The purpose of this study was to understand Bandura’s (1977) self-efficacy and Vealey’s (1986) sport confidence implications on collegiate athletes and to explore gender, playing experience, and class status (e.g., first year, sophomore) differences related to self-efficacy in these student-athletes. The study attempted to fill two major gaps in previous research: (a) understanding the relationships of gender, playing experience, and class status on self-efficacy, specifically by analyzing a variety of sports; and (b) expanding upon previous research studies by increasing the generalizability and external validity of the existing self-efficacy theories. The results of the study indicated that student-athletes had high levels of self-efficacy; that males possessed higher levels than females; that more playing experience did not predict higher levels of self-efficacy; and finally, that student-athletes became more self-efficacious as their class status increased (i.e., progressed). Theoretical and practical implications of the study’s findings will be discussed.
Self-efficacy, or the belief in one’s own ability to perform a specific task successfully, is one of the most influential psychological concepts thought to affect achievement endeavors in sport performance (Singer, Hausenblas, & Janelle, 2001). Fascination with this concept is fueled by the dramatic ideations related to, or as a result of, high or low levels of self-efficacy, for example, choking, slumps, and being in the zone. Former National Football League coach Vince Lombardi once said, “Confidence is contagious, but so is lack of confidence” (Making Performance Matter, 2012). Furthermore, Olympic athlete Carl Lewis demonstrated his belief about self-confidence as a vital factor for his successes by stating, “If you don’t have confidence, you’ll always find a way not to win” (Machida, 2008).

The concept of self-efficacy dates back several decades, and psychologist Albert Bandura was one of the first researchers exploring this topic. Though his work on self-efficacy began in the early 1970s, he gave his most widely utilized definition in 1997, describing self-efficacy as “the belief in one’s capabilities to organize and execute the courses of action required for managing prospective situations” (p. 191). In other words, self-efficacy is a person’s belief in his or her ability to succeed in a particular situation. Efficacy judgments are based on a complex process of self-persuasion that relies on cognitive processing of diverse sources of confidence factors (Bandura, 1997). Ultimately, self-efficacy is based on what one thinks one can do or is capable of doing.

The theory of self-efficacy “was developed within the framework of social cognitive theory, which views individuals as proactive agents in the regulation of their cognition, motivation, actions, and emotions” (Ede, Hwang, & Feltz, 2011, p. 183). Bandura (1997) argued that self-efficacy is not a static trait, but rather dynamic and fluctuating, taking on different forms. Bandura went on to state, “Beliefs of personal efficacy constitute the key factor of human agency. If people believe they have no power to produce results, they will not attempt to make things happen” (p. 3). The concept of self-efficacy is vital to coaches, athletes, and even spectators, for several reasons. First, as a coach, knowing what athletes feel and think about their skills, abilities, and talents is important in the development of those characteristics. Second, a better understanding of an athlete’s psyche can significantly improve the resulting sport performances (Moritz, Feltz, Fahrbach, & Mack, 2000). Better performing athletes may lead to better performing teams, and thus, a better overall intercollegiate athletics department. Finally, as a spectator, a better understanding of self-efficacy and its relation to sports performance can increase awareness and appreciation for the sport itself.

Researchers have conducted studies on the relationship between self-efficacy and performances in various sports (Moritz et al., 2000). From baseball (Hepler & Chase, 2008) to basketball (Vealey, Hayashi, Garner-Holman, & Giacobbi, 1998) and distance running (Heazlewood & Burke, 2011; Martin & Gill, 1991), many populations have been examined to determine the precise impact self-efficacy has on sport performance and how it can be better harnessed to improve the understanding of athletes and their psyches. Important implications can be derived from examining one sport in isolation, yet additional benefits may be found from studying several sports simultaneously. Exploring the role of self-efficacy within a multi-sport context is important because it helps to eliminate potential stigmas or idiosyncrasies regarding individual sports, whereby, for example, athletes who play soccer may differ in their levels of self-efficacy and performance from those who play lacrosse. This information can be particularly useful in multi-sport settings such as a collegiate or high school athletic departments.
In addition to studying singular sports, previous research has examined various sport contexts and levels, including Olympic (Gould, Dieffenbach, & Moffett, 2002), professional (Hays, Maynard, Thomas, & Bawden, 2009), and recreational (Woodman & Hardy, 2003) sports. Collegiate sports represent another important research area, and including variables specific to this context can offer additional insights. The heightened focus on college sports continues, evidenced by the media coverage focused on these environments and the millions of dollars flowing through them (Dosh, 2013). Coaches and athletic administrators are challenged to provide positive athletic performances for their fans, donors, and other stakeholders. As they look for competitive advantages, they can benefit from understanding how self-efficacy affects player performances. Additional factors such as an athlete’s overall playing experience at the collegiate level may affect self-efficacy levels, when athletes transition from “a big fish in a little pond” to “a big fish in a bigger pond.” An opportunity exists to examine a combination of variables (i.e., sport, playing experience) in an intercollegiate setting.

This area of research is significant for several reasons, but perhaps most importantly for athletes, coaches, practitioners, and others in the field to analyze how much one can accomplish with a given set of skills and how those skills can improve sport performance (Singer et al., 2001). Thus, this study explored the concept of self-efficacy in more detail, focusing specifically on collegiate athletes and how factors such as gender, years of playing experience, and class status (i.e., first year, sophomore) might affect an athlete’s self-efficacy levels. The purpose of this study was to understand Bandura’s (1977) self-efficacy and Vealey’s (1986) sport confidence implications on collegiate athletes and to explore gender, playing experience, and class status differences related to self-efficacy in these student-athletes.

**Literature Review**

**Self-Efficacy**

According to Bandura (1986, as cited in Lee & Bobko, 1994), “The overall thrust of self-efficacy research is to provide both a mechanism that mediates behavior change and a parsimonious account of why and how different techniques effect change” (p. 365). Vealey, Hayashi, Garner-Holman, and Giacobbi (1998) suggested that self-efficacy is the most critical psychological characteristic influencing sport performance. Previous research has shown that a positively correlated relationship exists between athletes and self-efficacy (Singh, Bhardwaj, & Bhardwaj, 2009). Furthermore, dozens of studies examining personality characteristics of athletes suggest that confidence is one of the most common aspects possessed by successful athletes. Finally, these studies find athletes and coaches recognize confidence as a critical factor for success in sport (Moritz et al., 2000).

Research shows the idea of self-efficacy is consistent across a variety of demographic variables. According to Vealey et al. (1998), there is much evidence that self-efficacy predicts athletic performance among adults and children. Positive and significant correlations between self-efficacy and subsequent performance measures have been obtained in the areas of diving, muscular leg endurance, leg lifting, tennis, gymnastics, wrestling, football, baseball, softball, and endurance sports (Ede, Hwang, & Feltz, 2011). Furthermore, in a study conducted by Gould et al. (2002) examining Olympic athletes and their personality characteristics, high self-efficacy was identified as a commonality amongst the study participants. Their research found athletes, coaches, and other associated members regarded self-efficacy as important for their successes.
Additionally, research revealed significant differences in gender when related to self-efficacy in that males tend to have higher levels than females (Schunk & Lilly, 1984). Specifically, Schunk and Lilly (1984) found evidence of sex differences in students’ achievement expectancies.

These studies documented the importance of self-efficacy as it relates to athletic performances. The present study will continue this line of research by focusing simultaneously on multiple sports within a collegiate setting. The approach differs from previous research, which mostly examines one sport in isolation, and this current examination follows researchers’ suggestions to deepen the studies centered on the relationship between self-efficacy and performance (Chie-der, Chen, Hung-yu, & Li-Kang, 2003). This differentiation should yield useful results and support previous studies. Practically speaking, coaches and others within the athletic department can use the findings to help manage student-athletes, and work to improve self-efficacy and athlete performances across all of their sports.

Self-efficacy is a matter of learning from individual successes and failures over an extended period. Bandura (1977) specifically addressed these factors, stating that self-efficacious behavior is a function of positive and negative actions. Individuals tend to create self-reward systems for producing positive outcomes in performance, remembering those specific performance occurrences in future similar situations. Conversely, when discrepancies exist between performance outcomes and expectations, dissatisfactions occur, which subsequently motivate corrective changes. This motivation to correct the changes is often seen in athletes, which is how Vealey (1986) premised her variation of self-efficacy, better known as sport confidence.

Sport Confidence

Vealey (1986) developed the conceptual foundation of sport confidence from self-efficacy theory (Bandura, 1997), based on dissatisfaction with the way that self-efficacy and sport confidence were operationalized across sport situations. Therefore, she designed her own model of sport confidence in order to operationalize the concept to specific sport situations. Vealey’s (1986) model contained two vital components of sport confidence: (a) trait sport confidence and (b) state sport confidence. She defined trait sport confidence as “the belief or degree of certainty individuals usually possess about their ability to be successful in sport” (p. 223), and state sport confidence as the “belief or degree of certainty individuals possess at one particular moment about their ability to be successful in sport” (p. 223). Trait sport confidence is concerned with how athletes rate their ability to perform across a wide range of sports, while state sport confidence is concerned with how athletes rate their ability to perform in a specific setting, in other words, in the moment. State sport confidence is generally considered the most important moderator of efficacious behavior because it is based on the mutual influence of situational and individual factors (Vealey, 1986). State sport confidence is based on the specific situation one is in, combined with individual personality characteristics, making this concept integral in determining efficacious behavior.

The framework for the current study is based on Vealey’s (1986) trait and state sport confidence model in conjunction with Bandura’s (1977; 1997) research on self-efficacy. Providing support for the present study’s construct framework, Martin and Gill (1991) as well as Hepler and Chase (2008) examined self-efficacy as it relates to both the situation and the innate abilities of athletes, in other words, the state and trait types of self-efficacy, respectively. The
studies examined high school and collegiate athletes in their respective sport settings: track and field, baseball, and softball. They set out to investigate the relationships of trait sport confidence, state sport confidence, self-efficacy, and competitive orientation on performance. They found higher levels of both state and trait types of self-efficacy produced higher levels of performance in athletes. However, neither study differentiated between male and female athletes. To date, there has been no research specifically and simultaneously distinguishing self-efficacy differences between male and female student-athletes within the context of college sports (Moritz et al., 2000). This is important because researchers historically have not studied males and females in their efficacious feelings or tendencies in these educational sport settings, thereby revealing a gap in the existing research (Hepler & Chase, 2008; Martin & Gill, 1991).

Most recently, Heazlewood and Burke (2011) attempted to further sport-related self-efficacy research with their study. The researchers quantitatively investigated the self-efficacy measurement with athletes participating in a competitive ultra-endurance triathlon setting. The researchers attempted to establish relationships between self-efficacy and selected sport psychological constructs in the prediction of performance in Ironman triathlons. They found the task specific self-efficacy scales, both outcome and performance orientation, were significantly related to performance. Additionally, high inter-correlation existed between the two task specific self-efficacy scales (Heazlewood & Burke, 2011). Despite finding positive relationships of self-efficacy constructs, once again neither study addressed the differences between males and females, nor did they focus on multiple sports. Combining gender and multiple sports, particularly in collegiate athletics, within the same study could address potential research gaps and provide important implications.

**Gender Differences and Self-Efficacy**

Multiple studies have addressed differences between males and females in relation to self-efficacy. Overall, according to the meta-analysis performed by Moritz et al. (2000), most self-efficacy research has concluded that male athletes have higher levels than females. Chie-der et al. (2003) concurred with this finding in their study involving high school basketball players. Their results showed male participants recorded higher levels of sport-related confidence than the female student-athletes. Additionally, according to Woodman and Hardy’s (2003) meta-analysis of 48 studies related to sport confidence in sport, women typically reported lower self-confidence levels than men. Vealey et al. (1998, as cited in Machida, 2008) found important differences between male and female individual sport collegiate athletes when related to sources of sport confidence. The results of their study demonstrated that female athletes determined sources of social support (e.g., positive feedback from teammates, encouragement from significant others) and physical self-presentation (e.g., feeling good about one’s weight or looks) to be more important. The gender differences also existed in high school team sport athletes. Again, social support was considered to be significantly more important to the female athletes and demonstration of ability (i.e., showing ability by outperforming others or winning) significantly more important for the male athletes (Vealey et al. (1998) as cited in Machida, 2008).

Hays et al. (2007) supported this conclusion with their research on world-class athletes. The researchers were the first to investigate sport confidence in elite athletes. Their study identified sources and types of confidence utilized by athletes competing on the world stage, and demonstrated significant differences between men and women. For example, the female athletes
derived confidence from a perceived competitive advantage, such as seeing their competitors crack under pressure or fail at their respective athletic tasks. Conversely, the men simply believed they were better than their competitors. They found female athletes more susceptible to external confidence debilitating factors (e.g., playing a better opponent or perceiving the opponent to have more skill) as opposed to internal confidence debilitating factors (e.g., a perceived lack of adequate effort). Their explanation for this phenomenon was that female athletes derived confidence more from the social support of their coach, whereas male athletes derived confidence from a belief in their coach giving them the right direction and training regimen. The researchers concluded that even though the male athletes generally demonstrated higher levels of confidence than female athletes, they were also less susceptible to changes in pre-competition levels of confidence, meaning they were, in general, left with their current state of confidence (Hays et al., 2007).

More recently, Singh et al. (2009) discovered male athletes had significantly higher levels of self-efficacy and confidence in physical activity compared to their female counterparts. However, not all studies related to self-efficacy have found significant differences in gender. Shunk and Lilly (1984), in their study on self-efficacy and attributions between male and female students, found “no sex differences in students’ demonstrated skills” (p. 207). Another possible explanation of gender differences in self-confidence is in reporting systems of self-confidence. Krane and Williams (1994, as cited in Hays et al., 2009) suggested that female athletes are generally more honest and open in reporting levels of anxiety and confidence. Vealey (1988) posited that gender differences in sport confidence did not exist in elite athletes. She claimed this was due to both genders possibly experiencing similar levels of trait sport confidence.

The previous studies have portrayed specific examples across a variety of sports, wherein male athletes have possessed higher levels and different points of origin of self-efficacy in comparison to females. While the relationship between gender and self-efficacy is seemingly well documented, an opportunity exists for further research. None of the aforementioned studies examined multiple sports simultaneously, nor did they concurrently compare male and female athletes, thereby leaving a gap in the existing research. Previous studies (Chie-der et al., 2003; Singh et al., 2009) suggested further research should compare males and females in multiple sports. This combination can provide a macro perspective, rather than limiting the findings to a more micro one (i.e., specific to one gender and/or sport). The findings may prove important for coaches or other athletic administrators who manage multiple sports, as they can better understand various aspects of self-efficacy and its effect on athlete performance in different sport contexts. Additionally, incorporating new variables such as athlete playing experience can offer additional insights.

**Athlete Experience Level and Self-Efficacy**

Unlike gender, wherein several researchers have analyzed male and female college student-athletes in relation to self-efficacy, very few studies have addressed athlete experience level and its effect on self-efficacy. Rattanakoses, Omar-Fauzee, Geok, Abdullah, Choosakul, Nazruddin, and Nordin (2009) explored the issues of gender differences in sport-related self-efficacy and the athletes’ level of experience, including how it impacts their efficacy and the resulting performance. The study concluded that the more self-confidence athletes have, the more successful they are in their sport. Moreover, the researchers found significant gender differences in self-confidence with male athletes demonstrating higher levels than females.
Finally, the research indicated the level of self-confidence depended on the amount of experience the athlete had, because the athletes with more experience tended to have higher levels of self-confidence (Rattanakoses et al., 2009). The study was administered in Thailand, and potential differences may exist in cultural influence related to self-efficacy and self-confidence when compared to other cultures. Similar to other research, the study analyzed one specific athletic sport, leaving an opportunity to examine different sports in future studies.

A number of studies have been conducted to understand on what athletes at different skill levels base their confidence. The following research documents differences in the vital sources of confidence depending on the experience levels. Vealey et al. (1998) conjectured that high school athletes value mastery, social support, physical and mental preparation, coaches’ leadership, and demonstration of ability as the most important sources of sport confidence. The researchers also found that physical and mental preparation, social support, mastery, demonstration of ability, and physical self-presentation were critical sources of sport confidence for college-aged athletes from individual sports (Vealey et al., 1998). Wilson, Sullivan, Myers, and Feltz (2004) reported that physical and mental preparation and mastery were critical sources of sport confidence for master athletes. Finally, Hays et al. (2007) showed that world-class athletes identified preparation and performance accomplishments as the most important sources of self-confidence.

Only one study specifically analyzed the athletes’ playing experience and its relation to levels of self-efficacy or sport confidence, while another used playing experience as a secondary variable. Perry and Williams (1998) conducted a study related to confidence levels in tennis players, and operationalized playing experience as varying skill levels: novice, intermediate, and advanced. They found athletes with advanced skill levels had significantly higher levels of confidence in comparison to intermediate or novice athletes (Perry & Williams, 1998). Similarly, Rattanakoses et al. (2009), in their study on imagery and self-confidence in male and female athletes, operationalized playing experience level in two-year experiential increments (i.e., 1-2 years, 3-4 years, and 5+ years) and found significant differences between males and females. Specifically, the results of the study indicated a significant positive correlation between experience level and self-efficacy for both male and females, though higher for males (Rattanakoses et al., 2009).

These studies suggest the importance of exploring playing experience as it relates to self-efficacy. However, to date only two studies directly examined athletes’ playing experience, and used differing methods for operationalizing the variable. According to both studies, replication of data and results is important in order to draw further conclusions about the purported relationship between playing experience and self-efficacy (Perry & Williams, 1998; Rattanakoses et al., 2009). As such, studies including the effects of playing experience on self-efficacy through a different operationalization of the variable and in different contexts may be merited. The present study examined college student-athletes, and experience level was incorporated in two ways: (a) playing experience, or years playing the given sport in an organized manner for primary, secondary, and post-secondary institutions; and (b) class status, or years playing the given sport in an organized manner for post-secondary institutions. Thus, the present study added a new element to the current self-efficacy research by including a different variable dynamic to self-efficacy in collegiate athletics.
Research Purpose and Questions

The purpose of this study was to understand Bandura’s (1977) self-efficacy and Vealey’s (1986) sport confidence implications on collegiate athletes and to explore gender, playing experience, and class status differences related to self-efficacy in these student-athletes. The study attempted to fill existing gaps in previous research. First, previous self-efficacy research related to sport performance has concentrated on a small number of sports in isolation (Burton, 1988; Hepler & Chase, 2008; Martin & Gill, 1991), rather than more broadly on a variety of sports. Taking a broader perspective may prove most important in multisport environments such as an athletic department, which simultaneously supports multiple sports for female and male athletes. This macro understanding will allow researchers to obtain a more complete perspective as opposed to only having results from one or two individual sports and the student-athletes within. Thus, the study incorporates both genders and a variety of intercollegiate sports.

Perhaps most importantly, the study operationalizes and includes two new variables—playing experience and class status—in conjunction with examining male and female student-athletes and their self-efficacy levels. No research studies to date have combined this unique set of variables to specifically test the relationship of playing experience on self-efficacy and the resulting sport performance. The present research is the first of its kind to incorporate gender, multiple sports, college athletes, and most importantly, playing experience, into a single study. In doing so, previous research is supported and extended; potential idiosyncrasies and/or biases that may occur from researching a single sport in isolation are eliminated; self-efficacy is reviewed within the context of college athletics; and playing experience is examined in conjunction with college athletes and self-efficacy. This inclusion could provide new insights by analyzing the self-efficacy levels of male and female college athletes as they progress forward in their experience levels (i.e., make the proverbial “big fish into a bigger pond” transition). Also, student-athletes may opt to leave prior to graduation; gaining an understanding of by-year differences among athletes and their respective playing performances may prove critical to an athletic program’s success. Coaches and others within the athletic department can use this information to better manage players and offer tailored programs to specific athlete needs based on their experience levels overall and at the collegiate level.

For the purpose of this study, the research questions were as follows:

RQ1. What level of sport-related self-efficacy do male and female college student-athletes possess?

RQ2. What is the effect of gender and playing experience (i.e., years playing the given sport in an organized manner for primary, secondary, and post-secondary institutions) on self-efficacy levels in intercollegiate student-athletes?

RQ3. What is the effect of gender and class status (i.e., years playing the sport in an organized manner for a post-secondary institution) on self-efficacy levels in intercollegiate student-athletes?
Method

Sample

Data were collected from National Collegiate Athletic Association (NCAA) Division I student-athletes competing in fall sports at a large Midwestern university during the fall 2012 semester. All student-athletes were given the study and IRB information prior to administration of the survey instrument and immediately before a regular practice session for their respective sport. All but one of the fall sports teams agreed to participate in the survey, and included men’s and women’s cross-country, men’s and women’s soccer, women’s field hockey, and women’s volleyball; the football team did not participate. Of the 86 surveys distributed, a total of 78 were returned, and all of which were complete and useable, for a response rate of 91 percent. This response rate exceeded the minimum suggested rate of 70 percent for related studies (Bandura, 1977; Vealey, 1998).

Procedure

The cross-sectional study utilized quantitative data to examine the relationship between self-efficacy and athletic performance in male and female collegiate student-athletes across multiple sports. These student-athletes were asked to participate voluntarily by the researchers via an informed consent form distributed at the first team meeting of the season, and orally by their head coaches in the same team meeting. Simple oral instructions, including an assurance of anonymity, were given to the student-athletes immediately prior to distributing the questionnaires, and these same instructions were repeated in writing at the top of the first page. The questionnaires were distributed in random order at both the men and women’s team meetings. No time limit was imposed on the student-athletes for completing the questionnaires, though it was explained that they should take 5-10 minutes to complete. The questionnaires were collected immediately after completion at the team meetings.

Instrumentation

The present study mirrored several aspects of the Heazlewood and Burke (2011) study, which examined self-efficacy levels among Ironman triathletes, by incorporating components of their three scales (Trait Sport Confidence Inventory [TSCI], State Sport Confidence Inventory [SSCI], and Competitive State Anxiety Inventory-2 [CSAI-2]) and the question format. Because of their sport focus, a combination and derivation of the TSCI and the SSCI were utilized for this study. Though certain items from the previous survey instruments were used, the instrument for the present study was unique in that it combined several aspects of various instruments. Scale items were selected and reworded to relate more to collegiate student-athletes participating in different sports and address this study’s purpose. Items related to player experience and class status also were included.

The questionnaire was separated into two main sections: (1) an instruction and practice page, and (2) a subsequent page which included 22 measured items split into three sections, or constructs, with a succeeding fourth section for general questions about the student-athletes. The details of the measured questions from the survey instrument were as follows:
Appraisal Inventory 1 - General Self-Efficacy. Five questions were designed to provide basic descriptive statistical values of the student-athletes’ perception of their own abilities as they related to sport-related skills. Questions included, “how well can you execute the skills necessary to be successful at your sport?”

Appraisal Inventory 2 - State Self-Efficacy. Five questions were designed to provide the data related to the state sport skills of the student-athletes, in other words, their perceived skills related to the specific situation involved in the question. Questions included “how well can you make critical decisions or perform well under pressure?”

Appraisal Inventory 3 - Trait Self-Efficacy. Five questions were designed to provide data related to the trait sport skills of the student-athletes, in other words, their perceived skills related to their inherent abilities as a collegiate student-athlete. Questions included “how well can you execute basic skills or achieve competitive goals during a game?”

A scale from 0-100, explained in the instructions section on the survey, was utilized for this specific survey instrument. Bandura (n.d.) posited, “scales that use only a few steps should be avoided because they are less sensitive and less reliable” (p. 10). Survey respondents may avoid the extreme positions so a scale with only a few steps may, in actual use, shrink to one or two points. Including too few steps loses differentiating information because people who use the same response category may differ if intermediate steps were included. Therefore, an efficacy scale with the 0-100 response (later converted into a 10-point scale for analysis purposes) format may represent a stronger predictor of performance than one with a five-interval scale. Following analysis of the survey, an average of the three appraisal inventories was taken, providing a fourth type of analyzed self-efficacy, hereafter titled Overall Self-Efficacy.

For the present study, the authors chose to operationalize playing experience via overall years and collegiate years (i.e., class status). Other aforementioned studies (Perry & Williams, 1998; Rattanakoses et al., 2009) addressed playing experience, operationalizing the variable in different ways and encouraging additional research of this variable and its effect on self-efficacy. Including the newly operationalized variables in this study added to the existing literature by examining playing experience in two separate ways, but germane to the intercollegiate athletics environment.

Data Analysis

Once the survey questionnaires were collected and ready for analysis, the data were input into SPSS version 20.0 for further examination. Descriptive statistics and analysis of variance (ANOVA) were utilized for the quantitative analysis.

RQ1. What level of sport-related self-efficacy do male and female college student-athletes possess? This question was analyzed through descriptive statistics (means, standard deviations), providing basic descriptive information from the independent variable (student-athletes) and dependent variable (levels of self-efficacy).

RQ2. What is the effect of gender and playing experience (i.e., years playing the given sport in an organized manner for primary, secondary, and post-secondary institutions) on self-efficacy levels in intercollegiate student-athletes? This question was analyzed through an ANOVA of the independent variables (gender and playing experience) and dependent variable (level of self-efficacy). The ANOVA compared the groups to determine whether a statistically significant difference existed between male and female college student-athletes and their resulting levels of self-efficacy.
RQ3. What is the effect of gender and class status (i.e., years playing the sport in an organized manner for a post-secondary institution) on self-efficacy levels in intercollegiate student-athletes? This question was analyzed through an ANOVA, examining the relationship between the independent variables (class status and gender) on the dependent variable (levels of self-efficacy). An ANOVA was utilized to ascertain potential differences between the groups, in other words, when analyzing the gender and class status differences related to self-efficacy levels.

Results

The purpose of this study was to understand Bandura’s (1977) self-efficacy and Vealey’s (1986) sport confidence implications on collegiate athletes and to explore gender, playing experience, and class status differences related to self-efficacy in these student-athletes. Four types of self-efficacy were examined: (a) general, (b) state, (c) trait, and (d) overall self-efficacy. In addition to measuring each type of self-efficacy, respondents were assessed in terms of their personal experience playing their respective sports. Several types of analyses were performed to properly examine all research questions and the included variable relationships.

Descriptive Statistics

All 78 participants were student-athletes at the university, and ranged in age from 17 years old to over 22 years old. For the gender distribution, 55% of the participants (n = 43) were female, and 45% were male (n = 35). According to the United States Department of Education (2013), males account for 51 percent of all unduplicated student-athletes, and females total 49 percent. Most participants were under 21 years old (66.7%; n = 52), and most of the student-athletes had over eight years of playing experience (66.7%; n = 52). Hours of practice per week, both in and out of season, were highest during the season (15 or more hours; n = 62) and dropped slightly out of season (6-10 hours and 11-15 hours tied for the most common; n = 26). The most common year in school (i.e., class status) was third or junior year (28.2%; n = 22). Finally, and fittingly, the participant numbers decreased as the class status increased (fifth year, n = 5). Complete frequency distributions are presented in Table 1.

Table 1

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>35</td>
<td>44.9</td>
</tr>
<tr>
<td>Female</td>
<td>43</td>
<td>55.1</td>
</tr>
<tr>
<td>Class Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Year</td>
<td>26</td>
<td>33.3</td>
</tr>
<tr>
<td>Sophomore</td>
<td>26</td>
<td>33.3</td>
</tr>
<tr>
<td>Junior</td>
<td>21</td>
<td>26.9</td>
</tr>
<tr>
<td>Senior</td>
<td>5</td>
<td>6.4</td>
</tr>
<tr>
<td>Playing experience</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Downloaded from http://csri-jiia.org ©2014 College Sport Research Institute. All rights reserved. Not for commercial use or unauthorized distribution.
In order to further examine relationships between the variables, two correlational analyses were performed. First, the dependent variables (General Self-Efficacy, State Self-Efficacy, Trait Self-Efficacy, and Overall Self-Efficacy) were examined. The results indicated statistically significant relationships among all four dependent variables, and the correlational values were highly correlated at $p < 0.01$. Next, all dependent and independent variables were examined for correlational relationships. The data indicated several statistically significant results at the $p < 0.01$ and $p < 0.05$ levels. Most notably, Gender and Class Status had the most highly correlated relationships with other variables. Gender shared the highest correlation relationships, including with Class Status at the .05 level and with Playing Experience, Overall Self-Efficacy, Trait Self-Efficacy, State Self-Efficacy, and General Self-Efficacy at the .01 level. Similarly, Class Status shared highly correlated relationships with Gender, Playing Experience, and Overall Self-Efficacy at the .05 level, and with State Self-Efficacy at the .01 level. The results demonstrated that the levels of self-efficacy were significant and highly correlated, impacted by the class status of the participants and their gender. Full correlational analysis results are shown in Table 2.

Table 2

**Correlations Between Independent and Dependent Variables**

<table>
<thead>
<tr>
<th></th>
<th>Gender</th>
<th>Class Status</th>
<th>Playing Experience</th>
<th>General Self-Efficacy</th>
<th>State Self-Efficacy</th>
<th>Trait Self-Efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class Status</td>
<td>-.272*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Playing Exp.</td>
<td>-.324**</td>
<td>.225*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Self-Efficacy</td>
<td>-.357**</td>
<td>.335**</td>
<td>.133</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State Self-Efficacy</td>
<td>-.434**</td>
<td>.217</td>
<td>.183</td>
<td>.707**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trait Self-Efficacy</td>
<td>-.317**</td>
<td>.132</td>
<td>.105</td>
<td>.756**</td>
<td>.807**</td>
<td></td>
</tr>
<tr>
<td>Overall Self-Efficacy</td>
<td>-.401**</td>
<td>.244*</td>
<td>.152</td>
<td>.891**</td>
<td>.915**</td>
<td>.939**</td>
</tr>
</tbody>
</table>

*Note. **p < 0.01 level, *p < 0.05 level*
Reliability Analysis

According to DeVellis (2003), internal consistency reliability refers to the extent to which scale items representing a unique construct are homogenous. Research shows that items sharing a similar conceptual meaning should be scored in a similar manner (DeVellis, 2003; Nunnally, 1978). Thus, the acceptable threshold for internal consistency reliability testing (Cronbach’s alpha, \( \alpha \)) is .700 (Nunnally, 1978). Internal consistency reliability estimates were calculated for each of the four dependent variables. All variables surpassed this threshold, and the Cronbach’s alphas were as follows: Self-Efficacy (\( \alpha = .950 \)), General Self-Efficacy (\( \alpha = .868 \)), State Self-Efficacy (\( \alpha = .897 \)), and Trait Self-Efficacy (\( \alpha = .912 \)). Therefore, the results indicated a high level of internal consistency reliability for the instrument in all four constructs.

Research Questions

**RQ1. What level of sport-related self-efficacy do male and female college student-athletes possess?** Descriptive statistics were used to analyze the levels of male and female student-athlete self-efficacy levels. Mean scores and standard deviations for the four self-efficacy dependent variables were as follows: General Self-Efficacy (\( M = 8.47, SD = 1.15 \)), State Self-Efficacy (\( M = 8.52, SD = 1.20 \)), Trait Self-Efficacy (\( M = 8.22, SD = 1.32 \)), and Overall Self-Efficacy (\( M = 8.40, SD = 1.13 \)). Upon further analysis the means of all four types of self-efficacy exceeded 8 out of a possible 10 points, whereby the data was skewed toward higher levels of self-efficacy. The student-athletes had generally high levels of self-efficacy (in comparison to the standard bell curve wherein “high” relates to the fourth quartile on the Likert scale of 1-10).

**RQ2. What is the effect of gender and playing experience (i.e., years playing the given sport in an organized manner for primary, secondary, and post-secondary institutions) on self-efficacy levels in intercollegiate student-athletes?** A one-way ANOVA was used to analyze the main and interaction effects of gender and playing experience (independent variables) on the four self-efficacy constructs (dependent variables). No statistically significant differences were found for any of the four types of self-efficacy. The first test examined the interaction effect of Gender and Playing Experience on General Self-Efficacy. The interaction effect was not significant \( [F(1,71) = 3.038, p = .054, \eta^2 = .079] \). The main effect of Gender was not significant \( [F(3,71) = .120, p = .730, \eta^2 = .002] \). Similarly, the main effect of Playing Experience was not significant \( [F(2,71) = 2.089, p = .109, \eta^2 = .081] \). The second test examined the interaction effect of Gender and Playing Experience on State Self-Efficacy. The interaction effect was not significant \( [F(2,71) = 1.171, p = .316, \eta^2 = .032] \). The main effect of Gender was not significant \( [F(1,71) = 1.518, p = .222, \eta^2 = .021] \). Similarly, the main effect of Playing Experience was not significant \( [F(3,71) = 1.227, p = .306, \eta^2 = .049] \). The third test examined the interaction effect of Gender and Playing Experience on Trait Self-Efficacy. The interaction effect was not significant \( [F(2,71) = 2.471, p = .092, \eta^2 = .065] \). The main effect of Gender was not significant \( [F(1,71) = .000, p = .997, \eta^2 = .000] \). Similarly, the main effect of Playing Experience was not significant \( [F(3,71) = 2.562, p = .062, \eta^2 = .098] \). The fourth and final test examined the interaction effect of Gender and Playing Experience on Overall Self-Efficacy. The interaction effect was not significant \( [F(2,71) = 2.545, p = .086, \eta^2 = .067] \). The main effect of Gender was not significant \( [F(1,71) = .104, p = .748, \eta^2 = .001] \). Similarly, the main effect of Playing
Experience was not significant \[ F(3,71) = 2.140, p = .103, \eta^2 = .083 \]. Full ANOVA descriptives are shown in Table 3.

Table 3
**ANOVA Descriptives: Gender on Self-Efficacy**

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Self-Efficacy</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>35</td>
<td>8.92</td>
<td>0.92</td>
</tr>
<tr>
<td>Female</td>
<td>43</td>
<td>8.1</td>
<td>1.2</td>
</tr>
<tr>
<td>Total</td>
<td>78</td>
<td>8.47</td>
<td>1.15</td>
</tr>
<tr>
<td><strong>State Self-Efficacy</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>35</td>
<td>9.1</td>
<td>0.8</td>
</tr>
<tr>
<td>Female</td>
<td>43</td>
<td>8.05</td>
<td>1.28</td>
</tr>
<tr>
<td>Total</td>
<td>78</td>
<td>8.52</td>
<td>1.2</td>
</tr>
<tr>
<td><strong>Trait Self-Efficacy</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>35</td>
<td>8.69</td>
<td>1.16</td>
</tr>
<tr>
<td>Female</td>
<td>43</td>
<td>7.85</td>
<td>1.34</td>
</tr>
<tr>
<td>Total</td>
<td>78</td>
<td>8.22</td>
<td>1.32</td>
</tr>
<tr>
<td><strong>Overall Self-Efficacy</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>35</td>
<td>8.9</td>
<td>0.83</td>
</tr>
<tr>
<td>Female</td>
<td>43</td>
<td>7.99</td>
<td>1.18</td>
</tr>
<tr>
<td>Total</td>
<td>78</td>
<td>8.4</td>
<td>1.13</td>
</tr>
</tbody>
</table>

As the data show, no statistically significant relationships existed in male and female student-athletes when analyzing gender and playing experience related to self-efficacy levels. As previously mentioned, in each of the four types of self-efficacy, males had significantly higher levels. Moreover, the standard deviations in all four types of self-efficacy were notably lower for males than their female counterparts. In addition to overall higher levels, male student-athletes had consistently higher levels of self-efficacy than females in all four types. The results from the ANOVA test related to Gender, Playing Experience, and self-efficacy provide a satisfactory answer for the second research question, indicating that there is no significant relationship between the independent variables (i.e., Gender and Playing Experience) and the dependent variable (i.e., self-efficacy levels).

**RQ3.** What is the effect of gender and class status (i.e., years playing the sport in an organized manner for a post-secondary institution) on self-efficacy levels in intercollegiate student-athletes? An ANOVA was performed to analyze the effect of Gender and Class Status (independent variables) on the four self-efficacy constructs (dependent variables). The results indicated some statistically significant effects. The first test examined the interaction effect of Gender and Class Status on General Self-Efficacy. The interaction effect was not significant \[ F(3,70) = .437, p = .727, \eta^2 = .018 \]. The main effect of Gender was not significant \[ F(1,70) = 3.178, p = .079, \eta^2 = .043 \]. Similarly, the main effect of Class Status was not significant \[ F(3,71) = 2.020, p = .119, \eta^2 = .080 \]. The second test examined the interaction effect of Gender and
Class Status on State Self-Efficacy. The interaction effect was not significant \[ F(3,70) = .196, p = .899, \eta^2 = .008 \]. The main effect of Gender was significant \[ F(1,70) = 8.774, p = .004, \eta^2 = .111 \]. The main effect of Class Status was not significant \[ F(3,70) = 2.176, p = .099, \eta^2 = .085 \].

The third test examined the interaction effect of Gender and Class Status on Trait Self-Efficacy. The interaction effect was not significant \[ F(3,70) = .151, p = .929, \eta^2 = .006 \]. The main effect of Gender was significant \[ F(1,70) = 7.004, p = .010, \eta^2 = .091 \]. The main effect of Class Status was not significant \[ F(3,70) = 2.148, p = .102, \eta^2 = .084 \].

The fourth and final test examined the interaction effect of Gender and Class Status on Overall Self-Efficacy. The interaction effect was not significant \[ F(3,70) = .106, p = .956, \eta^2 = .005 \]. The main effect of Gender was significant \[ F(1,70) = 7.436, p = .008, \eta^2 = .096 \]. The main effect of Class Status was not significant \[ F(3,70) = 2.104, p = .108, \eta^2 = .005 \].

As the data show, some statistically significant relationships existed in male and female student-athletes when analyzing Gender and Class Status related to self-efficacy levels. Specifically, though the interaction effects of Gender and Class Status were not significant, the main effects for Gender were significant for three of the four types of self-efficacy: State, Trait, and Overall Self-Efficacy. The effect sizes for the three statistically significant variables were as follows. The main effect size for Gender for State Self-Efficacy equaled \( \eta^2 = .111 \). The main effect size of Gender for Trait Self-Efficacy equaled \( \eta^2 = .091 \). The main effect size of Gender for Overall Self-Efficacy equaled \( \eta^2 = .096 \). According to Field (2005), a small effect size = .01, while a medium and large effect size equal .06 and .14, respectively. The statistically significant findings in this study fall between the medium and large effect size categories, indicating a sizeable effect of gender on three of the four self-efficacy types. The results from the ANOVA test related to Gender, Class Status, and self-efficacy provide a satisfactory answer for the third and final research question, indicating that there are some significant relationships between the independent variables (i.e., Gender and Class Status) and the dependent variable (i.e., self-efficacy levels).

This study used a combination of descriptive statistics and ANOVAs to examine the self-efficacy levels of the student-athletes. More specifically, the tests examined the effects of Gender, Playing Experience, and Class Status on four types of self-efficacy: (a) General, (b) State, (c) Trait, and (d) Overall Self-Efficacy. The results indicated overall high levels of self-efficacy levels amongst the participants, with male student-athletes reporting higher levels than females. Statistically significant differences were noted in the combination of Gender and Class Status on three of the four types of self-efficacy. However, no statistically significant differences were found in the combination of Gender and Playing Experience on the self-efficacy variables.
Figure 1. Gender and Class Status on General Self-Efficacy levels. This figure displays the interaction of two independent variables on the dependent variable, General Self-Efficacy.
Figure 2. Gender and Class Status on State Self-Efficacy levels. This figure displays the interaction of two independent variables on the dependent variable, State Self-Efficacy.
Figure 3. Gender and Class Status on Trait Self-Efficacy levels. This figure displays the interaction of two independent variables on the dependent variable, Trait Self-Efficacy.
Figure 4. Gender and Class Status on Overall Self-Efficacy levels. This figure displays the interaction of two independent variables on the dependent variable, Overall Self-Efficacy.

Discussion

Theoretical Implications

Providing support for the present study’s theoretical framework, both Martin and Gill (1991) and Hepler and Chase (2008) examined self-efficacy as it relates to the situation and the innate abilities of collegiate athletes, or the state and trait types of self-efficacy, respectively. They set out to investigate the relationships of trait sport confidence, state sport confidence, self-efficacy, and competitive orientation on performance. They found higher levels of both state and trait types of self-efficacy produced higher levels of performance in athletes. The current study results coincided with the previous research in that student-athletes show generally high levels of self-efficacy. This finding demonstrates the generalizability of the previous studies and the current study. Moreover, these results are important because they illustrate that student-athletes are, on average, highly efficacious individuals. This could mean the aforementioned barriers to high self-efficacy, for example, not believing in one’s self, are already reduced or even eliminated with this population, creating a more efficient and effective path to higher self-efficacy.
Overall, much self-efficacy research has concluded that male athletes have higher levels than females (Moritz et al., 2000). Chie-der et al. (2003) concurred with this finding in their study involving high school basketball players. Their results showed male participants reported higher levels of sport-related confidence than female student-athletes. Additionally, according to Woodman and Hardy’s (2003) meta-analysis of sport confidence in sport studies, women typically reported lower self-confidence levels than men. These gender differences existed in high school team sport athletes as well. More recently, Singh et al. (2009), in their study on male and female School National Level athletes, discovered male athletes to have significantly higher levels of self-efficacy and confidence in physical activity than their female counterparts.

While the research on the relationship between self-efficacy and gender appears exhaustive, other opportunities to explore self-efficacy exist. For instance, researchers have examined the effects of variables such as playing experience on levels of self-efficacy and sport confidence. Perry and Williams (1998) conducted a study related to confidence levels in tennis players of varying skill levels, and found that advanced athletes had significantly higher levels of confidence in comparison to their intermediate and novice counterparts (Perry & Williams, 1998). Similarly, Rattanakoses et al. (2009), in their study on imagery in male and female athletes, discovered demonstrate significant differences with self-confidence and experience levels. The more self-confidence the athletes had, the more successful they were in their sport. Specifically, the results indicated a significant positive correlation for both male and females, although higher for males, and directly related to experience level. The research indicated the level of self-confidence depended on the amount of experience the athlete had, and athletes with more experience tended to have higher levels of self-confidence (Rattanakoses et al., 2009).

The results of the present study as they relate to playing experience differ from previous research. The level of playing experience in the student-athletes did not show statistically significant differences based on self-efficacy levels, and the results did not align with the aforementioned studies that did indicate significant differences. The differing results could be attributed to how playing experience was operationalized in this study compared to previous research (i.e., overall years of playing the sport versus other experience classifications). However, it could also signify that playing experience truly does not make a material difference in student-athletes’ self-efficacy and sport confidence levels. Many of these athletes have played for a number of years; in fact, the majority reported eight or more years of organized playing experience. For an 18-year-old athlete, these years represent almost half of his or her life. With most sharing similar playing experiences, other variables may have had more influence. For example, gender, socioeconomic status, and paternal upbringing could all affect the student-athletes’ levels of self-efficacy. The fact that the present study analyzed sport from a generalized (macro) manner could have played a role as well. Additionally, the survey instrument of the current study varied from those incorporated with previous research (Moritz et al., 2000; Rattanakoses et al., 2009; Vealey, 1986).

Finally, perhaps the student-athletes in the current study had different life experiences, which caused them to show consistent self-efficacy levels regardless of their playing experience. The recruitment strategies of the athletics department also could be a contributing factor of this point. The athletes in this study played sports for a large and historically successful Division I athletic program. If the athletic department concentrates its recruitment efforts on obtaining the best student-athletes possible, the department may recruit athletes who already possess high levels of self-efficacy, which have translated into successes at the high school level and attracted the attention of an athletic program’s recruiters. Conversely, if the athletic department recruits in...
a specific set of high school programs, cities, or regions where student-athletes have a varied sense of self-efficacy, the results of the study might better reflect this. Moreover, if a large majority of the student-athletes are from underdeveloped urban populations, they may have shared similar upbringings, which could affect their sense of self-efficacy regardless of their levels of playing experience.

Another important theoretical implication of the results, specifically related to the interaction of gender and class status, is that first-year student-athletes seem to have low levels of self-efficacy comparatively, sophomores experience the proverbial “sophomore slump,” and then, as these athletes likely become starters (i.e., as they reach their junior and senior years), everyone--both male and females--seems to show significant increases in self-efficacy levels. Thus, even though there are examples of younger players making immediate contributions at the “next level up,” (e.g., Kobe Bryant and LeBron James who were both drafted as superstars immediately out of high school; Christenson, 2012), it is seemingly more likely that with higher class status comes higher levels of self-efficacy. This result is important because in an era of “one-and-done,” college coaches need to know whether they should treat their first-years differently than their second-years, and so on. The results from this study suggest that there are differences, and that for any player that returns to play for a second year, there’s a possibility that he/she is going to experience a “sophomore slump.” For athletes who stay on their respective teams for four or more years, a shift may occur, whereby in that last year they experience their highest levels of self-efficacy, which could in turn make them better leaders on the team. No previous research has examined this before. Therefore, the present study’s results suggest that this phenomenon exists and provides guidance on how to handle this phenomenon.

**Practical Implications**

A gold medalist at the 1998 Nagano Olympics reported that his greatest source of efficacy derived from knowing he was the strongest and fittest person at any given event. However, this was not the case at the Olympics with the increased talent pool. Thus, he intentionally worked on his mental skills, in addition to the obvious physical skills needed for success, to provide him with the level of efficacy he needed to win (Gould et al., 1999, as cited in Feltz & Lirgg, 2001). From athletes and coaches to administrators in general, a growing awareness of sport psychology has led practitioners to acknowledge that psychological factors play a critical role in performance (Bandura, 1997).

There are many practical implications of the results from the present study. First, the study found highly elevated levels of all four types of self-efficacy in the participants. Due to the athletes’ high levels of self-efficacy, one can assume athletes are, in general, more confident with their skills and abilities than their non-athlete counterparts (Hays et al., 2009). To a certain degree, this can be viewed as a necessary and important quality of successful athletes--the belief in their ability to succeed. According to Hays et al. (2009), confidence has consistently been associated with positive feelings about one’s skills and abilities, whereas a lack of confidence has been associated with anxiety, depression, and dissatisfaction. Furthermore, Hays and her colleagues posited that athletes who have a strong belief in their abilities have shown to peak under pressure in sport contexts. As such, coaches could treat athletes differently than if they were to coach non-athletes. Training regimens and modules can be crafted in a different way simply due to the fact that athletes already believe they are good.
Second, with these ideas in mind, coaches could treat their male athletes differently, providing a tailored type of coaching, given the males generally believe they are highly skilled. Specifically, the head basketball coaches at any given university for both the men’s and women’s team could presumably coach slightly different. The men’s coach may not need to spend as much time addressing issues with levels of confidence, as their players, the males, might already possess high levels of self-efficacy, or self-confidence. Conversely, the women’s coach might need to spend more time considering this concept in his or her coaching style. Another example of this practical implication is a collegiate track and field coach. Many sports programs at the collegiate level operate under a joint-team system, wherein one head coach will oversee both the men’s and woman’s programs. In this case, based on the results of this study and that of previous research (e.g., Rattanakoses et al., 2009), the coach may need to be intentional with his or her coaching style when interacting with the female versus the male athletes, realizing the potential differences in self-efficacy between the genders.

Third, finding no difference in playing experience related to sport self-efficacy implies that even less-experienced athletes can, but not necessarily will, have similar levels of self-efficacy. Therefore, coaches likely cannot treat these less experienced athletes any different simply because they have not played their respective sport as long. Thus, for example, Coach Calipari, the current head men’s basketball coach for the University of Kentucky, should not assume his first-year players are any less confident or efficacious than his fourth- or fifth-year seniors. This does not necessarily mean all players contribute equally to the team and should therefore be treated the same. Rather, Coach Calipari should simply not assume the experience level of his players makes a significant difference in player capabilities.

Fourth, the results of the study support the conjecture from Feltz (1982) that self-efficacy is a an important cognitive variable when measuring sport performance, and should be further researched in order to better understand and predict future sport performance. Practitioners can greatly benefit from this area of research, learning how collegiate athletes think about their own skills and performances. For example, sport psychologists at any given university could utilize this information, working intentionally with their student-athletes to strengthen self-efficacy levels (e.g., practicing methods of bolstering self-efficacy levels such as visualization and vicarious experiences), in hopes of inspiring more efficacious athletes.

Finally, the results of the present study, specifically the differences between male and female student-athletes and their self-identified levels of self-efficacy, bring forth gender equity questions. For example, do the results (i.e., male student-athletes claiming to have higher levels of self-efficacy) indicate a gender disparity amongst intercollegiate athletics? To be sure, the student-athletes could quite easily have embellished their levels of self-efficacy for the purpose of appearing more efficacious. However, assuming the results of the present study are valid, one must question the apparent disparity. If nothing else, the present study brings these questions to the forefront. According to Women (2008), the recent Brighton Declaration on Women and Sport called for several important topics related to women in sport to be addressed. The three most important related to the present study were equality in society and sport; education, training, and development that address gender equality in sport; and information and research on women and sport. Hopefully through continued similar research, these gender equity concerns and questions will continue to be addressed and improvements continue to be made to reduce or eliminate the existing gap between men and women in sport.
Limitations and Future Research

The study had several limitations and areas for possible future research. First, data were collected solely from college-aged student-athletes. The inclusion of a variety of ages or from other athlete groups may have provided different results. Second, only fall sport student-athletes were administered the survey. Expanding the study to include student-athletes in other sports may have generated different results. Third, the method of self-reporting answers could have affected the internal validity of the study. According to Moritz et al. (2000), performance measures on self-efficacy questionnaires can be classified into three groups: subjective, objective, and self-report. Self-report measurements, similar to those used in the present study, have been found to be less accurate than the other two, as there is no guarantee of accurate information gathering.

Future related research could address each of these limitations and expand the results of the present study. First, studies could collect data from other athletes to gain a broader perspective regarding self-efficacy. In order to more deeply analyze the components of self-efficacy, additional variables could be introduced. It would be beneficial to investigate other personality and social factors that influence different types of confidence and sources of confidence. For example, socioeconomic status, academic program, and extracurricular involvement would be useful variables to examine for possible statistically significant findings. Furthermore, collective efficacy, involving teams as opposed to individuals, could be an interesting inquiry for future research. In other words, is self-efficacy more important in individual sports compared to team sports? According to Feltz and Lirgg (2001), only a few studies had been conducted related to collective efficacy. Combining several of these additional components of self-efficacy could bring to light different results. Next, in order to introduce a qualitative element to future similar research, face-to-face interviews could be conducted with the student-athletes. The mixture of qualitative and quantitative research would also likely increase the validity of the results through interview questions more deeply addressing some of the basic self-efficacy questions on the quantitative survey instrument. Finally, incorporating the variable of resulting performance across sports and gender and relating it to self-efficacy levels is an important area of future research to determine the impact self-efficacy plays in sport.

Summary

Self-efficacy describes the belief one has in being able to execute a specific task in order to obtain a specific outcome (Bandura, 1997). Research has shown that higher levels of self-efficacy can lead to better performances, both on and off the field. Feltz (1994, as cited in Feltz & Lirgg, 2001) noted, “research has demonstrated consistent evidence that people’s perceptions of their performance capability significantly affect their motivation and performance” (p. 7). It is for these important reasons that the present study addressed self-efficacy in college student-athletes. The purpose of this study was to understand Bandura’s (1977) self-efficacy and Vealey’s (1986) sport confidence implications on collegiate athletes and to explore gender, playing experience, and class status differences related to self-efficacy in these student-athletes. The findings indicated that student-athletes, in general, had high levels of self-efficacy and that male student-athletes had statistically significant higher levels of self-efficacy than females. Yet the results portrayed that experience level of student-athletes did not have a significant influence on these levels.
This study illustrated the importance of self-efficacy and sport confidence research. To be sure, the topic’s implications are far-reaching for sport administrators at all levels. Further examination of the self-efficacy and sport confidence concepts will hopefully help sport administrators to better understand athletes, potentially enhancing confidence, and ultimately, athlete and team success.
References


