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# THE EFFECT OF GOLF COACHES LEADERSHIP STYLES ON JUNIOR ATHLETES' COMPETITIVE STATE ANXIETY AND PERFORMANCE IN SOUTH KOREA

Chulho Bum

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**THE EFFECT OF GOLF COACHES' LEADERSHIP STYLES ON JUNIOR  
ATHLETES' COMPETITIVE STATE ANXIETY AND PERFORMANCE IN  
SOUTH KOREA**

**BY**

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DISSERTATION

Submitted in Partial Fulfillment of the  
Requirements for the Degree of

**Doctor of Philosophy**  
**Physical Education, Sports and Exercise Science**

The University of New Mexico  
Albuquerque, New Mexico

**May, 2013**

## **DEDICATION**

This dissertation is dedicated to God, who is my reason to live and my source of everything. Additionally, this is dedicated to my father, mother, brother and his family who endlessly provided me with encouragement, support, and trust to help me withstand the difficult days until completion of this dissertation.

## **ACKNOWLEDGMENTS**

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Additionally, I would like to take this opportunity to thank Dr. Nam-Yang, Hur who was the Practical Vice President of the Korea Junior Golf Association (KJGA) and other board members in the KJGA. Lastly, I would like to express my sincere thanks to the junior golfers who participated in this survey.

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**ABSTRACT**

The purpose of this study was to investigate: (a) the effect of Korean junior golf coaches' leadership styles on their athletes' sense of competitive state anxiety levels; (b) the effect of coaches' leadership styles on their athletes' performance; (c) the effect of athletes' competitive state anxiety levels on their performance; and (d) the mediating effect of athletes' competitive state anxiety levels on the relationship between coaches' leadership styles and golf performance levels.

Junior golfers who were registered with the Korea Junior Golf Association (KJGA) were selected as the subject of this study. Using a convenience sampling technique, 232 questionnaires were collected from the 23<sup>rd</sup> Korean National Middle and High School Golf Championship, held in August 2012. Among them, 216 questionnaires were ultimately used for the research data in this study.

The measurement instruments were the Leadership Scale for Sports (LSS)

developed by Chelladurai and Saleh (1980), the Competitive State Anxiety Inventory-2 (CSAI-2) introduced by Martens, Burton, Vealey, Bump, and Smith (1990b), and the athletes' gross scores in the preliminary championship tournament.

The statistical analysis used descriptive statistics, correlation analysis, multiple regression analysis, and the three-step mediating effect analysis. First, the results indicated that higher levels of a coach's training/instruction behavior and social support behavior decreased junior golfers' cognitive anxiety levels, but autocratic behavior increased their anxiety levels. A coach's training/instruction behavior and positive feedback boosted their athletes' self-confidence levels. Second, a coach's training/instruction behavior improved their athletes' golf performance, whereas autocratic behavior deteriorated their performance levels. Third, higher levels of athletes' cognitive anxiety worsened their golf performance, and higher levels of athletes' self-confidence enhanced their performance levels. Lastly, the mediating effect analysis indicated: (a) higher levels of a coach's training/instruction behavior lowered athletes' cognitive anxiety levels, and lower levels of cognitive anxiety levels increased their golf performance levels; (b) a coach's autocratic behavior increased athletes' cognitive anxiety levels, and a higher sense of athletes' cognitive anxiety decreased their performance levels; and (c) higher levels of training/instruction behavior from a coach improved athletes' self-confidence levels, and higher levels of their self-confidence increased their golf performance levels.

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# CHAPTER 1

## INTRODUCTION

### Need for the Study

In today's world of sports, as the difference between winning and losing is gradually dwindling away, athletes have been undergoing pressure from fierce athletic competition (Birrer & Morgan, 2010). As a result, in the field of athletics, psychological issues are becoming more important than ever before.

It has been shown that an athlete's psychological and emotional quality has an important bearing on his/her sports performance. For instance, Chun argued that even though athletes' performance during training is good, they are more likely to fall into a slump during the contest as a result of anxiety (as cited in Lee, 2011, p. 1). It is generally assumed that anxiety, which exerts a psychological pressure on athletes, may be the main cause for poor athletic performance (Anshel, 2003; Landers & Arent, 2006; Potgieter, 2009). Consequently, there has been growing evidence demonstrating that an athlete's performance is negatively influenced by anxiety.

In golf, an athlete's state of mind is considered very important for actual performance (Finn, 2008; Hellstrom, 2009). This may be due to the nature of golf where athletes spend much time walking along the course and waiting for their turn, as opposed to hitting the ball for only a short time (Bois, Sarrazin, Southon, & Boiche, 2009). In other words, due to the long time athletes have to wait for their swing, distracting thoughts and anxiety can negatively exert an influence on their performance (Kim & Han,

2004). In this respect, Lee and Park (2003) described that aside from the difference in the technical aspects of golf, a difference in the psychological aspects has been found between golfers with lower and higher handicaps. Consequently, many studies have supported the importance of psychological and emotional aspects among a diversity of factors that affect golf performance.

Leadership is an indispensable part of human resource administration (Pyun, Kwon, Koh, & Wang, 2010). Leadership in sports has a considerable effect on athletes' success and failure (Ch'ng & Koh-Tan, 2006). More specifically, a coach's leadership has an impact on athletes' state of mind and their development (Chelladurai, 1993). However, golf coaches may overlook this important point, which could have a considerable impact on not only athletes' technical qualities but also their psychological and emotional qualities.

In the academic world, several studies have only placed an emphasis on examining the relationship between athletes' competitive state anxiety levels and their sports performance levels. Consequently, it has been difficult to come up with an empirical and systematic study in which there is a possible relationship between coaches' leadership styles, athletes' competitive anxiety levels, and their performance levels.

Therefore, this study attempted to determine which golf coaches' leadership styles are most effective to reduce athletes' competitive state anxiety levels before the competition and improve their performance levels. The study focused on South Korean middle and high school golfers.

### **Purpose of the Study**

The purpose of this study was organized into the following four parts:

First, it was to determine whether golf coaches' leadership styles have an effect on junior athletes' competitive state anxiety levels before the game. Second, it was to test the relationship between their leadership styles and athletes' golf performance levels. Third, it was to investigate the effect of athletes' sense of competitive state anxiety levels before the game on their golf performance levels. Lastly, it was to examine whether there is a mediating effect of junior athletes' competitive state anxiety levels on the relationship between coaches' leadership styles and golf performance levels.

### **Research Questions**

1. Do different Korean golf coaches' leadership styles have an impact on junior athletes' competitive state anxiety levels before the tournament?
2. Do different golf coaches' leadership styles have an impact on junior athletes' performance levels?
3. Do different junior golfers' competitive state anxiety levels before the tournament have an effect on their performance levels?
4. Do different junior golfers' competitive state anxiety levels before the tournament have a mediating effect on the relationship between coaches' leadership styles and performance levels?



## Theoretical Model

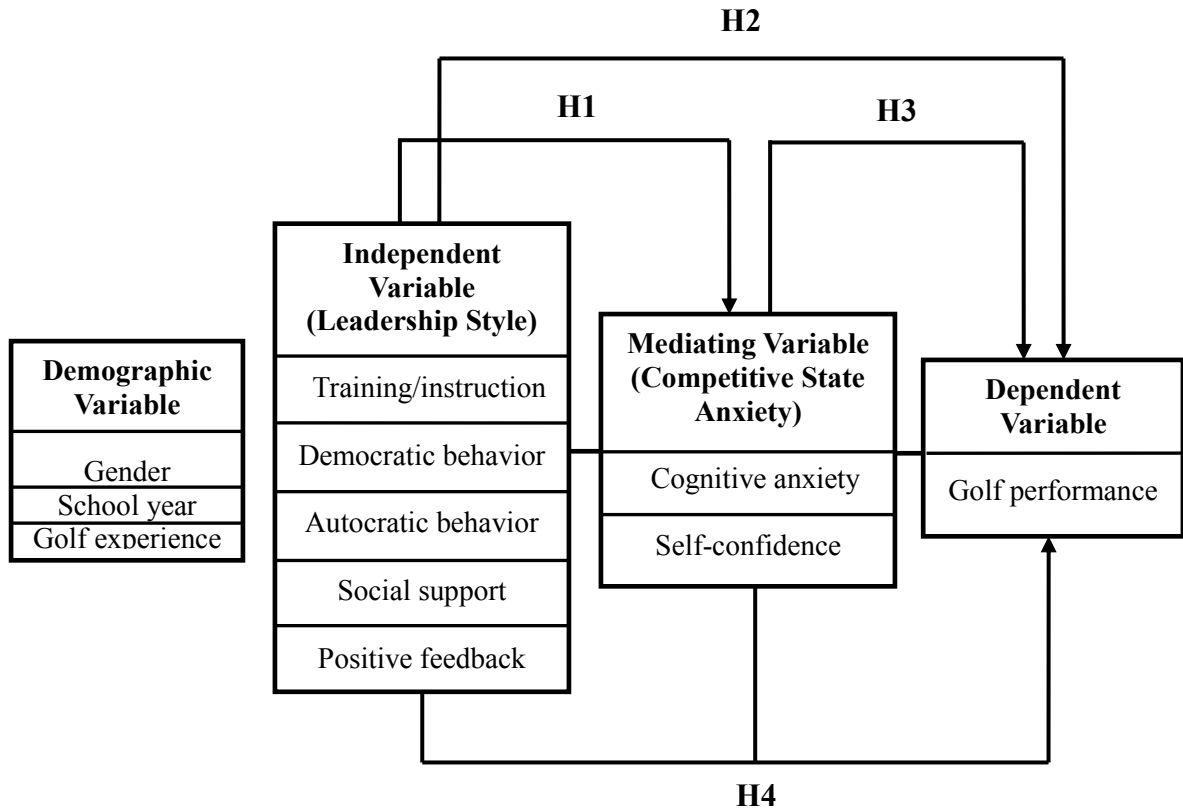


Figure 1.1. Theoretical model.

## Hypotheses

The hypotheses of this study were summarized as follows (see Table 1.1).

Table 1.1

### *The Summary of Hypotheses*

**H1:** There will be a difference in junior golfers' competitive state anxiety levels before the game according to their coaches' leadership styles.

**H1-1:** There will be a difference in junior golfers' cognitive anxiety levels according to their coaches' training/instruction behavior.

**H1-2:** There will be a difference in junior golfers' cognitive anxiety levels according

to their coaches' democratic behavior.

**H1-3:** There will be a difference in junior golfers' cognitive anxiety levels according to their coaches' autocratic behavior.

**H1-4:** There will be a difference in junior golfers' cognitive anxiety levels according to their coaches' social support behavior.

**H1-5:** There will be a difference in junior golfers' cognitive anxiety levels according to their coaches' positive feedback behavior.

**H1-6:** There will be a difference in junior golfers' self-confidence levels according to their coaches' training/instruction behavior.

**H1-7:** There will be difference in junior golfers' self-confidence levels according to their coaches' democratic behavior.

**H1-8:** There will be a difference in junior golfers' self-confidence levels according to their coaches' autocratic behavior.

**H1-9:** There will be a difference in junior golfers' self-confidence levels according to their coaches' social support behavior.

**H1-10:** There will be a difference in junior golfers' self-confidence levels according to their coaches' positive feedback behavior.

**H2:** There will be a difference in junior golfers' performance levels according to their coaches' leadership styles.

**H2-1:** There will be a difference in junior golfers' performance levels according to their coaches' training/instruction behavior.

**H2-2:** There will be a difference in junior golfers' performance levels according to their coaches' democratic behavior.

**H2-3:** There will be a difference in junior golfers' performance levels according to their coaches' autocratic behavior.

**H2-4:** There will be a difference in junior golfers' performance levels according to their coaches' social support behavior.

**H2-5:** There will be a difference in junior golfers' performance levels according to their coaches' positive feedback behavior.

**H3:** There will be a relationship between junior golfers' competitive state anxiety levels before the game and their performance levels.

**H3-1:** There will be a negative linear relationship between junior golfers' cognitive anxiety levels and their performance levels.

**H3-2:** There will be a positive linear relationship between junior golfers' self-confidence levels and their performance levels.

**H4:** There will be a mediating effect of junior golfers' competitive state anxiety levels in the relationship between coaches' leadership styles and performance levels.

**H4-1:** There will be a mediating effect of junior golfers' cognitive anxiety levels in the relationship between their coaches' training/instruction behavior and their performance levels.

**H4-2:** There will be a mediating effect of junior golfers' cognitive anxiety levels in the relationship between their coaches' democratic behavior and their performance levels.

**H4-3:** There will be a mediating effect of junior golfers' cognitive anxiety levels in the relationship between their coaches' autocratic behavior and their performance levels.

**H4-4:** There will be a mediating effect of junior golfers' cognitive anxiety levels in the relationship between their coaches' social support behavior and their performance levels.

**H4-5:** There will be a mediating effect of junior golfers' cognitive anxiety levels in the relationship between their coaches' positive feedback behavior and their performance levels.

**H4-6:** There will be a mediating effect of junior golfers' self-confidence levels in the relationship between their coaches' training/instruction behavior and their performance levels.

**H4-7:** There will be a mediating effect of junior golfers' self-confidence levels in the relationship between their coaches' democratic behavior and their performance levels.

**H4-8:** There will be a mediating effect of junior golfers' self-confidence levels in the relationship between their coaches' autocratic behavior and their performance levels.

**H4-9:** There will be a mediating effect of junior golfers' self-confidence levels in the relationship between their coaches' social support behavior and their performance levels.

**H4-10:** There will be a mediating effect of junior golfers' self-confidence levels in

the relationship between their coaches' positive feedback behavior and their performance levels.

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### **Significance of the Study**

Sports science is making great progress and presenting a new vision. However, among the general public and scholars, there has been a lack of interest in how coaches' leadership styles in competitive sports can impact an athlete's psychological state and his/her performance level. This study may present helpful information that can be used by golf coaches, junior golfers, as well as all parties concerned with sports-related research.

First, this study may provide a proper understanding of effective leadership and the concepts for coaching education. The ultimate goal of a coach is not only to help athletes increase their skills, but also to maintain their psychological stability, hence improving sports performance. This study suggests that certain leadership styles can be useful for golf coaches to bring out junior athletes' full potential with greater level of psychological comfort before the game and help them accomplish their optimal golf performance levels.

Second, this study may provide empirical and systematic information about how mental states affect junior athletes' golf performance. This study can encourage junior golfers to find effective ways to maintain a stable mentality and may provide a foundation of effective and scientific knowledge to help them succeed as professionals in both Korea and the international stage.

Lastly, this study is not only restricted to golf, but also can contribute valuable information to other sports-related research regarding a coach's leadership style, an

athlete's sense of competitive state anxiety, and his/her performance level.

### **Assumptions**

There are assumptions in this study. They are: (1) the respondents understood the meaning of the questions in the survey and did their best to fill out questionnaires; (2) the respondents answered independently of each other; and (3) all respondents put forth their best efforts to perform well in this golf tournament.

### **Delimitations**

The participants in this study were only delimited to: (1) golfers registering on the Korea Junior Golf Association (KJGA); (2) golfers in middle and high school; and (3) golfers participating in the 23<sup>rd</sup> National Middle & High School Golf Championship, which was held from August 6-8 in Gold Lake Country Club located in Usan-ri, Nampyeong-eup, Laju-si, Jeollanam-do, South Korea.

### **Limitations**

The limitations of this study were summarized as follows. First, the sample was collected at the 23<sup>rd</sup> National Middle and High School Golf Championship, which ran for five days. This approach is called a cross-sectional survey. According to McMillan (2004), "in a cross-sectional survey, information is collected from one or more samples or population at one time" (p. 197). On the other hand, "in a longitudinal survey, the same group of subjects is studied over a specified length of time" (McMillan, 2004, p. 197). Since it is impossible for the cross-sectional survey to identify change over time,

this research methodology, compared to the longitudinal survey, has a limitation that lacks depth (Lee, 2009).

Second, due to the nature of this study condition, a simple random sampling procedure for this study was ultimately unfeasible and thus, a non-probability convenience sampling technique was used. However this technique is limited to making a generalization from the sample (Fraenkel & Wallen, 2006).

Third, in golf, there is a correlation between athletic performance and weather. For instance, the 23<sup>rd</sup> National Middle and High School Golf Championship was held in the summer season in South Korea. In this season, the sunny weather can suddenly turn into monsoon rains with wind. This situation worsens the condition of the greens, bunkers, and fairways, decreasing athletic performance. Therefore, as the weather can vary from hour to hour, athletes' tee-up time can influence their golf performance. However, the relationship between golf performance and athletes' tee times were not taken into account in this study.

### **Definition of Terms**

In this study, there are three major terms: leadership, competitive state anxiety, and golf performance. Following are definitions for these as well as other frequently used terms.

#### **Leadership**

According to Ivancevich and Matteson (2002), leadership is defined as “the process of influencing others to facilitate the attainment of organizationally relevant goals”

(p. 425). In addition, “leadership is the attempt to influence the behavior of an individual or group” (Sharma, 2010, p. 80). In sports, a coach’s leadership not only affects athletes’ abilities, but also influences an athlete’s state of mind (Chelladurai, 1993). According to Chelladurai and Saleh (1980), there are five dimensions of a coach’s leadership style: (1) training/instruction, (2) democratic behavior, (3) autocratic behavior, (4) social support, and (5) positive feedback. These are defined below.

### **Training/instruction**

This leadership style which emphasizes the importance of training instructs skills, techniques, and tactics, and coordinates the followers’ activities for the purpose of enhancing performance (Chelladurai & Saleh, 1980).

### **Democratic behavior**

This leadership style allows followers to participate actively in the decision-making process regarding training methods, game strategies, and the setting of team goals (Chelladurai & Saleh, 1980).

### **Autocratic behavior**

This leadership style solely stresses the leader’s own opinions and places restrictions on the decision-making process among followers (Chelladurai & Saleh, 1980).

### **Social support**

This leadership style places emphasis on the welfare of one’s followers, interacting with them, and creating a positive team atmosphere (Chelladurai & Saleh, 1980).

### **Positive feedback**

This leadership style acknowledges and bestows rewards for good performance of

the followers (Chelladurai & Saleh, 1980).

### **Competitive State Anxiety**

According to Peden (2007), competitive state anxiety is an individual's subjective state of mind, such as anxiety, tension, or fear in a competitive situation. It triggers the arousal of the autonomic nervous system.

Anxiety can be divided into three types: (1) cognitive anxiety, (2) somatic anxiety, and (3) self-confidence.

### **Cognitive anxiety**

Martens, Vealey, and Burton (1990a) define cognitive anxiety as “the mental component of anxiety and is caused by negative expectations about success or by negative self-evaluation” (p. 6).

### **Somatic anxiety**

Martens et al. (1990a) stated that somatic anxiety is defined as “the physiological and affective elements of the anxiety experience that develop directly from automatic arousal. Somatic anxiety is reflected in such responses as rapid heart rate, shortness of health, clammy hands, butterflies in the stomach, and tense muscles” (p. 6).

### **Self-confidence**

Woodman and Hardy (2003) state that self-confidence is that “one's belief in meeting the challenge of the task to be performed” (p. 443).

### **Golf Performance**

Golf performance, in a broad sense, denotes the assessment of an athlete's



performance levels under the sport's fixed rules (Lee, 2011). This criterion was used to assess performance for the purposes of this study.

## CHAPTER 2

### LITERATURE REVIEW

#### The History of Golf

Kim and Han (2004) noted that the dominant view is that the origin of golf comes from Scotland's shepherds. As the authors stated, the shepherds' works of driving flocks of sheep was extremely uneventful. To relieve the boredom, a shepherd began swinging his staff at a stone on the green grassland and the stone went into a rabbit burrow. Shepherds developed this into a game named "Goulf," and it has become today's game of golf. In archaic Scottish, "Goulf" means "hitting" which is a synonym for "Cuff" in English. Consequently, the present day game of "golf" derives from "Cuff" in lexical alternation.

Kim and Han (2004) provided a historical background of golf in Korea. They described that (according to "Chosun Golf Sosa") in 1900, the British developed a golf course on Wonsan custom and it was only for foreigners. The first Korean course, located at Hyo Chang Park, was constructed by Chosun hotel in 1921. More golf courses were built on Daegu, Pyongyang, Wonsan, Busan, etc. However, almost every golf course was closed because of World War II and the Korean War. Eventually, a golf course was reopened in July of 1954. Now many years later, the number of golf courses all over the country is roughly estimated at 200, and the number of golf players has grown to three million.

### **Background on the Increasing Number of Junior Golfers in South Korea**

Lim and Lee (2001) described that an increase in lack of physical activity, stress, and environmental pollution, were generated by South Korea's rapid industrialization. These factors have been regarded as the main barriers to national health (Lim & Lee, 2001). Consequently, sports have become more important than in the past (Hur & Kim, 2003).

More recently, as a result of greater economic development and an increase in the nation's income (Back, Paek, & Kim, 2007), the amount of leisure time in a five-day work week has drastically increased in South Korea (Mo, Kim, & Lee, 2002). In effect, an interest in golf among the general public has rapidly spread (Back et al., 2007).

Golf has become a lifetime sport regardless of gender, age, or skill level. Encouraged by people's enthusiastic responses to golf, more courses have steadily been built. According to Paek and Ji (2007), there were 179 golf courses in South Korea as of 2004, and indoor/outdoor driving ranges have been showing an upward trend in play. Moreover, the number of golfers nearly doubled between 2001 and 2007 (Paek & Ji, 2007).

According to Kim (2002), the dramatic increase in the golfing population in South Korea is due to many factors. First, along with greater economic development, people have more leisure time. Second, with an increase in public interest of individual health, there has been a change in the perception of leisure and sports. Third, many Korean golfers have begun to play professionally in tournaments hosted by the Professional Golfers Association (PGA) as well as the Ladies Professional Golf Association (LPGA). Fourth, there has been a growing number of female and senior golfers. Lastly, the mass

media has invigorated golf marketing. Under these circumstances, as the number of golfers has been rising steadily, junior golfers also have increased rapidly in South Korea.

According to Paek & Ji (2007), when the Korean Junior Golf Association (KJGA) was established in 1989, the number of junior athletes who registered with the KJGA totaled less than two hundred. By August 30, 2012, a total of 2154 junior golfers, who were made up of 474 middle school boys, 327 middle school girls, 955 high school boys and 398 high school girls, signed up for the KJGA (Korea Junior Golf Association, 2012).

## **Leadership**

Leadership plays an important part in leading groups of people as well as creating organization (Pyun et al., 2010). The concept of leadership has been widely defined. Ivancevich and Matteson (2002) defined leadership as “the process of influencing others to facilitate the attainment of organizationally relevant goals” (p. 425). Shama (2010) described leadership as having a huge influence on individual or group behavior.

In the field of sports, leadership affects an athlete’s success and failure (Ch’ng & Koh-Tan, 2006). Particularly, coaches may facilitate athletes’ psychological stability and their development (Chelladurai, 1993). All of these perspectives describe the importance of leadership in various fields including sports.

## **Theories of Leadership**

### **Trait Approach**

The trait theory of leadership, which suggests that a leader is born, but is not made, was the very first theory of leadership (Slack & Parent, 2006). In this view, scholars asserted that most successful leaders, like Alexander the Great and the Emperor Napoleon, are born with innate personal leadership qualities, and they put emphasis on investigating the common traits of such leaders (Chun & Kwak, 2007).

Stogdill examined 124 studies relating to the trait approach of leadership and found that successful leaders had five primary traits in common: intelligence, achievement motivation, responsibility, participation, and status (as cited in Cox, 1990, p. 376). However, “persons who are successful leaders in one situation may not be successful in other situations, regardless of their personal traits” (Cox, 1990, p. 377). In

other words, it was not believed that personal traits guaranteed a successful leader.

According to Hersey and Blanchard (1993), “there is no universal set of traits that will ensure leadership success. The lack of validation of trait approaches led to other investigations of leadership” (p. 100). Due to these shortcomings, since 1972, studies in sports regarding the trait theory of leadership have rapidly decreased (Cox, 1990).

### **Behavioral Approach**

During the mid-20<sup>th</sup> century, the behavioral approach to leadership was developed because the structure of trait theory was considered too simplistic and was difficult to generalize (Chun & Kwak, 2007). The behavioral approach suggests “the belief was that *leaders are made, not born*” (Cox, 1990, p. 378). This approach was largely classified in studies by Ohio State and the University of Michigan.

The Ohio State researchers developed the Leader Behavior Description Questionnaire (LBDQ) that examines leaders’ behaviors, as opposed to their personal traits (Slack & Parent, 2006). In the LBDQ, they found two important leader behaviors: *consideration* and *initiating structure*.

According to Johns and Moser (2001), “consideration was described as the extent to which an individual is likely to have job relationships characterized by mutual trust, respect for subordinates’ ideas, and consideration of their feelings” (p. 117). According to Cox (1990), initiating structure is defined as “the leader’s behavior in clearly defining the relationship between the leader and subordinates, and in endeavoring to establish well-defined patterns of organization, channels of communication, and methods of procedure” (p. 380).

In brief, the Ohio State studies not only played a vital role in identifying two major leader behaviors, consideration and initiating structure (Johns & Moser, 2001), but were also essential to the conceptual foundations being shifted from the trait theory to the behavior theory of leadership (Schriesheim & Bird, 1979).

At the same time as the Ohio State studies were being conducted, a couple of important leadership styles – employee orientation and production orientation – were identified by researchers at the University of Michigan (Slack & Parent, 2006). Employee-centered leaders place great emphasis on mutual relations with their employees, acting in a friendly manner, and considering their well-being (Fernandez, 2008). Production-centered leaders are more likely to focus on setting goals, making plans for their followers' tasks, and overseeing them (Fernandez, 2008).

In short, both the Ohio State and University of Michigan studies concentrated more on leader behaviors than on personality traits and identified two important leadership styles, relation-orientation and task-orientation. However, both failed to take into consideration contingencies or situation factors (Slack & Parent, 2006). Consequently, this distinct limitation of the behavioral approach led to the appearance of the situational approach to leadership.

### **Contingency or Situational Approach**

The situational approach to leadership emerged in the early 1970s. As defined in this approach, leadership is basically determined by not only leaders' traits and behaviors, but also situational variables, such as members' attitude and abilities, organizational situations, and so on (Chun & Kwak, 2007). There have been many leadership theories

that utilize the situational approach. Above all, Fiedler's contingency model of leadership, House' path-goal theory, Hersey and Blanchard's Situational Leadership Theory (SLT), as well as Chelladurai's Multidimensional Model of Leadership (MML) were the best known for contingency theories.

### **Contingency Model of Leadership**

Fiedler's (1967) contingency model of leadership is concerned with group performances, depending upon the interaction between two variables: leadership styles and situational favorability.

Fiedler has divided leadership into two styles; one style is oriented towards tasks and the other towards relationships in accordance with the Least Preferred Coworker (LPC) scale's scores (Fiedler, 1972). Fiedler proposes that a leader selects his least preferred coworker among all those who have worked together and evaluates the coworker (Slack and Parent, 2006). When the leader provides a relatively favorable assessment of his least preferred coworker, the style is oriented towards relationships with high LPC scores, yet when it is relatively unfavorable, the style is oriented towards tasks with low LPC scores (Fiedler, 1972).

Situational favorability is "the degree to which the situation allows the leader to exert influence on the group" (Curz, Nunes, & Pinheiro, 2011, p. 13). Situational favorableness includes three sub-dimensions: (1) leader-member relationship, (2) task structure, and (3) position power. According to Mitchell, Biglan, Oncken, and Fiedler (1970), "leader-member relationships" are defined as the extent to which the followers are more likely to place trust in their leaders and respect them. "Task structure" is



referred to as the extent of formalization as well as systematization of the tasks, and “position power” is defined as the extent of the leader’s authority to carry out all activities in an organization (Mitchell et al., 1970).

As shown in Table 2.1, there are eight possible conditions for situational favorability factors and leadership effectiveness, from the most favorable condition for leaders (condition 1) to the least favorable for leaders (condition 8), with three sub-dimensions of situational favorability.

Table 2.1

*Fiedler’s Situational Favorability Factors and Leadership Effectiveness*

<b>Situational Favorability</b>				
Condition	Leader/member relations	Task structure	Position power	Effective leadership
1	Good	High	Strong	Low LPC
2	Good	High	Weak	Low LPC
3	Good	Weak	Strong	Low LPC
4	Good	Weak	Weak	High LPC
5	Poor	High	Strong	High LPC
6	Poor	High	Weak	High LPC
7	Poor	Weak	Strong	High LPC
8	Poor	Weak	Weak	Low LPC

From *Understanding Sport Organization: The Application of Organizational Theory* (p. 300), by T. Slack and M. M. Parent (2<sup>nd</sup> ed.), 2006, Champaign, IL: Human Kinetics.

Fiedler described that task-oriented leader behavior (low LPC) can be effective

with high situational favorability, such conditions as 1, 2, and 3, or in an unfavorable condition 8 (Slack & Parent, 2006). On the other hand, relationship-oriented behavior (high LPC) can be more effective in moderate favorability or moderate unfavorability (conditions 4, 5, 6, and 7) (Slack & Parent, 2006). Consequently, this theory provides that a certain type of leader behavior may be most effective in a specific situation (Northouse, 1997).

The advantage of Fiedler's contingency model is its logical underpinnings (Schriesheim, Tepper, & Tetrault, 1994). However, there are weaknesses within this model. First, Kennedy (1982) described that there is a full explanation of the low and high LPC leaders, yet no mention of the middle LPC leaders. Second, it can be necessary to add more variables explaining situational favorability (Armandi, Oppedisano, & Sherman, 2003). Third, the model fails to explain why there is greater effectiveness of certain leadership styles in a given situation (Northouse, 1997).

### **Path-Goal Theory of Leadership**

House's (1971) path-goal theory of leadership proposes that the leaders play an important role in stimulating followers' motivation and satisfaction and in clarifying the paths to achieve goals.

There are four leadership styles: directive, supportive, participative, and achievement-oriented. House and Mitchell (1974) described that "directive leadership" is more likely to put emphasis on making plans, laying out schedules, organizing tasks, clarifying policies, procedures, and rules, and giving directions to subordinates. "Supportive leadership" includes being concerned for the needs and wants of followers,

focusing on their welfare, and creating a friendly working environment (House & Mitchell, 1974). “Participative leadership” occurs when the leader is likely to share opinions and suggestions with subordinates (House & Mitchell, 1974). Lastly, “achievement leadership” is more likely to set goals and instill confidence in subordinates to help them achieve goals (House & Mitchell, 1974).

The conclusion to be drawn from the path-goal theory of leadership is that “it has made a significant contribution to leadership research by helping researchers identify relevant situational variables. It has also given rise to a substantial body of research” (Slack & Parent, 2006, p. 299). On the other hand, the theory’s conceptual foundation remains a problem (Schriesheim & Kerr, 1977). Cox (1990) suggested that Fiedler’s contingency theory is more clearly defined than this theory. Consequently, House’s path-goal theory of leadership is not being used much for studies in the sports field nor in other fields (Cox, 1990).

### **Situational Leadership Theory (SLT)**

Hersey and Blanchard’s (1977) Situational Leadership Theory (SLT) suggests that the SLT is essentially defined as leadership effectiveness, which is contingent on a combination of the follower’s maturity and the leader’s behavior. In fact, Gates, Blanchard, and Hersey (1976) argued that the SLT is based on: (a) the amount of leaders’ task behavior, (b) the amount of leaders’ relationship behavior, and (c) the followers’ maturity levels.

“Task behavior,” characterized as a one-way communication, can indicate that the followers are more likely to be under orders from their leaders as to how, what, where,

and when to do the tasks (Blanchard & Hersey, 2010). “Leaders’ relationship behavior,” characterized as a two-way communication, can include interacting with their followers actively (Slack & Parent, 2006). “Maturity” can be classified by two sub-dimensions: job maturity and psychological maturity. Job maturity includes the followers’ abilities to carry out their particular tasks, while psychological maturity refers to their levels of self-confidence to accomplish their tasks (Slack and Parent, 2006).

In the basic concept, Gate et al. (1976) argued that when there has been a steady increase in the followers’ maturity up to the appropriate level, the leaders can slowly decrease the amount of their task-behavior and increase the amount of their relationship-behavior. On the other hand, when the followers’ maturity levels continue growing beyond the appropriate level, the leaders can exhibit their task behavior and relationship behavior as well (see Figure 2.1).

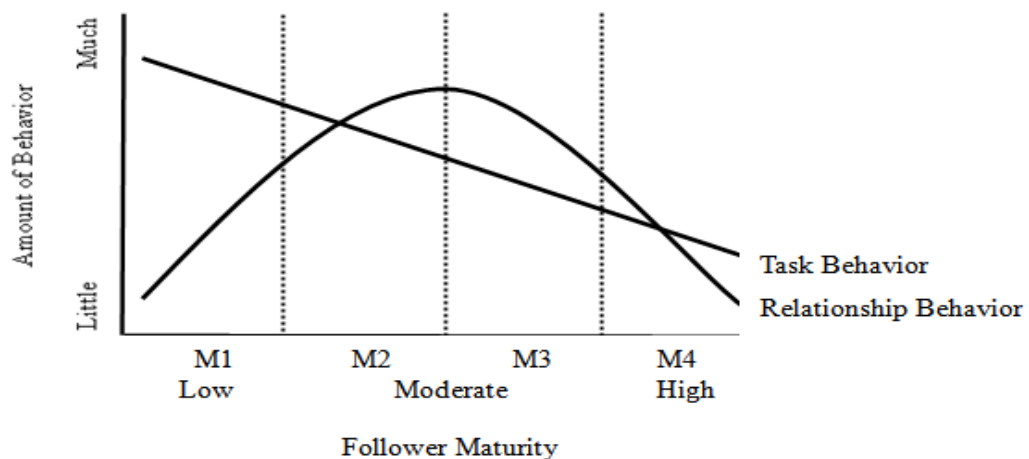


Figure 2.1. Behavior prescriptions in Hersey and Blanchard’s situational leadership theory. From *Leadership of Organizations* (p. 142), by G. A. Yukl, 1981, Englewood Cliffs, NJ: Prentice-Hall.

Within a more complex model, the followers’ maturity can be divided into four

levels, contingent upon their different abilities and willingness. As shown in Figure 2.2, Hersey and Blanchard (1993) described that when the followers are not only unable but also unwilling to carry out their tasks, it is defined as maturity level 1 (M1). When they are unable but willing, it is referred to as maturity level 2 (M2). When they are able but unwilling, it is defined as maturity level 3 (M3). Lastly, when they are able and willing, it is maturity level 4 (M4).

Furthermore, a leader's behavior is classified into four styles: telling, selling, participating, and delegating. According to Gates et al. (1976), "telling (S1)" – high amounts of leaders' task-behavior with low amounts of relationship-behavior; "Selling (S2)" – high amounts of task-behavior and high amounts of relationship-behavior; "Participating (S3)" – as high amounts of relationship-behavior and low amounts of task-behavior; and "delegating (S4)" – low amounts of relationship-behavior and low-task behavior.

In selecting proper leadership styles, Hersey and Blanchard (1993) noted that the S1 leadership style is more likely to be appropriate for followers, who have low abilities and low willingness. The S2 leadership style is appropriate when the followers still lack abilities, but are strong willed (Hersey & Blanchard, 1993). The S3 leadership style is appropriate when the followers are able to perform their tasks, but they are unwilling (Hersey & Blanchard, 1993). Lastly, the S4 delegating style is effective for followers who are already both able and willing to perform their tasks (Hersey & Blanchard, 1993). Consequently, when using this model, the maturity level (M1, M2, M3, and M4) has an orderly fit for leaders to select an effective leadership style (S1, S2, S3, and S4).

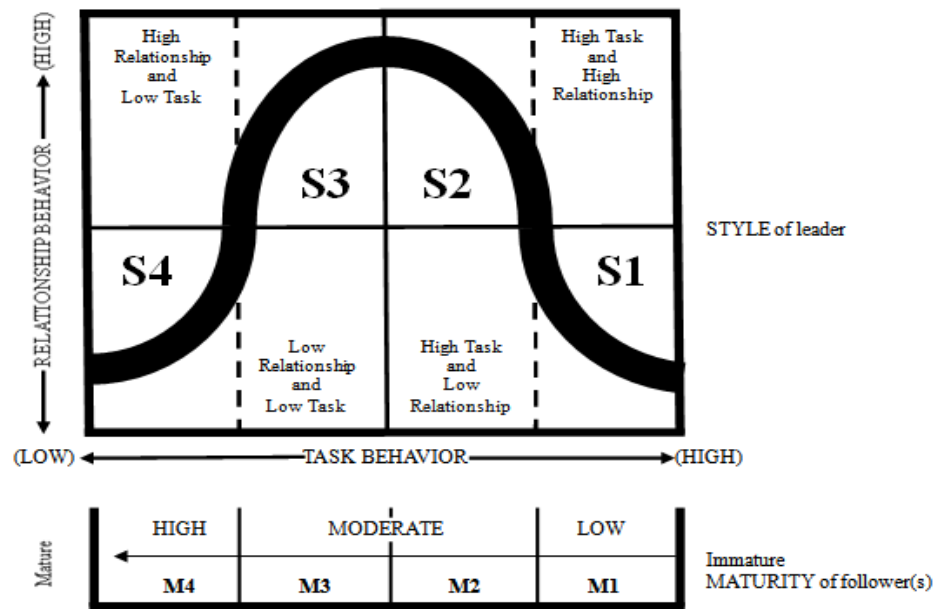


Figure 2.2. Determining an appropriate leadership style. From *Management of Organizational Behavior: Utilizing Human Resources* (p. 257), by P. Hersey and K. H. Blanchard (6<sup>th</sup> ed.), 1993, Englewood Cliffs, NJ: Prentice-Hall.

In short, Hersey and Blanchard’s situational leadership theory brings forth a new paradigm of leadership theory. However, there have been a few arguments about SLT. Some theorists have suggested that the model lacks a conceptual framework (Johansen, 1990). More precisely, Graeff (1983) demonstrated that “the diagnostic curve used to link maturity to task and relationship behaviors lacks theoretical justification, and the prescriptive model clearly is unable to handle some situations logically” (p. 290).

### **Multidimensional Model of Leadership**

The Multidimensional Model of Leadership (MML) was proposed by Chelladurai (1978). The MML makes up for the weak point that the general leadership theories may be inapplicable broadly in the sports domain (Chelladurai & Carron, 1978). This model

proposes that “group performance and member satisfaction are considered to be a function of the congruence among three states of leader behavior – *required*, *preferred*, and *actual*” (Chelladurai, 1990, p. 329) (see Figure 2.3).

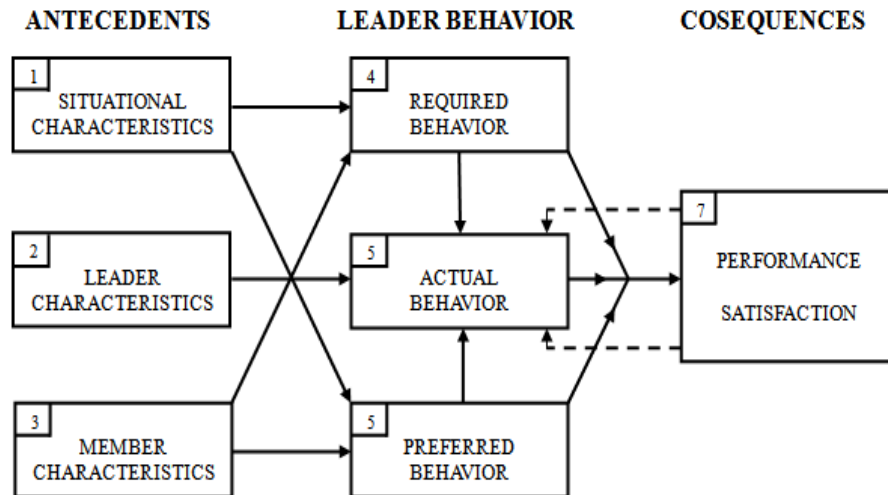


Figure 2.3. The multidimensional model of leadership. From “Leadership in Sports: A Review,” by P. C. Chelladurai, 1990, *International Journal of Sport Psychology*, 24, p. 330.

“Required leader behavior” is defined as demand and constraints imposed by the organization (Chelladurai, 2006). It stems from the situational characteristics including formal structure, group task, technology, government regulations, social norms, organizational goals, and the nature of the group (Chelladurai, 1990). It can be also influenced by member characteristics, such as ability, intelligence, experience, and personality (Andrew, 2009). Consequently, the leader behavior can be required, depending on different situations and member characteristics in an organization.

“Preferred leader behavior” is defined as the followers’ preferences of a certain leadership style (Chelladurai, 1990). This behavior stems from situational characteristics.

For instance, guidance and supervision may be preferred by workers employed in a new program, but not by others engaged in a routine task (Chelladurai, 2006). This behavior may also stem from member characteristics. For example, an individual who displays the ability to perform his/her tasks is less likely to prefer a leader's heavy guidance, while those with insufficient abilities may give preference to higher levels of direction (Chelladurai, 2006).

“Actual leader behavior,” which is the most central category, is mentioned later within the athletes' perceptions of their coaches' leadership styles (Andrew, 2009). This type of leader behavior is determined by the leaders' personal characteristics, such as personality, ability, and experience (Chelladurai, 1990). For instance, a leader, showing an interest in a friendly working-environment is likely to display a more participative style than a directive style (Chelladurai, 2006). “Actual leader behavior” is also influenced by both “required leader behavior” and “preferred leader behavior.” Consequently, actual leader behavior may not only be dependent upon its characteristics, but also situational requirements and member preferences. In brief, when there is harmony between these three types of leader behavior, these leader behaviors can positively affect a follower's performance and satisfaction.

To examine leader behavior, the Leadership Scale for Sports (LSS) was developed by Chelladurai and Saleh (1980). This measurement instrument is made up of 40 items with the five-dimensions of leader behavior, such as training/instruction, democracy, autocracy, social support, and positive feedback. Chelladurai and Saleh (1980) described the five-dimensions of leader behavior as follows: (a) *training and instruction* – this leader behavior is more likely to give importance to boosting athletes' performance



by providing training and passing down strategies, skills, and techniques; (b) *democratic behavior* – this style is more likely to encourage athletes to take an active part in the decision-making process over game, strategies, goal settings, and so on; (c) *autocratic behavior* – this style is apt to drive athletes to obedience through limiting their participation in the decision-making process; (d) *social support* – this style tends to focus its attention on the athletes’ welfare, building a friendly training environment, and communicating with them; and (e) *positive feedback* – this style is more likely to attach the most importance to giving credit and compensating for an athlete’s successful performance.

So far, this literature review has presented descriptions of trait theory, behavioral theory, and situational theory of leadership. Even though the situational theory is still given much attention, there has been a need for a new paradigm of leadership theory (Lee, 2011). More recently, charismatic leadership, transactional-transformational leadership, and servant leadership have received much public attention. These are described below.

### **Charismatic Leadership**

Charismatic leadership was unknown in the sphere of organizational theory until the late 1980s (Conger, Kanungo, & Menon, 2000). Historically, the word “charisma” has its origins in Greek for “gift,” and it has subsequently been used as terminology meaning “gift from God” in the Christian church (Conger & Kanungo, 1992). Max Weber, the German sociologist, primordially applied the term “charisma” to the sports field (Conger, Kanungo, Menon, & Mathur, 1997).

Weber described that the legitimate authority of a leader is derived from three

types: (a) the traditional authority, (b) the rational-legal authority, and (c) the charismatic authority (Conger & Kanungo, 1992). According to Conger et al. (1997), “charismatic authority or leadership did not gain its legitimacy from laws and rules or titles and traditions, but rather from a faith in the charismatic’s exemplary character” (p. 291).

In short, there has been growth in the systematic study of charismatic leadership. It is indisputable that an incipient concept of transformational leadership is based on charismatic leadership (Bass, 1999).

### **Transactional-Transformational Leadership Theory**

Bass (1999) described that “transactional leadership refers to the exchange relationship between leader and follower to meet their own self-interests” (p. 10).

“Transformational leaders work by appealing to the ideals and values of subordinates. They seek to unite subordinates as they work toward a common purpose” (Slack & Parent, 2006, p. 303).

The Multifactor Leadership Questionnaire (MLQ) was developed by Bass and his colleagues to measure transformational-transactional leader behavior (Slack & Parent, 2006). In the MLQ, there are seven factors: (a) individualized influence; (b) inspirational motivation; (c) intellectual stimulation; (d) individualized consideration; (e) contingent rewording; (f) management-by-exception, and (g) Laissez-faire. The first four factors evaluate transformational leader behaviors, while the next three factors relate to transactional leadership (see Table 2.2).

Table 2.2

*Definitions of the Factors of Leadership*

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<b>Transformational leadership</b>	
<hr/>	
Individualized influence (Charisma)	The degree to which the leader earns his/her followers' trust and respect and provides them with vision and a mission.
Inspirational motivation	The extent to which the leader encourages followers to be inspired.
Intellectual stimulation	The degree to which the leader encourages his/her followers to think creatively and look at old problems from a new angle.
Individualized consideration	The extent to which the leader takes an interest in followers' needs and wants.
<hr/>	
<b>Transactional leadership</b>	
<hr/>	
Contingent rewording	The degree to which the leader pays rewards to followers when performing their tasks well.
Management -by-exception	The extent to which the active leaders correct followers' mistakes at once, while passive leaders do not intervene as long as followers do not deviate from standards.
Laissez-faire	The degree to which the leader is more likely to evade his/her responsibility.
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From "Personal Selling and Transactional/Transformational Leadership," by B. M. Bass, 1997, *Journal of Personal Selling & Sales Management*, 17, p. 22.

**Servant-Leadership**

An interest in servant-leadership has been showing an upward trend, and in recent years this topic has been mentioned in a large number of magazines, journals, and newspapers (Spears, 2004). According to the definition given by Barnabas, Joseph, and Clifford (2010), servant-leadership gives priority to serving subordinates, encouraging

community spirit, and sharing decision-making.

After reading Herman Hesse's novel, *Journey to the East*, Greenleaf created the term "servant-leadership" (Spears, 2004). Barnabas et al. (2010) gave a brief synopsis of the novel: a crowd of people started on a trip to a monastery. Leo, who was a servant, accompanied them and did his best to be of assistance to them in various ways. However, after Leo disappeared, the people were obviously flustered and did not finish their journey.

Following Greenleaf's original writings, Spears (2004) posited that there are ten characteristics of the servant leader: (1) *Listening* – the servant-leader listens carefully to words that the followers say; (2) *Empathy* – the leader is more likely to sympathize with their followers; (3) *Healing* – the leader willingly soothes others' emotional hurts; (4) *Awareness* – the leader who has self-awareness can look at all situations from various perspectives; (5) *Persuasion* – the leader is more likely to give priority to persuading others to reach an agreement; (6) *Conceptualization* – the leader gives shape to his/her thoughts or ideas; (7) *Foresight* – the leader can draw lessons from the past, face reality, and predict the future; (8) *Stewardship* – the leader has a strong sense of service to his/her followers; (9) *Commitment to the growth of people* – the leader focuses on helping his/her followers grow; and (10) *Building community* – the leader places importance on a strong sense of community within an organization. These characteristics can be mostly applied to sports leaders (Rieke, Hammermeister, & Chase, 2008).

There has been an increase in organizations that select servant-leadership to meet their management philosophies and mission statements (Barnabas et al., 2010; Spears, 2004). Such organizations include the Toro Company, Synovus Financial Corporation,

ServiceMaster Company, the Men's Wearhouse, Southwest Airlines, TD Industries (Spears, 2004), and Wal Mart (Barnabas et al., 2010). Consequently, "servant-leadership truly offers hope and guidance for a new era in human development, and for the creation of better, more caring institutions" (Spears, 2004, p. 11).

Among the various leadership theories mentioned in this chapter, Chelladurai's Multidimensional Model of Leadership, which best applies to the sports world, was used in this present study. With the sample of junior golfers in South Korea, there was a test for the effect of the five leadership styles on athletes' levels of competitive state anxiety and their golf performance.

## **Anxiety**

For decades, the relationship between anxiety and performance has been a major concern in the sports field (Navaneethan & Rajan, 2010; Woodman & Hardy, 2003). Landers & Arent (2006) described that “anxiety is negative in direction in that it is an emotional state or reaction characterized by unpleasant feelings of intensity, preoccupation, disturbance, and apprehension” (p. 266). More simply, it is defined as negative feelings or thoughts about a potential successful performance (Anshel, 2003). It has been reported that anxiety has a negative impact on an athlete’s performance in competitive sports (Anshel, 2003; Avramidou, Avramidis, & Pollman, 2007; Eys, Hardy, & Carron, 2003; Potgieter, 2009; Weinberg & Gould, 2007).

This anxiety can be classified into two types: trait anxiety and state anxiety. “**Trait anxiety** is a *general* predisposition to respond across many situations with high levels of anxiety” (Landers & Arent, 2006, p. 266). “**State anxiety** is much more specific, referring to an individual’s anxiety at a particular moment” (Landers & Arent, 2006, p. 266).

### **Competitive Anxiety**

Rajan and Pushparajan (2011) described competitive anxiety as follows. Athletes make an effort to win the game in competitive sports. The desire for victory is more likely to put psychological pressure on them, and this pressure leads to a greater level of anxiety. Consequently, athletes are more likely to feel anxiety in competition, and this is called competitive anxiety.

Competitive anxiety can be divided into two types: competitive trait anxiety and

competitive state anxiety. *Competitive trait anxiety* is defined as “a tendency to perceive competitive situations as threatening and to respond to these situations with feelings of apprehension and tension” (Martens, 1977, p. 23). *Competitive state anxiety* is an individual’s subjective state of mind, such as anxiety, tension, or fear in a competitive situation (Peden, 2007). More simply stated, competitive trait anxiety is referred to as feeling anxiety in general, and competitive state anxiety is referred to as feeling anxiety in a competitive situation. Martens and Gill (1976) demonstrated that the higher the level of competitive trait anxiety, the more severe the level of competitive state anxiety. Higher levels of competitive state anxiety lead to worse performance (Scanlan, Babkes, & Scanlan, 2005).

### **Theories of the Arousal Performance Relationship**

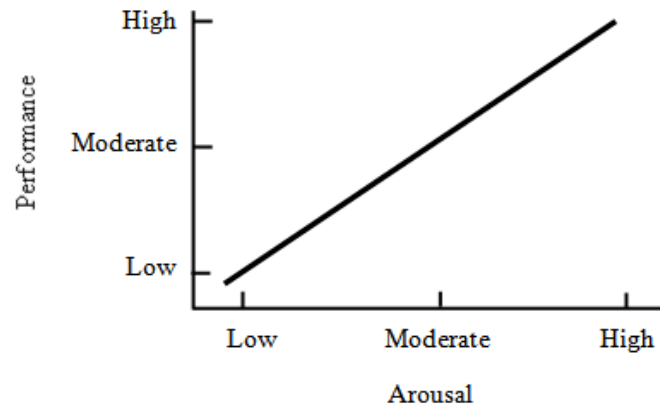
There are many theories about the arousal performance relationship including the drive theory, the inverted-U hypothesis, the zone of optimal functioning (ZOF), the reversal theory, and the multidimensional anxiety theory among others. Each of these key arousal performance relationship theories is discussed below.

#### **Drive Theory**

As originally proposed by Hull (1943) and revised by Spence (1956), drive theory proposes a positively linear relationship between arousal and performance in sports. More specifically, this theory suggests that “performance (P) is dependent on two factors, drive (D) and habit strength (H), illustrated by the formula  $P = D \times H$ ” (Anshel, 2003, p. 147). The term “drive” is often used as a synonym for arousal, and the term “habit strength”

can be defined as the skill level (Gould & Krane, 1992).

According to Landers and Arent (2006), this theory posited that an increase in arousal among novices is more likely to hurt their performance, while a rise in arousal among experts can improve their performance (see Figure 2.4).



*Figure 2.4.* The linear relationship between arousal and performance as suggested by drive theory. From *Applied Sport Psychology: Personal Growth to Peak Performance* (p. 267), by D. M. Landers and S. H. Arent (5<sup>th</sup> ed.), 2006.

In short, this theory suggests that sports performance is in proportion to levels of arousal and habit strength. However, the difference in skill level between novices and experts can produce different results (Chun & Kwak, 2007). Additionally, Fisher pointed out that this theory is too simplistic to describe the complex structure of sports (as cited in Gould & Krane, 1992, p. 124). Consequently, this theory fell into decline after the appearance of the inverted-U hypothesis.

### **The Inverted-U Hypothesis**

Yerkes and Dodson's (1908) inverted-U hypothesis predicts that when there is an



increase in arousal, there can be a rise in performance. When arriving at a moderate level of arousal, it would produce the highest performance. After a moderate level of arousal, performance starts to lessen. Consequently, it has been suggested that the arousal performance relationship is curvilinear, which is an inverted U-shape.

Anshel (2003) described that it is important to note that the arousal levels for best performance can be dependent upon each game subject. For example, baseball batting is more likely to require higher arousal levels for optimal performance than does golf putting (Anshel, 2003). However, higher arousal levels can be a necessity in sprinting, but not in baseball batting (see Figure 2.5).

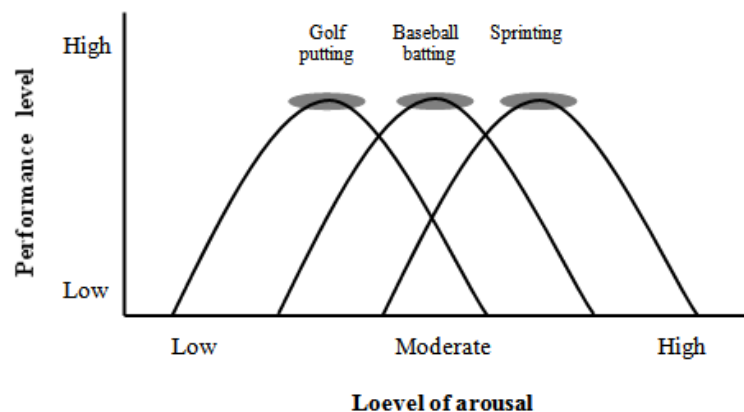


Figure 2.5. Inverted-U hypothesis illustrating optimal arousal level for golf putting, baseball batting, and sprinting. From *Sport Psychology: From Theory to Practice* (p.149), by M. H. Anshel (4<sup>th</sup> ed.), 2003.

However, there have been some criticisms about this theory. Krane (1992) argued that this theory did not provide enough explanation as to how and why anxiety has an impact on sports performance. Additionally, this theory fails to look at anxiety from a

multidimensional perspective (Randle & Weinberg, 1997).

### Zone of Optimal Functioning (ZOF)

Hanin's (1980) zone of optimal functioning theory proposes that there is an optimal zone of state anxiety for the best sports performance. Some athletes are more likely to reach their optimal performance at the low level of anxiety, others do at the middle level, and others perform best at the high level (Randle & Weinberg, 1997) (see Figure 2.6).

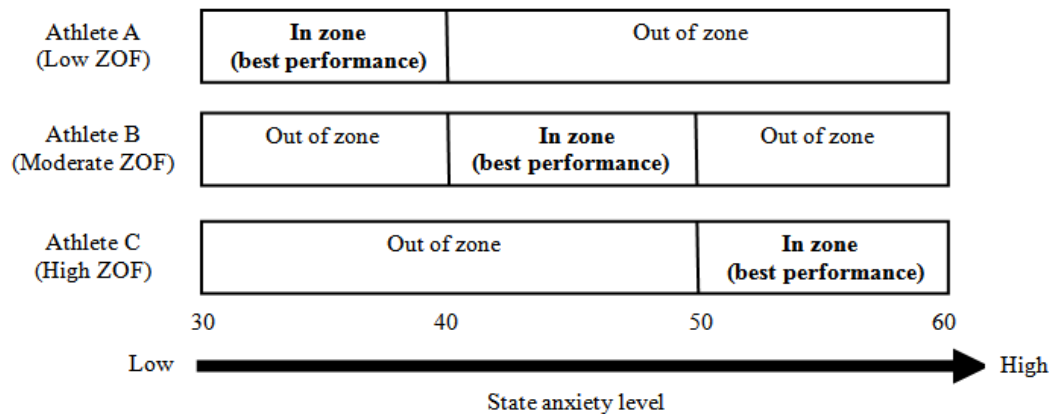


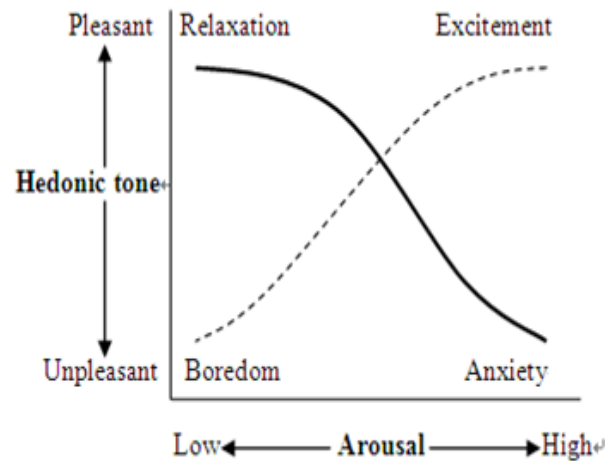
Figure 2.6. Individual zone of optimal functioning. From *Sport Book 1*(p. 334), by R. Barker et al., (2<sup>nd</sup> ed.), 2007.

In short, Hanin's ZOF theory can be practically and realistically applied to athletes in the field of sports (Gould & Krane, 1992). On the other hand, like Yerkes and Dodson's inverted U-hypothesis, this theory lacks explanation as to why sports performance is affected by state anxiety (Gould & Krane, 1992) and fails to measure arousal levels in the actual competition (Krane, 1993). In addition, Gould and Krane (1992) asserted that viewing anxiety from a one-dimensional standpoint, as opposed to a

multidimensional perspective, is the weak point of this theory.

### Reversal Theory

Reversal theory, as originally proposed by Smith and Apter (1975), has become widely known thanks to a European psychologist, Kerr (1985). Unlike earlier studies, this theory is more likely to concentrate on the relationship between arousal and hedonic tone: pleasant and unpleasant, which is contingent on how an athlete cognitively interprets his/her own arousal state (Gould & Krane, 1992) (see Figure 2.7).



*Figure 2.7.* The hypothesized relationship between arousal and hedonic tone for the anxiety-avoidance and excitement-seeking systems. From “The Experience of Arousal: The New Basis for Studying Arousal Effects in Sport” by J.H. Kerr, 1985, *Journal of Sports Sciences*, 3, p. 175.

An athlete’s high level of arousal can be interpreted in two ways: excitement (pleasant) or anxiety (unpleasant), but at low levels, there is either relaxation (pleasant) or boredom (unpleasant) (Kerr, 1985). Thus, this theory posits that an athlete’s psychological state might be suddenly reversed, depending on how he/she interprets the

arousal state (Chun & Kwak, 2007). Consequently, this reversal theory represents an entirely new approach to the arousal performance relationship.

### **Multidimensional Anxiety Theory**

The multidimensional anxiety theory was developed by Martens et al. (1990b). Recently, this theory has generated interest (Omar-Fauzee, Wai, Geok, & Latif, 2008). Martens and his colleagues divided anxiety into two sub-components, cognitive anxiety and somatic anxiety, and they subsequently added self-confidence to the theory (Martens et al., 1990b).

As stated above, “cognitive anxiety” is defined as psychological anxiety coming from negative concerns, thoughts, feelings, or self-evaluation (Martens et al., 1990a). On the other hand, “somatic anxiety” is referred to as physiological responses, including increased heart rate, pain in the stomach, muscular tension, clammy hands, and breathing hard (Martens et al., 1990a). Woodman and Hardy (2003) defined “self-confidence” as “one’s belief in meeting the challenge of the task to be performed” (p. 443).

Each sub-component of anxiety can be in line with sports performance. Martens et al. (1990b) argued that there is a negative relationship between cognitive anxiety and performance, a curvilinear relationship between somatic anxiety and performance, and a positive relationship between self-confidence and performance.

In conclusion, even though Martens and his colleagues’ multidimensional anxiety theory is still being tested, looking at anxiety from a multidimensional perspective is an asset of this theory (Gould & Krane, 1992). This theory leads to a better understanding of the relationship between anxiety and an athlete’s performance in sports (Krane, 1992).

Consequently, this theory was used in the present study to prove the relationship between junior golfers' competitive state anxiety and their performance.

## **Golf Performance**

Golf encompasses playing on a course made up of 18 holes. Dorsel (1996) noted that each one of these 18 holes includes a “tee box,” which is the area where the hole starts, a “fairway” that is a path to the green, and a “putting green” at the end of the hole.

There are four par-3 holes, ten par-4 holes, and four par-5 holes on the usual 18-hole golf course with par values of 72 (Schempp & Mattsson, 2005). To wind up the hole, par-3 holes, par-4 holes, and par-5 holes require a stroke with two putts, two strokes with two putts, and three strokes with two putts, respectively (Schempp & Mattsson, 2005).

In terms of scoring, all the strokes are counted from hitting the ball on the tee box to getting the ball in the cup on the green of the first hole, and with that as a start, the total number of strokes until the 18<sup>th</sup> hole is calculated (Ownes & Bunker, 1989). Thus, the lower the scores, the better the performance in golf (Ownes & Bunker, 1989; Schempp & Mattsson, 2005).

## **Coaches' Leadership Styles and Athletes' Performance**

A number of studies supported the idea that there is a relationship between a coach's leadership style and an athlete's performance. In a study of male basketball teams in the National Association of Intercollegiate Athletics (NAIA), Weiss and Friedrich (1986) found that there was a link between coaches' social support behaviors and team performance, but none existed between other leadership styles in the Leadership Scale for Sports (LSS). In this respect, higher levels of social support behavior from coaches were much less likely to improve athletes' performance levels.

With a sample of 161 regular starters on male soccer teams in the Canadian Interuniversity Athletic Union (CIAU), Gordon (1986) reported that athletes on more successful teams were more likely to perceive their coaches' leadership style as training/instruction, as opposed to those on less successful teams. Additionally, coaches' leadership styles were more likely to be perceived by athletes on less successful teams as autocracy, as opposed to those on successful teams. Consequently, it seems as though training/instruction behavior of the coach can improve athletes' performance, while autocratic behavior is more likely to stunt performance in Canadian intercollegiate soccer teams.

In Chelladurai, Imamura, Yamaguchi, Oinuma, and Miyauchi's (1988) cross-country study of college players in Japan and Canada, it was shown that there was a correlation between four leadership styles. Except for positive feedback and personal outcome among Japanese players, only training/instruction behavior was correlated among Canadian players.

Lee (2007) examined the relationship between coaching styles and athletic

performance with a sample of 653 junior golfers in South Korea. It was found that there was a significant negative relationship between democratic behavior from a coach and golf performance, but there turned out to be a positive relationship between a coach's autocratic behavior and performance.

Im (2008) made an inquiry into the effects of coaching styles on athletes' performance in hockey. It was shown that training/instruction, democracy, social support, as well as positive feedback behavior from coaches led to better performance overall.

In a study of 371 intercollegiate basketball players in Taiwan, Lan (2009) found a negative effect of coaches' democratic behavior on team performance. This study only applied to female athletes, but not males.

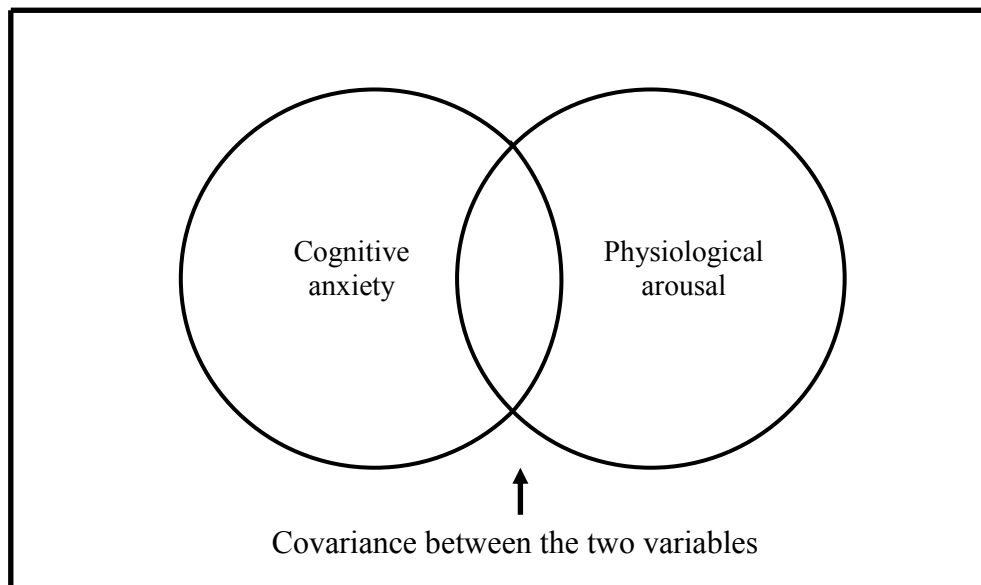
In Rajabi's (2012) study of coaches' leadership styles in Tabriz City, Iran and their athletes' performance, he revealed that the higher training/instruction and democratic behavior exhibited by coaches, the better the performance. Taken together, these studies have shown different results on each game subject and cross-country setting. Therefore, in the current study, it is necessary to draw a conclusion from a different set of data.

### **Athletes' Competitive State Anxiety and Their Sports Performance**

In Martens and his colleagues' (1990b) multidimensional anxiety theory, it is hypothesized that athletic performance is negatively associated with cognitive anxiety, is curvilinearly related to somatic anxiety, and is positively correlated to self-confidence in the athlete. In this respect, these predictions were consistent with the findings of Burton (1988), and Chamberlain and Hale (2007).



On the other hand, the relationship between cognitive anxiety and somatic anxiety has still aroused controversy in the sports field. Much evidence has been cumulated to show that cognitive anxiety and somatic anxiety are not completely independent of each other (Krane, 1992; Morris, Davis, & Hutchings, 1981). In other words, there is a correlation between the two (Caruso, Dzewaltoski, Gill, & McElroy, 1990; Jones, Cale, & Kerwin, 1988; Krane, 1990; McNally, 2002; Russell & Cox, 2003). Consequently, it seems as though there is a significant overlap between the two constructs (see Figure 2.8).



*Figure 2.8.* The relationship between cognitive anxiety and physiological arousal. From “Contrasting Concepts of Competitive State-Anxiety in Sport: Multidimensional Anxiety and Catastrophe Theories” by I. M. McNally, 2002, *The Online Journal of Sport Psychology*, 4, p. 16.

There is a lack of a logical explanation for the inverted-U relationship between somatic anxiety and performance (Woodman & Hardy, 2003). In addition, Martens et al. (1990b) described that somatic anxiety can change over time, so that as compared with

cognitive anxiety, somatic anxiety was much less likely to affect performance. Consequently, cognitive anxiety and self-confidence were included in this study, but somatic anxiety was excluded.

Previous studies have found that there is a negative trend between an athlete's cognitive anxiety and his/her performance (Burton, 1998; Chamberlain & Hale, 2007; Martens et al., 1990b). In addition, it has been shown that there is a positive trend between self-confidence and sports performance (Chamberlain & Hale, 2007; Doo, Kim, & Lee, 2002; Kim, 2004; Martens et al., 1990b). Thus, in this study it was hypothesized that among junior golfers in Korea, there would be a negative relationship between cognitive anxiety and performance, and a positive relationship between self-confidence and performance.

### **Coaches' Leadership Styles and Athletes' Competitive State Anxiety**

In the sports field, there have been relatively few studies that look into a link between coaches' leadership styles competitive state anxiety in their athlete.

In Hong's (2008) study of 131 taekwondo athletes in Korea, it was found that a coach's training/instruction and positive feedback behavior reduced athletes' cognitive anxiety levels. Additionally, the more a coach displayed training/instruction behavior, democratic behavior, and social support behavior, the more athletes felt confident.

Yeom (2009) conducted a study of the effect of coaching styles using a sample of 136 college bowlers in Korea. He found that training/instruction and autocratic behavior from coaches were more likely to lower the cognitive anxiety levels of the athletes. On the other hand, coaches' democratic behavior was linked to lower levels of self-

confidence.

As mentioned above, previous studies have shown that a coach's leadership style affects athletic performance. In this respect, an effective coaching style can be dependent upon a variety of situational factors in a sports setting. Therefore, this study was tested which coaching styles were most effective for junior golfers in lessening their cognitive anxiety levels, gaining self-confidence, and improving performance.

## **CHAPTER 3**

### **METHODOLOGY**

This chapter is divided into the following sub-sections: (a) participants, (b) measurement instruments, (c) translation and back translation, (d) pilot study, (e) procedure, and (f) statistical analysis.

#### **Participants**

The study population consisted of 2,154 golfers enrolled in the Korea Junior Golf Association (KJGA) through August, 2012. Two hundred and thirty-two golfers were selected for the sample from those that participated in the 23<sup>rd</sup> National Middle and High Schools Golf Championship. The tournament was held from 6-10 August 2012 at the Gold Lake Country Club located in Usan-ri, Nampyeong-eup, Laju-si, Jeollanam-do, South Korea. Each participant completed a questionnaire. Of the 232 respondents, 16 were excluded from this study, due to either being incomplete or showing that the participant did not seriously consider the questions. Consequently, 216 of the golfers were used for analyzing the study.

This sample was selected using a convenience sampling method, one of the non-probability sampling methods. Due to the nature of this study, it was difficult to select a random sampling technique. The characteristics of the participants in the extracted sample, such as gender, school year, and golf experience, are described in Chapter 4.

## **Measurement Instruments**

The questionnaire consisted of the following three measurement instruments: (1) Leadership Scale for Sports (LSS) to measure an athlete's perception of his/her coach's leadership style; (2) Competitive State Anxiety Inventory-2 (CSAI-2) to assess an athlete's competitive state anxiety level; and (3) an athletes' gross scores in the preliminary round of the tournament, used to measure golf performance.

### **Instrument 1: The Leadership Scale for Sports (LSS)**

The Leadership Scale for Sports (LSS) has been widely used for measuring a coach's leadership style (Chelladurai, 1990). According to Chelladurai (1990), the LSS is classified into three versions, taking measurements of: "(a) athletes' preferences for specific leader behaviors, (b) athletes' perceptions of their coaches' leader behavior, and/or (c) coaches' perceptions of their own behavior" (p. 332). Of the three versions, the athlete-perception version was adopted for this study and marginally revised to better fit Korea's particular golf setting.

The modified LSS was made up of five dimensions of coaches' leadership styles with 38 items. As shown in Table 3.1, eleven items are linked to training/instruction behavior from a coach, and nine items account for democratic behavior. Additionally, five items are associated with autocratic behavior, eight items are connected with social support behavior, and the last five items are linked to positive feedback behavior.

Table 3.1

*Five Dimensions of the Coach's Leadership Style*

<b>Subscales</b>	<b>Items</b>	<b>The number of Items</b>
Training/Instruction	1, 2, 7, 8, 13, 14, 19, 20, 25, 26, 35	11
Democratic Behavior	3, 9, 15, 21, 27, 31, 32, 34, 36	9
Autocratic Behavior	4, 10, 16, 22, 28	5
Social Support	5, 11, 17, 23, 29, 33, 37, 38	8
Positive Feedback	6, 12, 18, 24, 30	5

To quantify junior golfers' perceptions of their coaches' leadership styles, a five-point Likert scale was used. The format consists of the following: (i.e. 1 = never, 2 = seldom, 3 = occasionally, 4 = often, and 5 = always). In this respect, when calculating the mean of the items for each of the five dimensions, the scores are respectively computed. A higher average score indicates a higher perception of a certain coaching style among athletes.

Chelladurai and Saleh (1980) established the validity and reliability of the LSS in three different samples of physical education students and intercollegiate athletes in a variety of sports.

### **Validity**

#### **Evidence based on internal structure**

Using factor analyses, Chelladurai and Saleh (1980) found that 40 items in the LSS were repeatedly tied to the same factors in all three of the studies' samples. The

authors concluded that there was evidence based on internal structure of the 40-item LSS. As a result, “the five dimensional description of leader behavior could be replicated in different sets of data” (Chelladurai, 1990, p. 332).

### **Evidence based on relations to other variables**

Chelladurai (1990) found that convergent and discriminant validity was proven by a suitable item-to-total correlation in a number of studies. In addition, the author stated:

*Criterion related validity* can be inferred from the empirical support for the theoretical relationships between the five dimensions of leader behavior and selected criterion variables – (a) athletes’ satisfaction (Chelladurai, 1984; Chelladurai et al., 1988; Schliesman, 1987; Weiss & Friedrichs, 1986); (b) performance level of the athletes (Garland & Barry, 1988); (c) performance (Gordon, 1986; Summers, 1983; Weiss & Friedrichs, 1986); (d) drop out behavior in athletics (Robinson & Carron, 1982); and (e) coach-athlete compatibility (Horne & Carron, 1985). (Chelladurai, 1990, p. 336)

Consequently, not only convergent and discriminant validity, but also criterion related validity have been shown in several studies. Hence, it can be concluded that there is evidence based on relations to other variables.

### **Reliability**

In a Chelladurai and Saleh’s study (1980), each of the five leader dimensions across three different samples was analyzed by Cronbach’s alpha ( $\alpha$ ), which indicates a

reliability coefficient. With regard to the coefficient, it was shown that the athlete-perception version was relatively high, as opposed to the preferred version administered to physical education students or intercollegiate athletes. The reliability coefficient ranged from autocratic behavior ( $\alpha = .79$ ) to training/instruction behavior ( $\alpha = .93$ ), which turned out to be adequate (Chelladurai & Saleh, 1980). Consequently, the Leadership Scale for Sports (LSS) was shown to be a valid and reliable instrument for measuring a coach's leadership style.

### **Instrument 2: The Competitive State Anxiety Inventory-2 (CSAI-2)**

In a sports setting, the Competitive State Anxiety Inventory-2 (CSAI-2) has been frequently employed to measure an athlete's competitive state anxiety level (Abouzekri & Karageorghis, 2010; Raudsepp & Kais, 2008; Woodman & Hardy, 2003; Zeng, Leung, & Liu, 2008). Consequently, this measurement instrument was adopted to examine competitive state anxiety levels among Korean junior golfers before teeing off in the tournament.

The CSAI-2 was made up of three sub-dimensions with 27 total items. Stated in detail, nine items account for each of three dimensions: cognitive anxiety, somatic anxiety, and self-confidence. However, as some doubt has been raised concerning the overlap between cognitive anxiety and somatic anxiety, only two sub-dimensions were included in this study: cognitive anxiety and self-confidence (see Table 3.2).



Table 3.2

*Two Dimensions in CSAI-2*

<b>Subscales</b>	<b>Items</b>	<b>The number of Items</b>
Cognitive State Anxiety	1, 3, 5, 7, 9, 11, 13, 15, 17	9
Self-confidence	2, 4, 6, 8, 10, 12, 14, 16, 18	9

The data were quantifiable using a four-point Likert Scale (1 = not at all, 2 = somewhat, 3 = moderately so, and 4 = always so). The average score of each dimension is calculated and indicates that the higher the average score, the higher the athlete's cognitive anxiety levels and self-confidence before the game.

**Instrument 3: Golf Performance**

As a result of playing an 18-hole preliminary round, an athlete's gross score was used to compute his/her golf performance. Shortly after the round, scores were obtained from the official scoreboard by the KJGA. Additionally, their scores were located on the KJGA's homepage. Generally, a lower score means good performance in golf (Ownes & Bunker, 1989; Schempp & Mattsson, 2005).

**Translation and Back-translation**

The translation and back-translation procedure was conducted with Subject Matter Experts (SMEs). Originally, the language used in the two measurement instruments, the LSS and the CSAI-2, was English. However, the subjects of this study were junior golfers in South Korea. Thus, the questionnaires were translated into Korean

by a bilingual student in English and Korean who completed her dissertation in the Language, Literacy, and Sociocultural Studies program at the University of New Mexico.

Subsequently, another expert who is well experienced in translation back-translated the Korean into English. At this stage, the expert compared the back-translated version to the original version in order to ensure their homogeneity. Consequently, there were two homogeneous versions, the original English-language version and the Korean-language version, and the latter was used as the measurement instrument in this study.

### **Pilot Study**

Prior to the main study, the pilot study was implemented in late July 2012 at the Gold Lake Country Club. This location was selected because there were many junior golfers practicing on this golf course for the 23<sup>rd</sup> National Middle and High School Golf Championship scheduled there for the following month.

With a convenience sampling method, 30 volunteers participated. In this pilot study, it was found that there were some ambiguous words and errors in translation. Ultimately, a few words were modified to make it easier for junior golfers to understand. As a result, this procedure created a clearer measurement instrument to be used in the main study.

### **Procedure**

The research protocol was reviewed by the UNM Institutional Review Board (IRB) to ascertain participants' protection from harm. Soon after IRB approval, some surveyors with relevant work experience were recruited through an online advertisement.

These surveyors were trained to comprehend this study, including the data collection process and administered the questionnaires in the main study.

Gold Lake Country Club, which held the 23<sup>rd</sup> National Middle and High Schools Golf Championship, was selected as the data collecting location. The KJGA was given one month's notice and issued permission before proceeding with data collection. The preliminary rounds of this tournament were held the first three days of a five-day event. The questionnaires used in this study were collected for all three days.

To conduct a survey of minor golfers in the 12 to 18-year-old range, parents and athletes were asked to fill in a questionnaire within the clubhouse. Athletes with parental permission to participate individually answered questionnaires. This orally-informed consent was based on the understanding that it was not only voluntary to participate in this study but that they were free to quit answering it whenever they wanted. This process took about 10-15 minutes away from the athlete's tee time. After completing the questionnaires, each participant was rewarded with a bag of golf tees to show appreciation.

Each questionnaire was coded with a number to match the athlete's name. After answering the questionnaire, a surveyor immediately inserted it into an envelope and sealed it for the purpose of confidentiality. In order to obtain a golfer's 18 hole score, the coded numbers on questionnaires were matched with athletes' names and scores on the official scoreboard by the organizing committee.

### **Statistical Analysis**

Statistical analyses were conducted using the Statistical Package for the Social

Sciences (SPSS) version 20.0 program. The statistical techniques used in this study were: (a) descriptive statistics, (b) validity, reliability, and correlation analysis, (c) multiple regression analysis, and (d) a three-step mediating effect analysis.

First, descriptive statistics were presented to identify the demographic characteristics of participants. Such characteristics were comprised of gender, school year, and golf experience. Also, descriptive statistics were employed to compare the difference in junior golfers' perceptions of a coach's leadership style, their competitive state anxiety levels before the tournament, and their performance levels according to their demographic characteristics.

Second, using the Exploratory Factor Analysis (EFA) and Cronbach  $\alpha$ , the validity and reliability of the two measurement instruments, Leadership Scale for Sports (LSS) and Competitive State Anxiety Inventory-2 (CSAI-2), were analyzed. In addition, correlation analysis was performed to inquire into the relationship among the variables used in this study. In this analysis, the direction and strength of the relationship were reported.

Third, to test three hypotheses H1, H2, and H3, multiple regression analysis was used. In hypothesis H1, it was employed to examine the effect of a coach's leadership style on a junior golfer's sense of competitive state anxiety level before the game. In hypothesis H2, it was used to determine whether a coach's leadership style was likely to have an impact on an athlete's performance. In hypothesis H3, it was conducted to inquire into the relationship between competitive state anxiety levels of the athlete and his/her golf performance.

Fourth, Baron and Kenny's (1986) three-step mediating regression analysis was

employed to examine the effect of an athlete's competitive state anxiety levels on the relationship between the leadership style of the coach and the golfer's performance.

As Baron and Kenny (1986) noted, the three steps are as follows: (1) there is a statistically significant relationship between the independent variable (IV) and the mediating variable (MV) (IV – MV); (2) there is a statistically significant effect of the independent variable on the dependent variable (IV – DV); and (3) it is shown that the independent variable and the mediating variable have an impact on the dependent variable (IV/MV – DV). After these three steps are all met, if a regression coefficient of the independent variable in step 2 is greater than in step 3, it can be concluded to have a mediating effect. Consequently, Baron and Kenny (1986) argued, “perfect mediation holds if the independent variable has no effect when the mediator is controlled” (p. 1177).

The hypotheses were tested in this study is presented in Table 3.3.

Table 3.3

*The Summary of Statistical Analyses*

---

**Multiple Regression Analysis**

H1: There will be a difference in junior golfers' competitive state anxiety levels before the game according to their coaches' leadership styles.

H2: There will be a difference in junior golfers' performance levels according to their coaches' leadership styles.

H3: There will be a relationship between junior golfers' competitive state anxiety levels before the game and their performance levels.

**Three-step Mediating Regression Analysis**

H4: There will be the mediating effect of junior golfers' sense of competitive state anxiety on the relationship between coaches' leadership styles and their performance.

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Text in bold refers to a statistic technique, and the letter "H" refers to a hypothesis in this study.

## CHAPTER 4

### RESULTS

This chapter presents the results of the study including: (a) descriptive statistics, (b) the validity and reliability analysis of the LSS and CSAI-2, (c) the correlation analysis, and (d) the statistical analysis to examine the hypotheses.

#### Descriptive Statistics

The demographic characteristics of respondents that participated in this study consisted of gender, school year, and golf experience. Details are shown in Table 4.1:

Table 4.1

*Demographic Characteristics of Participants*

Characteristics		Frequency	Percent	Cumulative %
Gender	Male	127	58.8	58.8
	Female	89	41.2	100.0
School Year	Middle school 1	7	3.2	3.2
	Middle school 2	33	15.3	18.5
	Middle school 3	42	19.4	38.0
	High school 1	31	14.4	52.3
	High school 2	66	30.6	82.9
	High school 3	37	17.1	100.0
Golf Experience	Under 2 years	69	31.9	31.9
	2 – under 4 years	77	35.6	67.6
	4 – under 6 years	48	22.2	89.8
	Over 6 years	22	10.2	100.0

In terms of gender, relatively more male junior golfers than females participated in this study. The number of male athletes was 127 to 89 female athletes, and the percentage of males and females was 58.8% and 41.2 %, respectively.

In regard to school year, there were 66 high school sophomores (30.6%), followed by 42 middle school seniors (19.4%), 37 high school seniors (17.1%), 33 middle school sophomores (15.3%), 31 high school freshmen (14.4%), and 7 middle school freshmen (3.2%).

Regarding golf experience, 77 golfers (35.6%) had between two years and under four years of golf experience, and 69 golfers (31.9%) had under two years. Subsequently, 48 golfers (22.2%) had experience playing golf from four years to under six years, while 22 golfers (10.2%) had over six years of golf experience.

### **The Validity and Reliability of the Leadership Scale for Sports (LSS)**

McMillan (2004) defines validity as follows:

Validity is an overall evaluation of the extent to which theory and empirical evidence support interpretations that are implied in given uses of the scores. In other words, validity is a judgment of the appropriateness of a measure for the specific inferences or decisions that result from the scores generated by the measure. (pp.136-137)

To verify the validity of the modified Leadership Scale for Sports (LSS), a factor analysis was employed. Using the Exploratory Factor Analysis (EFA) with varimax rotation, the factors were extracted. The criterion for selecting factors and items were



based on an eigenvalue (greater than 1) and a factor loading (more than .60).

It was shown that eleven items were described by the first factor (training/instruction behavior) from a coach, accounting for 16.01 % of the variance. Nine items were confined within Factor 2 (democratic behavior) explaining a variance of 11.92%, while eight items were loaded onto the third factor (social support behavior) accounting for a 10.2% variance. Additionally, five items were tied to Factor 4 (autocratic behavior) explaining a variance of 6.98%, and five items were loaded onto the last factor (positive feedback behavior) accounting for a 6.91% variance. As a result, these five factors accounted for approximately 52% of the variance (see Table 4.2). Consequently, since these were consistent with the earlier studies, all five factors with 38 items were retained and were used for a reliability analysis.

A reliability analysis was also conducted to determine whether or not there was consistency in the scores measured by the LSS. In respect to the reliability coefficient, there were training/instruction ( $\alpha = .92$ ), democratic behavior ( $\alpha = .87$ ), social support ( $\alpha = .84$ ), autocratic behavior ( $\alpha = .74$ ), and positive feedback ( $\alpha = .75$ ). This analysis found relatively high reliability. Consequently, based upon the validity and reliability analyses, it was shown that a golf coach's leadership style is relatively well measured by the measurement instrument, the revised Leadership Scale for Sports (LSS).

Table 4.2

*The Validity and Reliability of the LSS*

	Training	Democratic	Social	Autocratic	Positive	Alpha If item Deleted	Cronbach $\alpha$
Item 1	.81					.90	
Item 7	.78					.91	
Item 2	.76					.91	
Item 8	.76					.91	
Item 13	.75					.91	.92
Item 14	.73					.91	
Item 19	.72					.91	
Item 26	.71					.91	
Item 25	.69					.91	
Item 20	.66					.91	
Item 35	.66					.91	
Item 3		.79				.85	
Item 9		.73				.85	
Item 27		.71				.85	
Item 31		.70				.85	
Item 21		.68				.86	.87
Item 15		.68				.85	
Item 32		.67				.85	
Item 36		.66				.85	
Item 34		.64				.86	
Item 29			.73			.82	
Item 17			.71			.82	
Item 11			.71			.82	
Item 33			.70			.82	
Item 23			.67			.82	.84
Item 5			.67			.82	
Item 37			.65			.83	
Item 38			.64			.83	
Item 4				.80		.67	
Item 10				.74		.68	
Item 16				.71		.68	.74
Item 22				.65		.72	
Item 28				.62		.74	
Item 30					.73	.68	

Item 18				.72	.70	
Item 6				.69	.70	.75
Item 12				.66	.71	
Item 24				.64	.72	
<hr/>						
Eigen-value	6.08	4.53	3.88	2.65	2.63	
<hr/>						
% of Variance	16.01	11.92	10.20	6.98	6.91	
<hr/>						

### **The Validity and Reliability of the Competitive State Anxiety Inventory-2 (CSAI-2)**

The validity of the Competitive State Anxiety Inventory-2 (CSAI-2) was measured in the same way as the LSS.

Results indicated that nine items were loaded onto the first factor (cognitive anxiety) accounting for 31.74% of the variance. The rest of the items were confined within Factor 2 (self-confidence) accounting for a 27.42% variance. These two factors were explained by roughly 59% of the variance. Consequently, these results are consistent with those of previous studies, so that all factors (18 items) were used for reliability analysis.

A reliability analysis was also conducted in the same way as the LSS. With regard to the value of the reliability coefficient, it was shown that there was cognitive anxiety ( $\alpha = .93$ ) and self-confidence ( $\alpha = .90$ ) (see Table 4.3). This can be regarded as relatively high reliability of the instrument. Consequently, in this validity and reliability analysis, it can be concluded that the CSAI-2 may well explain the cognitive anxiety and self-confidence levels of the junior golfer.

Table 4.3

*The Validity and Reliability of the CSAI-2*

	Cognitive anxiety	Self-confidence	Alpha If item Deleted	Cronbach $\alpha$
Item 11	.84		.92	
Item 17	.82		.92	
Item 9	.82		.92	
Item 13	.82		.92	
Item 15	.80		.92	.93
Item 7	.79		.92	
Item 5	.77		.92	
Item 3	.76		.92	
Item 1	.72		.92	
Item 10		.80	.88	
Item 6		.78	.88	
Item 14		.76	.88	
Item 8		.75	.88	
Item 16		.74	.88	.90
Item 2		.73	.89	
Item 12		.72	.89	
Item 18		.70	.89	
Item 4		.67	.89	
Eigen-value	5.71	4.94		
% of variance	31.74	27.42		

The descriptive statistics below (see Table 4.4) show the mean value of a junior golfer's perception of his/her coach's leadership style, depending on the demographic characteristics. First, male athletes perceived their coaches' leadership styles to be more autocratic (2.78) and gave more positive feedback (3.30) than did female athletes. On the other hand, females athletes perceived that their coaches' leadership style was more training/instruction (3.50), democratic (3.05), social support (3.02).

Second, among first-year students in middle school, coaches displayed the highest training/instruction behavior (3.54) and the lowest democratic behavior (2.67). Among second- and third-year middle school students, training/instruction behavior from a coach (3.56 and 3.50) was most likely to be high, but autocratic behavior (2.82 and 2.75) was the lowest. Additionally, among first- and third-year students in high school, a coach's positive feedback behavior (3.25 and 3.36) was the highest, and among second-year high school students, training/instruction behavior (3.47) was most likely to be high.

Third, regardless of golf experience, a coach's training/instruction behavior (from 3.23 to 3.64) was the highest among the five leadership styles. On the other hand, social support behavior (2.94) among athletes who had under two years of golf experience was the least. For the other three groups, autocratic behavior (from 2.40 to 2.69) was the lowest (see Table 4.4).

Table 4.4

*The Mean Score of Athletes' perceptions of Coaches' Leadership Styles*

	TI	DB	AB	SS	PF
<i>Gender</i>					
Male	3.35 (.83)	3.02 (.64)	2.78 (.75)	3.01 (.73)	3.30 (.72)
Female	3.50 (.82)	3.05 (.66)	2.68 (.78)	3.02 (.70)	3.26 (.77)
<i>School Year</i>					
Middle school 1	3.34 (.65)	2.67 (.73)	2.86 (.63)	2.86 (.33)	3.14 (.59)
Middle school 2	3.56 (.67)	3.20 (.67)	2.82 (.59)	2.90 (.83)	3.11 (.60)
Middle school 3	3.50 (.86)	2.98 (.68)	2.75 (.82)	3.16 (.64)	3.29 (.68)
High school 1	3.24 (.80)	3.11 (.42)	2.72 (.91)	3.05 (.49)	3.25 (.70)
High school 2	3.47 (.86)	2.99 (.62)	2.72 (.84)	2.98 (.72)	3.35 (.77)
High school 3	3.25 (.91)	3.03 (.76)	2.67 (.61)	2.98 (.90)	3.36 (.92)
<i>Golf Experience</i>					
Under 2 years	3.23 (.92)	3.06 (.74)	2.97 (.73)	2.94 (.64)	3.12 (.69)
2 – under 4 years	3.48 (.82)	3.08 (.58)	2.66 (.71)	3.10 (.78)	3.37 (.75)
4 – under 6 years	3.46 (.71)	2.88 (.67)	2.69 (.75)	2.93 (.73)	3.26 (.73)
Over 6 years	3.64 (.72)	3.14 (.50)	2.40 (.92)	3.12 (.71)	3.55 (.80)

*Notes.* TI=training/instruction, DB=democratic behavior, AB=autocratic behavior, SS=social support, PF=positive feedback.

In terms of gender, males (2.48) were less likely to feel anxiety than females (2.57). On the other hand, females (2.94) were more likely to be self-confident than males (2.91). Additionally, female athletes (78.60) displayed better golf performance than males (79.41) (see Table 4.5).

In middle school, as athletes progressed to the next grade, they felt less cognitive anxiety and had more self-confidence. In regards to golf performance, second-year students (78.73) were the best, followed by third graders (79.07) and first-year students

(81.43). In high school, first-year students displayed the least cognitive anxiety (2.38). Second-year students were the most self-confident (3.02), displaying the best golf performance (78.65).

In regards to golf experience, athletes with fewer than two years of golf experience showed the most cognitive anxiety (3.06), and those with over six years showed the most self-confidence (3.07). Additionally, the more-experienced athletes were far more likely to have better golf performances, as opposed to the less-experienced ones (from 83.03 to 76.05) (see Table 4.5).

Table 4.5

*The Mean Score of Athletes' Cognitive Anxiety and Self-Confidence*

	CA	SC	GP
<i>Gender</i>			
Male	2.48 (.85)	2.91 (.63)	79.41 (5.17)
Female	2.57 (.78)	2.94 (.72)	78.60 (3.96)
<i>School Year</i>			
Middle school 1	3.05 (.61)	2.30 (.36)	81.43 (2.64)
Middle school 2	2.77 (.79)	2.87 (.57)	78.73 (4.30)
Middle school 3	2.52 (.77)	2.98 (.63)	79.07 (4.65)
High school 1	2.38 (.79)	2.92 (.72)	78.71 (4.23)
High school 2	2.46 (.86)	3.02 (.70)	78.65 (4.22)
High school 3	2.41 (.85)	2.88 (.69)	80.00 (6.38)
<i>Golf Experience</i>			
Under 2 years	3.06 (.72)	2.67 (.63)	83.03 (4.44)
2 – under 4 years	2.43 (.71)	3.05 (.64)	77.84 (3.57)
4 – under 6 years	2.05 (.67)	3.03 (.67)	76.75 (2.97)
Over 6 years	2.16 (.86)	3.07 (.70)	76.05 (4.32)

*Notes.* CA=cognitive anxiety, SC=self-confidence, GP=golf performance.

### Correlation Analysis

A bivariate correlation test was carried out to look into the relationships among the variables. The results are presented as follows (see Table 4.6). Training and instruction correlated with positive feedback,  $r(214) = .26, p < .01$ , cognitive anxiety,  $r(214) = -.19, p < .01$ , self-confidence  $r(214) = .35, p < .01$ , and golf performance,  $r(214) = -.38, p < .01$ .

There was a statistically significant correlation between autocratic behavior and cognitive anxiety,  $r(214) = .20, p < .01$ , as well as between autocratic behavior and golf performance,  $r(214) = .25, p < .01$ . In addition, there was a relatively low relationship between social support and cognitive anxiety,  $r(214) = -.32, p < .01$ , and there was a statistically significant correlation between positive feedback and self-confidence,  $r(214) = .35, p < .01$ . Lastly, cognitive anxiety was significantly associated with golf performance,  $r(214) = .48, p < .01$ , and there was a correlation between self-confidence and golf performance,  $r(214) = -.34, p < .01$  (see Table 4.6).



Table 4.6

*The Correlations among Research Variables*

Variable	TI	DB	AB	SS	PF	CA	SC	GP
TI	—	.16*	-.06	-.08	.26**	-.19**	.35**	-.38**
DB		—	.08	.04	.04	.06	.07	.03
AB			—	-.06	-.02	.20**	-.11	.25**
SS				—	-.03	-.32**	-.12	-.00
PF					—	-.02	.35**	-.11
CA						—	-.10	.48**
SC							—	-.34**
GP								—

*Note.* TI = training / instruction, DB = democratic behavior, AB = autocratic behavior, SS = social support, PF = positive feedback, CA = cognitive anxiety, SC = self-confidence, GP = golf performance, \*  $p = .05$  (2-tailed). \*\*  $p = .01$  (2-tailed).

### Hypothesis Testing

**H1: There will be a difference in junior golfers' competitive state anxiety levels before the game according to their coaches' leadership styles.**

Multiple regression analysis was performed to examine the effect of a coach's leadership style on a junior golfer's cognitive anxiety level before the game. The results of this analysis showed that golf coaches' leadership styles accounted for 19% of the variance in cognitive anxiety levels ( $R^2 = .19$ ,  $F(5, 210) = 9.82$ ,  $p < .01$ ). The tolerance value indicated that there was nothing wrong with multicollinearity among the independent variables (see Table 4.7).

It was shown that a coach's democratic behavior and positive feedback behavior did not statistically have a significant impact on athletes' levels of cognitive anxiety. On the other hand, there was a statistical significance, showing that a coach's training/instruction behavior had a significantly negative impact on athletes' sense of cognitive anxiety levels ( $\beta = -.23, p < .01$ ). Additionally, a coach's autocratic behavior was shown to have a statistically significant effect on cognitive anxiety levels ( $\beta = .16, p < .05$ ). Furthermore, the negative effect of social support behavior on junior golfers' sense of cognitive anxiety before the tournament was statistically significant ( $\beta = -.33, p < .01$ ) (see Table 4.7).

Table 4.7

*Multiple Regression Analysis for Athletes' Cognitive Anxiety according to Golf Coaches' Leadership Styles*

Predictor	SE	$\beta$	t	p	Tolerance
(Constant)	.46		7.60	.00	
TI	.07	-.23	-3.57	.00**	.90
DB	.08	.10	1.52	.13	.96
AB	.07	.16	2.60	.01*	.99
SS	.07	-.33	-5.32	.00**	.99
PF	.07	.04	.55	.59	.93

a. Dependent variable: cognitive anxiety,  $R^2 = .19$ ,  $F = 9.82$ , \* $p < .05$ ; \*\* $p < .01$ .

Note. TI = training / instruction, DB = democratic behavior, AB = autocratic behavior, SS = social support, PF = positive feedback.

Multiple regression analysis was conducted to find out whether a coach's leadership style significantly predicted junior golfers' self-confidence levels before the

game. The results showed that golf coaches' leadership styles accounted for a 21% variance of an athlete's self-confidence level ( $R^2 = .21$ ,  $F(5, 210) = 11.07$ ,  $p < .01$ ). Since the values of tolerance were greater than .1, there was no problem with multicollinearity among the independent variables (see Table 4.8).

The results of this analysis indicated that democratic behavior, autocratic behavior, and social support behavior from a coach did not significantly predict junior golfers' self-confidence levels. However, a coach's training/instruction behavior was shown to have a statistically positive effect on junior golfers' self-confidence levels before the competition ( $\beta = .26$ ,  $p < .01$ ). Also, positive feedback behavior significantly predicted the self-confidence levels of the athletes ( $\beta = .28$ ,  $p < .01$ ) (see Table 4.8). In conclusion, this hypothesis H1 was partially adopted in the present study.

Table 4.8

*Multiple Regression Analysis for Athletes' Self-Confidence according to Golf Coaches' Leadership Styles*

Predictor	<i>SE</i>	$\beta$	<i>t</i>	<i>p</i>	<i>Tolerance</i>
(Constant)	.37		4.91	.00	
T/I	.05	.26	3.95	.00**	.90
DB	.07	.03	.46	.65	.96
AB	.05	-.09	-1.50	.13	.99
SS	.06	-.10	-1.60	.11	.99
PF	.06	.28	4.36	.00**	.93

a. Dependent variable: self-confidence,  $R^2 = .21$ ,  $F = 11.07$ ,  $*p < .05$ ;  $**p < .01$ .

*Note.* TI = training / instruction, DB = democratic behavior, AB = autocratic behavior, SS = social support, PF = positive feedback.

**H2: There will be a difference in junior golfers' performance levels according to their coaches' leadership styles.**

Using a multiple regression technique, a coach's leadership style was tested as a variable for its effect on a junior athlete's golf performance level. The results discovered that coaching behaviors accounted for 20% of the variance in a junior golfer's performance ( $R^2 = .20$ ,  $F(5, 210) = 10.63$ ,  $p < .01$ ). With respect to multicollinearity among the independent variable, the tolerance value indicated that there was nothing wrong with it (see Table 4.9).

It was shown that there was no statistically significant effect of a coach's democratic behavior, social support behavior, and positive feedback behavior on an athlete's golf performance. On the other hand, there was a statistical significance, showing that golf performance was negatively predicted by a coach's training/instruction behavior ( $\beta = -.38$ ,  $p < .01$ ). In addition, autocratic behavior was statistically significant, and thus autocratic behavior affected golf performance ( $\beta = .22$ ,  $p < .01$ ) (see Table 4.9). In conclusion, hypothesis H2 was partially adopted in this study.

Table 4.9

*Multiple Regression Analysis for Athletes' Golf Performance according to Coaches' Leadership Styles*

Predictor	<i>SE</i>	$\beta$	<i>t</i>	<i>p</i>	<i>Tolerance</i>
(Constant)	2.60		31.40	.00	
T/I	.37	-.38	-5.85	.00**	.90
DB	.46	.08	1.21	.23	.96
AB	.38	.22	3.53	.00**	.99
SS	.41	-.02	-.39	.70	.99
PF	.41	-.01	-.12	.91	.93

a. Dependent variable: golf performance,  $R^2 = .20$ ,  $F = 10.63$ ,  $*p < .05$ ;  $**p < .01$ .

*Note.* TI = training/instruction, DB = democratic behavior, AB = autocratic behavior, SS = social support, PF = positive feedback.

**H3: There will be a relationship between junior golfers' pre-competitive state anxiety levels and their performance levels.**

Multiple regression was used to test if a junior golfer's pre-tournament competitive state anxiety level had a statistically significant impact on his/her golf performance. The independent variables, a junior golfer's cognitive anxiety and self-confidence, accounted for 32% of the variance in the dependent variable, which is golf performance ( $R^2 = .32$ ,  $F(2, 213) = 48.94$ ,  $p < .01$ ). At the value of tolerance, there was shown to be no problem with multicollinearity among the independent variables (see Table 4.10).

There was proven to be statistically significant, and thus indicated athletes' cognitive anxiety levels positively predicted their golf performance levels ( $\beta = .45$ ,  $p$

<.01). Additionally, there was a significantly negative relationship between their sense of self-confidence and golf performance ( $\beta = -.29, p < .01$ ) (see Table 4.10). Consequently, hypothesis H3 was adopted in the current study.

Table 4.10

*Multiple Regression Analysis for Athletes' golf Performance according to Their Competitive State Anxiety*

Predictor	SE	$\beta$	t	p	Tolerance
(Constant)	1.52		51.56	.00	
CA	.33	.45	7.90	.00**	.99
SC	.40	-.29	-5.13	.00**	.99

a. Dependent variable: golf performance,  $R^2 = .32, F = 48.94, *p < .05; **p < .01$

Note. CA = cognitive anxiety, SC = self-confidence.

**H4-1: There will be a mediating effect of junior golfers' cognitive anxiety levels in the relationship between their coaches' training/instruction behavior and their performance levels.**

In Step 1, it was proven that there was a statistically significant relationship between a coach's training/instruction behavior and a junior golfer's sense of cognitive anxiety before the game ( $\beta = -.19, p < .05$ ). The independent variable, which was training/instruction behavior, accounted for 4% of the variance in cognitive anxiety ( $R^2 = .04, F(1, 214) = 8.11, p < .05$ ) (see Table 4.11).

In Step 2, there was a statistically significant effect of training/instruction behavior on athletes' golf performance ( $\beta = -.38, p < .01$ ). This predictor explained a 15% variance of golf performance ( $R^2 = .15, F(1, 214) = 36.15, p < .01$ ) (see Table 4.11).

In Step 3, training/instruction behavior ( $\beta = -.30, p < .01$ ) and cognitive anxiety ( $\beta = .42, p < .01$ ) significantly predicted golf performance. These two predictors accounted for 32% of the variance in golf performance ( $R^2 = .32, F(2, 213) = 49.35, p < .01$ ). Additionally, the regression coefficient of the independent variable that emerged in Step 2 was greater than it was in Step 3 (see Table 4.11). Therefore, there was a partial mediating effect. As a result, hypothesis H4-1 was accepted in this study.

Table 4.11

*The Relationship between Training/Instruction – Cognitive Anxiety – Golf Performance*

IV / MV / DV	STEP	$R^2$	$\beta$	$t$	$p$
T/I – CA	Step 1	.04	-.19	-2.85	.01*
T/I – GP	Step 2	.15	-.38	-6.01	.00**
T/I – CA – GP	Step 3 (IV)	.32	-.30	-5.19	.00**
	Step 3 (MV)		.42	7.33	.00**

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

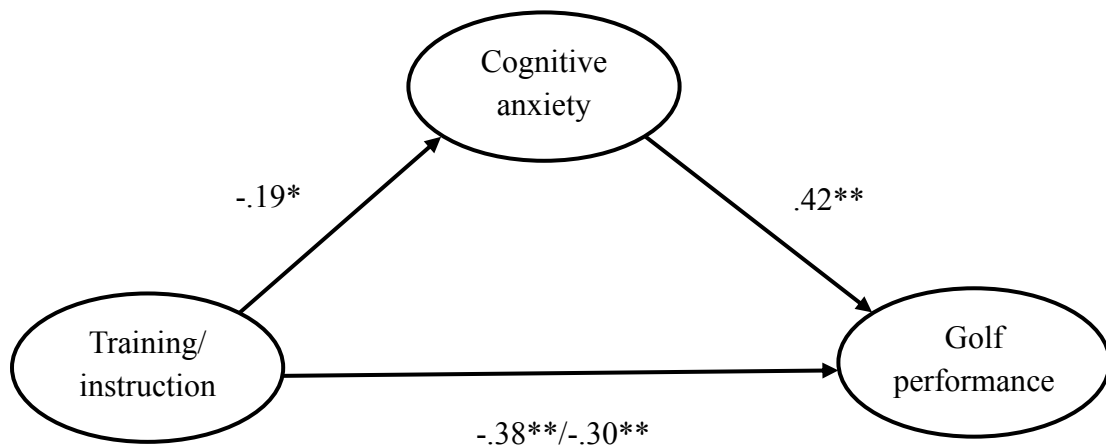


Figure 4.1. The model of training and instruction behavior/cognitive anxiety/golf performance.

**H4-2: There will be a mediating effect of junior golfers’ cognitive anxiety levels in the relationship between their coaches’ democratic behavior and their performance levels.**

In the first step, it was shown that cognitive anxiety levels of the athletes were not significantly influenced by democratic behavior ( $\beta = .06, p = .39$ ) (see Table 4.12). Consequently, as there was a failure to show a significant relationship between the independent variable and the mediating variable in Step 1, hypothesis H4-2 was statistically disproven.

Table 4.12

*The Relationship between Democratic Behavior – Cognitive Anxiety – Golf Performance*

IV / MV / DV	STEP	$R^2$	$\beta$	$t$	$p$
DB – CA	Step 1	.00	.06	.87	.39
DB – GP	Step 2	.00	.03	.47	.64
DB – CA – GP	Step 3 (IV)	.23	.00	.06	.96
	Step 3 (MV)		.48	7.97	.00**

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

**H4-3: There will be a mediating effect of junior golfers’ cognitive anxiety levels in the relationship between their coaches’ autocratic behavior and their performance levels.**

In Step 1, there was a statistically significant relationship between a coach’s autocratic behavior and junior golfers’ cognitive anxiety levels before the competition ( $\beta = .20, p < .01$ ). Autocratic behavior accounted for 4% of the variance



( $R^2 = .04$ ,  $F(1, 214) = 9.14$ ,  $p < .01$ ) (see Table 4.13).

In Step 2, autocratic behavior had a statistically significant impact on golf performance ( $\beta = .25$ ,  $p < .01$ ). Autocratic behavior explained 6% of golf performance ( $R^2 = .06$ ,  $F(1, 214) = 13.95$ ,  $p < .01$ ) (see Table 4.13).

In Step 3, it was shown to be statistically significant; autocratic behavior predicted golf performance ( $\beta = .16$ ,  $p < .05$ ). Cognitive anxiety also had a significant influence on golf performance ( $\beta = .45$ ,  $p < .01$ ). These two predictors explained 25% of the variance in the dependent variable, golf performance ( $R^2 = .25$ ,  $F(2, 213) = 36.23$ ,  $p < .01$ ) (see Table 4.13). Subsequently, the regression coefficient of the independent variable in the third step was less than it was at the second step. Therefore, the partial mediating effect was statistically proven in hypothesis H4-3.

Table 4.13

*The Relationship between Autocratic Behavior – Cognitive Anxiety – Golf Performance*

IV / MV / DV	STEP	$R^2$	$\beta$	$t$	$p$
AB – CA	Step 1	.04	.20	3.02	.00**
AB – GP	Step 2	.06	.25	3.74	.00**
AB – CA – GP	Step 3 (IV)	.25	.16	2.59	.01*
	Step 3 (MV)		.45	7.42	.00**

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

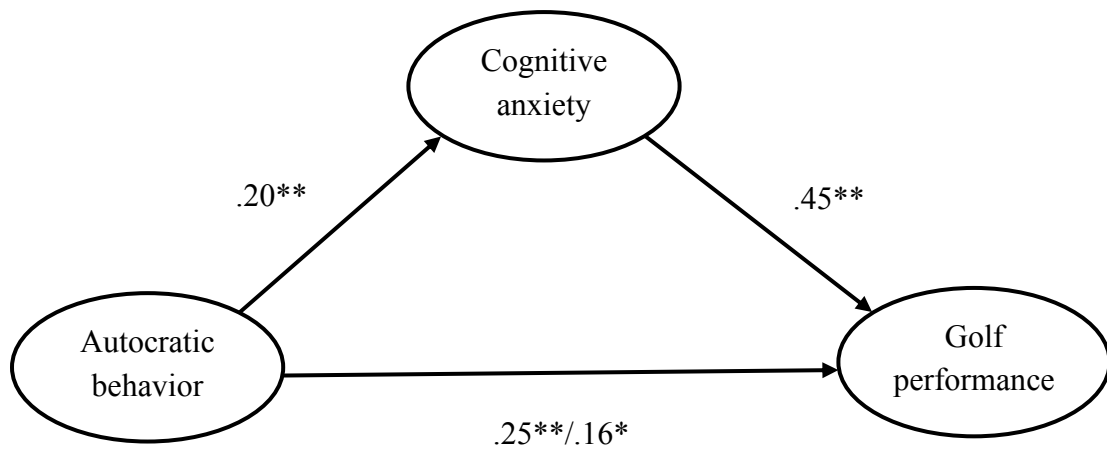


Figure 4.2. The model of autocratic behavior/cognitive anxiety/golf performance.

**H4-4: There will be a mediating effect of junior golfers’ cognitive anxiety levels in the relationship between their coaches’ social support behavior and their performance levels.**

At the first stage, the effect of a coach’s social support behavior on junior golfers’ cognitive anxiety levels prior to the tournament was statistically significant ( $\beta = -.32, p < .01$ ). Social support accounted for a 10% variance of cognitive anxiety ( $R^2 = .10, F(1, 214) = 24.55, p < .01$ ). On the other hand, at the second stage, there was no statistically significant relationship between social support behavior and golf performance ( $\beta = -.00, p = .96$ ) (see Table 4.14). Therefore, the assumption was not met so that hypothesis H4-4 was not statistically proven in this study.

Table 4.14

*The Relationship between Social Support – Cognitive Anxiety – Golf Performance*

IV / MV / DV	STEP	$R^2$	$\beta$	$t$	$p$
SS – CA	Step 1	.10	-.32	-4.95	.00**
SS – GP	Step 2	.00	-.00	-.05	.96
SS – CA – GP	Step 3 (IV)	.26	.17	2.69	.01*
	Step 3 (MV)		.53	8.55	.00**

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

**H4-5: There will be a mediating effect of junior golfers' cognitive anxiety levels in the relationship between their coaches' positive feedback behavior and their performance levels.**

In Step 1, it was proven that positive feedback behavior from a coach had no statistically significant impact on a junior golfer's sense of cognitive anxiety before the game ( $\beta = -.02, p = .83$ ) (see Table 4.15). Having failed to verify a significant link between the independent and dependent variable, hypothesis H4-5 was rejected in this study.

Table 4.15

*The Relationship between Positive Feedback – Cognitive Anxiety – Golf Performance*

IV / MV / DV	STEP	$R^2$	$\beta$	$t$	$p$
PF – CA	Step 1	.00	-.02	-.22	.83
PF – GP	Step 2	.01	-.11	-1.57	.12
PF – CA – GP	Step 3 (IV)	.24	-.10	-1.67	.10
	Step 3 (MV)		.48	8.01	.00**

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

**H4-6: There will be a mediating effect of junior golfers' self-confidence levels in the relationship between their coaches' training/instruction behavior and their performance levels.**

During the first phase, it was found that there was a statistically significant relationship between a coach's training/instruction behavior and self-confidence levels in junior golfers before the tournament ( $\beta = .35, p < .01$ ). Training/instruction behavior accounted for 12% of the variance in self-confidence ( $R^2 = .12, F(1, 214) = 28.84, p < .01$ ) (see Table 4.16).

During the second phase, there was a statistically significant relationship between training/instruction behavior and golf performance ( $\beta = -.38, p < .01$ ). This predictor accounted for a 15% variance of golf performance ( $R^2 = .15, F(1, 214) = 36.15, p < .01$ ) (see Table 4.16).

During the third phase, training/instruction behavior ( $\beta = -.30, p < .01$ ) and self-confidence ( $\beta = -.24, p < .01$ ) had a significant effect on golf performance. These two predictors explained 19% of the variance in the dependent variable – golf performance

( $R^2 = .19$ ,  $F(2, 213) = 25.48$ ,  $p < .01$ ). In addition to the above, the independent variable's regression coefficient at the second phase was greater than it was at the third phase (see Table 4.16). Consequently, it was found that there was the partial mediating effect. Therefore, hypothesis H4-6 was adopted in the present study.

Table 4.16

*The Relationship between Training/Instruction – Self-confidence – Golf Performance*

IV / MV / DV	STEP	$R^2$	$\beta$	$t$	$p$
T/I – SC	Step 1	.12	.35	5.37	.00**
T/I – GP	Step 2	.15	-.38	-6.01	.00**
T/I – SC – GP	Step 3 (IV)	.19	-.30	-4.56	.00**
	Step 3 (MV)		-.24	-3.58	.00**

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

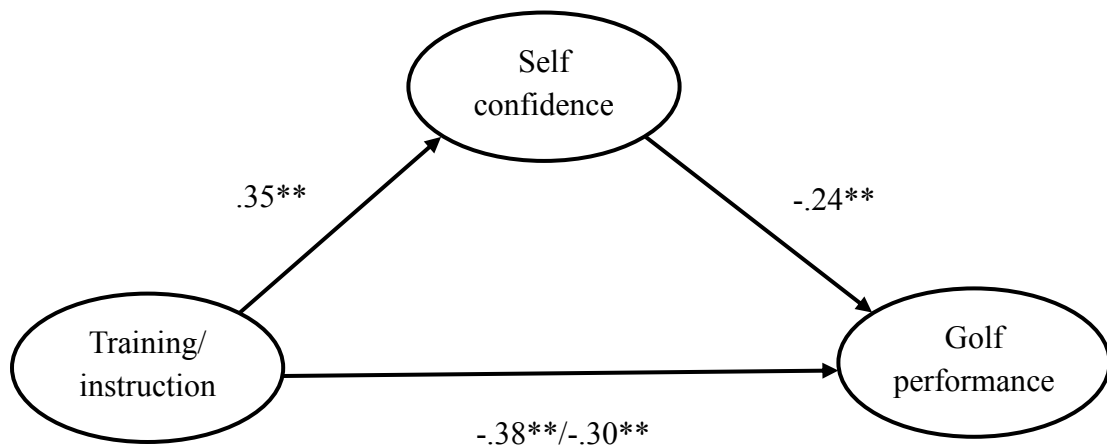


Figure 4.3. The model of training and instruction behavior/self-confidence/golf performance.

**H4-7: There will be a mediating effect of junior golfers’ self-confidence levels in the relationship between their coaches’ democratic behavior and their performance levels.**

In Step 1, there was found to be no significant link between a coach’s democratic behavior and self-confidence levels of the athletes before the competition ( $\beta = .07, p = .31$ ). As a result, it was no longer necessary to find out whether there was a significant relationship in the next step (see Table 4.17). Consequently, there was shown to be no mediating effect in hypothesis H4-7.

Table 4.17

*The relationship between Democratic Behavior – Self-confidence – Golf Performance*

IV / MV / DV	STEP	$R^2$	$\beta$	$t$	$p$
DB – SC	Step 1	.01	.07	1.02	.31
DB – GP	Step 2	.00	.03	.47	.64
DB – SC – GP	Step 3 (IV)	.12	.06	.86	.39
	Step 3 (MV)		-.34	-5.29	.00**

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

**H4-8: There will be a mediating effect of junior golfers’ self-confidence levels in the relationship between their coaches’ autocratic behavior and their performance levels.**

In the first stage, a coach’s autocratic behavior did not significantly predict the self-confidence levels of the athletes ( $\beta = -.11, p = .12$ ) (see Table 4.18). As a result, hypothesis H4-8 was disproven in this study.

Table 4.18

*The Relationship between Autocratic Behavior – Self-confidence – Golf Performance*

IV / MV / DV	STEP	$R^2$	$\beta$	$t$	$p$
AB – SC	Step 1	.01	-.11	-1.55	.12
AB – GP	Step 2	.06	.25	3.74	.00**
AB – SC – GP	Step 3 (IV)	.16	.21	3.39	.00**
	Step 3 (MV)		-.32	-4.99	.00**

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

**H4-9: There will be a mediating effect of junior golfers' self-confidence levels in the relationship between their coaches' social support behavior and their performance levels.**

In Step 1, it was not found that a coach's social support behavior had an impact on junior golfers' self-confidence levels before the competition ( $\beta = -.12, p = .08$ ) (see Table 4.19). Thus, it was no longer meaningful to test for a statistical significance in Steps 2 and 3. Consequently, hypothesis H4-9 was statistically unproven in this study.

Table 4.19

*The Relationship between Social Support – Self-confidence – Golf Performance*

IV / MV / DV	STEP	$R^2$	$\beta$	$t$	$p$
SS – SC	Step 1	.02	-.12	-1.78	.08
SS – GP	Step 2	.00	-.00	-.05	.96
SS – SC – GP	Step 3 (IV)	.12	-.05	-.69	.49
	Step 3 (MV)		-.34	-5.29	.00**

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

**H4-10: There will be a mediating effect of junior golfers' self-confidence levels in the relationship between their coaches' positive feedback behavior and their performance levels.**

In the first step, there was a statistically significant relationship between a coach's positive feedback behavior and an athlete's level of self-confidence ( $\beta = .35, p < .01$ ). Positive feedback behavior accounted for 12% of the variance in self-confidence ( $R^2 = .12, F(1, 214) = 29.81, p < .01$ ) (see Table 4.20).

On the other hand, it was found that in the second step, there was no statistically significant effect of positive feedback behavior upon golf performance ( $\beta = -.11, p = .12$ ) (see Table 4.20). As a result, hypothesis H4-10 was statistically disproven in the present study.

Table 4.20

*The Relationship between Positive Feedback – Self-confidence – Golf Performance*

IV / MV / DV	STEP	$R^2$	$\beta$	$t$	$p$
PF – SC	Step 1	.12	.35	5.46	.00**
PF – GP	Step 2	.01	-.11	-1.57	.12
PF – SC – GP	Step 3 (IV)	.11	.01	.19	.85
	Step 3 (MV)		-.34	-4.97	.00**

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



The results of hypotheses tested were summarized as follows (see Table 4.21).

Table 4.21

***The Results of Hypotheses Tested***

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***H1-1:*** There was **a difference** in junior golfers' cognitive anxiety levels before the game according to their coaches' training and instruction behavior.

***H1-2:*** There was **no** difference in junior golfers' cognitive anxiety levels before the game according to their coaches' democratic behavior.

***H1-3:*** There was **a difference** in junior golfers' cognitive anxiety levels before the game according to their coaches' autocratic behavior.

***H1-4:*** There was **a difference** in junior golfers' cognitive anxiety levels before the game according to their coaches' social support behavior.

***H1-5:*** There was **no** difference in junior golfers' cognitive anxiety levels before the game according to their coaches' positive feedback behavior.

***H1-6:*** There was **a difference** in junior golfers' self-confidence levels before the game according to their coaches' training and instruction behavior.

***H1-7:*** There was **no** difference in junior golfers' self-confidence levels before the game according to their coaches' democratic behavior.

***H1-8:*** There was **no** difference in junior golfers' self-confidence levels before the game according to their coaches' autocratic behavior.

***H1-9:*** There was **no** difference in junior golfers' self-confidence levels before the game according to their coaches' social support behavior.

***H1-10:*** There was **a difference** in junior golfers' self-confidence levels before the game according to their coaches' positive feedback behavior.

***H2-1:*** There was **a difference** in junior golfers' performance levels according to their coaches' training instruction behavior.

***H2-2:*** There was **no** difference in junior golfers' performance levels according to their coaches' democratic behavior.

***H2-3:*** There was **a difference** in junior golfers' performance levels according to their

coaches' autocratic behavior.

**H2-4:** There was **no** difference in junior golfers' performance levels according to their coaches' social support behavior.

**H2-5:** There was **no** difference in junior golfers' performance levels according to their coaches' positive feedback behavior.

**H3-1:** There was **a negative linear relationship** between junior golfers' competitive cognitive anxiety levels before the game and their performance levels.

**H3-2:** There was **a positive linear relationship** between junior golfers' self-confidence before the game levels and their performance levels.

**H4-1:** There was **the mediating effect** of junior golfers' cognitive anxiety levels on the relationship between their coaches' training/instruction behavior and their performance levels.

**H4-2:** There was **no** mediating effect of junior golfers' cognitive anxiety levels on the relationship between their coaches' democratic behavior and their performance levels.

**H4-3:** There was **the mediating effect** of junior golfers' cognitive anxiety levels in the relationship between their coaches' autocratic behavior and their performance levels.

**H4-4:** There was **no** mediating effect of junior golfers' cognitive anxiety levels in the relationship between their coaches' social support behavior and their performance levels.

**H4-5:** There was **no** mediating effect of junior golfers' cognitive anxiety levels in the relationship between their coaches' positive feedback behavior and their performance levels.

**H4-6:** There was **the mediating effect** of junior golfers' self-confidence levels in the relationship between their coaches' training/instruction behavior and their performance levels.

**H4-7:** There was **no** mediating effect of junior golfers' self-confidence levels in the relationship between their coaches' democratic behavior and their performance levels.

**H4-8:** There was **no** mediating effect of junior golfers' self-confidence levels in the relationship between their coaches' autocratic behavior and their performance levels.

**H4-9:** There was **no** mediating effect of junior golfers' self-confidence levels in the relationship between their coaches' social support behavior and their performance levels.

**H4-10:** There was **no** mediating effect of junior golfers' self-confidence levels in the relationship between their coaches' positive feedback behavior and their performance

levels.

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## CHAPTER 5

### DISCUSSION AND CONCLUSIONS

The final chapter consists of three sections: (a) discussion of the results of the hypotheses testing, (b) the practical implications of this study, and (c) the recommendations for future research.

#### **Discussion of the Results of the Hypotheses Testing**

**H1: There will be a difference in junior golfers' competitive state anxiety levels before the game according to their coaches' leadership styles.**

This study examined whether a coach's leadership style impacts junior golfers' sense of cognitive anxiety and self-confidence before the game. The results from this study showed that a coach's training/instruction behavior and social support behavior decreased athletes' anxiety, but autocratic behavior increased athletes' anxiety levels. Additionally, training/instruction behavior and positive feedback behavior from a coach increased athletes' self-confidence levels.

First, among a coach's five leadership styles, such as training/instruction, democracy, autocracy, social support, and positive feedback, it was found that in South Korea, coaches' training/instruction behavior had a significantly negative impact on junior golfers' cognitive anxiety levels prior to the game. In other words, higher levels of coaches' training/instruction behavior were far more likely to reduce junior golfers' pre-

tournament cognitive anxiety levels. According to Hong's (2008) research on Korean Tae-Kwon-Do athletes and Yeom's (2009) research on Korean intercollegiate bowling athletes, coaches' training/instruction behavior lowered athletes' cognitive anxiety levels. The result of this study support Hong's and Yeom's findings. Consequently, it can be assumed that junior golfers who are well-trained by a coach find that their psychological and emotional stability is in proportion to decreasing their sense of cognitive anxiety before the game.

Second, it was shown that autocratic behavior from a coach significantly predicted an athlete's cognitive anxiety level before the game. That is, higher levels of autocratic behavior from a coach were significantly related to increasing junior golfers' cognitive anxiety levels prior to the competition. This result, however, contradicts Yeom's (2009) finding that autocratic behavior from a coach actually decreased athletes' cognitive anxiety levels. In this respect, it generally seems as though many coaches in Korea have a belief that the autocratic style of leadership is effective in leading athletes. Instead, among junior golfers, it was proven to have exactly the opposite effect.

Third, the results indicated that a coach's social support behavior had a significantly negative impact on junior golfers' cognitive anxiety levels before the tournament. When coaches exhibited social support behavior, athletes were far less likely to feel cognitive anxiety. This study was in accord with the finding reached by Hong (2008). These results indicate that a coach's efforts to continuously encourage athletes, to show sincere interest, and to maintain a close relationship with athletes is effective in lowering athletes' anxiety levels. Therefore, it may be assumed that when a coach give affection and has an interest in junior golfers, the junior golfers are far less likely to feel

cognitive anxiety prior to a tournament.

Fourth, it was shown that there was a significantly positive effect on junior golfers' pre-competition self-confidence levels as a result of a coach's training/instruction behavior. In other words, coaches' training/instruction behaviors were far more likely to boost athletes' self-confidence levels. This is underpinned by Hong's (2008) study. In conclusion, it seems as though junior golfers are trained up to a proficient level after they learn the skills and techniques from a coach. In effect, these may instill self-confidence into athletes.

Lastly, it was found that a coach's positive feedback behavior positively affected junior golfers' self-confidence levels prior to the tournament. Along this line, the more coaches displayed positive feedback behavior, the more confident athletes were likely to be. However, the result of this study does not coincide with Hong's (2008) study that showed in Taekwondo, a coach's training/instruction behavior, democratic behavior, and social support behavior increased athletes' self-confidence levels. In this respect, by using different samples in the research studies, it is possible to show a different result. Consequently, this study found that a coach's positive feedback behavior, that praises junior golfers when performing well and provides them credit for it, could be effective in boosting athletes' self-confidence prior to the competition.

**H2: There will be a difference in junior golfers' performance levels according to their coaches' leadership styles.**

This study tested the relationship between junior golf coaches' leadership styles and athletes' performance before the tournament. It was found that training/instruction

behavior from a coach improved athletes' golf performance, but autocratic behavior lowered their performance.

First, among the five leadership styles proposed by Chelladurai and Saleh (1980), it was found that a coach's training/instruction behavior had a significantly negative impact on junior golfers' performance. More specifically, if coaches displayed training/instruction behavior, junior golfers tended to enjoy better performance. This study is in agreement with the findings of Im (2008) and Rajabi (2012) showing that training/instruction behavior, one of the coach's leadership styles, improves sports performance levels. Taken together, it can be assumed that training under the guidance of a coach helps junior golfers acquire the skills needed to help them develop into good golfers.

Second, it turned out that there was a significantly positive relationship between autocratic behavior from a coach and golf performance. The more coaches showed this leadership style, the worse junior golfers were likely to perform. The result of this study supports the early finding of Gordon (1986) that in Canadian intercollegiate football players, a coach's authoritative leadership style decreased athletes' performance levels. Consequently, unlike in the past, forceful leadership style is no longer considered as an effective way for guiding junior golfers. Instead, it can be concluded that this style leads to the deterioration of their performance.

**H3: There will be a relationship between junior golfers' competitive state anxiety levels before the game and their performance levels.**

First, it was found that junior golfers' cognitive anxiety before the game had a

significantly positive impact on their performance levels. More specifically, athletes with higher cognitive anxiety levels were more likely to play golf poorly. This finding is consistent with past studies suggesting that there was a negative relationship between an athlete's cognitive anxiety and his/her sports performance (Burton, 1998; Chamberlain & Hale, 2007; Martens et al., 1990b). In golf, it can generally be assumed that an athlete's cognitive anxiety is likely to tense a muscle that leads to a loss of swing tempo and rhythm. In effect, this can raise much chance of missing the shot that hurt golf performance.

Second, it was proven that the relationship between athletes' self-confidence before the game and golf performance was significantly negative. In detail, the more self-confidence, the better golf performance. This is consistent with previous studies (Chamberlain & Hale, 2007; Doo et al., 2002; Martens et al., 1990b). Chun and Kwak (2007) described that self-confidence leads to thinking positively, reinforcing concentration, and providing energy to achieve a goal. Therefore, it can be inferred that these help junior golfers enhance their performance. Consequently, this study can be meaningful as it demonstrates a close connection between golfers' psychological state of mind and their performance levels.

**H4: There will be a mediating effect of junior golfers' competitive state anxiety levels on the relationship between their coaches' leadership styles and their performance levels.**

In a mediating effect analysis, this study found that a higher level of a coach's training/instruction behavior was more likely to lower junior golfers' cognitive anxiety



levels, and their lower levels of cognitive anxiety tended to increase their golf performance. In contrast, the more a coach displayed an authoritative leadership style, the more the athletes felt cognitive anxiety. Additionally, higher levels of training/instruction behavior from a coach improved athletes' self-confidence, and higher levels of self-confidence increased their golf performance.

First, it was found that the mediating effect of a junior golfer's sense of cognitive anxiety shares a link between his/her coach's training/instruction behavior and his/her golf performance. This study indicated that the higher the coach's training/instruction behavior, the lower the junior golfers' pre-competition cognitive anxiety levels. In turn, lower-level cognitive anxiety was far more likely to improve their golf performance. Therefore, it can be assumed that highly disciplined junior golfers tend to be more psychologically stable prior to the game, and this produces a better performance.

Second, it was shown that a coach's autocratic behavior had a statistically significant impact on a junior golfer's cognitive anxiety levels before the game and his/her performance. The results of this study indicated that autocratic behavior raised athletes' cognitive anxiety, and the higher anxiety level they felt, the more likely they were to perform poorly. Consequently, it can be concluded that the oppressive leadership style exerts psychological pressure on junior golfers, and this state is far more likely to lower their performance.

Third, it was proven that there was a mediating effect of an athlete's self-confidence level in the relationship between training/instruction behavior from a coach and golf performance. In this respect, the more coaches showed this behavior, the more junior golfers had self-confidence. In turn, higher levels of self-confidence were more

likely to improve golf performance. Thus, it can be inferred that training enables junior golfers to become highly skilled, and this is followed by a great level of self-confidence. In effect, this leads to better golf performance. Consequently, this study may be meaningful, since it indicates that a coach's leadership style can influence not only athletes' psychological or emotional state, but also their performance levels.

### **The Practical Implications of the Study**

This study may be of practical assistance to golf coaches and coaching education, junior golfers, sports psychologists, and all parties concerned with evaluating and hiring coaches.

First, the results of this study can be useful to golf coaches by helping them more effectively lead and manage junior athletes. As many South Korean golfers are obtaining good results in the Professional Golfers Association (PGA) and the Ladies Professional Golf Association (LPGA), golf has become one of the country's most popular sports (Kim, 2002). As a result, the number of junior golfers has rapidly increased (Hur & Kim, 2003). Nonetheless, there is a lack of well-trained and educated coaches, and they have difficulty in guiding athletes. Additionally, many coaches tend to underestimate the fact that they have impact on not only athletes' technical performance but also their mental state.

This study provides coaches with information about which leadership style is the most likely to reduce junior golfers' cognitive anxiety levels, boost their self-confidence, and help them perform better. In addition, this study can be a foundation for creating systematic educational programs among associations that train coaches. Consequently,

coaches could choose an effective leadership style when working with junior golfers with great potential, and thus contribute to their success.

Second, this study provides information on athletes' performance based on their psychological state of mind. This can be helpful to junior golfers. In Korea, many athletes are more likely to focus on technical and weight training, but neglect psychological training. Therefore, this study may help junior golfers better understand the relationship between their state of mind and performance levels. This study found that at a higher level of cognitive anxiety, an athlete's performance may suffer. According to Anshel (2003), "anxiety levels must be controlled, not eliminated" (p. 139). In this respect, it may be necessary for a junior golfer to find his/her own way of relieving anxiety, such as simulation training, self-reflection, mental imagery, and relaxation (Anshel, 2003).

This study also shows that self-confidence is an important key to enhancing a junior golfer's performance. There are many ways to boost self-confidence. For instance, an athlete can select and follow a role model, use positive self-talk, mental imagery, as well as play the game for enjoyment (Anshel, 2003). Through these methods, a junior golfer is required to make an effort to improve and maintain his/her self-confidence.

One key conclusion of this study is that psychological training is no less important than physical training. Consequently, this study can serve as a foundation for helping junior golfers to be successful in the future as they realize the importance of mental skills training and utilizing psychological training.

Third, this study provides sports psychologists with empirical information of how athletes' cognitive anxiety and self-confidence levels impact their performance levels. In golf, athletes spend less time playing swinging and putting, but spend more time walking

and waiting for their turns (Bois et al., 2009). Therefore, an athlete's mental state is more crucial in golf than in any other sport. This study impresses on sports psychologists the importance of junior golfers' psychological state of mind and inspires them to develop various programs for a psychological cure that can help athletes play the game with an optimal state of mind.

Lastly, this study is useful to all parties that are currently concerned with hiring coaches. The results imply that a coach's leadership style is influential in leading junior golfers. Consequently, proper coaches can be hired to help athletes to be successful.

### **Recommendations for Future Research**

This research studied which Korean junior golf coaches' leadership styles influence athletes' competitive state anxiety levels before the game. Additional studies could provide an extensive analysis with a broader subset of intercollegiate and professional athletes or even other sports in various countries.

This study employed a quantitative research method, which relies upon quantitative data. However, there is a limit to quantitative research methods. To make up for this, there has been a growing interest in qualitative research methods, such as observing participants, interviewing them, analyzing documents, using recorders, video cameras, and so on. These methods could provide useful data in follow-up studies.

In addition, this study used a convenience sampling technique, which is one of the non-probability sampling methods. However, this method has a limitation that generalizes from the extracted sample (Fraenkel & Wallen, 2006). Thus, a probability sampling procedure – simple random sampling, systematic sampling, and so on – could

be used in future studies.

Also, a cross-sectional survey was used in this study. According to Lee (2009), this method has an advantage in collecting data over a short time, plus it is less expensive and requires less effort. On the other hand, it is limited to investigating a change over time. Hence, further studies could use a longitudinal approach to investigate more deeply how participants' competitive state anxiety and performance levels change over time, depending on their coaches' leadership styles.

Lastly, Chelladurai's Multidimensional Model of Leadership (MML) theory was employed in this study. This theory proposes that "group performance and member satisfaction are considered to be a function of the congruence among three states of leader behavior – *required*, *preferred*, and *actual*" (Chelladurai, 1990, p. 329). Among the three states of leader behavior, only a coach's actual behavior, as perceived by their athletes, was examined in this study. Consequently, further studies may be necessary to examine how concurrence in those three states of leader behavior will affect an athlete's competitive state anxiety level.

## **APPENDIX**



Dear participants,

My name is Chulho Bum and I am a Ph.D. candidate in the Sport Administration program at the University of New Mexico.

The aim of this study is to explore the influence of coaching leadership style in middle and high schools and competitive state anxiety of the athletes on golf performance. In addition, there is an importance in supplying effective and scientific information regarding the ways to maximize junior golfers' performances according to their coaches' leadership styles as well as competitive state anxiety.

Taking part in this survey is completely voluntary, and it is free to stop filling in the questionnaire at any time. There are no known risks in the questionnaire. It will take about 15 minutes for the respondents to fill out the questionnaire. After completing the questionnaire, a surveyor places it in an envelope and has it sealed. Consequently, it also provides a guarantee of confidentiality in writing.

In order to complete this research, much understanding and cooperation is earnestly requested, as the responses to the questionnaires are very important. It is also understood that aside from the object of this study, respondents' questionnaires will not be in further use, and afterwards they will be destroyed. If you have any questions, please feel free to call me at 505-366-9616 or send an email to [umn1186@hanmail.net](mailto:umn1186@hanmail.net).

By returning this study in the envelope provided, you will be agreeing to participate in the above described research study. Thank you so much for your kind assistance and cooperation with this important research.

Sincerely,

Researcher's Name: Chulho Bum

Researcher's Title: the effects of leadership behavior and competitive state anxiety on golf performances among junior golfers in South Korea.

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**SECTION I: Personal Information**

The items below are questions regarding your personal information. Please write down a number and fill in a blank space on the item 3.

1. What is your gender?  
 ① Male ② Female

2. What year are you in?  
 ① The first year of middle school  
 ② The second year of middle school  
 ③ The third of middle school  
 ④ The first year of high school  
 ⑤ The second of high school  
 ⑥ The third of high school

3. How long have you been playing golf?

**SECTION II: Leadership Scale for Sports**

The items below are questions about the respondent’s perception of their coaching behavior. Please circle a number, referring to the list below:

1=Never      2=Seldom      3=Occasionally      4=Often      5= Always

#	Items	Never  Always
1	My coach sees to it that an athlete is working to his/her capacity.	①   ②   ③   ④   ⑤
2	My coach explains to an athlete the techniques and tactics of golf.	①   ②   ③   ④   ⑤
3	My coach asks for the opinion of the athlete on strategies for specific competitions.	①   ②   ③   ④   ⑤
4	My coach works relatively independent of the athlete.	①   ②   ③   ④   ⑤
5	My coach helps the athlete with his/her personal problems.	①   ②   ③   ④   ⑤



6	My coach compliments an athlete for his performance in front of others.	① ② ③ ④ ⑤
7	My coach pays special attention to correcting an athlete's mistakes.	① ② ③ ④ ⑤
8	My coach instructs an athlete in golf techniques according to his/her ability levels.	① ② ③ ④ ⑤
9	My coach gets group approval on important matters before going ahead.	① ② ③ ④ ⑤
10	My coach does not explain his/her action.	① ② ③ ④ ⑤
11	My coach helps members of the group settle their conflicts.	① ② ③ ④ ⑤
12	My coach tells an athlete when he/she does a particularly good job.	① ② ③ ④ ⑤
13	My coach instructs an athlete individually in the skills of golf.	① ② ③ ④ ⑤
14	My coach figures ahead on what should be done.	① ② ③ ④ ⑤
15	My coach lets his/her athlete share in decision making.	① ② ③ ④ ⑤
16	My coach refuses to compromise a point.	① ② ③ ④ ⑤
17	My coach looks out for the personal welfare of the athlete.	① ② ③ ④ ⑤
18	My coach sees that an athlete is rewarded for a good performance.	① ② ③ ④ ⑤
19	My coach explains to an athlete what he/she should and what he/she should not do.	① ② ③ ④ ⑤
20	My coach expects an athlete to carry out his assignment to the last detail.	① ② ③ ④ ⑤
21	My coach encourages an athlete to make suggestions for ways of conducting practices.	① ② ③ ④ ⑤
22	My coach keeps himself/herself.	① ② ③ ④ ⑤
23	My coach does personal favors for the athlete.	① ② ③ ④ ⑤
24	My coach expresses appreciation when an athlete performs well.	① ② ③ ④ ⑤

25	My coach points out an athlete's strengths and weaknesses.	① ② ③ ④ ⑤
26	My coach gives specific instructions to an athlete as to what he/she should do in every situation.	① ② ③ ④ ⑤
27	My coach lets the athlete set its own goal.	① ② ③ ④ ⑤
28	My coach speaks in a manner not to be questioned.	① ② ③ ④ ⑤
29	My coach expresses affection he/she feels for his/her athletes.	① ② ③ ④ ⑤
30	My coach gives credit when is due.	① ② ③ ④ ⑤
31	My coach lets the athlete try their own way even if he/she makes mistakes.	① ② ③ ④ ⑤
32	My coach asks for the opinion of the athlete on important coaching matters.	① ② ③ ④ ⑤
33	My coach encourages the athlete to confide in him/her.	① ② ③ ④ ⑤
34	My coach creates a friendly practicing environment.	① ② ③ ④ ⑤
35	My coach specifies in detail what is expected of the athlete.	① ② ③ ④ ⑤
36	My coach lets the athlete decide on the plays to be used in a game.	① ② ③ ④ ⑤
37	My coach encourages close and informal relations with athlete.	① ② ③ ④ ⑤
38	My coach invites an athlete to his/her home.	① ② ③ ④ ⑤

### SECTION III: Competitive State Anxiety

The items below are questions about the respondent's competitive state anxiety level. Please circle a number, referring to the listed below:

1=Not at all

2=Somewhat

3=Moderately so

4=Very much so

#	Items	Not at All	←	→	Very much so

1	I am concerned about this competition.	①	②	③	④
2	I feel at ease.	①	②	③	④
3	I have self-doubts.	①	②	③	④
4	I feel comfortable.	①	②	③	④
5	I am concerned that I may not do as well in this competition as I could.	①	②	③	④
6	I feel self-confident.	①	②	③	④
7	I am concerned about failing in the elimination rounds.	①	②	③	④
8	I feel secure.	①	②	③	④
9	I am concerned about choking under pressure.	①	②	③	④
10	I feel mentally relaxed.	①	②	③	④
11	I am concerned about performing poorly.	①	②	③	④
12	I am confident I can meet the challenge.	①	②	③	④
13	I'm concerned about reaching my goal.	①	②	③	④
14	I'm confident about performing well.	①	②	③	④
15	I'm concerned that others will be disappointed with my performance.	①	②	③	④
16	I'm confident because I mentally picture myself reaching my goal.	①	②	③	④
17	I'm concerned I won't be able to concentrate.	①	②	③	④
18	I'm confident at coming through under pressure.	①	②	③	④

**Thank you so much for taking the time to fill in the questionnaire. I sincerely hope you to perform as well in this competition.**



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연구자 이름: 범철호

연구 제목: 한국 청소년 골프선수들의 코치 리더쉽과 선수들의 경쟁 상태 불안이 경기력에 미치는 영향

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**SECTION I: 개인신상정보**

아래의 문항들은 귀하의 개인신상정보에 관한 질문들입니다. 하나의 번호를 적어주시고, 3번 문항의 공란에 기재하여 주십시오.

1. 귀하의 성별은?

- ① 남자    ② 여자

2. 귀하의 학년은?

- ① 중학교 1학년  
 ② 중학교 2학년  
 ③ 중학교 3학년  
 ④ 고등학교 1학년  
 ⑤ 고등학교 2학년  
 ⑥ 고등학교 3학년

3. 귀하의 골프 구력은?

**SECTION II: 골프 지도자의 지도 유형**

아래의 문항들은 귀하의 골프 지도자 지도 유형에 관한 질문들입니다. 아래 제시된 목록을 참조하여 하나의 번호에 동그라미를 해주십시오.

1=절대 그렇지 않다    2=거의 그렇지 않다    3=가끔 그렇다    4=자주 그렇다    5=항상 그렇다

#	문 항	절대 그렇지 않다        항상 그렇다
1	나의 코치는 선수가 능력을 발휘하도록 가르친다.	①    ②    ③    ④    ⑤

2	나의 코치는 선수에게 골프 기술들과 전술들을 설명해준다.	① ② ③ ④ ⑤
3	나의 코치는 경기 전술들에 대해서 선수의 의견을 물어본다.	① ② ③ ④ ⑤
4	나의 코치는 선수와 다소 독립적으로 일한다.	① ② ③ ④ ⑤
5	나의 코치는 선수의 개인적인 문제들을 도와준다.	① ② ③ ④ ⑤
6	나의 코치는 선수의 성과가 좋을 때 다른 사람들 앞에서 칭찬한다.	① ② ③ ④ ⑤
7	나의 코치는 선수의 실수를 바로잡아 주는데 특별한 주의를 기울인다.	① ② ③ ④ ⑤
8	나의 코치는 선수의 능력에 따라 골프 기술을 가르친다.	① ② ③ ④ ⑤
9	나의 코치는 중요한 문제들에 관해서 선수에게 동의를 구한다.	① ② ③ ④ ⑤
10	나의 코치는 그들의 행동을 설명하지 않는다.	① ② ③ ④ ⑤
11	나의 코치는 선수들 간의 갈등을 해결할 수 있도록 도와준다.	① ② ③ ④ ⑤
12	나의 코치는 선수의 성과가 특히 좋을 때 잘했다고 말해준다.	① ② ③ ④ ⑤
13	나의 코치는 선수에게 개별적으로 골프 기술을 가르친다.	① ② ③ ④ ⑤
14	나의 코치는 할 일에 대해서 계획을 세운다.	① ② ③ ④ ⑤
15	나의 코치는 선수와 함께 의사결정을 한다.	① ② ③ ④ ⑤
16	나의 코치는 타협점을 찾지 않는다.	① ② ③ ④ ⑤
17	나의 코치는 선수의 개인적인 복지에 관심을 기울인다.	① ② ③ ④ ⑤
18	나의 코치는 선수가 잘한 일에 대해서 보상을 한다.	① ② ③ ④ ⑤
19	나의 코치는 선수가 무엇을 해야 하고, 하지 말아야 할지에 대해서 설명해준다,	① ② ③ ④ ⑤

20	나의 코치는 선수에게 주어진 활동을 상세한 것 까지 완벽하게 수행할 것을 기대한다.	① ② ③ ④ ⑤
21	나의 코치는 훈련 방법에 대한 선수의 제안을 장려한다.	① ② ③ ④ ⑤
22	나의 코치는 정보를 공유하지 않는다.	① ② ③ ④ ⑤
23	나의 코치는 선수에게 개인적인 호의를 보인다.	① ② ③ ④ ⑤
24	나의 코치는 선수가 잘 할때 감사를 표한다.	① ② ③ ④ ⑤
25	나의 코치는 선수의 강점들과 약점들을 지적해 준다.	① ② ③ ④ ⑤
26	나의 코치는 모든 상황에서 선수가 해야 할 일에 대해서 명확하게 지시 한다.	① ② ③ ④ ⑤
27	나의 코치는 선수가 자신의 목표를 스스로 정하도록 한다.	① ② ③ ④ ⑤
28	나의 코치는 의문사항이 없도록 정확하게 의사전달을 한다.	① ② ③ ④ ⑤
29	나의 코치는 선수에게 애정을 표현한다.	① ② ③ ④ ⑤
30	나의 코치는 잘 했을 때 인정해준다.	① ② ③ ④ ⑤
31	나의 코치는 선수가 실수하더라도 스스로 해결점을 찾도록 지켜본다.	① ② ③ ④ ⑤
32	나의 코치는 그들의 지도방법에 대해서 선수의 의견을 물어본다.	① ② ③ ④ ⑤
33	나의 코치는 선수가 속마음을 털어놓기를 장려한다.	① ② ③ ④ ⑤
34	나의 코치는 화기애애한 훈련 분위기를 조성한다.	① ② ③ ④ ⑤
35	나의 코치는 선수에게 무엇을 기대하는지 명확히 말한다	① ② ③ ④ ⑤
36	나의 코치는 선수가 경기 전략을 스스로 결정하도록 한다.	① ② ③ ④ ⑤
37	나의 코치는 선수와 친밀하고 허물없는 관계를	① ② ③ ④ ⑤

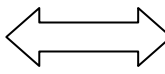


	위해 노력한다.	
38	나의 코치는 그들의 집으로 선수를 초대한다.	① ② ③ ④ ⑤

### SECTION III: 경쟁상태 불안

아래의 문항들은 귀하의 경쟁상태 불안에 관한 질문들입니다. 아래 제시된 목록을 참조하여 하나의 번호에 동그라미를 해주십시오.

1=전혀 그렇지 않다    2=약간 그렇다    3=적당히 그렇다    4=매우 그렇다

#	문 항	전혀 그렇지 않다		매우 그렇다
1	이번 시합이 걱정스럽다.	①	② ③ ④	
2	안심된다.	①	② ③ ④	
3	자신에 대한 의심이 있다.	①	② ③ ④	
4	마음이 편안하다.	①	② ③ ④	
5	이번 시합에서 잘 못할까 봐 걱정된다.	①	② ③ ④	
6	자신감이 있다.	①	② ③ ④	
7	예선전 탈락이 걱정된다.	①	② ③ ④	
8	마음이 안정된다.	①	② ③ ④	
9	압박감 때문에 숨이 막힐까 봐 걱정된다.	①	② ③ ④	
10	정신적으로 여유가 있다.	①	② ③ ④	
11	잘하지 못할까 봐 걱정된다.	①	② ③ ④	
12	어려움에 대처할 자신이 있다.	①	② ③ ④	

13	목표를 달성할 수 있을지 걱정된다.	①	②	③	④
14	경기를 잘 할 자신이 있다.	①	②	③	④
15	다른 사람들이 나의 경기력에 실망할까 봐 걱정된다.	①	②	③	④
16	마음속에 목표 달성을 그리니 자신감이 생긴다.	①	②	③	④
17	집중이 안 될까 봐 걱정된다.	①	②	③	④
18	압박감을 참아 낼 자신이 있다.	①	②	③	④

이렇게 시간을 내 설문지를 작성하여 주신 것에 대해서 정말 감사드립니다. 이번 대회에서 좋은 성적을 얻기를 간절히 바랍니다.



THE UNIVERSITY of  
NEW MEXICO

**Main Campus Institutional Review Board**  
**Human Research Protections Office**  
**MSC08 4560**

1 University of New Mexico~Albuquerque, NM 87131-0001  
<http://hsc.unm.edu/som/research/IRRC/>

25-Jul-2012

Responsible Faculty: David Scott  
Investigator: Chulho Bum  
Dept/College: COE Administration

***SUBJECT: IRB Approval of Research - Initial Review - Initial Review***  
***Protocol #: 12-291***

***Project Title: The effects of leadership behavior and competitive state anxiety on golf performances among junior golfers in SouthKorea***

***Type of Review: Expedited Review***

***Approval Date: 25-Jul-2012***

***Expiration Date: 24-Jul-2013***

The Main Campus Institutional Review Board has reviewed and approved the above referenced protocol. It has been approved based on the review of the following:

1. Study Application submitted 07-12-12.
2. Cover Letter and Survey submitted 06-12-12.
3. Online Advertisement submitted 06-12-12.
4. Study Protocol submitted 06-12-12

Consent Decision:

Not applicable

HIPAA Authorization Addendum not applicable

If a consent is required, we have attached a date stamped consent that must be used for consenting participants during the above noted approval period.

If HIPAA authorization is required, the HIPAA authorization version noted above should be signed in conjunction with the consent form.

As the principal investigator of this study, you assume the following responsibilities:

- **CONSENT:** To ensure that ethical and legal informed consent has been obtained from all research participants.
- **RENEWAL:** To submit a progress report to the IRB at least 45 days prior to the end of the approval period in order for this study to be considered for continuation.

- **ADVERSE EVENTS:** To report any adverse events or reactions to the IRB immediately.
- **MODIFICATIONS:** To submit any changes to the protocol, such as procedures, consent/assent forms, addition of subjects, or study design to the IRB as an Amendment for review and approval.
- **COMPLETION:** To close your study when the study is concluded and all data has been de-identified (with no link to identifiers) by submitting a Closure Report.

Please reference the protocol number and study title in all documents and correspondence related to this protocol.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Scott Tonigan". The signature is fluid and cursive, with a long horizontal stroke at the end.

J. Scott Tonigan, PhD  
Chair  
Main Campus IRB

\* Under the provisions of this institution's Federal Wide Assurance (FWA00004690), the Main Campus IRB has determined that this proposal provides adequate safeguards for protecting the rights and welfare of the subjects involved in the study and is in compliance with HHS Regulations (45 CFR 46).

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