else”; and “I need to participate in sport in order to feel good about myself” (Brewer et al., 1993, p. 243). The sum of the three items ranged from 3 to 21.

**Negative affectivity.** Negative affectivity is the extent to which an individual experiences adverse emotional reactions to undesirable outcomes in sport (Ryska, 2002) and included two items, namely, “I feel bad about myself when I do poorly in sport” and “I would be very depressed if I were injured and could not compete in sport” (Brewer et al., 1993, p. 243). The sum of the two items ranged from 2 to 14.

**Independent Variables (CDMSE-SF)**

The subscales below were from the CDMSE instrument originally developed by Crites (1978). Each sub-scale consists of five items (questions). The CDMSE-SF scores each question using a 5-point interval scale, anchored from a 5 (*much complete confidence*) to a 1 (*no confidence at all*). For the purposes of this study, I only used the subscales since the subscales and total sum would by definition be collinear and not suitable for regression analysis.

**Accurate self-appraisal.** Accurate self-appraisal (i.e., knowing yourself) assesses the psychological facility of accurately evaluating and estimating what a person's assets and liabilities were (item numbers 5, 9, 14, 18, and 22). Those five items were “Accurately assess your abilities”; “Determine what your ideal job would be”; “Decide what you value most in an occupation”; “Figure out what you are and are not ready to sacrifice to achieve your career goals”; and “Define the type of lifestyle you would like to live”. The sum of those five items ranged from 5 to 25.

**Gathering occupational information.** Gathering occupational information (i.e., knowing about jobs) measures the individual's knowledge of what workers in different
occupations do (item numbers 1, 10, 15, 19, and 23). Those five items were “Find information in the library about occupations you are interested in”; “Find out the employment trends for an occupation over the next ten years”; “Find out about the average yearly earnings of people in an occupation”; “Talk with a person already employed in a field you are interested in”; and “Find information about graduate or professional schools”. The sum of those five items ranged from 5 to 25.

Goal selection. Goal selection (i.e., choosing a job) measures the ability to match an individual with the occupation for which he or she is best fitted (item numbers 2, 6, 11, 16, and 20). Those five items were “Select one major from a list of potential majors you are considering”; “Select one occupation from a list of potential occupations you are considering”; “Choose a career that will fit your preferred lifestyle”; and “Make a career decision and then not worry whether it was right or wrong”; and “Choose a major or career that will fit your interests”. The sum of those five items ranged from 5 to 25.

Making plans for the future. Making plans for the future (i.e., looking ahead) presents a series of actions that must be performed in the proper sequence to enter and progress in a given career (item numbers 3, 7, 12, 21, and 24). The five items were “Make a plan of your goals for the next five years”; “Determine the steps you need to take to successfully complete your chosen major”; “Prepare a good resume”; “Identify employers, firms, and institutions relevant to your career possibilities”; and “Successfully manage the job interview process”. The sum of those five items ranged from 5 to 25.

Problem solving. Problem solving (i.e., what should they do) poses a variety of problems that arise in the course of career decision-making, the task being to select what the individual considers to be the best solution from among the alternatives (item numbers 4, 8, 13, 17, and 25).
Those five items are “Determine the steps to take if you are having academic trouble with an aspect of your chosen major”; “Persistently work at your major or career goal even when you get frustrated”; “Change majors if you did not like your first choice”; “Change occupations if you are not satisfied with the one you enter”; and “Identify some reasonable major or career alternatives if you are unable to get your first choice” (Crites, 1978). The sum of those five items ranges from 5 to 25.

**Control Variables**

**Gender.** Gender was included as a first control variable. It was a dichotomous measure with students self-reporting either female or male. Female was coded a 0 and male a 1.

**Class standing.** The class standing interval variable was used to identify the effect of additional years of college education. Freshmen was coded as 1, sophomores as 2, juniors as 3, and seniors as 4, respectively. The determination of class year was via student self-report.

**Grade Point Average (GPA).** A student’s current cumulative GPA was used as a third control variable. It was operationalized on an interval scale as follows: A+ & A = 4.5 - 4.0, B+ = 3.99 - 3.5, B = 3.49 -3.0, C+ = 2.99 -2.5, C = 2.49 - 2.0. Collegiate student athletes in Korea cannot have a term GPA below a C for two consecutive semesters or they lose their student athlete status. This data was also self-reported.

**Type of sport.** One of the important variables of this study was type of sport. By this is meant those that were present at the professional league level such as baseball, basketball, volleyball, soccer, and golf. Non-professional league sports were ones such as wrestling, track and field, and badminton. Type of sport was a dichotomous variable and coded a 1 if it had a professional league and a 0 if it did not.
**Parental influence.** This variable captures the degree of parental influence of parents on an athlete’s career interests and pursuits. The item was scored using a 5-point Likert-type interval scale which was anchored from 5 (very much parental influence) to 1 (very little parental influence).

**Conceptual Model for Testing**

Figure 2 presents a conceptual model of the relationship of the control and independent variables with athletic identity. No sign (positive or negative) was a-priori assumed since research using these scales and variables has never been done in the Korean context.

![Conceptual Model](image)

**Figure 2.** Conceptual model of the effect of career decision making self-efficacy on athletic identity of Korean college student athletes.
Procedures

As noted earlier, I contacted 10 athletic directors in Korean higher education institutions and were so by e-mail or phone call. My intent was to personally meet with each of them to explain in detail about this study and sought their permission to have their athletes were invited to participate. Personal meeting was culturally very important when you do surveys because email or phone call meetings with such persons could be thought impolite or not enough effort to recruit subjects unless you know the person prior to the time you seek to contact them. Student athletes were ultimately asked to participate by e-mail, although with the ability for the surveys to be distributed during a team meeting. The participants got a consent form by email that described the purpose of the study, what the participants were asked to do, the expected time required, potential risks and benefits, and confidentiality details. The statement affirmed that the participation was voluntary and the participants could withdraw at any time or refuse to answer any question without consequence. Each participant was given time to read the consent form, and the opportunity to withdraw.

If the survey questionnaires were distributed during the team meeting, I asked the coach or athletic director to leave for a moment to avoid pressure on student athletes from the coach or athletic director and explained shortly about the purpose of study, the inform consent, and instruction for the questions on the survey for only the student athletes. Each participant was given time to read the consent form, and the opportunity to ask questions. Then, I distributed the questionnaires to the students and gave them 1 hour to answer (or not to answer) the questions in order to avoid peer pressure. I waited at a designated place in the school to get the papers back. In that way, the student athletes experience no pressure to complete the forms or in a particular
way. The participants were told to not write their name on the answer sheet if completing the paper version of the survey.

**Data Analyses**

To answer Research Question 1, the data were organized into a singular excel file so that the comments were examined closely for themes and coded by the theme. Separate tabs were created by the demographic categories to examine how the themes differed across the various categories of gender, class standing, GPA (divided into high, medium, and low GPA in approximately equal thirds), and type of sport (i.e., professional league versus non-professional league). These theme categories were reported along with their frequency.

To answer Research Question 2, statistical analysis was conducted via SPSS (Statistical Package for the Social Sciences) software and the use of ordinary least squares (OLS) multiple regression. Complex constructs of athletic identity required utilizing more than one independent variable and hence multiple regression was appropriate. In other words, a researcher can obtain more accurate predictions by using multiple independent variables through multiple regression (Gravetter & Wallnau, 2013). A proper usage of multiple regression is important to explore the relationship between several independent variables or predictor variables and a dependent variable or criterion variable (Newton & Rudestam, 2013). The multiple regression allows the researcher to assess the effect of many different factors for a possible outcome simultaneously.

Before the OLS analysis was executed, I ran diagnostics to evaluate whether the data was appropriate and did not violate procedural assumptions. The core assumptions of OLS regression are (a) independence of errors, (b) distribution of residuals is normal, (c) linearity between each predictor and the outcome, (d) homoscedasticity of the residuals, and (e) predictor variables are measured without error (Field, 2009).
I first trusted for multicollinearity and looked for outliers to see if there was a need to transform any variables as a result of skewness. With respect to multicollinearity, independent or control variable correlations above .8 typically suggest high potential for multicollinearity. Independent variable correlations were examined to ensure they did not exceed this threshold. Variance inflation factor (VIF) analyses, as well as an examination of the condition indices, were also performed to ensure collinearity diagnostics were within acceptable ranges. Outliers were verified by examining scatterplots of each predictor and outputs of the standardized residuals from SPSS test results. Once model suitability was verified, each OLS regression assumption was tested. To do this, the distribution of residuals were tested by a SPSS distribution plot. If assumption of residuals are not normally distributed, the standardized residuals of skew and kurtosis should be tested (Field, 2009).

The data showed that the model was suitable for regression, and hence, descriptive and inferential analyses were executed to formally examine the results for Research Question 2. The data were first analyzed via descriptive statistics which included means, standard deviations, frequencies where appropriated such as for dichotomous variables, and data ranges for the all independent, dependent, and control variables. I then used the OLS block-step regression for the inferential analyses in order to parcel out the effect of the control and independent variables as separate variable set on the athletic identity of Korean collegiate student athletes.

Multiple regression were run on each of the four dependent variables. The block-step regression allowed the examination of the various control and independent variables via the standardized beta, the significance, and the change in adjusted-$R^2$. Four tables were produced, one for each of the four models showing the effects of the control and independent variable set on the four measures of athletic identity.
Summary

This chapter presented the methodology of the study. The chapter started with a presentation of the research questions and description of the research design. Then, research methods were described followed by a section describing the study sample. The next section described the nature of the research instruments, namely the CDMSE-SF and AIMS, along with those instruments’ psychometric properties. Next, independent, dependent, and control variables were defined and described for this study. The subsequent section explained the procedure of this research followed by data analyses. As noted, this study used a multiple regression analysis which allowed me to examine the effects of a set of variables on a dependent or outcome measure.
CHAPTER 4

RESULTS

This chapter reports the analysis of the data collected for this study to investigate the research questions of interest. The data were analyzed using both univariate and multivariate statistical techniques. First, noted descriptive results are presented followed by a table of mean values, standard deviations, range values (minimum and maximum), frequencies, and kurtosis where appropriate with respect to the dichotomously coded variables such as gender and type of sport. From there, specific procedures to ensure suitability for OLS regression analysis are displayed and described. Once the data were confirmed as reasonable for regression, I report the actual inferential results via a stepwise regression procedure. The overall model statistics, as well as coefficient statistics and their significance with athletic identity, are then summarized, bringing to close the presentation of results for Research Question 1. The next section presents the qualitative findings for Research Question 2. This section reports the themes that emerged from the answers provided regarding perceived barriers to career development. A summary of the chapter concludes Chapter 4.

Data Analysis

Descriptive Results

Table 12 provides descriptive results from the study and that included a total of 321 Korean student athletes that were surveyed, 262 men (81.6%) and 59 women (18.4%).
Table 12

*Descriptive Results*

<table>
<thead>
<tr>
<th>Control Variables</th>
<th>Distribution (Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Men: 262 (81.6%), Women: 59 (18.4%)</td>
</tr>
<tr>
<td></td>
<td>- According to Park (2009), 79.4% of Korean collegiate athletes is male (female: 20.6%).</td>
</tr>
<tr>
<td>Class Standing</td>
<td>Freshmen: 101 (31.6%), Sophomore: 118 (36.9%), Junior: 59 (18.4%), Senior: 42 (13.1%)</td>
</tr>
<tr>
<td>GPA</td>
<td>4.5-4.0 (A): 11 (0.4%), 3.99-3.5 (B+): 40 (12.5%), 3.49-3.0 (B): 70 (21.9%), 2.99-2.5 (C+): 138 (43.1%), 2.49-2.0 (C): 61 (19.1%)</td>
</tr>
<tr>
<td>Sport Type</td>
<td>It is possible to play in a professional sports league: 191 (59.5%)</td>
</tr>
<tr>
<td></td>
<td>It is not possible to play in a professional sport league: 130 (40.5%)</td>
</tr>
<tr>
<td>Parental Influence</td>
<td>Very Much: 23 (7.2%), Much: 41 (12.8%), Somewhat: 86 (26.8%)</td>
</tr>
<tr>
<td></td>
<td>Very Little: 127 (39.6%), Not At All: 44 (13.7%)</td>
</tr>
</tbody>
</table>

Within this group, all but one reported their class standing, 31.6% noted their class standing as a freshman \( (n = 101) \), while 36.9% \( (n = 118) \), 18.4 \( (n = 59) \), and 13.1 \( (n = 42) \) reported being a sophomore, junior, and senior respectively. A total of 320 respondents reported their GPA. Eleven persons reported a GPA between 4.0 and 4.5 (.4% of the sample). Almost one-half of the sample (43.1%) answered from 2.5 to 2.99 \( (n = 138) \). A total of 12.5% indicated that they had a GPA range from 3.5 to 3.99 \( (n = 40) \), while 21.9% \( (n = 70) \) reported a GPA range from 3.0 to 3.49, and 19.1% \( (n = 61) \) reported from 2.0 to 2.49.

The Korean college GPA scale is different than the United States college GPA scale. Table 13 shows this difference. By way of example, if a Korean college student applies to a college in the United States with 3.5 GPA, the student needs to convert his or her GPA as 3.14.
Table 13

*Example of GPA Conversion*

<table>
<thead>
<tr>
<th>4.0 Scale</th>
<th>4.5 Scale</th>
<th>100 Points Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.07-3.14</td>
<td>3.41-3.50</td>
<td>85</td>
</tr>
<tr>
<td>2.98-3.06</td>
<td>3.31-3.40</td>
<td>84</td>
</tr>
<tr>
<td>2.90-2.97</td>
<td>3.21-3.30</td>
<td>83</td>
</tr>
<tr>
<td>2.81-2.89</td>
<td>3.11-3.20</td>
<td>82</td>
</tr>
<tr>
<td>2.72-2.80</td>
<td>3.01-3.10</td>
<td>81</td>
</tr>
<tr>
<td>2.64-2.71</td>
<td>2.91-3.00</td>
<td>80</td>
</tr>
</tbody>
</table>


The results indicated that 62% of student athletes had a GPA between 3.0 and 4.5. A conversion from the Korean 4.5 GPA scale to the American 4.0 GPA scale translates to a 2.7 GPA equivalency. By way of additional descriptive finding, 43.1% student earned an average of a C plus and 19.1% earned an average of a C. Therefore, more than 62% of student athletes had a GPA less than 2.7 which is notably lower than the average Korean college student. According to Job Korea, a portal website for researching a job in Korea, Korean college student who applied for jobs had an average 3.62 out of 4.5 GPA (H. H. Ha, 2010).

The percentage of sports represented in the date for which it is possible to play in a professional sports league was 59.5% \( (n = 191) \) and thus 40.5% \( (n = 130) \) for which it was not possible. With respect to the question, “How influential have your parents been on you about your career pursuits even post college,” 7.2% \( (n = 23) \) of the sample reported *very much*. The majority of the sample, however, answered, *very little* \( (n = 127, 39.6\%) \). A total of 26.8% \( (n = 86) \) student athletes answered *somewhat* while 13.7% \( (n = 44) \) students responded *not at all*. The last 12.8% \( (n = 41) \) of the surveyed students reported *much* on their importance list. According to the
outcome from the descriptive statistics on parental influence, just 20% of college student athletes noted substantial influence from their parents with respect to their pursuit of a career post-college. Hence, the majority of students believed that parental influence would not be very substantial post-college.

As noted in Chapter 3, there are five subscales that comprise the components of career decision-making self-efficacy (Crites, 1973) as measured by the instrument and that serve as the core independent variables in the study. For the self-appraisal scale (five items), it had a rating scale from much complete confidence coded a 5 to not confident at all that was coded a 1. The sum of the items could range from 5 to 25. The scale mean was 18.47 and with an actual range from 9 to 25. The occupational and goal selection sub-scales respectively were reported on the same scale as self-appraisal and also five items each. These next two sub-scale means were 18.05 and 18.24 and with ranges of 11 to 25 and 10 to 25 respectively. The fourth sub-scale, planning, was also measured on the same scale with five items and had a scale mean of 17.34 and an actual range of 8 to 25. With regard to the problem solving sub-scale, the last of the five sub-scales associated with career decision-making self-efficacy, it was measured from strongly agree (coded a 7) to strongly disagree (coded a 1). The sum of those 4 items could range from 4 to 28 with an actual outcome range of 6 to 28. The scale mean was 21.91 and the standard deviation was 6.45.

In terms of the dependent variable of interest, as described in Chapter 3, it consisted of three sub-scales measured using the Athletic Identity Scale (Brewer et al., 1973), social identity (4 items), exclusivity (3 items), and negative affectivity (2 items) and that are all measured on a seven-point scale from strongly disagree (scored a 1) to strongly agree (scored a 7). The first of these, social identity, can have a possible range from 4 to 28. The actual range was 6 to 28. The
scale mean was 21.91 and the standard deviation was 6.45. For exclusivity, it can have a possible range from 3 to 21. The actual range was 3 to 21. The scale mean was 16.26 and the standard deviation 4.53. The last sub-scale of the Athletic Identity was exclusivity. The possible range of the two items was 2 to 14. The actual range was 2 to 14. The scale mean was 10.56 and standard deviation was 3.61.

Table 14 provides a summary of the data just described. The table includes mean, standard deviations, range value, and sample size for each variable. The table also provides a kurtosis measure to enable the assessment of the degree of skewness that might be present, a factor that can impact accurate regression results if too high.

Table 14

Means, Standard Deviations, Range Values, N, and Kurtosis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Range (min – max)</th>
<th>N</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>.82</td>
<td>.39</td>
<td>0-1</td>
<td>321</td>
<td>.695</td>
</tr>
<tr>
<td>Class Standing</td>
<td>2.13</td>
<td>1.01</td>
<td>1-4</td>
<td>320</td>
<td>-.805</td>
</tr>
<tr>
<td>GPA</td>
<td>2.38</td>
<td>1.04</td>
<td>1-5</td>
<td>320</td>
<td>-.198</td>
</tr>
<tr>
<td>Sport Type</td>
<td>.60</td>
<td>.49</td>
<td>0-1</td>
<td>321</td>
<td>-1.860</td>
</tr>
<tr>
<td>Parental Influence</td>
<td>2.60</td>
<td>1.10</td>
<td>1-5</td>
<td>321</td>
<td>-.330</td>
</tr>
<tr>
<td>Self-appraisal</td>
<td>18.47</td>
<td>3.24</td>
<td>9.00-25.00</td>
<td>320</td>
<td>-.279</td>
</tr>
<tr>
<td>Occupational information</td>
<td>18.05</td>
<td>2.91</td>
<td>11.00-25.00</td>
<td>320</td>
<td>-.116</td>
</tr>
<tr>
<td>Goal selection</td>
<td>18.24</td>
<td>3.18</td>
<td>10.00-25.00</td>
<td>320</td>
<td>-.331</td>
</tr>
<tr>
<td>Planning</td>
<td>17.34</td>
<td>3.23</td>
<td>8.00-25.00</td>
<td>320</td>
<td>-.220</td>
</tr>
<tr>
<td>Problem solving</td>
<td>17.30</td>
<td>3.01</td>
<td>9.00-25.00</td>
<td>320</td>
<td>-.066</td>
</tr>
<tr>
<td>Social identity</td>
<td>21.91</td>
<td>6.45</td>
<td>6.00-28.00</td>
<td>319</td>
<td>-.454</td>
</tr>
<tr>
<td>Exclusivity</td>
<td>16.26</td>
<td>4.53</td>
<td>3.00-21.00</td>
<td>319</td>
<td>-.399</td>
</tr>
<tr>
<td>Negative affectivity</td>
<td>10.56</td>
<td>3.61</td>
<td>2.00-14.00</td>
<td>319</td>
<td>-.288</td>
</tr>
</tbody>
</table>
The kurtosis in all cases falls within accepted limits of normality (±1.96) and thus enabling the conclusion that departures from normality are not too extreme (Field, 2009; Gravetter & Wallnau, 2014; Trochim & Donnelly, 2006). The distribution of gender was positively kurtotic while all of the other variables were negatively kurtotic.

**Data Diagnostics for Regression Suitability**

Data diagnostics were executed to address possible collinearity issues, a situation when one or more independent variables is highly correlated with one or more other independent variables (Draper & Smith, 1998). Such a circumstance can result in the untrustworthiness of a regression coefficient, its sign, and significance. In other words, highly correlated independent variables make it difficult to determine separate effects on dependent variables (Draper & Smith, 1998).

As a first step in examining possible collinearity, Table 15 presents the correlation matrix for all the variables in this study.
<table>
<thead>
<tr>
<th>Variables</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Correlation matrix among the independent variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Table 15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Lewis-Beck (1980) suggested that as a rule of thumb for the social sciences, a correlation above .8 among one or more independent variables could have potential problems because of collinearity and thus, the possible need to remove the offending variable(s) from a regression model. According to the correlation matrix, there were no independent variable correlation above .8, but six of the CDMSE subscales were above the .7 range, three above .6 range, and one above the .5 range. The correlation between self-appraisal and goal selection was almost at the .8 range or above (.79). Given these ranges, additional analyses for collinearity were essential.

As a second step collinearity analysis, two additional tests were conducted. First, variance inflation factors (VIF) were executed (Table 16). The VIF can range from 0 to infinity. Several researchers (Neter, Kutner, Nachtsheim, & Wasserman, 1996) indicated that VIFs above 10 are very strong signs of collinearity. None of the VIFs were came close to 10, although goal selection and planning were notably the highest in all cases.

Table 16

*Variance Inflation Factor Statistics*

<table>
<thead>
<tr>
<th>Variable</th>
<th>VIFs for Model 1: Self-Appraisal</th>
<th>VIFs for Model 2: Exclusivity</th>
<th>VIFs for Model 3: Negative Affectivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>1.06</td>
<td>1.10</td>
<td>1.10</td>
</tr>
<tr>
<td>Class Standing</td>
<td>1.00</td>
<td>1.02</td>
<td>1.02</td>
</tr>
<tr>
<td>GPA</td>
<td>1.05</td>
<td>1.10</td>
<td>1.10</td>
</tr>
<tr>
<td>Type of Sports</td>
<td>1.05</td>
<td>1.09</td>
<td>1.09</td>
</tr>
<tr>
<td>Parental Influence</td>
<td>1.00</td>
<td>1.01</td>
<td>1.01</td>
</tr>
<tr>
<td>Self-appraisal</td>
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<td>3.24</td>
<td>3.24</td>
</tr>
<tr>
<td>Occupational Information</td>
<td>2.82</td>
<td>2.82</td>
<td>2.82</td>
</tr>
<tr>
<td>Goal Selection</td>
<td>3.69</td>
<td>3.70</td>
<td>3.70</td>
</tr>
<tr>
<td>Planning</td>
<td>3.41</td>
<td>3.43</td>
<td>3.43</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>2.11</td>
<td>2.13</td>
<td>2.13</td>
</tr>
</tbody>
</table>
As a final determinant on potential excessive collinearity, a series of regression model pairs were run, testing each independent variable with a correlation above .5 in and out of the model to see if the fundamental regression results changed. As part of this analysis, a model was run with and without the particular career decision making self-efficacy subscale (self-appraisal, occupational information, goal selection, planning, and problem solving). The result showed that there was no substantive coefficient, sign, or significance difference except for the goal selection variable. Hence, I opted to remove the goal selection variable from further analysis, although did run separate regression analyses with just the control variables and that career decision making self-efficacy scale item because those independent variables were not highly inter-correlated.

**Regression Results**

The data for each regression model was entered using SPSS stepwise analysis because no a-priori theory informed an alternative entry procedure. Furthermore, the main reason to use stepwise regression is to reveal the best combination of independent variables to predict the dependent variable (Thompson, 1995). In a stepwise regression, predictor variables (independent variables) are entered into the regression equation one at a time (Snyder, 1991). At each iteration in the analysis, the independent variables that contributes the most to the prediction equation are included with the process continuing only to the point where additional variables no longer add meaningfully to the regression equation. When no more statistically meaningful predictor variables add to the regression equation, the analysis stops (Snyder, 1991).

For Regression Model 1, the dependent variable was social identity. For Model 2, it was exclusivity. In Model 3, it was negative affectivity. Table 17 presents the regression analyses, reporting standardized betas, coefficients, and significance levels, as well as overall $F$-values and Adjusted-$R^2$. 
**Regression Results**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1: Social Identity</th>
<th>Model 2: Exclusivity</th>
<th>Model 3: Negative Affectivity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$N = 318$</td>
<td>$N = 319$</td>
<td>$N = 319$</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
<td></td>
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<tr>
<td>Gender</td>
<td>.39***</td>
<td>.36***</td>
<td>.34***</td>
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<tr>
<td>Class Standing</td>
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<td>.00</td>
<td>-.00</td>
</tr>
<tr>
<td>GPA</td>
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<td>-.07</td>
<td>-.08</td>
</tr>
<tr>
<td>Type of Sport</td>
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<td>.10*</td>
<td>.08</td>
</tr>
<tr>
<td>Parental Influence</td>
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<td>-.00</td>
<td>.04</td>
</tr>
<tr>
<td><strong>Independent Variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-appraisal</td>
<td>.24***</td>
<td>.22**</td>
<td>.08</td>
</tr>
<tr>
<td>Occupation Information</td>
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<td>-.04</td>
<td>.05</td>
</tr>
<tr>
<td>Planning</td>
<td>.24**</td>
<td>.20*</td>
<td>.18*</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>-.08</td>
<td>-.05</td>
<td>.00</td>
</tr>
<tr>
<td><strong>F-Value</strong></td>
<td>27.79***</td>
<td>24.50***</td>
<td>17.71***</td>
</tr>
<tr>
<td><strong>Adjusted-R$^2$</strong></td>
<td>.297</td>
<td>.308</td>
<td>.240</td>
</tr>
</tbody>
</table>

* $p < .05$; ** $p < .01$; *** $p < .001$.

**Model 1 results.** For regression model 1, the overall model was significant, $F(5, 312) = 27.79$, $p < .001$. The adjusted-$R^2$ was .297 meaning that 29.7% of the social identity variance could be accounted for by the set of control and independent variables. In detailed examination of the results, the control variable that was significantly related to an athlete’s social identity was gender ($p < .001$) and in the positive direction. Based on variable coding, male Korean college student athletes had higher social identity in terms of “I consider myself an athlete”; “I have many goals related to sports”; “Most of my friends are athletes”; and “Other people see me
mainly as an athlete” (Brewer et al., 1993, p. 243). In summary, male social identity as an athlete was significantly more pronounced than it was for female athletes.

With regard to the independent variables, two of the four career decision-making self-efficacy variables were significant, both in the positive direction. The first of these was self-appraisal ($p < .001$). This result implies that Korean collegiate student athletes who have a higher concept of accurate self-appraisal have a higher concept of social identity. The questionnaire items of the accurate self-appraisal were “Accurately assess your abilities”; “Determine what your ideal job would be”; “Decide what you value most in an occupation”; “Figure out what you are and are not ready to sacrifice to achieve your career goals”; and “Define the type of lifestyle you would like to live” (Betz et al., 1996). In other words, a Korean collegiate student athlete who knew and could evaluate him or herself better saw him or herself more as an athlete. The second significant independent variable was planning ($p < .01$). This finding infers that collegiate student athletes who have better planning skills for the future have higher social identity. The questionnaire items for planning were “Make a plan of your goals for the next five years”; “Determine the steps you need to take to successfully complete your chosen major”; “Prepare a good resume”; “Identify employers, firms, and institutions relevant to your career possibilities”; and “Successfully manage the job interview process” (Betz et al., 1996). In summary, the result showed that the student athletes scoring higher on these planning items were more likely to see themselves as future athletes.

**Model 2 results.** For regression model 2, the overall regression equation was significant, $F(6, 311) = 24.50, p < .001$. The adjusted-$R^2$ value was .308, which means approximately 30.8% of variance of exclusivity could be accounted for by the variable set.
Upon closer examination of the results, gender was again significantly related to the dependent variable, in this case exclusivity ($p < .001$). This result suggested that male Korean college student athletes had a higher concept of exclusivity. The exclusivity questionnaire items were “Sport is the only important thing in my life”; “I spend more time thinking about sport than anything else”; and “I need to participate in sport in order to feel good about myself” (Brewer et al., 1993, p. 243). This finding infers that male student athletes considered themselves more exclusively an athlete than did female student athletes. However, in contrast with Model 1, the type of sport was also significant and in the positive direction ($p < .05$). Based on this variable’s coding ($1 =$ professional league exists; $0 =$ no professional league exists), this indicates that student athletes whose sports offer the opportunity to play in a professional league have a higher concept of exclusivity as an athlete.

With respect to the independent variables, the same two career decision-making factors emerged as significant, namely self-appraisal and planning. Self-appraisal was positively significant ($p < .01$), suggesting that student athletes with higher levels of accurate self-appraisal have a higher concept of athletic exclusivity. Planning was the other scale factor significantly related to exclusivity ($p < .01$). In summary, this finding suggests that the collegiate student athletes who have a stronger sense of planning have a higher concept of exclusivity as an athlete.

**Model 3 results.** For regression model 3, it was also significant as a full model, $F(6, 311) = 17.71, p < .001$. The adjusted-$R^2$ was .24 which means approximately 24% of variance of the negative affectivity could be accounted for by the variable set. Although its explanatory power was the lowest among the three models, there were still significant factors. Among the control variable set, once more gender was significant in the positive direction ($p < .001$), in this case linked to negative affectivity items that read “I feel bad about myself when I do poorly in sport”
and “I would be very depressed if I were injured and could not compete in sport” (Brewer et al., 1993, p. 243). The other significant variable was the planning one from the independent variable set \( p < .05 \). This result suggested that Korean collegiate student athletes who have higher the future planning abilities had stronger beliefs about negative affectivity.

**Regression result for goal selection.** As noted earlier, goal selection as a sub-scale of career decision-making self-efficacy was causing excessive collinearity. Hence, it was removed from the full analysis. Given its importance in previous research, and to test its impact appropriately in this dissertation study, a regression model was run with only that sub-scale included among the independent variable set. The results are summarized in Table 18.

Table 18

*Regression Results with Goal Selection Variable*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 4: Social Identity ( N = 318 )</th>
<th>Model 5: Exclusivity ( N = 319 )</th>
<th>Model 6: Negative Affectivity ( N = 319 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Variables</td>
<td>( \beta )</td>
<td>( \beta )</td>
<td>( \beta )</td>
</tr>
<tr>
<td>Gender</td>
<td>.39***</td>
<td>.36***</td>
<td>.34***</td>
</tr>
<tr>
<td>Class Standing</td>
<td>.03</td>
<td>.00</td>
<td>-.00</td>
</tr>
<tr>
<td>GPA</td>
<td>-.04</td>
<td>-.07</td>
<td>-.06</td>
</tr>
<tr>
<td>Type of Sport</td>
<td>.05</td>
<td>.12*</td>
<td>.08</td>
</tr>
<tr>
<td>Parental Influence</td>
<td>-.05</td>
<td>-.02</td>
<td>.03</td>
</tr>
<tr>
<td>Independent Variables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goal Selection</td>
<td>.28***</td>
<td>.27***</td>
<td>.25***</td>
</tr>
<tr>
<td>F-Value</td>
<td>60.57***</td>
<td>41.58***</td>
<td>32.23***</td>
</tr>
<tr>
<td>Adjusted-(R^2)</td>
<td>.273</td>
<td>.277</td>
<td>.228</td>
</tr>
</tbody>
</table>

\*\( p < .05; *** p < .001. \)
The results again had all three models that were significant; for social identity it was $F(2, 315) = 60.57, p < .001$; for exclusivity it was $F(3, 314) = 41.58, p < .001$; and for negative affectivity it was $F(3, 314) = 32.23, p < .001$. The adjusted-$R^2$ of .273 in Model 4 was .277, in Model 5, .277, and in Model 6, .228. This translates to explaining 27.3% of the variance in social identity, 27.7% of the variance in exclusivity, and 22.8% of the variance in negative affectivity.

With respect to individual variable results, once again, gender was positively significant in all three models ($p < .001$) indicating that male athletes were higher in all three measures of athletic identity than female athletes. For model 5, type of sport was positively significant like it was in model 2 ($p < .05$) implying that athletes that have an opportunity to pursue a sport professionally had a significantly higher concept of athletic exclusivity.

In regard to goal selection, it was positively significant across all three models 4-6 ($p < .001$). The result showed that the surveyed collegiate student athletes who had clear mind of selecting their goals had higher concepts of social identity, exclusivity, and negative affectivity. The questionnaire items of the goal selection variables were “Select one major from a list of potential majors you are considering”; “Select one occupation from a list of potential occupations you are considering”; “Choose a career that will fit your preferred lifestyle”; and “Make a career decision and then not worry whether it was right or wrong”; and “Choose a major or career that will fit your interests” (Betz et al., 1996).

Comparison of results across models. When comparing the three models, gender was the singularly most important factor in explaining all the models (i.e., for predicting the number of social identity, exclusivity, and negative affectivity). In other words, Korean male collegiate student athletes who participated in this study had a significantly higher concept of social identity, exclusivity, and negative affectivity than female student athletes. In other words, the
result showed that the male student athletes consider themselves as athletes in a social sense (i.e., social identity), as an isolated identity (i.e., exclusivity), and respond more negatively to adversity (i.e., negative affectivity) than female student athletes.

Next, the type of sports variable was a significant positive factor in models 2 with exclusivity. In other words, Korean collegiate student athletes whose sports have professional leagues were significantly more likely to see their identity as being exclusively an athlete.

In terms of the career decision-making self-efficacy scales, planning and goal selection were positively significant across all six models meaning that the stronger sense of planning and goal singularity that they had, the more likely that they were to have a stronger social identity, exclusivity, and negative affectivity. With regard to self-appraisal, it was significant in models 1 and 2, indicating that athletes with a stronger self-appraisal of themselves were more likely to have a stronger sense of social identity and exclusivity as an athlete.

While the above reflect the significant findings, there were a number of factors that were not significant in any of the models. These included from among the control variable set class standing, GPA, and parental influence. From among the independent variable set, this included the occupational information and problem solving sub-scales of the career decision-making self-efficacy instrument. In terms of the control variable set, this infers that Korean collegiate student athletes who participated in this study expressed that how long they have studied in a college, how they had successfully worked on their classes, or their level of parental influence were not associated with their athletic identity. In the case of the independent variable set, these non-significant findings suggest that finding out about job related information and trends had no influence on their identity as student athletes. It also implies that that having a stronger problem solving sense was not associated with any of their identities as an athlete.
Qualitative Results

As part of the study, the Korean collegiate student athletes were asked to fill out two open ended questions on the survey and that were designed to answer research question two. These questions were, “What do you see as your needs to explore and consider career opportunities post-college?” and “Are there any barriers to your ability to make career decisions and if so, what are they?” Nearly all of the responses to the questions were a singular word or two, perhaps a phrase, although a few provided a list of examples of a need or barrier to a future career. Only rarely did a respondent answer with a complete sentence.

For the first question, approximately 90% of the surveyed student athletes answered the question. The most common answer to the first open ended question was focused on their personal capability and ability with 57 of the 290 student athletes answering some variation of this response. The second most prevalent answer was commitment and hard work to pursue their future career. Out of 290 surveyed student athletes, 33 answered some variant of this response. The next most prevalent answer was qualifications and 31 responded with an answer that was of this theme. The fourth most common answer was certification and 30 student athletes responded with certification as needs to explore career opportunities. The next most prevalent answer for career opportunities after college year was athletic skill and 24 surveyed student athletes considered athletic skill as being the most important for their future career. English skills and financial support were tied at the sixth place with 20 of the surveyed student athletes responding with some variant of these two answers.

Approximately 73% of the surveyed student athletes answered the second question. The primary theme categories of those answers are reported below. The most prevalent answer was that nothing can be a barrier to make a career decision. Out of 228 surveyed student athletes, 102
answered in some way linked to this theme. The second most prevalent answer was injury or slump by injury. Twenty student athletes considered injury as the biggest obstacle for their future career. The next most common response was financial issues which could be low salaries or lack of financial support by their families and 12 students answered in a way linked to this theme. The fourth most prevalent obstacle with 8 of the 228 student athletes answering was military service because joining military service for healthy Korean men is mandatory by Korean law. Surroundings and English skill were the two next barriers the surveyed student athletes described and seven and five student athletes respectively responded with these two answers.

Summary

The purpose of this chapter was to address the results of this study. First, the descriptive statistics were described that reported means, standard deviation, range values, and frequencies. In the descriptive statistics, a GPA conversation table was presented to explain difference between U.S. and Korean college GPA scales. Following the tables, the descriptive analyses were discussed in terms of what was found from the statistics. From there, tests of the data were conducted to ensure suitability for regression analysis. From there, the regression analyses were presented and described. Finally, perceived barrier results from two open-ended questions were presented and organized into theme categories.
CHAPTER 5
DISCUSSION AND CONCLUSION

The core purpose of this study was to investigate the possible relationship between the subscales of athletic identity and the subscales of career decision making self-efficacy and further informed by demographic questions associated with Korean collegiate student athletes. Gender, self-appraisal and planning factors were identified as potentially important predictors of variation in the subscales of athletic identity while goal selection was also a significant predictor in a separate analysis. Specifically, gender is important and significant explanatory factor in all the subscales of athletic identity. Second, self-appraisal (a subscale of the CDMSE) is significant explanatory factor in social identity and exclusivity (subscales of athletic identity). Planning (another subscale of the CDMSE) is important and significant explanatory factor in all the subscales of athletic identity. Finally goal setting was significant in all three models in its separate analysis.

This chapter provides comments on the results which were described in Chapter 4 in light of the conceptual and theoretical scholarship described in Chapter 2. The discussion is presented within the context of two topical groupings, inferential discussion and qualitative discussion. Following the discussion of the results, implications for athletes, institutional practice, and policy are presented. Finally, the limitations of this study design and opportunities for future research will be discussed followed by an overall conclusion to the study.
Inferential Discussion

Social Identity

As I discussed in Chapter 4, the three variables (gender, self-appraisal, and planning) were positively significant explanatory factors associated with social identity. Gender and self-appraisal were significant at the $p < .001$ level.

**Gender.** The male student athletes were significantly more likely than female athletes to see themselves as athletes. Also, the male athletes have more goals related to sports than female student athletes and most of the male student athletes’ friends are athletes. In this study, 81.6% of the student athletes were male. J. K. Park (2009) reported that 79.4% of collegiate student athletes in Korea were male. Informing this imbalance in numbers are cultural norms in the country. Namely, male student athletes are seen as being better suited to athletics than women. Even though there are notably great Korean female athletes in sports such as golf and archery, Korean traditionally thinks that women should not be outgoing. Korean parents generally do not encourage their daughters to play sports. Thus, the majority of persons who play sports at high levels are male. Shin and Nam (2004) mentioned that the traditional role of women in Korean culture was being a good wife.

Brewer and his colleagues (1993) found that males reported results significantly higher on the AIMS than female, $F (1, 242) = 9.46, p < .003$. The outcome according to the researchers reflected that males have a greater focus on sports in American society than do females (LeUnes & Nation, 1989). Similar research on gender differences have been studied on measures of the self in the sport role and perceived importance of athletic competence (Curry & Parr, 1988; Whitehead & Corbin, 1988). In addition, other research showed that males scored higher in
social identity compared with females in a study of 333 physical education students in Greece (Proios, Proios, Mavrovouniotis, & Siatras, 2012).

On the other hand, S. Park, Hong, and Lee (2015) pointed out that Korean female collegiate student scored higher than males on the Athletic Identity Measurement Scale. The outcome of S. Park et al.’s study did not provide clear support for the outcome in this dissertation study. The possible reason why the outcomes are different is because of the proportion of the participants and the type of sports in the S. Park et al. (2015) study. A total of 126 Korean collegiate student athletes (41.4% men and 58.6% women; mean age 20.5) participated in their study and all participants were tennis players who had played for more than 10 years (S. Park et al., 2015). Also, given the focus on tennis players and the proportion of tennis players between male and female could be the reason why the results are different. Between 2004 to 2008, the proportion of male and female collegiate tennis student athletes was 62.6% (male) and 37.4% (female);(J. K. Park, 2009). In addition, their study was not separated by the three subscales (social identity, exclusivity, negative affectivity) of the Athletic Identity Scale.

**Self-appraisal.** The student athletes who had a stronger self-concept and the ability to accurately assess themselves (i.e., know themselves) were more likely to see themselves as an athlete. The confidence level of the Korean collegiate athletes regarding their self-evaluating ability in terms of their future lives is higher than American collegiate athletes based on previous U.S.-based research (Brewer et al., 1993). However, no studies separately researched the three subscales of the athletic identity independently and five subscales of the career decision making self-efficacy.

C. Brown and Hartley (1998) investigation of 189 Division I collegiate student athletes did not find a significant relationship between the global measure of athletic identity and the
CDMSE. That result does not align with the findings of this dissertation study. In this research, cultural difference could be the reason. Korean collegiate athletes’ high confidence levels could be coming from lack of occupation searching commitment and knowledge about real job qualification to be a full-time employed person post-graduation. According to conversations with several Korean athletic department personnel that I did as a corollary to this study, they said many student athletes receive part time job offers. However, several years later, the athletes often find that they cannot be promoted to the full time level because of poor education background. Other research shows that Korean student athletes’ academic motivation was lower than American and Italian student athletes and attributed to a poor educational support system (S. Park, et al., 2015). Korean and Italian student athletes begin with high confidence levels about their future career possibilities but find them destroyed a few years later. Another possible reason why they are more confident about their future could be that they have no other options except being a professional athlete or working for sports related jobs such as coaches or sports instructors.

Planning. Prior research on Korean collegiate athletes has shown that those who were more effective at making future career plans via building a strong resume and developing good interview skills had strong identities as athletes. On the other hand, C. Brown and Hartley (1998) reported that they found no significant relationship between athletic identity and planning when they investigated 114 college student athletes.

The present study differs from the previous studies regarding composition of the participants’ type of sports. C. Brown and Hartley (1998) focused on football and basketball student athletes in Division I sports for their sample. Also, the job selection or job hiring process may be another reason why the findings of the present study are not consistent with previous
literature. The process of applying for jobs relies on networking with mentors or more seasoned professionals and is very important in Korean society especially for collegiate student athletes. Therefore, Korean collegiate athletes may think that they do not need a thoroughly prepared job interview process and a good resume; they think that they are prepared well enough.

**Goal selection.** The Korean student athletes who think of themselves as athletes, and who have most of their friends who are athletes, had a clear mind for selecting their future goals and potential occupations. They evidenced confidence with regard to their preferred life styles. A possible reason why they are more confident about their goal selection could be very similar to the finding with self-appraisal. The Korean collegiate athletes have not thought about their future goals beyond being a professional athlete or working for sports related jobs since they decided to be an athlete. In other words, they have not thought about other careers beside sports related ones, since they have not opportunities to study and are not informed about other careers except being an athlete. Therefore, the Korean student athletes may be so confident in their future goals because they simply believe it will be as a professional athlete.

**Non-significant factors.** As shown in the regression equation results in Chapter 4, class standing, GPA, type of sport, parental influence, occupation information, and problem solving were not significant factors for social identity. Korean collegiate freshman or senior athletes likely have similar views of their identities as primarily an athlete. Most Korean collegiate athletes start to train for their sports in elementary school or early in their mid-high school year. Hence, their identity as an athlete comes early and by extension, is consistent. Thus, it is not surprising that there were no differences by class year. Second, GPA does not appear to affect social identity because most of the athletes do not have a good GPA. Third, Korean collegiate athletes appear to experience a universal identity belief that does not differ by sport. Fourth, the
parental influence does not appear to influence social identity; likely parents pride in their children may also reinforce the athletic identity.

With regard to occupational information and problem solving, neither was significant. Measuring the individual’s knowledge of what workers in different occupations do does not connect with social identity. In other words, knowledge about job occupation does not affect the degree to which athletes identify themselves with an athletes’ roles. Also, problem solving abilities do not influence social identity. In other words, the collegiate athletes who can figure out what they should do when they face problems has no relationship with the degree to which collegiate athletes identify themselves with athletes’ roles. In summary, the athletic identity appears to be so strong that it is not affected by other factors that in other circumstances might be an influence on social identity.

Exclusivity

The four variables of gender, type of sport, self-appraisal, and planning were important and significant explanatory factors associated with exclusivity. In this section, each of the factors will be discussed. The non-significant factors will also be discussed.

**Gender.** The male student athletes were significantly more likely than the female athletes to have more self-worth as determined solely by their performance within the athletic role. Other research in the U.S. found that there were no significant differences between male and female athletes in their athletic identity and identity foreclosure (Good et al., 1993). The source of this outcome may be the same reason mentioned earlier about the culture of Korea and the proportion of male and female collegiate student athletes. Male student focused more on sports because they have more opportunity to enter a professional league.
According to J. H. Lee (2016), the average salary of the four major professional team sports in Korea is $129,081 (soccer = $ 156,585; baseball = $ 111,982; basketball = $ 135,830; and volleyball = $ 111,929). Furthermore, the highest salary among female professional athletes in team sports is $265,721 while the highest male athlete earned $1,417,183 (Park, 2016). This disparity by gender may possible explain why male collegiate student athletes may have more identity foreclosure than female athletes.

**Type of sport.** The collegiate athletes in sports with professional leagues were significantly more likely to have self-worth that is intimately linked to being an athlete (i.e., exclusivity). In other words, the Korean collegiate athletes who play baseball, basketball, soccer, volleyball, or golf have stronger exclusive athletic identity than the student athletes who play sports that do not have professional leagues. This finding is understandable because the athletes who have clear opportunities to play in professional sports league more likely have more salaries and more opportunities to have professional jobs in their sport. Therefore, the Korean collegiate athletes exclusively focus on sports other than alternative career opportunities.

**Self-appraisal.** Student athletes who have stronger concept of the psychological facility of accurately evaluating and estimating what a person’s assets are have stronger exclusivity in the athletic role. On the other hand, according to previous researchers, there seems to be a negative relationship between high athletic identity and identity foreclosure (Good et al., 1993; Murphy et al., 1996). Murphy and colleagues (1996) found that athletic identity and career maturity attitudes have an inverse relationship when they investigated 124 intercollegiate athletes. Lally and Kerr (2005) also found that strong exclusive dedication to an athletic role made collegiate athletes feel discouraged from investigating non-sport career possibilities. In
addition, Brewer et al. (1993) and Wiechman and Williams (1997) found that athletes hoping to continue with athletic careers were found to have a significantly stronger athletic identity.

The findings of the present study are not consistent with the previous literature because of cultural differences and the period of time of the research which was investigated. Cultural differences were explained above. The period of time of the research could be the reason because one of the noted recent education agenda items in Korean higher education is helping students finding a job after graduation. Every college and university worries for their graduates so most higher education institutions offer their students the opportunity to develop their career in many ways such as internship programs or outside-of-class programs that the higher education institution offers. Therefore, current student athletes in Korea may have more confidence in their ability to get a job even though they dedicate strong exclusive commitment to their athletic role.

**Planning.** Korean collegiate athletes who can make a series of actions that must be performed in proper sequence to enter and progress in a given career have more exclusivity in their athletic role. However, according to previous research, collegiate students who have strong athletic identity decreased career planning and lower levels of career adaptability because of higher expectation for becoming a professional athlete (Murphy et al., 1996; Tyrance, Harris, & Post, 2013). Also, Brewer and colleagues (1993) pointed out that a strong athlete role perception may lead the person to not explore other career options because of their intensive sport involvements.

The reason why this study differs from previous research may be sourced in the notion of a backup plan. Linnemeyer and Brown (2010) pointed out that “It would appear that this notion of a backup plan may receive less serious consideration among student athletes during their collegiate playing years because of the high stakes on preserving one’s identity as an athlete” (p.
Unfortunately, collegiate student athletes whose will to be a professional player must continually present exclusivity in their athletic role, but many of these student athletes will not be good enough to play for professional leagues and thus need to consider alternative occupations such as high school coaches or social sports instructors. Therefore, even though Korean collegiate athletes may have a sense of exclusivity in the athletic role, they need to prepare a backup plan for a post-collegiate career.

**Goal selection.** The Korean student athletes who have a higher degree of belief in their self-worth as determined solely by their performance within the athletic role had clear mind with regard to selecting their future goals and potential occupation. One possible explanation for this finding is that the collegiate athletes have not had a chance to think about their future goals since they can only choose physical education as a major in college. Exploring other career options is limited by the Korean government rule that all Korean collegiate athletes need to major in physical education in every college. The Korean government has taken the athletes’ opportunities to work for another career beside sport related ones away. Therefore, the Korean collegiate athletes who have exclusive athletic identity maybe feel confident to select their future goals as sport related ones since it is their only realistic course that seems feasible for them, even if it may not be practicably possible.

**Non-significant factors.** With regard to findings of non-significance, class standing, GPA, parental influence, occupation information, and problem solving variables were non-significant factors for the collegiate athletes whose self-worth was determined exclusively by their performances within the athletic roles. With regard to class standing, it did not influence the exclusive athletic identity. On the other hand, Benson and co-researchers (2015) investigated the senior year of Canadian collegiate student athletes and reported significantly greater athletic
identity exclusivity ($p = .013, 95\%$). The participants were 81 Canadian Interuniversity Sport (a high level amateur sport competition in Canada) athletes. The reason why my findings may differ from previous research could be that Korean collegiate athletes have exclusively lived as athletes since a very young age so class standing does not affect exclusive athletic identity. The possible reason why GPA also does not influence on exclusivity could be that most of the athletes have a low GPA for the same reason as described for social identity. Parental influence could be the same reason.

Occupational information and problem solving also did not explain the degree of exclusive athletic role. Measuring the individual’s knowledge of what workers in different occupations do does not influence exclusive athletic identity. Also, the problem solving abilities does not influence exclusive athletic identity. On the other hand, according to previous research, an individual who identifies strongly with his or her athletic role is less likely to explore career and lifestyle alternatives, and career maturity, because of his or her strong connection in sports (Brewer et al., 1993; Murphy et al., 1996). The possible reason the present study differs from the previous studies is that Korean collegiate athletes who have exclusive athletic identities do not have enough occupational information because of the amount of training time. Also, strong exclusive athletic identity does not appear to influence the collegiate athletes level of problem solving skills.

**Negative Affectivity**

As shown the outcome in chapter 4, the two variables (gender and planning) are significant explanatory factors in negative affectivity. Gender is the most important and significant factor on negative affectivity.
**Gender.** The male student athletes were significantly more likely than female athletes to have negative emotional reactions to performing poorly as an athlete or to get injured. Proios and colleagues (2012) pointed out that male student athletes scored higher level of negative affectivity than females when they investigated 333 Greek physical education students (209 male and 121 female). However, in the same study, there were no significant differences between male and females student athletes in total AIMS. This outcome is supported by other studies (Chen, Snyder, & Magner, 2010; Fraser, Fogarty, & Albion, 2008). Other research also does not show any significant differences in gender (Groff & Zabriskie, 2006; Hoiness, Weathington, & Cotrell, 2008; Tasiemski, Kennedy, Gardner, & Blaikley, 2004).

The possible reason that previous research is mixed and differs from this research is the nature of sport obligations between male and female athletes (Chen et al., 2010) that varies by country. The outcome of this research showed that Korean male collegiate athletes in this research may feel more responsibility to their sports than female athletes. Thus, when the male athletes performed poorly or get injured, they feel worse or more depressed than the female athletes.

**Planning.** The Korean collegiate students who have stronger planning skills including the sequencing to an outcome are more likely to have negative reactions emotionally when they do poorly in their sport or get injured. This result differs from previous studies. Brewer et al. (1993) noted that collegiate student athletes who possess a high athletic identity more likely experienced troubles in transitioning from athletes’ roles such as being cut from their teams, or career ending injuries. Kleiber, Greendorfer, Blinde, and Samdahl (1987) found that collegiate athletes whose sport careers were terminated by injury reported lower satisfaction in post-collegiate life than who have not injured. In addition, Werthner and Orlick’s (1986) study showed that among 28 in-
depth interviews with Canadian retired elite athletes, 22 athletes expressed that they experienced moderate to extreme difficulty adjusting retirement from their sports.

Even though the Korean collegiate athletes indicate that they can make better plans for their future, they would feel worse themselves when they get injuries or perform poorly. This is not surprising because some who have better future planning skills mostly overcome when they face difficulty. The possible explanation could also be that even though the Korean collegiate athletes have confidence in their planning skills, as noted they also are afraid to get injured or perform poorly. Given that their future plans by necessity and socialization focus only on sports in light of the government rule that they cannot pursue any degree other than physical education, injury or poor performance could be very huge obstacle for planning an alternative future.

**Goal selection.** The Korean student athletes with stronger goal selection skills were more likely to have negative reactions emotionally when they do poorly in their sport or get injured. The possible reason why the student athletes with strong goal selection skills were more likely to have negative reactions emotionally when they do poorly in their sport or get injured is that the collegiate athletes usually have strong future goals since they start to train in their sports from childhood. Thus, the students have very clear goals associated with being an elite athlete and who are strongly affected by undesirable outcomes in sports because they have not thought about other career alternatives. Therefore, the Korean collegiate athletes who have stronger negative affectivity from an undesirable outcome may be only selecting their future career goal as athletes, instructors, or sport related occupations.

**Non-significant factors.** The outcome of the statistics showed that class standing, GPA, type of sports, parental influence, self-appraisal, occupation information, and problem solving variables are not significant factors with regard to negative emotional reactions when they do
poorly in their sport or get injured. In terms of class standing, a possible reason is that freshman, sophomore, junior and senior are all afraid of a negative outcome. GPA also does not influence negative affectivity. The possible reason why GPA does also not influence negative affectivity is again that most of the athletes already have a poor GPA, so a poor GPA seemingly cannot make any difference on negative affectivity. Parental influence also does not influence negative affectivity because those variables seems not connected to one another, or at least the parents seem to exert no measureable impact.

Self-appraisal, occupational information and problem solving cannot explain the degree of negative outcome from poor performances or injuries. The collegiate students who had a stronger self-concept and the ability to accurately assess themselves (i.e., know themselves) are not as likely to feel that their self-worth is intimately linked to being an athlete. Measuring the individual’s knowledge of what workers in different occupations do does not influence on negative affectivity. These two variables do not seem to affect each other. Also, the Korean collegiate athletes who feel negative affectivity from poor performance or injury have not enough influence with problem solving skills as noted previously. Commonsensically, someone who has good problem solving skills can likely better deal with negative incidents. However, in this study, the two variables do not seem to influence each other.

With regard to parental influence, only 20% of college student athletes noted substantial influence from their parents with respect to their pursuit of a career post-college: very much: 23 (7.2%), much: 41 (12.8%), somewhat: 86 (26.8%), very little: 127 (39.6%), not at all: 44 (13.7%). The result showed that more than 53% of the students believed that parental influence would be very little or not at all to pursue their career. The result was not what I expected because
collegiate student athletes must have tremendous parental support and sacrifice to become an elite athlete. There are several possible reasons for the finding however.

First, parental influence can be different by sport. For example, golf or baseball players need to have parental support more than other sports such as wrestling, boxing, or taekwondo because golf and baseball players have to buy expensive equipment and parents need to give their children a ride to practice. However, combat sports players have usually received strong care from their coaches in Korea. Therefore, those students could have influence more from coaches instead of their parents. In other words, Korean sport culture could be the reason of the outcome.

Second, the question specifically asked about the career decision making moment even post-college. The athletes possibly want to answer that the decision making is their own. If they answered that they would be influenced a lot from their parents, it may make them feel like they are dependent on a parent. Therefore, they would not want to answer honestly because of the nuance of the question. Third, since I am a researcher from a foreign country, the student athletes might want to show their independent spirit. The collegiate athletes do not want show their dependency to other countries’ collegiate athletes. Last, the unexpected result on parental influence could be a generational difference. Recent collegiate student athletes may be more independent than past generation of collegiate athletes.

Qualitative Discussion

The quantitative results provided a useful window into the linkages between athletic identity and career decision making self-efficacy. However, as is true with all quantitative research, it is not as effective at understanding the underlying thinking or perspective of a survey respondent with regard to what might lead them to answer the questions as they did. Hence, for
this study, I asked select open ended questions to help illumine the findings more deeply. These insights are organized into two specific themes as described in the following sections.

**Understanding Student Needs**

The first theme of the question was “What do you see as your needs to explore and consider career opportunities post-college?” According to the responses, Korean collegiate athletes’ need to improve their personal capability and ability, be more committed and hardworking, have qualifications and certifications, improve their athletic skills and English skills, and obtain more financial support to pursue their future careers. The needs were listed in order from the most common answer to the less common.

What do the Korean collegiate students’ responses show about Korean higher education institutions? The major need is to have career opportunities post-college in the areas of educational preparation, getting ready to transition to a career, and more and better guided training for getting preferred jobs. Korean collegiate athletes have not commonly studied enough during their school lives. This disconnection from educational opportunity makes them feel that they need to build and acquire more capability for being employed. From the educational environment in which they have been, the students have not acquired sufficient basic knowledge that people need to have to apply for a job (at least one in their case outside of their sport). Several interviews from former student athletes conducted by S. W. Lim (2005) found that they could not understand the content of their classes since they never tried to study hard and frequently took naps during their classes. Thus, they feel they need more capability or ability to fit a job qualification.

In addition, the collegiate athletes did not have opportunities to learn English because of being absent from their classes. S. Y. Lee and An (2004) noted that student athletes in their study
only attended classes in the morning. When the student athletes entered high school, they attended classes only for one month and were absent from classes for the rest of the semester (Lee & An, 2004). This environment needs to be changed for most of the student athletes who cannot or do not want to be elite athletes for their future career. They are student athletes, not athlete students. Korean universities and colleges’ leaders and administrators need to think about the meaning of the word student athlete.

English is a common and needed skill for acquiring a job in Korea. It is very hard to get a quality job position without good English skills. Therefore, the collegiate students realize that they need good English skills. I personally tutored several collegiate athletes when I was working as a graduate assistant in formal university in Korea. I realized that the athletes’ English skills were seriously low. Many could not spell the names of their father or mother. They wrote father as “fader” and mother as “mader”. The problem stems from the unique education system in Korea as noted previously that characterizes a student athlete’s circumstance.

Since they have not committed to being a quality worker (outside of their sport), the student athletes feel they need more commitment. When student athletes transition from high school to college or university, they gradually receive more athletic training responsibilities so their time for studies gets further reduced. M. S. An (2006) pointed out that this phenomenon puts the athletes at even greater downstream disadvantage for career opportunities. M. S. An (2006) argued that collegiate athletes need to reduce practice time and have an opportunity to study like other college students. Only a few athletes in this dissertation study mentioned about sufficient opportunities for study.

Korean collegiate student athletes cannot major in anything but physical education, because the Ministry of Culture, Sports, and Tourism believe that student athletes do not have
enough academic ability for majors such as business and engineering. Student athletes have not had the right to choose their own major since 2000 (H. K. Lee, 2009). The rule may obstruct college student athletes’ career opportunities outside of sports and for create challenges to building a strong credential for something other than their sport.

The collegiate athletes want to prove themselves by gaining more certifications. This is especially true if one wants to be a sport instructor which requires particular certifications to teach their sport. Most student athletes who do not get a job in professional sports league work as a sports instructor, including coaching sports teams. Thus, the athletes feel that certain certifications are needed to consider career opportunities post-college. If the student athletes want to be professional athletes, they also need athletic skills. A noted need for better athletic skills came from only 24 student athletes out of 290. This result suggests that the students either have supreme self-confidence in a sports future or actually do have a realistic idea that it may not be possible for them.

Financial supports as a response probably comes from the relationship between college students and their parents in Korea. The majority of college students in Korea are supported by their parents financially such as for living cost and tuition. The majority of Korean college students are not independent financially and psychologically from their parents. It is very different culture between Korea and the United States. Even though there was no significant relationship was found between parental influences and deciding their future career in this study, collegiate athletes nevertheless feel the need for financial support from their parents.

**Career Decision Barriers**

The next theme of the question was “Are there any barriers to your ability to make career decisions and if so, what are they?” According to the collegiate athletes’ answers, the majority
think that there are no perceived barriers to pursue their career. Almost 1/2 of the student athletes who answered this question responded that there were no barriers to making a career decision. The outcome showed that at least one-half of Korean collegiate athletes are fearless about their ability to make career decisions. The lack of occupation knowledge about real job qualification could be a reason why they do not perceive barriers (i.e., blissfully ignorant). In a conversation I had with athletic administrators, he affirmed that many do not realize the difficulty of securing a stable job position.

However, the athletes who responded noted that the perceived barriers they do see are injury or slump by injury, low salaries or lack of financial support by their family, military service, surroundings, and English skills. The barriers were listed in order of the most common answer to the less common. The student athletes considered that injuries or slump by the injuries could be the worst obstacles for their future careers. A number of researchers have noted that student athletes who have strong and exclusive athletic identity can easily face huge difficulties whey they experience injuries and athletic career termination by the injuries (Deutsch, 1985; Eldridge, 1983; Heyman, 1986; Ogilvie, 1987; Pearson & Petitipas, 1990).

Other researchers have pointed out that the collegiate student athlete experience difficulties and lower satisfaction in transitioning and post-transitioning from their athletes’ roles after career ending injuries (Brewer et al., 1993; Kleiber et al., 1987). This dissertation study showed that the collegiate students mostly think of their future careers as athletes, so they fear injuries or slump by injuries the most. Since they have played sports their entire life, their future focus would be continuing to focus exclusively on their sport.

Low salaries in chosen jobs or financial support from their family can also be obstacles for the collegiate athletes because salaries of sports related jobs in Korea such as sport instructors
or school coaches are relatively lower than other jobs. According to J. K. Park (2009), the average yearly salary (U.S. dollars) for college head coach is approximately $34,200, and the average yearly salary for an assistant coach is approximately $22,400. For the past decade, the Korean job market has shrunk, so many college graduates do not have a job. Furthermore, there are not enough job in professional sports in Korea and the collegiate athletes cannot generally find a job in their athletic field (H. R. Lee, 2010). As such, family support becomes especially important for them. As mentioned in Chapter 2, Korean children want their parents to help with financial support to development their future careers (S. L. Kim & Lee, 2007). Generally, Korean college students rely on their parents financially to a much higher degree than American college students. Thus, the collegiate athletes also want to have more financial support from their families. If they do not have enough support, the collegiate athletes see it as an obstacle.

Military service was also a note concern. At present, the period of military service for the Korean army is 20 months (Navy = 22 months; Air Force = 24 months). These were 26 months, 28 months, and 30 months respectively until 10 years ago. Healthy Korean males have to join military service at age 20. There is alternative way to serve the country, however, which is to be selected by the Armed Forces Athletic Corps, called Sangmu, established in 1984. Another way is winning the Olympic medal or gold medal in the Asian Game or the World championship games. Therefore, most of student athletes have to join the military during their college years or right after graduation, so the collegiate student feel military service is a big obstacle to their future career.

The collegiate athletes’ surroundings can also be an obstacle. The meaning of surroundings is a support system from their family, school, and coaches to pursue their athlete lives or transitioning lives to other professions. S. L. Kim and Lee (2007) argued that quite a few
Korean parents are invested in their children's career development, career exploration, and decision-making processes. Korean students are dependent on family relationships (H. Y. Lee, 1999; J. B. Lee, 2007) and their coaches could be perceived as their parents in the sport world. J. Lee and Kim (2015) pointed out that close relationships with parents was associated with greater dedication to career choices and higher self-efficacy in career decision-making process for Korean college students. However, the student athletes who do not have enough support by parents or coaches can perceive surroundings as a barrier.

English skills can be a barrier for the collegiate athletes. The reason can be the same as I explained in the Need Theme. Others that need to be addressed are that they do only play sports so they do not know what they should do for their careers. Some other respondents answered that class attendance was a barrier because studying time was decreased vis-à-vis the demands of their sport. On the other hand, some student athletes answered that lack of education opportunity made see it as an obstacle to career building.

J. K. Park (2009) pointed out that among 67 colleges and universities that participated in their study, 31.3% of the colleges answered they offer makeup classes and only 7.4% of the colleges offer tutoring support for their student athletes. Furthermore, 61.2% of the institutions do not offer extra support for education purposes. Korean collegiate athletes deserve better and more support from their school for learning that transcends their sport.

**Implications**

**Implications for Athletes**

The findings of this study showed that the collegiate athletes who had higher athletic identity had higher career decision making self-efficacy, something that is critical to keep in mind for those who are working with collegiate student athletes. As mentioned in a variety of
places in this dissertation, Korean collegiate student athletes have not had enough support to
develop their careers. The athletes need opportunities to attend a career development class that
colleges and universities would offer and involve field professionals (e.g., sport psychologists,
athletic academic counselors, coaches, career counselors).

When first semester freshmen enter college, they face a large number of classes for which
they might register, but modest guidance to choose classes strategically and wisely. Collegiate
student athletes need deeper insights on how specific classes and majors can help to obtain a
good paying job or to earn a degree. Most researchers as noted previously report that collegiate
student athletes’ self-efficacy in academic planning is very low, but the current study found that
the surveyed student athletes showed that when their self-efficacy in planning is higher, the
collegiate athletes have stronger athletic identities. However, the student athletes need to know
that their self-efficacy level may be misplaced and inappropriately high given what is known
about stable long-term job prospects either within our outside of their sport. Collegiate student
athletes need to evaluate themselves critically and make connection with former student athletes
who can give them realistic advice for their future careers. Also, Korean collegiate athletes
would benefit from a clear long-term vision for their careers.

Collegiate student athletes also need to push for their need of adequate study time since at
present some coaches and administrators appear to only care about the outcome of the sports
team. Student athletes need to argue and express their opinions to the coaches and athletic
departments’ administrators. As discussed in this study, the average GPA of student athletes is
lower than non-collegiate athletes which can be a critical reason employers may choose to not
hire a former athlete versus a non-athlete. Collegiate athletes need to consider their college GPA
more seriously. As a precursor to conducting my study, I interview several U.S. collegiate
student athletes. They were very confident about being able to get stable jobs, attributable in
their minds at least in part to having a good GPA and time management skills.

A model that could help collegiate student athletes to do well in college is offered by
Zimmerman (2000). They reported four sequential self-regulated learning skill levels built from
Bandura’s four sources for building self-efficacy. Level one for building self-efficacy is
vicarious experience (observation learning). In this level, when students meet with their
academic advisor, they discuss an academic planning strategy. For example, when an academic
advisor meets a new student who does not know anything about the school’s educational process
or majors, the advisor need to explain pathways to a degree and the outcomes that might be
realized with regard to employability.

The second level is emulation. The student practices how to compete with others in
school under an academic advisor’s guidance. The student receives feedback and advice from the
academic advisor in the form of reflective critique as well as positive encouragement.

The third level is mastery of skill. Students need to develop self-control based on self-
evaluation of their performance, choices, and engagement by their own independent academic
planning. The activities which the student chooses needs to match degree requirements; their
academic advisor provides feedback when requested by the student.

The final level for building self-efficacy is self-regulation proficiency. The student
applies their independent knowledge and skills to adapt to a fluid environment such as
rescheduling courses (choosing substitute courses) or changing to a new major. At this level,
students obtain independent problem solving skills and the advisors offers little or no feedback.
“When students believe that they can perform a task in a proficient manner, they will become
more engaged in the activity, work harder, and sustain high levels of effort even when obstacles
are encountered” (Zimmerman & Cleary, 2006, p. 51). Training students this way for building self-efficacy via vicarious experience, self-monitoring, and academic planning can promote collegiate student athletes’ confidence levels to perform well in school.

**Implications for institutional Practice**

The findings of the current study can be helpful to career counselors, advisors, and other professional who support collegiate student athletes. Individuals who work with student-athletes need to consider how strongly the athletes see themselves as an athlete. Considering the findings, Korean collegiate athletes who have an exclusive identity as an athlete need to be adequately encouraged in order to make themselves better informed and carefully think about career decisions. For encouraging the athletes, academic and athletic advisors need to be encouraged to have discussions with student athletes about their career path after they retire from their sports, or are not able to pursue them after graduation.

Before the collegiate athletes are encouraged to prepare for a future outside of their sport, whenever it comes, the athletes need to be treated appropriately as a student athlete. As discussed previously, collegiate student have lots of problems developing their careers and to get stable, full time jobs. Higher education institutions, especially their career centers, need to have specific programs for student athletes. Furthermore, institutional engagement needs to be a coordinated one across the variety of professional personnel who work with student athletes.

One tool that can inform such work is the career development intervention program for student athletes created by Martens and Lee (1998). The model in Figure 3 is an initial outreach program model for college student athletes. The model provides ideas for career centers that have an interest in targeting the career development of student athletes. The model has three steps and each step has sub-goals, flowing from the top to the bottom of the model.
Step 1: Collaborate with the athletic department. This step is probably the most important step to address student athletes’ needs in order to start collaborating with the Athletic Department (Martens & Lee, 1998). Martens and Lee (1998) mentioned that “it will be able to make programming occur more systematically within the framework of the athletic culture” (p. 129).

Step 2: Identify program goals. Step 2 has four goals: (a) Address logistical barriers, (b) Promote independence, (c) Expand options, and (d) Appreciate the athletic identity (Martens &
Lee, 1998). These goals are based on the specific concerns of the athletes and emphasize ways one can help the student athletes to develop their careers and as a person (Martens & Lee, 1998).

Step 3: Implement program activities. The step is divided by each year (freshman, sophomore, junior, and senior year). It focuses on what is the most important for each year of a student athlete’s time in college. This is important because the needs change as time progresses.

Since Korean collegiate athletes have not had opportunities to think about their careers in their high school years, Korean colleges and universities need to address the athletes’ needs and barriers, and expand their career options by informing them of other career opportunities. Currently in Korea, the most important agenda for Korean higher education institutions is preparing their students for occupational opportunities. Considering conditions of Korean higher education, not only communication between collegiate athletes and faculties is needed, but also collaborating with the athletic department is certainly necessary as well as working with the career center. Every higher education institution in Korea is different. Finding out the best way to develop their athletes’ career building is very important to Korean collegiate athletes so the four parties (student athletes, faculties, athletic department, and career center) need to communicate deeply and honestly with each other.

In addition, the collegiate athletes need to receive career counseling by career center personnel. Each year, the colleges and universities need to offer career counseling to the collegiate athletes to examine their dreams and goals. In that way, the career counselor can check how the collegiate athletes build and develop their careers, and the counselor can advise on new challenges every year in order to support their career goals in proper ways. Also, faculties and athletic department personnel need to communicate with their athletes and follow up the collegiate athlete’s needs and barriers to help them build their career. The most difficult
challenge for this model could be making the collegiate student athletes realize that these steps of career developing is extremely important for their future lives because they have focused on sports only.

Even though a career center may try to help college student athletes, it will be the athletes’ responsibility to participate and ultimately own/develop their careers when they are in college (Martens & Lee, 1998). College student athletes who want to develop their careers must understand developmental tasks such as developing competence, managing emotions, moving through autonomy toward interdependence, developing mature interpersonal relationships, establishing identity, developing purpose, and developing integrity (Chickering & Reisser, 1993). However, career center personnel also need to take proactive outreach steps such as collaborating with the athletic department and appreciating the athletic experience (Martens & Lee, 1998). The model can help Korean collegiate athletes to develop their career plan step by step. Korean higher education institutions need to develop this kind of program to help their student athletes in order to make the athletes better prepared for future career challenges and difficulties.

As noted from previous research and discussed in this dissertation, collegiate student athletes have experienced substantial difficulties with career maturity. Therefore, the best practice for helping collegiate athletes is making sure they need are exposed to interventions which are designed to help them be more confident in their career self-efficacy for whatever may come post-college. An intervention that is applicable in this regard is the positive transitions model of sport retirement (Stankovich et al., 2001). The program is designed to build student athletes confidence using athletic transferable skills such as goal setting, communicating effectively with teammates, and time management skill beyond sport. Furthermore, the program uses a career development course for junior, senior, and fifth-year student athletes in large
Midwestern Division I universities. The program has three components, identity development, athletic transferable skills, and career exploration. In the class, student athletes learn how to develop and deploy a transitioning process, and to plan for a career beyond sports (Stankovich et al., 2001). Collegiate student athletes may be able to build on their career self-efficacy in other arenas such as the business world so special programs other than classes may help the student athletes build such career confidence.

Administrators who work with student athletes need to remind them how strong and exclusive athletic identity can be a powerful force in their ability to make a career decision. In other words, when athletes struggle to make decisions regarding their career, university personnel should provide services to evaluate the athletes’ difficulties with career decision-making and athletic identity. The importance of academic and career advisor accessibility in college campus for student athletes cannot be over-emphasized. The collegiate student athlete who has a strong athletic identity, but lower career self-efficacy, can be setting themselves up for trouble if they do not gather occupational information or sharpen their problem solving skills. On-site career advisors can assist with this.

The career counselors should evaluate athletic identity and career decision making self-efficacy of their student athletes in order to improve and tailor services. Those student athletes who have strong athletic roles, but experience lower career self-efficacy than others, need encouragement and support from career services personnel. On the other hand, if the student athletes reports strong career decision-making self-efficacy, combined with a strong athletic identity, career counselors may carefully and honestly work on what may be misguided confidences by providing realistic advice about what it will take to obtain, and sustain, a career in their sport or apply their skills and learning in alternative work settings. By encouraging and
exploring career self-efficacy for student athletes, career counselors will be able to help the student athletes think independently about career issues.

Career education cannot be ignored and as noted earlier, must be done in collaboration with the athletic department and career center. The teamwork needed must be systematized because the athletes spend the majority of their time practicing and competing in their sport. Korean colleges and universities need to offer study hall hours as is common in the U.S. so student athletes can realize the importance of grades and career marketability for the future. Korean higher education institutions should be more prepared to educate in order to help their student athletes have a positive transition process leading to happier lives (Brooks, Etzel, & Ostrow, 1987).

Implications for Policy

Korean government and higher education institutions have tried to reform some policies for student athletes. Since Korean higher education did not have a consultative committee for collegiate student athletes like the NCAA of the U.S., the Korea Olympic Committee and physical education professors opened an academic seminar under the sponsorship of the Korea Sports Promotion Foundation in 2009. In the seminar, some scholars argued for the need of a Korean version of the NCAA. As a result of the meeting, the Korea University Sport Federation (KUSF) was established in 2010. The purpose of the KUSF is to promote sports values and to consult on academic affairs, financial affairs, and facilities for student athletes. By mutual cooperation within university institutions, student athletes build healthy leadership and excellent athletic performance.

The KUSF has proposed necessary reforms for collegiate student athletes. The KUSF legislated regulations about academic eligibility and weekend leagues, for example, to make
collegiate student athletes study time more like non-athlete students. However, the regulations have yet to evidence the impact desired. College coaches have expressed difficulty in realizing rising collegiate athlete GPAs beyond an average of 2.0 out of 4.5 (2.0 out of 4.5 scale is less than 1.85 out of 4.0 scale). In 2016, 102 collegiate student athletes fell short of the standard (J. H. Noh, 2017). This problem is not only at the college level but is also present at the high school level.

As discussed in Chapter 2, many colleges in Korea do not have a GPA standard for incoming student athletes so high school athletes do not have to study hard to enter higher education institutions. Therefore, government policies for college entrance regulation need to be changed in order for the athletes to have the right kind of expectation for the important of sufficient study in college classes. In addition, colleges and universities should enable collegiate athletes the ability to choose a major in order that they are afforded more career opportunities. All Korean collegiate student athletes as has been noted must major in physical education, without exception. The regulation makes the athletes exclusively consider their career choice as limited to sport.

One best practice model for helping student athletes after they retired from their sport comes from Canada via their athlete transition services (Lavallee & Wylleman, 2000). The Canadian Olympic Association’s (COA) Athlete Services transition program is continually modifying its services to reflect their athletes’ needs. The following career and educational planning services were those originally offered to athletes by the COA:

1. Individual career planning: Clarification of career planning needs, self-assessment, identification of suitable options, career research, decision making, and action-planning skills.
2. Retirement guide: Booklet outlining the transition process and what athletes should expect during the adjustment period.

3. Transition workshop and peer support group: Individual or group meetings to help athletes deal effectively with the transition process.

4. Aptitude/Interest assessment: Availability of career interest inventories to assist in identification of a specific vocation or occupation of interest.

5. Resume preparation: Booklet and consultation available to assist in effective resume preparation.

6. Interview preparation: Booklet and consultation available to assist in developing effective interviewing skills.

7. Job-search techniques: Booklet and consultation available to assist in developing effective job search skills.

8. Informational interviewing: Booklet and consultation available to assist in obtaining meaningful information regarding jobs / careers of interest.

9. Letters of support: Reference letters provided by the Canadian Olympic Association.


11. Shadow program: Linking athletes with individuals currently established in specific career areas and allowing the athletes to “shadow” the individual for a workday (Lavallee & Wylleman, 2000, pp. 134-135).

Programs such as that provided by the COA can be adapted and applied in the Korean context. Student athletes would benefit greatly by such an opportunity.
Study Limitations

As is true for any study, this one is not without limitations. First, participants are university student athletes in South Korea. Therefore, the outcome is limited only to Korean collegiate student athletes, and thus, the results should not be generalized to other countries’ collegiate student athletes. Korea has its own unique history with collegiate, and national, athletics and while an important extension of the knowledge base, it does not necessarily capture the college athletics experience of other nations, even ones in that part of Asia.

A next potential limitation may be sample size. Table 19 provides general rules of thumb for different sample sizes linked to specific inferential analysis tools.

Table 19

Sample Size Rules of Thumb

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Reasonable sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measuring group differences (e.g., T-test, ANOVA)</td>
<td>Cell size of 30 for 90% power, if decreased, no lower than 7 per cell</td>
</tr>
<tr>
<td>Relationship (e.g., correlations, regression)</td>
<td>Approximately 50</td>
</tr>
<tr>
<td>Chi –Square</td>
<td>At least 20 overall, no cell smaller than 5.</td>
</tr>
<tr>
<td>Factor Analysis</td>
<td>Approximately 300 is “good”</td>
</tr>
</tbody>
</table>


Wilson Van Voorhis and Morgan (2007) suggested that if a researcher utilizes six or more predictors, an appropriate minimum number of participants should be at least 10. A number of researchers (Comrey & Lee, 2002; Tabachnick & Fidell, 1996) studied a guideline sample size that 50 samples are very poor, 100 are poor, 200 are fair, 300 are good, 500 are very good, and 1,000 are excellent. Depending on the return rate from the surveys, there may be sample size issues that emerge. Since this kind of study has never been done in Korea before, it was
unknown what kind of actual return rate would be realized. Who actually does choose to participate might also not optimally match the population of Korean athletes.

Third, the measures might not be ideally suitable for the Korean context. Hale, James, and Stambulova (1999) found that nine items with the three factor AIMS questionnaire was suitable for English speakers but not for Russians because of possible factors such as conceptual equivalence, linguistic equivalence, and psychometric equivalence. Lindwall (2005) suggested that differences in response patterns across other cultures were the reason for the outcomes because the AIMS was developed and constructed for the English-speaking culture.

Finally, in retrospect, the qualitative questions did not reveal as rich comment as was envisioned. Since interviews were not integrated into this study, primarily because of the emphasis placed on quantitative research in Korea, and in turn publish ability by me, that element was provided via open-ended questions on the survey itself. Responses were generally short and not especially nuanced.

**Opportunities for Future Research**

Future research is needed to better understand the relationship between career decision making self-efficacy and athletic identity among Korean student athletes. The current study had some different findings from a number of previous studies. Previous research has generally noted a negative relationship or no relationship between the two measuring scales of athletic identity and career decision-making self-efficacy. Future research could have a different or more meaningful result when the researcher disaggregates factors such as studying by sport, gender, or class standing. For example, female collegiate golf players might show a more meaningful result on a subscale or whole score of the Athletic Identity and the Career Decision Making Self-Efficacy versus the female collegiate badminton players. This disaggregation of research would
make the study more meaningful and different than my study. On the other hand, when the researcher aggregates the Athletic Identity and the CDMSE as a whole scale like previous researchers have done, the outcome also would be different or more meaningful.

In addition, qualitative research with data disaggregation could make the result deeper and more meaningful. During analysis of the data, I kept asking myself if it was possible that the participants’ answers were not truthful. It is hard to believe that Korean student athletes who say they can make a good resume and have strong job interview skills also have stronger athletic identity. Crafting a good resume and developing good job interview skills are very difficult even for students who give great effort to obtain those skills. In light of this finding, more in-depth qualitative inquiry is needed. The method of research is not very popular among Korean researchers, however. Yet, the method can provide a different view of athletic identity and career decision making self-efficacy among Korean collegiate student athletes. In addition, with the qualitative research method, future researchers can find more and deeper needs and barriers of collegiate student athletes on their pathway to building future careers, particularly when they confront needing to do so outside of sport.

Another opportunity for future researches is a survey of graduates who were college athletes and did not go on to a sports career, or who only had a career for a short period. Another possibility would be a comparative study of college athletes in other countries where there has been limited research. Recently, Gallup interviewed 1,670 former NCAA student athletes (age range from 22 to 71) about their lives while 22,813 non-student athletes (ranging in age from 22 to 90) who graduated same higher education institutions (Gallup, 2016). Table 20 presents these results.
Table 20

*Current Employment Status*

<table>
<thead>
<tr>
<th></th>
<th>Employed Full Time (Employer)</th>
<th>Employed Full Time (Self)</th>
<th>Employed Part Time, Do not want Full Time</th>
<th>Unemployed</th>
<th>Employed Part Time, want Full Time</th>
<th>Not in Work Place</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Males</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Student Athletes</td>
<td>71 %</td>
<td>6 %</td>
<td>6 %</td>
<td>3 %</td>
<td>5 %</td>
<td>9 %</td>
</tr>
<tr>
<td>Student Athletes</td>
<td>67 %</td>
<td>8 %</td>
<td>6 %</td>
<td>3 %</td>
<td>5 %</td>
<td>11 %</td>
</tr>
<tr>
<td><strong>Females</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Student Athletes</td>
<td>56 %</td>
<td>4 %</td>
<td>14 %</td>
<td>3 %</td>
<td>6 %</td>
<td>17 %</td>
</tr>
<tr>
<td>Student Athletes</td>
<td>62 %</td>
<td>5 %</td>
<td>17 %</td>
<td>3 %</td>
<td>4 %</td>
<td>9 %</td>
</tr>
<tr>
<td><strong>Overall</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Student Athletes</td>
<td>63 %</td>
<td>5 %</td>
<td>10 %</td>
<td>3 %</td>
<td>5 %</td>
<td>13 %</td>
</tr>
<tr>
<td>Student Athletes</td>
<td>65 %</td>
<td>6 %</td>
<td>11 %</td>
<td>3 %</td>
<td>5 %</td>
<td>10 %</td>
</tr>
<tr>
<td><strong>Younger Than Age 65</strong></td>
<td>66 %</td>
<td>5 %</td>
<td>9 %</td>
<td>3 %</td>
<td>6 %</td>
<td>12 %</td>
</tr>
<tr>
<td>Student Athletes</td>
<td>66 %</td>
<td>6 %</td>
<td>11 %</td>
<td>3 %</td>
<td>5 %</td>
<td>10 %</td>
</tr>
</tbody>
</table>

Source: Gallup (2016).

Their overall results indicated that 82% of former student athletes were employed either full-time or part-time in a job they wanted while 78% of non-student athlete graduates said this. In addition, 71% of former student-athletes were employed in a full-time job while 68% of non-student athletes were. In addition, 11% of former student-athletes and 10% of non-student-athletes were employed part-time, and do not want full-time employment. This research focused on nearly two of every three NCAA alumni (65%). Gallup also found that 3% of former student athletes...
athletes were unemployed and 5% were working part-time but want to be working full-time and matched the rate for non-student athletes.

**Conclusion**

Frey and Eitzen (1991) argued that “sports is an arena of patterned behaviors, social structures, and interinstitutional relationships that holds unique opportunities to study and understand the complexities of social life” (p. 503). Similarly, Donnelly (2008) mentioned that “Sport reflects society or, to put it another way, sport is a mirror of society” (p. 17). The ideologies between South and North Korea have consistently built the negative aspects of Korean student athletes as discussed in Chapter 2. The South Korean government has made an effort to display South Korea’s power to all the world, especially to North Korea, through international sporting events while the student athletes have suffered with regard to sufficient educational and career opportunity.

“I am sorry. I am a student athlete.” Why should a student athletes have to say this? What they have done wrong? The only thing they have done is play their sport and practiced as hard as possible. I have seen these student athletes when I was working as a graduate assistant in my former university in Korea. Some professors asked the student athletes to write who they were in the upper right corner of their examination answer sheet, inferring that they had different expectation of student athletes in their classroom. Korean higher education institution leaders need to find the way to reduce the gap in academic skills between student athletes and non-student athletes. In addition, high school administrators need to think what the better way is for their student athletes’ future careers because the majority of student athletes start their sports career in mid-high school. Finally, government administrators need to address the future for Koran student athletes.
Some people can argue that possessing a strong athletic identity is one of the most important characteristics that student athletes need to possess to be an elite athlete. Many researchers argue commitment to training, motivation, and clear obsession on sport related goals is necessary to be successful in high level sports. However, too strong athletic identity may result on identity foreclosure, over training, and harmful emotional conditions such as burnout and anxiety (Symes, 2010). The negative effect may lead to career ending injuries or performance enhancing drug use. Korean higher education institutions and the Korean government need to change their attitudes on elite athletes, and collegiate student athletes must think about their future after athletics.
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APPENDIX A: Demographic Questions

1. Which of the following terms best describes your sexual orientation?
   □ Male
   □ Female

2. What is your class standing?
   □ Freshman
   □ Sophomore
   □ Junior
   □ Senior

3. What is your cumulative (overall) GPA?
   □ 4.0 ~ 4.5
   □ 3.5 ~ 3.99
   □ 3.0 ~ 3.49
   □ 2.5 ~ 2.99
   □ 2.0 ~ 2.49

4. Possible to play in a professional league?
   □ Possible
   □ Impossible

5. How influential have your parents on you about your career pursuits even post college?
   (Very much) 1 ___ 2 ___ 3 ___ 4 ___ 5 ___ 6 ___ 7 ___ (Very little)
APPENDIX B: Career Decision Self-Efficacy Scale-Short Form (CDSE-SF)

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Very little confidence</th>
<th>Confidence</th>
<th>Moderate confidence</th>
<th>Much complete confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Find information in the library about occupations you are interested in.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Select one major from a list of potential majors you are considering.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Make a plan of your goals for the next five years.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Determine the steps to take if you are having academic trouble with an aspect of your chosen major.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Accurately assess your abilities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Select one occupation from a list of potential occupations you are considering.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Determine the steps you need to take to successfully complete your chosen major.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Persistently work at your major or career goal even when you get frustrated.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 Determine what your ideal job would be.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 Find out the employment trends for an occupation over the next ten years.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 Choose a career that will fit your preferred lifestyle.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 Prepare a good resume.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 Change majors if you did not like your first choice.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 Decide what you value most in an occupation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 Find out about the average yearly earnings of people in an occupation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 Make a career decision and then not worry whether it was right or wrong.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17 Change occupations if you are not satisfied with the one you enter.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 Figure out what you are and are not ready to sacrifice to achieve your career goals.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19 Talk with a person already employed in a field you are interested in.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 Choose a major or career that will fit your interests.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21 Identify employers, firms, and institutions relevant to your career possibilities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No confidence at all</td>
<td>Very little confidence</td>
<td>Confidence</td>
<td>Moderate confidence</td>
<td>Much complete confidence</td>
</tr>
<tr>
<td>----------------------</td>
<td>------------------------</td>
<td>------------</td>
<td>--------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>22 Define the type of lifestyle you would like to live.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23 Find information about graduate or professional schools.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24 Successfully manage the job interview process.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 Identify some reasonable major or career alternatives if you are unable to get your first choice.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: CDMSE-SF Subscales are followed: Self-Appraisal Items’ numbers are 5, 9, 14, 18, and 22, Occupational Information Items’ numbers are 1, 10, 15, 19, and 23, Goal Selection Items’ numbers are 2, 6, 11, 16, and 20, Planning Items’ numbers are 3, 7, 12, 21, and, 24, and Problem Solving Items’ numbers are 4, 8, 13, 17, and 25.*

*Source: Betz, Klein, and Taylor (1996).*
APPENDIX C: Athletic Identity Measurement Scale (AIMS)

1. I consider myself an athlete.
2. I have many goals related to sport.
3. Most of my friends are athletes.
4. Sport is the most important part of my life.
5. I spend more time thinking about sport than anything else.
6. I need to participate in sport to feel good about myself (omitted).
7. Other people see me mainly as an athlete.
8. I feel bad about myself when I do poorly in sport.
9. Sport is the only important thing in my life.
10. I would be very depressed if I were injured and could not compete in sport.


Note: The AIMS consists of 10 questions that are scored on a 7-point Likert-type scales ranging from “strongly agree (7)” to “strongly disagree (1)”.
APPENDIX D: Open Ended Questions

1. What do you see as your needs to explore and consider career opportunities post-college?

2. Are there any barriers to your ability to make career decisions, and if so, what are they?
APPENDIX E: Type of Sports Team by Universities and Number of Student Athletes who were Admitted in 2016

<table>
<thead>
<tr>
<th>Name of the School</th>
<th>Number of Student Athletes</th>
<th>Type of Sports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ga-Chon University</td>
<td>20</td>
<td>Basketball, Soccer, Taekwondo, Tennis</td>
</tr>
<tr>
<td>Kang-Nam University</td>
<td>2</td>
<td>Shooting</td>
</tr>
<tr>
<td>Kang-Won University</td>
<td>21</td>
<td>Wrestling, Shooting, Swimming, Track and Field, Tennis, Canoe, Table Tennis, Field Hockey, Handball</td>
</tr>
<tr>
<td>Gun-Kook University</td>
<td>30</td>
<td>Golf, Basketball, Baseball, Track and Field, Tennis</td>
</tr>
<tr>
<td>Kyung-Gee University</td>
<td>36</td>
<td>Volleyball, Korean Wrestling, Judo, Boat Race, Soccer, Table Tennis</td>
</tr>
<tr>
<td>Korea National Sports</td>
<td>62</td>
<td>Gymnastic, Windsurfing, Billiard, Synchronize, Bodybuilding, Horse Riding, Table Tennis, Fin Swimming, Squash, Wushu (Chinese Martial Art), Water Ski, Aerobics, Dance Sports, Inline Skate, Taekwondo</td>
</tr>
<tr>
<td>Kyung-Nam University</td>
<td>36</td>
<td>Wrestling, Shooting, Korean Wrestling, Baseball, Weightlifting, Taekwondo</td>
</tr>
<tr>
<td>Kyung-Book University</td>
<td>22</td>
<td>Kendo, Bowling, Ski, Track and Field</td>
</tr>
<tr>
<td>Kyung-Sung University</td>
<td>15</td>
<td>Wrestling, Swimming, Baseball</td>
</tr>
<tr>
<td>Kyung-Woon University</td>
<td>57</td>
<td>Kendo, Wrestling, Track and Field, Bike Race, Judo, Taekwondo</td>
</tr>
<tr>
<td>Kyung-Hee University</td>
<td>82</td>
<td>Basketball, Rugby, Volleyball, Baseball, Soccer, Field Hockey, Handball</td>
</tr>
<tr>
<td>Kei-Myung University</td>
<td>53</td>
<td>Ice Skating, Baseball, Archery, Judo, Track and Field, Taekwondo, Tennis</td>
</tr>
<tr>
<td>Kong-Ju University</td>
<td>14</td>
<td>Basketball, Volleyball, Badminton, Bodybuilding, Swimming, Track and Field, Softball Tennis, Soccer, Table Tennis, Tennis, Handball, Futsal (mini soccer)</td>
</tr>
<tr>
<td>Korea University</td>
<td>57</td>
<td>Soccer, Rugby, Baseball, Basketball, Ice Hockey, Golf</td>
</tr>
<tr>
<td>Name of the School</td>
<td>Number of Student Athletes</td>
<td>Type of Sports</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>----------------------------</td>
<td>-------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Kwang-Woon University</td>
<td>20</td>
<td>Golf, Skating, Ice Hockey, Soccer</td>
</tr>
<tr>
<td>Kook-Min University</td>
<td>13</td>
<td>Kendo, Golf, Billiards, Bowling, Water Ski, Snow Board, Ski, Wind Surfing, Track and Field, Taekwondo</td>
</tr>
<tr>
<td>Far East University</td>
<td>3</td>
<td>Basketball</td>
</tr>
<tr>
<td>Nazarene University</td>
<td>15</td>
<td>Badminton, Swimming, Ski, Judo, Soccer, Taekwondo</td>
</tr>
<tr>
<td>Dan-Kook University</td>
<td>26</td>
<td>Basketball, Rugby, Skating, Ski, Korean Wrestling, Baseball, Track and Field, Boat Race, Soccer</td>
</tr>
<tr>
<td>Dae-Gu Catholic University</td>
<td>4</td>
<td>Badminton, Swimming, Soccer, Table Tennis</td>
</tr>
<tr>
<td>Dae-Jeon University</td>
<td>13</td>
<td>Boxing, Softball Tennis, Fencing</td>
</tr>
<tr>
<td>Dong-Kook University</td>
<td>29</td>
<td>Golf, Basketball, Baseball, Soccer, Shooting, Canoe</td>
</tr>
<tr>
<td>Dong-A University</td>
<td>50</td>
<td>Golf, Wrestling, Swimming, Korean Wrestling, Baseball, Yacht, Judo, Track and Field, Soccer, Taekwondo</td>
</tr>
<tr>
<td>Dong-Yang University</td>
<td>16</td>
<td>Badminton, Boxing, Track and Field, Taekwondo</td>
</tr>
<tr>
<td>Dong-Eui University</td>
<td>35</td>
<td>Badminton, Baseball, Judo, Soccer, Taekwondo, Fencing</td>
</tr>
<tr>
<td>Myung-Ji University</td>
<td>10</td>
<td>Basketball, Volleyball, Tennis, Soccer</td>
</tr>
<tr>
<td>Mook-Won University</td>
<td>12</td>
<td>Dance Sports, Sepaktakraw, Archery, Judo, Taekwondo</td>
</tr>
<tr>
<td>Mok-Po University</td>
<td>18</td>
<td>Kendo, Basketball, Volleyball, Track and Field, Canoe, Inline Skate</td>
</tr>
<tr>
<td>Bae-Jae University</td>
<td>6</td>
<td>Bowling, Archery, Soccer</td>
</tr>
<tr>
<td>Baek-Suk University</td>
<td>24</td>
<td>Wrestling, Badminton</td>
</tr>
<tr>
<td>Bu-Kyung University</td>
<td>13</td>
<td>Gymnastic</td>
</tr>
<tr>
<td>Sang-Myung University</td>
<td>13</td>
<td>Taekwondo</td>
</tr>
<tr>
<td>Sang-Ji University</td>
<td>25</td>
<td>Boxing, Softball, Archery, Soccer, Taekwondo</td>
</tr>
<tr>
<td>Sun-Moon University</td>
<td>10</td>
<td>Judo, Soccer, Fin Swimming</td>
</tr>
<tr>
<td>Sung-Kyul University</td>
<td>6</td>
<td>Swimming, Boxing, Tennis</td>
</tr>
<tr>
<td>SungGyunGwon University</td>
<td>35</td>
<td>Kendo, Golf, Basketball, Volleyball, Boxing, Swimming, Baseball, Track and Field, Soccer, Table Tennis, Handball, BMX</td>
</tr>
<tr>
<td>Sung-Shin Women’s University</td>
<td>3</td>
<td>Skating (Short track and Speed skating), Weightlifting, Taekwondo</td>
</tr>
<tr>
<td>Name of the School</td>
<td>Number of Student Athletes</td>
<td>Type of Sports</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----------------------------</td>
<td>-------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Sae-Han University</td>
<td>35</td>
<td>Golf, Basketball, Rugby, Shooting, Korean Wrestling, Judo, Soccer, Taekwondo, Kabaddi</td>
</tr>
<tr>
<td>Su-Won University</td>
<td>15</td>
<td>Basketball, Badminton, Baseball, Judo, Soccer, Taekwondo, Fencing</td>
</tr>
<tr>
<td>Soon-chon University</td>
<td>7</td>
<td>Archery, Yacht, Softball Tennis</td>
</tr>
<tr>
<td>An-Dong University</td>
<td>12</td>
<td>Cycle, Archery, Track and Field, Table Tennis, Tennis</td>
</tr>
<tr>
<td>Yeon-Sei University</td>
<td>23</td>
<td>Basketball, Rugby, Ice Hockey, Baseball, Soccer</td>
</tr>
<tr>
<td>Yung-San University</td>
<td>37</td>
<td>Kendo, Wushu, Judo, Softball Tennis, Table Tennis, Taekwondo, Tennis</td>
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<td>Yong-In University</td>
<td>186</td>
<td>Kendo, Golf, Basketball, Dance Sports, Wrestling, Muay Thai (Thailand Martial Art), Badminton, Boxing, Skating, Shooting, Swimming, Fin Swimming, Snowboard, Horse Riding, Korean Wrestling, Aerobics, Weightlifting, Wushu, Judo, Gymnastic, Soccer, Table Tennis, Taekwondo, Tennis</td>
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<tr>
<td>Wul-San University</td>
<td>14</td>
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<td>Won-Kwang University</td>
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<td>Golf, Rugby, Wrestling, Badminton, Bowling , Sepaktakraw, Softball, Baseball, Judo, Soccer, Tennis, Handball</td>
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<td>In-Jae University</td>
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<tr>
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<td>Type of Sports</td>
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<td>Chung-Ang University</td>
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</tr>
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<td></td>
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<td>Taekwondo, Tennis, Handball</td>
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<tr>
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<td>Ho-Nam University</td>
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<td>Boxing, Archery, Soccer</td>
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</table>

*Source:* Park, Soh, Park, and Song (2014); Korea University Sport Federation (2016).