This is to certify that the
dissertation entitled

An Examination of Pre-Game Speeches and Their Effectiveness in Increasing Athletes' Levels of Self-Efficacy and Emotion

presented by

Tiffanye Vargas-Tonsing

has been accepted towards fulfillment
of the requirements for the

Doctoral degree in Sport Psychology

Deborah L. Feltz
Major Professor's Signature

June 7, 2004
Date

AN EXAMINATION OF PRE-GAME SPEECHES AND THEIR EFFECTIVENESS IN INCREASING ATHLETES' LEVELS OF SELF-EFFICACY AND EMOTION

By

Tiffanye Vargas-Tonsing

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Kinesiology

2004

ABSTRACT

AN EXAMINATION OF PRE-GAME SPEECHES AND THEIR EFFECTIVENESS IN INCREASING ATHLETES' LEVELS OF SELF-EFFICACY AND EMOTION

By

Tiffanye Vargas-Tonsing

Verbal persuasion is considered to be a source of self-efficacy beliefs (Bandura, 1977). Little research has examined the predictive strength of this source and virtually no research has been conducted on the form of verbal persuasion known as the coach's pre-game speech. Specifically, this study sought to explore the influence of the pre-game speech on athlete perceptions of self-efficacy and felt emotions. Participants for this study included 151 competitive soccer players aged 14.21 years (SD = 1.85) and their 10 male coaches aged 32.78 years (SD = 8.56). Participants were surveyed on a day of difficult competition. Athletes were given two surveys, one before and one after the coach's pre-game speech, and an additional survey following the conclusion of the competition. The surveys before and after the pre-game speech assessed athletes' feelings of self-efficacy and their felt emotions. On the second survey, athletes also indicated their perceptions of the informational and emotional content within their coach's pre-game speech. Coaches were given one survey following the pre-game speech that asked for their perceptions of the content within their speech. A repeated measures regression analysis did not show an overall increase in self-efficacy post speech. However, the amount of information that athletes perceived in the pre-game speech did predict self-efficacy variation. The amount of emotional content as perceived by the athletes did not influence self-

efficacy. An exploratory factor analysis was conducted on the athletes' reported emotions and two factors were retained. A repeated measures regression indicated that Factor 1 emotions varied over time. The amount of information perceived in the pre-game speech again predicted the variation. Additional analyses were conducted to explore athletes' overall perceptions of the pre-game speech, congruency in perceptions between coaches' and their teams, relationships between emotions and self-efficacy, the influence of emotions on perceptions of speech content and gender differences.

ACKNOWLEDGEMENTS

I would like to thank each of my committee members, Dr. Deborah Feltz, Dr. Martha Ewing, Dr. Rick Deshon and Dr. Jim Flore for all of their help and patience during this process and throughout my graduate career.

I would also like to thank Dan Jury for his support and assistance in contacting participants for this study. I am also indebted to all the soccer teams and coaches who participated in this project. They were extremely cooperative and helpful throughout this intrusive study.

Finally, I would to acknowledge the love and support given to me throughout the four years of my graduate schooling from my family and friends. I owe a great deal to my husband, Mike Tonsing, my parents, Victor and Pat Vargas and to my sister and brother, Ronnye and Vic. Without them, I would not be where I am now.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER ONE

Introduction

Throughout all team sports, players are gathered together to hear their coach's final thoughts immediately prior to the start of a game. These speeches often contain information about opponents and reminders of team strategy. Sometimes, these speeches also include arousing and emotional words and phrases. Coaches use these speeches hoping to contribute to athletes' performances, and hopefully, a victory. However, there is little empirical evidence that these speeches are effective. Therefore, this study is designed to explore coaches' pre-game speeches and their effects on athletes' self-efficacy and emotions.

Self-Efficacy

In 1977, Albert Bandura introduced his theory of self-efficacy. Self-efficacy is defined as a person's belief in his/her ability to perform a specific task. These efficacy beliefs will determine how much effort a person will expend as well as how long the same person will persist when faced with obstacles. The stronger the efficacy beliefs, the stronger the effort put forth.

Since Bandura's (1977) conception of self-efficacy, researchers have shown it to be a strong predictor of athletic performance (Feltz, 1982; George, 1994; Miller, 1993; Weinberg, Gould, Yukelson, & Jackson, 1981; Weiss, Wiese, & Klint, 1989). For example, self-efficacy was a stronger and more consistent predictor of performance in college baseball than was past performance (George, 1994). Similarly, Weiss et al. (1989) found self-efficacy to be a significant predictor of all-around performance and of five of the six gymnastics events (except vault). These are not isolated examples. The

relationship between self-efficacy and performance has been demonstrated across a host of other sport situations, including but not limited to swimming (Marsden, 1998; Miller, 1993), wrestling (Gould, Horn, & Spreeman, 1983), weightlifting (Ness & Patton, 1979) and volleyball (Alexander & Krane, 1996).

According to Bandura (1977), self-efficacy is influenced through four principal sources of information: performance accomplishments, vicarious experiences, verbal persuasion, and emotional arousal. Performance accomplishments are based on personal mastery experiences. For example, an athlete's efficacy may be increased following a victory over an opponent, or after achieving a personal best time. Vicarious experiences can also increase self-efficacy. Examples of these experiences include live and symbolic modeling. For instance, an athlete watching a teammate successfully complete a new task can increase that athlete's (the observer's) efficacy beliefs. Self-efficacy can also be impacted by verbal persuasion. Verbal persuasion is defined as leading others, through the use of suggestions, exhortation, self-instruction, and interpretation, to believe that they can be successful (Bandura, 1977). For instance, coaches may use informational feedback and praise to bolster efficacy beliefs in athletes. A fourth source of efficacy information is received via physiological responses. Athletes may experience changes in heartbeats, perspiration and breathing prior to competition and may then interpret these changes as anxiety or arousal. This also then impacts their efficacy beliefs.

Performance accomplishments are proposed to be the most influential source of information, followed by vicarious experiences and forms of persuasion (Bandura, 1977). However, of the four sources of efficacy information, verbal persuasion is perhaps the most convenient and readily available tool for coaches. In fact, Bandura (1997)

discussed the important role of the coach in impacting individual efficacy perceptions through not only the coach's own perceived efficacy (e.g., coaching efficacy), and coaching behavior (e.g., leadership style), but also through verbal persuasion (e.g., feedback provided to athletes).

According to Horn (2002), effective coaching behaviors are defined by "that which results in either successful performance outcomes (measured in terms of either win-loss percentages or degree of self-perceived performance abilities) or positive psychological responses on the part of the athletes (e.g., high perceived ability, high self-esteem, an intrinsic motivational orientation, high levels of sport enjoyment) (p.309)." Thus, a coach's verbal interactions with his/her team can be considered effective if they result in a positive psychological response, such as increased self-efficacy. Coaches have ranked the technique of verbal persuasion highly for both frequencies of use and for effectiveness in increasing athletes' efficacy beliefs (Gould, Hodge, Peterson, & Giannini, 1989; Vargas-Tonsing, Myers, & Feltz, in press; Weinberg & Jackson, 1990).

Although coaches are armed with a variety of choices for verbal persuasion, little is known about the verbal persuasion athletes deem most effective. Research has suggested that verbal persuasion used to give informative feedback to athletes is an important aspect of developing self-efficacy (Amorose & Weiss, 1998; Black & Weiss, 1992; Horn, 1985). Coaches are able to administer informational feedback by reviewing individual and collective strengths, thereby articulating their confidence in the skill of both individual players and the team as a whole. This use of positive, informational feedback is thought to benefit performance as it increases athletes' perceived competence in themselves and in their team (Allen & Howe, 1998). Athletes have also been shown to

use their coach's feedback as a source of information to determine ability, effort and future expectation of success (Amorose & Weiss, 1998). Clearly, informative feedback from coaches is an important source of efficacy information for athletes.

However, while verbal interactions during practice provide what might be the most obvious and powerful setting in which to increase efficacy, the pre-game speech may provide an additional, and final, opportunity to do so. To date, no published research has examined the role of verbal persuasion and its influences in the pre-game speech. However, according to previous research on coach's verbal persuasion (i.e., feedback), it would seem that an informative and strategy-based pre-game speech would be most likely to increase athletes' efficacy levels. Yet, if this were the case, Knute Rockne's "Win one for the Gipper" speech would not have inspired his team to victory and coaches would not use clippings of quotes from opponents to inspire their teams. Thus, it seems that the emotions invoked prior to competition may also impact athletes' self-efficacy.

Emotion

In 1985, Maddux and Meier suggested that in addition to Bandura's (1977) four sources of efficacy, one's emotional state might be a supplementary source of information used to form efficacy beliefs. The author's believed that positive affect, such as happiness and exhilaration, was more likely to enhance efficacy perceptions than was a negative affect such as sadness or anxiety. Others concurred with this view by suggesting that emotions "act as a filter through which people view efficacy information" (Kavanagh & Bower, 1985, p. 508). Tony DiCicco (2002), a former United States Women's Soccer coach, stated, "You have to stir the players' emotion (p.129)."

Kuchenbecker (2003) suggested that without emotions, it is impossible to excite and push players to a higher level of performance. It appears, then, that emotion may be extremely important in preparing athletes for competition.

The research literature suggests that emotions consist of three main elements: physiological changes, action tendencies and subjective experiences (Vallerand & Blanchard, 2000; Deci, 1980). Physiological changes include such symptoms as increases in heart rate and blood pressure, as well as other changes in the autonomic system. Action tendencies include what is sometimes referred to as the core element of emotion (i.e., the tendency to run away when frightened). Subjective experiences, possibly considered to be the most fundamental (Leventhal, 1974), refers to what an individual will consciously experience when confronted with an emotional episode (Vallerand & Blanchard, 2000). Using these components, Deci (1980) conveyed the meaning of the term emotion with the following working definition:

> An emotion is a reaction to a stimulus event (either actual or imagined). It involves change in the viscera and musculature of the person, is experienced subjectively in characteristic ways, is expressed through such means as facial changes and action tendencies, and may mediate and energize subsequent behaviors. (p. 85)

This definition not only encompasses the emotional components, but also implies that emotion can drive future behaviors, an interesting concept for sport.

Emotions may impact future behaviors through cognition and motivation. Based on cognitive appraisal theories, Vallerand (1987) suggested an intuitive-reflective appraisal model that proposed that it is not the events that cause an emotion, but rather

the cognitive appraisal of the event, which is both intuitive and reflective. The intuitive appraisal is similar to the almost automatic subjective assessment of performance; in other words, a player assesses his/her performance as substandard. Reflective appraisal includes the cognitive processing of external and internal environmental information (Vallerand & Blanchard, 2000). The same player may then attempt to cognitively process other contributing factors to his/her performance. Vallerand (1987) states that intuitive appraisal is always involved when an emotion is enacted. He further believed that this subjective performance assessment is often more important than reflective appraisal in determining an emotion (Vallerand, 1987). Reflective appraisal is not viewed as necessary to produce emotions but rather acts to modify, minimize, or augment the effect of intuitive appraisal, i.e., when the outcome does not match the athlete's expectations (Vallerand & Blanchard, 2000).

In addition to impacting cognitions, researchers have also proposed several motivational consequences due to emotion. Fridja (1986) proposed the idea that action tendencies are inherent in emotion and would lead individuals either towards or away from an object. Izard (1993) suggested that emotions would dictate an individual to attend to immediate concerns and needs. More than a decade earlier, Weiner (1977) suggested that motives were largely determined by emotions as well as that specific emotions were linked to specific motives. For example, the emotion of anger would lead to an aggressive play style. However, although the idea was proposed in 1977, few researchers have pursued the suggestion.

Research findings have supported the linkage between emotion and motivational consequences and behavior. Scanlan, Stein, and Ravizza (1989) found that positive

affective states are associated with elite performers' desire to continue to perform and exert effort. Conversely, negative affective states are related to dropping out of sport (Gould, Feltz, Horn, & Weiss, 1982), decreased performance (Burton, 1988) as well as low personal performance expectancies (Burton & Martens, 1986). Kavanagh and Hausfeld (1986) induced happy and sad moods through an audiotape and measured handgrip and push-up performance. Results indicated a significant difference for performance between happy and sad groups. In regard to pushups, the happy group reported higher feelings of self-efficacy in believing they could perform more pushups than the sad group. These findings furthered the idea that affect and positive mood can impact cognitive and physical tasks. Thus, a person's mood, or emotional state, can impact motivation and performance.

Emotion and Performance

Attaining the appropriate level of emotion has long been recognized as an important aspect of sport performance and is thought to constitute the primary motivational system (Izard, 1993). For example, Hanin discussed the role of emotion in the Individual Zone of Optimal Functioning (1978).[1] In the construction of this theory, Hanin (1997) adopted a general view of emotion, similar to Weiner's (1986), that included not only emotions such as pride or anger, but also affective feeling states such as feeling confident. This led to his consideration of not only anxiety, but also several other emotions/feeling states that were categorized as either positive or negative.

Hanin then took his view of emotion one step further and separated the positive and negative emotions into those that are optimal for performance (functional), and those which are debilitating (dysfunctional) for performance. In 2000, Hanin suggested that the

affective states are associated with elite performers' desire to continue to perform and exert effort. Conversely, negative affective states are related to dropping out of sport (Gould, Feltz, Horn, & Weiss, 1982), decreased performance (Burton, 1988) as well as low personal performance expectancies (Burton & Martens, 1986). Kavanagh and Hausfeld (1986) induced happy and sad moods through an audiotape and measured handgrip and push-up performance. Results indicated a significant difference for performance between happy and sad groups. In regard to pushups, the happy group reported higher feelings of self-efficacy in believing they could perform more pushups than the sad group. These findings furthered the idea that affect and positive mood can impact cognitive and physical tasks. Thus, a person's mood, or emotional state, can impact motivation and performance.

Emotion and Performance

Attaining the appropriate level of emotion has long been recognized as an important aspect of sport performance and is thought to constitute the primary motivational system (Izard, 1993). For example, Hanin discussed the role of emotion in the Individual Zone of Optimal Functioning (1978).[1] In the construction of this theory, Hanin (1997) adopted a general view of emotion, similar to Weiner's (1986), that included not only emotions such as pride or anger, but also affective feeling states such as feeling confident. This led to his consideration of not only anxiety, but also several other emotions/feeling states that were categorized as either positive or negative.

Hanin then took his view of emotion one step further and separated the positive and negative emotions into those that are optimal for performance (functional), and those which are debilitating (dysfunctional) for performance. In 2000, Hanin suggested that the

top nine functionally optimal positive affects were energetic, charged, motivated, certain, confident, purposeful, willing, resolute, and alert. In contrast, the top nine dysfunctional positive affects were easygoing, excited, tranquil, relaxed, animated, overjoyed, fearless, satisfied, and exalted. The top nine functionally optimal negative affects were tense, dissatisfied, attacking, vehement, intense, nervous, irritated, provoked, and angry. The top negative dysfunctional affects were tired, unwilling, uncertain, sluggish, depressed, lazy, distressed, sorrowful, and afraid. Hanin (1997) stated that the optimal performance-enhancing effect usually relates to intensive positive emotions and to moderately intense negative emotions. At the group level, positive emotions conceptualized as optimal were selected by athletes to be helpful in 94.1% of the cases studied. Dysfunctional effects were observed in those athletes reporting to have experienced much or very much intensity in selected performance-impairing emotions (Hanin & Syrja, 1995). This is consistent with Treasure, Monson, and Lox 's (1996) findings that self-efficacy negatively correlated with negative affect and positively correlated with positive affect. In this study, examples of negative affect included "jittery" and "upset." Examples of positive affect were "alert" and "determined".

Recent studies have found that emotional patterns characterized by interest and excitement or externally-directed anger might help performance. As well, emotional states perceived as debilitating by athletes may be characterized by the presence of emotions typically associated with avoidance tendencies (i.e., sadness, shame, self-hostility) and increased self-focus whereas emotional patterns considered to be facilitating would be characterized by emotions motivating approach behavior (Jones & Hanton, 2001). Cerrin (2003) found that athletes most often associate competition with

the terms "threat" or "challenge." She also found that athletes associating competitions with "challenge" reported lower levels of negative emotions and higher levels of interest and enjoyment. Interestingly, the term "challenge" was positively associated with athletes perceiving their emotional state as functional. It is clear that emotions offer athletes information on the subjective importance of an event, on their perceived ability to cope with the event, and on the action tendency associated with this event (Fridja, 1986; Green & Sedikides, 1999). However, athletes may not understand emotions or their resultant behavior. Therefore, it is essential that coaches help athletes perceive and control emotion. This is critical for achieving desired performance.

The Coach's Role in Emotion

Emotional information is a crucial element of implementing performance enhancement programs. As well, interventions that focus on managing challenge appraisal and the resultant emotions may be more effective than focusing on reducing threat appraisal in helping athletes improve their pre-competitive emotional states (Cerrin, 2003). A coach's ability to focus athletes on the appropriate emotions associated with challenge appraisal may gain an important edge in competition.

In following a coach and his professional hockey team across a competitive season, Gallmeier (1987) observed that the coach began the emotional preparation on the morning before a game during a team meeting. A contemplative message would be waiting for the players as they walked in the door. The players were expected to be subdued and to be "getting into the mood." The players were expected to begin focusing and clarifying game plans. They were then dismissed to go home. An hour before game time, the coach continued to direct the emotional behavior as he and his staff members

spoke softly with players. The players were expected to be tense, but not to be releasing anything. The coach was preparing to peak the emotion at game time. Fifteen minutes before game time the hockey players warmed up on the ice and were finally allowed some release of excitement and emotion. At five minutes before game time, the coach offered a pre-game talk encouraging readiness, courage, and pride. At game time, the players' exploded with emotion. The coach controlled the players' emotions through stimuli such as posted and verbal messages. In doing so, the coach peaked the players' feelings of emotion to correspond with game time.

Gallmeier (1987) indicated that a team's coach has a vital role in directing the style of play. The coach can dictate the tone of play by knowing when and where to direct the players' abilities to the maximum, thus securing the momentum and ultimately the best results (Adler & Adler, 1978). The coach's script was consistent with Zurcher (1982) in that "the orchestration of emotions in staged events follows a scripted phasing, beginning with the arousal of expectations for an emotional experience. The expectations generate a diffuse emotional state, which finally is directed into a series of discrete and identifiable emotional displays (p. 18-19)." Given the potential impact of a coach on his/her athlete's emotions, it is important to realize that the pre-game talk is the final opportunity to do so until half-time.

Many coaches utilize the pre-game talk to "psych up" their athletes. Gould et. al (1989) discovered that among 13 different strategies, coaches ranked their usage of verbal persuasion as fifth overall. By isolating one form of verbal persuasion, the pre-game speech, and using it as the "stimulus event", coaches attempt to invoke specific emotions within their team. However, it is surprising to note that little research has

examined the role of pre-game talks on athletes' emotions. Results from a recent study involving competitive soccer players indicated that those players who were exposed to a positive emotional pre-game speech reported higher feelings of confidence as well as greater predicted margins of victory in an imagined game situation (Vargas-Tonsing & Bartholomew, 2004). Feelings of confidence and certainty were listed as two of Hanin's (2000) top nine predominantly optimal positive emotions.

Two additional positive emotions from the top nine optimal positive emotions easily invoked in a pre-game speech are feeling energetic and charged. Gallmeier (1987) observed this behavior in a hockey coach's speech as the coach engaged in a hollering match with his team, "Now are you ready guys, are you ready?" The players responded with, "Yeah, we're ready, coach, we want 'em." The coach can also carefully choose energetic words and phrases such as "are you pumped?" and "can you feel it?" Interestingly, emotional words are responded to more accurately than neutral words (Eviator & Zaidel, 1991) and highly affect-arousing words are better recalled than less emotional words (Bock, 1987). This suggests that in using an emotionally charged pre-game speech, athletes are likely to react and remember the emotional pleas more so than any proffered information. Thus, if a coach can use emotionally charged words to create the appropriate stimulus for the athlete, the athlete should report enhanced emotional arousal and self-efficacy, which should, in turn, improve performance. Regardless of what a coach intends the pre-game speech to do, it is how the athletes perceive it that will influence their expectations and motivational states.

Research Questions and Hypotheses

The purpose of this study was to examine coaches' pre-game speeches and whether these speeches can impact athletes' self-efficacy and emotions immediately prior to competition. This study was designed to address the following research questions:

1. Will athletes show a greater increase in self-efficacy following coaches' speeches with higher perceived emotion or speeches with higher perceived information?
2. Will athletes show greater changes in emotion following coaches' speeches with higher perceived emotion or speeches with higher perceived information?

In examining these questions, I have set forth the following hypotheses:

1. Athletes will show a greater increase in self-efficacy following a more highly perceived emotional pre-game speech as opposed to a highly perceived informational/strategic pre-game
2. Athletes will show a greater change in emotion following a more highly perceived emotional pre-game speech as opposed to a highly perceived informational/strategic pre-game

In addition, I have posed the following exploratory questions:

1. What are athletes' perceptions of the pre-game speech heard from their coach?
2. Are athletes' perceptions of the pre-game speech congruent with their coach's perceptions?
3. Do emotions influence athletes' perceptions of the pre-game speech heard from their coach?

4. Which self-reported emotions of athletes are associated with higher feelings of efficacy?

Operational Definitions

Dysfunctional emotion: Emotions that are debilitating to performance.

Emotional pre-game speech: A verbal speech given by a coach immediately prior to the soccer team taking the field to begin play that contains words or phrases that influence an athletes' emotions.

Functional emotion: Emotions that facilitate optimal performance.

Informational pre-game speech: A verbal speech that contains directions, scouting reports (information about the opponent), or feedback given by a coach immediately prior to the soccer team taking the field to begin play.

Pre-game speech: The verbal speech given by a coach immediately prior to the soccer team taking the field to begin play.

Premier soccer team: A soccer team that has applied, and been accepted, into the top soccer division of the state of Michigan.

CHAPTER TWO

Review of Literature

Maximizing athletic performance is the primary goal of coaches as well as a fascination to researchers. Coaches have tried various ways from informative drills to positive feedback to aid in an athlete's performance (Allen, & Howe, 1998; Amorose, & Weiss, 1998; Gould et al., 1989;). Others have tried to persuade their athletes into maximal performance by designing pre-game speeches that play on an athlete's emotion. Anecdotal evidence would suggest that a pre-game speech is an athletic experience that cuts across team sports. Throughout the world, coaches gather their players together to hear their final thoughts prior to beginning a game. These experiences have been captured in movies "win one for the Gipper! (Fellows & Bacon, 1940)" and phrases from these talks have become a part of coaching lore, such as Vince Lombardi's "winning isn't everything, it is the only thing" (http://www.vincelombardi.com/quotes/winning.htm). Interestingly, the most celebrated talks rarely have anything to do with the actual play of the game and are, instead, designed to evoke an emotional response, such as pride, from athletes. For example, Lou Holtz, a coach of an American university football team, is famous for drawing comparisons between athletic performance and performance later in life, "how you respond to the challenge in the second half will determine what you become after the game, whether you are a winner or a loser" (http://www.top-quotes-and-quotations.com/sports.html).

A possible explanation for the benefits of pre-game speeches is that they result in enhanced performance efficacy. Self-efficacy is defined as a person's belief in his or her

ability to perform a specific task. Self-efficacy beliefs are influenced by four principal sources of information: performance accomplishments, vicarious experiences, verbal persuasion, and emotional arousal. In 1977, Bandura hypothesized that efficacy expectations determine if coping behaviors are initiated, how much effort is expended, and how long effort will be sustained if faced with obstacles and aversive experiences. As expected, self-efficacy has been supported as a strong predictor of athletic performance (Bandura, 1977; Feltz, 1988; McAuley, 1985; Miller, 1993; Weinberg et al., 1981; Weiss et al., 1989).

Within self-efficacy theory, Bandura (1986) also discussed the important role of the coach in impacting individual efficacy perceptions through the coach's use of verbal persuasion. Through the use of verbal persuasion, a coach can help athletes understand past performances in addition to persuading them that success is possible. Additionally, coaches are able to administer informational feedback by reviewing strengths and articulating confidence in a player's/team's skill; such a perspective is thought to promote positive and reduce negative cognitions (Anshel, 1990). Feltz (1988) suggested that due to the unique aspects of the athletic arena, verbal persuasion by itself may be more effective than traditionally believed.

In addition to perceived efficacy, it is important that athletes experience an appropriate emotional state prior to competition. Attaining the appropriate level of emotion has long been recognized as an important aspect of sport performance. Research suggests that emotions serve to organize perception, cognition, and behavior (Izard, 1993). Several theories have been proposed to explain the link between emotion and performance. The iceberg profile suggested that sports performance is at its peak when

feelings of vigor form the heightened tip of the iceberg and feelings of anger, depression and tension form the left slope of the iceberg and feelings of fatigue and confusion form the right slope of the iceberg (Morgan, 1980). Other researchers have suggested that it is through the induction of a positive mood state that performance is enhanced (Kavanagh & Hausfeld, 1986; Kendzierski & DeCarlo, 1991; Scanlan et al., 1989). However, while offering interesting insights into the relationship between emotion and performance, these theories have made little mention of the individual's role within this relationship. In 1978, Hanin attempted to remedy this with his Individual Zones of Optimal Functioning theory. The major emphasis of this theory stressed the within-individual dynamics of the subjective emotional experiences (emotions, feelings, and mood) that accompany successful, average, and poor performances (Hanin, 2000).

Emotion and sports literature suggests then, that emotion, and the mood it creates, serves as a catalyst for athletic performance. Thus, it is important for an athlete to attain a functional emotional state prior to performance. While an athlete may attempt to attain this state without assistance, coaches often attempt to manipulate the emotional state of their athletes. Gallmeier (1987) documented the attempts of a minor league hockey coach who utilized an emotional script for the players to follow prior to games. With this documentation, Gallmeier showed that coaches have a vital role in directing their teams' styles of play. A coach's importance was reinforced through the assertion that the creation of a mastery sport climate is associated with positive emotion; an environment that is generally created by the coach (Biddle, 1999).

There seems to be little doubt that a coach serves a critical role in preparing athletes for athletic performance, both in building their confidence and in helping athletes

manage their emotions. As well, it appears clear that verbal persuasion is an effective source of efficacy information (Amorose & Weiss, 1998; Ness & Patton, 1979). Yet, although coaches are armed with a variety of choices for verbal persuasion, little is known about the verbal persuasion athletes deem most effective. For example, research has yet to fully examine the role of verbal persuasion and its influences in the pre-game speech. Therefore, this chapter seeks to further examine and review self-efficacy as it relates to sport performance and sources of information, the role of emotion in sport performance, and how these variables relate to coaches' pre-game speeches.

Self-Efficacy Theory in Sport

Self-efficacy is defined as a person's belief in his or her ability to perform a specific task. In 1977, Bandura hypothesized that efficacy expectations determine if coping behaviors are initiated, how much effort is expended, and how long effort will be sustained if faced with obstacles and aversive experiences.

Based on the theoretical tenets of self-efficacy theory, an athlete's perceptions of efficacy are influenced by four principal sources of information: performance accomplishments, vicarious experiences, verbal persuasion, and emotional arousal. Of the four principal sources of information for self-efficacy, performance accomplishments are considered the most influential (Bandura, 1977). Performance accomplishments, which are based on personal mastery experiences, affect feelings of self-efficacy through the cognitive processing of these past experiences. When events are viewed as successful, future expectations are raised; when events are perceived as failures, efficacy expectations drop. This is especially true when mistakes/failures occur early in the event

(Bandura, 1977). Repeated successes will likely result in strong feelings of efficacy, which lessen the negative effect of future, occasional, failures.

Performance accomplishments as a strong predictor of self-efficacy have been demonstrated multiple times. Feltz (1988) found that when teaching a high avoidance motor skill to male and female participants, Trial 1 performance was the strongest predictor of subsequent self-efficacy. In baseball, past performance predicted self-efficacy in multiple games (George, 1994) as well as hitting performance within a batting cage (Watkins, Garcia, & Turek, 1994); this relationship was also found amongst wrestlers (Kane, Marks, Zaccaro, & Blair; 1996).

Self-efficacy expectations are also impacted through vicarious experiences. When faced with a situation in which there are no previous performance accomplishments, watching others perform activities without adverse consequences can enhance feelings of efficacy. A person will depend more on information gained by watching others when faced with a novel task, or when the person has little experience with a particular task. The influence of vicarious experiences on efficacy can be enhanced by factors such as similarities to the model in terms of personal characteristics (Feltz, 1988). This technique, however, is a less dependable source of self-efficacy information because it relies on inferences from social comparison (Bandura, 1977). Weinberg et al. (1981) asked research participants to extend one leg horizontally and to maintain that position for as long as possible. Participants competed against a confederate who claimed weak ligaments and a knee injury or who was reportedly a track athlete. Regardless of the grouping, the confederate always outperformed the participant in the first trial. Results found that participants, who were paired with the confederate

claiming injuries, increased their scores from Trial 1 to Trial 2. This demonstrates the influence of social comparison; however, Bandura (1997) suggests that self-modeling can also impact efficacy beliefs.

Verbal persuasion is also able to influence efficacy beliefs. However, beliefs based on this technique are likely to be weaker than those based on performance accomplishments. Ness and Patton (1979) examined the role of verbal persuasion in a weight lifting task. Participants were told they would either be lifting more weight than they were, or less weight than actuality. Participants, who were told that they would be lifting less weight than they actually did, outperformed the opposing group. Later research replicated these findings and showed that false positive feedback increased future bench press performance (Fitzsimmons, Landers, Thomas, & van der Mars, 1991). It is important to note that the amount of influence wielded through verbal persuasion often depends on the credibility, prestige, expertise, and trustworthiness of the speaker (Feltz & Lirgg, 2001). Coaches are generally thought to encompass these qualities.

Emotional arousal is another important source of efficacy information. Through the personal evaluation of felt arousal, athletes are able to draw conclusions regarding their anxiety and their perceived vulnerability to stress (Bandura, 1977). However, physiological sources of self-efficacy are not confined to autonomic arousal but can be inferred from a person's level of fatigue, fitness, and pain in strength and endurance activities (Feltz, 1988). Although research has clearly shown self-efficacy and its impact on performance (Bandura, 1977; George, 1994; McAuley, 1985; Miller, 1993; Weiss et al., 1989) as well as the direct relationship between arousal and performance (Landers &

Boutcher, 1998), little research has been conducted to determined arousal's effect on self-efficacy.

Self-Efficacy and Sports Performance

Self-efficacy theory suggests that people will approach and cope with situations they believe to be within their perceived capabilities. This theory also suggests that a person's self-efficacy beliefs determine the amount of effort they put forth and their persistence in aversive situations. Thus, how a person evaluates his/her ability and resultant feeling of efficacy will impact their motivation and performance (Bandura, 1977, 1986).

Self-efficacy has been supported as a strong predictor of athletic performance (Bandura, 1977; Feltz, 1988; McAuley, 1985; Miller, 1993; Weinberg et al., 1981; Weiss et al., 1989). In an examination of self-efficacy literature, Moritz, Feltz, Fahrbach and Mack (2000) conducted a meta analysis of 45 studies. Results of this analysis showed self-efficacy to have a positive and moderate relationship with performance in sport.

In a study using collegiate and high school baseball players, participants responded to a self-efficacy scale prior to and following a competition. Results found that self-efficacy was the strongest and most consistent predictor of performance when compared to past performance as a prediction of performance (George, 1994). Similarly, Barling and Abel (1983) found that self-efficacy beliefs were consistently related to various aspects of tennis performance. Participants' self-efficacy beliefs correlated significantly with all 12 behavioral criteria related to tennis performance, i.e., knowledge, experience, dependability, accuracy, consistency, variation, power and spin, footwork, anticipation, style, concentration, and competition.

Weiss et al. (1989) examined self-efficacy and performance in gymnastics. Results showed self-efficacy to be a significant predictor for all-around performance and for five of the six gymnastics events (all except vault). These are not isolated examples. The relationship between self-efficacy and performance has been demonstrated across a host of other sport situations, including but not limited to golf (Beauchamp, Bray, & Albinson, 2002), swimming (Marsden, 1998; Miller, 1993), wrestling (Gould, Horn, & Spreeman, 1983), weightlifting (Ness & Patton, 1979) and volleyball (Alexander & Krane, 1996).

Coaches' Use of Verbal Persuasion to Impact Self-Efficacy

Of these efficacy sources, verbal persuasion is perhaps the most convenient and readily available method for coaches, especially in the moments immediately prior to a game. Not only is verbal persuasion important for its convenience and availability, but athletic teams also consider verbal persuasion to be one of the most effective methods coaches use to build efficacy feelings (Vargas-Tonsing, Myers, & Feltz, in press).

Verbal persuasion is defined as leading others, through the use of suggestion, exhortation, self-instruction, and interpretation, to believe that they can be successful (Bandura, 1977). Coaches have ranked verbal persuasion highly for both frequency of use and for effectiveness (Gould et al., 1989; Weinberg et al., 1990).

A coach utilizes verbal persuasion in multiple ways. Through the use of verbal persuasion, a coach can provide positive sport-specific feedback that can be used to help the athletes understand how to be successful, utilize positive attributional styles, and persuade them that success is possible. Coaches can provide informational feedback by reviewing individual and collective strengths thereby articulating their confidence in the

skill of both individual players and the team as a whole. This use of verbal persuasion, in the form of positive informational feedback, should benefit performance as it increases athletes' efficacy levels (or perceived competence) in themselves and their team (Allen & Howe, 1998), as well as promoting positive and reducing negative cognitions (Anshel, 1990). Another form of verbal persuasion follows mistakes and failures and is often referred to as the positive approach. This technique is characterized by the liberal usage of rewards such as encouragement and verbal praise (Feltz & Weiss, 1982).

Although coaches are armed with a variety of choices for verbal persuasion, little is known about the verbal persuasion athletes deem most effective. For example, while these verbal interactions have provided insight into sports practices, research has yet to examine the role of verbal persuasion and its influences in the pre-game speech. Anecdotal evidence suggests that coaches use many different themes within these speeches to prepare athletes prior to competition. For example, an emotional theme is, "Win one for the Gipper!" A confidence building theme is based on, "You can do it!" However, additional research is needed to explore the effects beyond the anecdotal accounts of the pre-game speech to fully examine how pre-game speeches influence self-efficacy.

Anecdotal evidence would again suggest that it is through emotional speeches that athletes increase their efficacy beliefs. Maddux and Meier (1985) suggested that in addition to Bandura's (1977) four sources of efficacy, one's emotional state might be a supplementary source of information used to form efficacy beliefs. The authors believed that positive affect, such as happiness and exhilaration, was more likely to enhance efficacy perceptions than was a negative affect such as sadness or anxiety. Others

concurred with this view by suggesting that emotions "act as a filter through which people view efficacy information" (Kavanagh & Bower, 1985, p. 508). Regardless of the relationship between emotion and self-efficacy, emotions are involved in athletic performance. The next section describes the concepts of emotion and research on emotions in sport.

Emotion

Although dozens of researchers have attempted to define the concept of emotion, no single definition encompasses all of the research findings. However, researchers concur on at least two dimensions seemingly underlying emotion: pleasure/displeasure and activation (Watson, Clark, & Tellegen, 1985). If represented on a two-dimensional graph using four quadrants (two representing high or low pleasure and two representing high or low activation), it is presumed all emotions can be placed into one of the four quadrants. However, many researchers agree that although some emotions may belong in the same quadrant, such as anger and fear, they are experienced very differently.

Research on these discrete emotions has yielded a minimum of seven basic emotions including anger, disgust/contempt, fear, happiness, interest, sadness and surprise (Vallerand & Blanchard, 2000). Others suggest the addition of emotions such as shame, envy, hope, pride, anxiety, and relief (Lazarus, 1993) or guilt, shame, and distress (Izard, 1977). Most of the proposed emotions appear innate; however, others, such as pride and confidence, appear to be derived from primary emotions.

Research literature suggests that emotions consist of three main elements: physiological changes, action tendencies, and subjective experiences (Vallerand & Blanchard, 2000; Deci, 1980). Physiological changes include such symptoms as

increases in heart rate and blood pressure, as well as other changes in the autonomic system. Action tendencies include what is sometimes referred to as the core element of emotion, the tendency to run away when frightened for example. Subjective experiences, possibly the most fundamental (Leventhal, 1974), refers to what an individual will consciously experience when confronted with an emotional episode (Vallerand & Blanchard, 2000). Through these three elements, it is possible to convey the meaning of the term emotion. Deci (1980) proposed the following working definition of emotion:

> An emotion is a reaction to a stimulus event (either actual or imagined). It involves change in the viscera and musculature of the person, is experienced subjectively in characteristic ways, is expressed through such means as facial changes and action tendencies, and may mediate and energize subsequent behaviors (p. 6).

This definition not only encompasses the emotional components, but also implies that emotion can drive future behaviors, an interesting concept for sport. The ability of emotions to impact future behaviors may be due to their adaptive role in athletics.

Smith and Lazarus (1990) suggested that each emotion serves a specific purpose, i.e., an adaptive function. For instance, anger may equip a person to confront stress and begin the process of preparation towards fight or flight. Anger and thrill also tend to focus attention away from the self (Green & Sedikides, 1999). Therefore, anger and thrill may be beneficial to athletes as self-focused attention is considered to be detrimental to performance (Nideffer, 1976). Strong emotions can also help maintain focus and effort on a task (Hanin, 2000). This adaptive perspective suggests that the consequences of

emotions may include cognitions (Forgas, 1995), motivation (Weiner, 1985), and performance (Hanin, 1997).

In terms of cognitions, emotions can influence perceptions, attention, and judgments. Forgas (1992) suggested that emotions can influence perception as well as other cognitions. Individuals, or athletes, will perceive stimuli/situations in accordance with their emotion (Niedenthal & Setterlund, 1994). In other words, the anxious athlete will focus on information congruent with his/her anxiety. For example, an athlete who is overly anxious might focus on the crowd and the crowd's reactions to their performance, rather than other types of information such as a play, or instruction from the coach. Emotions also can reduce an athlete's attentional field (Abernathy, 1993) and this in turn can lead to the athlete not attending to relevant and important cues necessary for performance (Easterbrook, 1959). The players become "tunnel visioned" and often miss the play because it was outside their field of vision. In addition, emotions can impact an athlete's personal judgment. As they judge and evaluate themselves, athletes refer to their affect[2] for information (Schwartz, Strack, Kommer, & Wagner, 1987).

In addition to impacting cognitions, researchers have also proposed several motivational consequences due to emotion. Fridja (1986) proposed the idea that action tendencies are inherent in emotion and would lead individuals either towards or away from an object. Izard (1993) suggested that emotions would dictate an individual to attend to immediate concerns and needs. Over two decades ago, Weiner (1977) suggested that motives were largely determined by emotions as well as that specific emotions were linked to specific motives. For example, the emotion of anger would lead

to an aggressive play style. However, it is important to note that although the idea was proposed in 1977, few researchers have pursued the suggestion.

Perhaps one of the most interesting consequences of emotion is performance. How and why emotions can impact sport performance is of import not only to researchers, but to athletic coaches as well. This particular consequence of emotion is discussed in the next section.

Emotion and Sports Performance

To date, much of sports literature has focused on the emotion of anxiety and its impact on sports performance. Yerkes and Dodson (1908) proposed the inverted-u hypothesis that performance would increase or decrease depending upon the emotional arousal levels of the performer. Emotional arousal would be beneficial until the optimal level, or peak, has been reached. After this, performance is debilitated through increased levels of arousal. These high levels of emotional arousal are often associated with anxiety. While this relationship has been supported through the research (Fenz & Jones, 1972; Klavora, 1977; Lowe, 1971), critics point out that the inverted-u shows a relationship and not cause and effect (Landers, 1980). With this in mind, several others have proposed different theories to help explain emotion and performance relationships.

Morgan (1980) over two decades ago introduced the "iceberg profile" hoping to help explain affective moods and their impact on performance by introducing the emotions of vigor, tension, depression, anger, fatigue, and confusion. The "iceberg" is created through the graph of an athlete's reported feelings during optimal performance. Performance is at its peak when feelings of vigor form the heightened tip of the iceberg

and feelings of anger, depression and tension form the left slope of the iceberg and feelings of fatigue and confusion form the right slope of the iceberg.

However, current research suggests that the iceberg profile does little to actually predict an athlete's performance. This is due in part to two main reasons. First, there are substantial amounts of variation between sports for the desirability of specific mood factors. For example, successful performance in karate appears to be associated with above-average anger scores (Terry & Slade, 1995). Similarly, professional basketball players showed elevated feelings of anger and depression during successful team play (Hoffman & Bar-Eli, 1999). Anecdotal evidence also suggests that higher feelings of anger would be necessary for other high contact sports such as football defensive linemen and hockey teams. A second problem with the iceberg profile is the high amount of individual differences. It is not uncommon for an individual to have a "negative" profile and still perform well (Terry, 1995). Terry found that 73.8% of successful performances were associated with iceberg profiles, but more than a quarter were not. Interestingly, 54.1% of unsuccessful performers also exhibited icebergs.

In summary, although the iceberg profile attempted to link affective states and sport performance, it neglected to account for individual and sport differences. However, literature continued to suggest an influence of affective states on performance. In particular, sport literature suggests that optimal performance is often achieved when performers are experiencing positive affective states.

Positive affective states are associated with an individual's activity choice (Kendzierski & DeCarlo, 1991) as well as elite performers' desire to continue to perform and exert effort (Scanlan et al., 1989). Conversely, negative affective states are related to

dropping out of sport (Gould et al., 1982), decreased performance (Burton, 1988) as well as low personal performance expectancies (Burton & Martens, 1986). Kavanagh and Hausfeld (1986) performed two studies in which they induced happy and sad moods through an audiotape and measured handgrip and push-up performance. Results of the handgrip study indicated a significant difference for performance between happy and sad groups. In regard to pushups, the happy group reported higher feelings of self-efficacy in believing they could perform more pushups than the sad group. These findings furthered the idea that a positive mood can impact cognitive and physical tasks.

While research has begun to address positive affective states and their influence on performance, it has neglected to account for differences in individual's performances. Hanin's (1978) IZOF theory did attempt to account for individual differences in performance. The IZOF theory assumes that the role of emotions mirror the person-environment interactions while providing conditions for performing. It is important to note that the IZOF also implies a bi-directional relationship between emotion and performance. This indicates that emotions can influence how an athlete performs, but the resulting performance then impacts current and future emotional states; the emotion-performance relationship is dynamic. The major emphasis of this theory stresses the within-individual dynamics of the subjective emotional experiences (emotions, feelings, and mood) that accompany successful, average, and poor performances (Hanin, 2000).

In the construction of this theory, Hanin (1978) considered not only anxiety, but also several other emotions that can be categorized as either positive or negative. Hanin then took it one step further and separated the positive and negative emotions into those that are optimal for performance, and those that are debilitating for performance. Later,

based on athletes from seven sports, Hanin (1997) created a list of the top 10 emotions in each category. These emotions can be viewed in Table 1. Hanin (1997) stated that the optimal performance-enhancing effect usually relates to intensive positive emotions and to moderately intense negative emotions. At the group level, positive emotions conceptualized as optimal were selected by athletes to be helpful in 94.1% of the cases studied. Dysfunctional effects are observed in those athletes reporting to have experienced much or very much intensity in selected performance-impairing emotions (Hanin & Syrja, 1995).

Hanin's (1978) principle of the zone and athletes who are in or out of the zone relies on the principle that the current emotional intensity is not as critical for performance as is the distance between the current intensity and the individual optimal or dysfunctional zones. Ultimately, the IZOF proposes the following:

- an individual's best performance is expected when the individual's current emotion intensity is within, or close to, his/her optimal (positive and negative) zones and outside his/her dysfunctional (positive and negative) zones;
- average performances are expected when an athlete's current emotional intensity is within, or close to, both his/her optimal and dysfunctional (positive and negative) zones or outside both his/her optimal and dysfunctional (positive and negative) zones;
- and that individually poor performance is expected when an athlete's current emotional intensity is outside his/her optimal (positive and negative) zones and within, or close to, his/her dysfunctional zones.

Table 1.

A listing of Hanin's (1997) Positive and Negative Functional and Dysfunctional Emotions

Positive Emotions		Negative Emotions	
Functional	Dysfunctional	Functional	Dysfunctional
energetic	easygoing	tense	tired
charged	excited	charged	unwilling
motivated	composed	dissatisfied	uncertain
certain	relaxed	attacking	sluggish
confident	overjoyed	vehement	depressed
purposeful	fearless	intense	lazy
willing	satisfied	nervous	distressed
resolute	exalted	irritated	sorrowful
alert	certain	provoked	afraid
excited	pleasant	angry	exhausted

In a study investigating elite slalom canoeists, researchers found that the good performers were preceded by lower discrepancies between their felt and preferred emotional levels (Mules & Kerr, 1996).

Although the preceding literature shows a link between affective states and performance, the question remains of whether or not emotions can be manipulated to produce desired effects. In sports, a coach is the primary person to try to draw forth the desired emotions in his/her athletes prior to competition.

Coaches' Use of Verbal Persuasion to Impact Emotion

In addition to perceived efficacy that is increased via verbal persuasion, based on the emotion in sport literature, it is important that athletes experience an appropriate emotional state prior to competition. Prior to competitions, athletes make appraisals of the situation they are facing in competition. Athletes base these appraisals on the extent to which they view the situation as a challenge (challenge appraisal), the extent to which they view the situation as harmful (harm appraisal) and the extent to which they view the situation as a threat (threat appraisal) (Lazarus, 1999). The intensity of their appraisals can impact their emotions.

While athletes are often expected to self-regulate their emotions appropriately, coaches can help to manipulate the emotional state of their athletes. For instance, coaches who use interventions focusing on the management of challenge appraisal and the resultant emotions may be more effective than coaches who use interventions that focus on reducing threat appraisal in helping athletes improve their pre-competitive emotional states (Cerrin, 2003). A coach's ability to focus athletes on the appropriate emotions associated with challenge appraisal may gain an important edge in competition.

Deci (1980) stated that "emotion is a reaction to a stimulus event...and can energize subsequent behaviors." Therefore, it appears that if a coach can create the appropriate stimulus event to help the athlete appraise the situation positively, the athlete will experience appropriate emotions, which in turn will influence performance.

In a study using professional hockey players, Gallmeier (1987) found that the coach began the emotional preparation on the morning before a game during a team meeting. A contemplative message would be waiting for the players as they walked in the door. The players were expected to be subdued and to be "getting into the mood." The players were expected to begin focusing and clarifying game plans. They were then dismissed to go home. An hour before game time, the coach continued to direct the emotional behavior as he and his staff members spoke softly with players. The players were expected to be tense, but not to be releasing anything. The coach was preparing to peak the emotion at game time. Fifteen min. before game time the hockey players warmed up on the ice and were finally allowed some release of excitement and emotion. At 5 min. till game time, the coach offered a pre-game talk encouraging readiness, courage, and pride. At game time, the players' exploded with emotion. The coach controlled the players' emotions through stimuli such as posted and verbal messages. In doing so, the coach peaked the players' feelings of emotion to correspond with game time.

Gallmeier (1987) indicated that coaches have a vital role in directing their teams' styles of play. They can dictate the tone of play by knowing when and where to direct the players' abilities to the maximum, securing the momentum and ultimately the best results (Adler & Adler, 1978). The coach's script was consistent with Zurcher (1982) in

that "the orchestration of emotions in staged events follows a scripted phasing, beginning with the arousal of expectations for an emotional experience. The expectations generate a diffuse emotional state, which finally is directed into a series of discrete and identifiable emotional displays (p. 18-19)." Given the potential impact of the coach on his/her athlete's emotions, it is important to realize that the pre-game talk is the final opportunity to do so before the start of the game.

Many coaches utilize the pre-game talk to "psych up" their athletes. Gould et al. (1989) discovered that among 13 different strategies, coaches ranked their usage of verbal persuasion as fifth overall. By isolating one form of verbal persuasion, the pre-game speech, and using it as the "stimulus event," coaches attempt to invoke specific emotions within their team. However, little research has examined the role of pre-game talks on an athlete's emotions.

Research has indicated that evaluative feedback from an adult may serve as an important source of competence information (Meyer, Bachmann, Biermann, Hempelman, Ploger, & Spiller, 1979). There also appears to be a strong relationship between informational feedback and athletes who report higher perceptions of confidence (Black & Weiss, 1992). Therefore, by using the pre-game speech to reiterate and confirm the coach's feelings of confidence in his/her team, it is possible that those feelings will be conferred to the athletes. Gould et al. (1989) reported that among 101 wrestling coaches, acting confident themselves was ranked as the second most used strategy out of 13 possible, to enhance athlete's feelings of self-efficacy. The same coaches also gave acting confident a similar effectiveness rating. Results from a study involving competitive soccer players indicated that those players who were exposed to a positive

emotional pre-game speech reported higher feelings of confidence as well as predicted a greater margin of victories in an imagined game situation (Vargas-Tonsing & Bartholomew, 2004). Feelings of confidence and certainty were listed as two of Hanin's (2000) top nine predominantly optimal positive emotions.

Two additional positive emotions from the top nine optimal positive emotions easily invoked in a pre-game speech are feeling energetic and charged. Gallmeier (1987) observed this behavior in a hockey coach's speech as the coach engages in a hollering match with his team, "Now are you ready guys, are you ready?" The players responded with, "Yeah, we're ready, coach, we want 'em." This approach can also be seen when teams begin to clap together, gradually increasing in tempo and sound. Yelling, stomping, and slapping hands can all help teams feel energetic and charged. The coach can implement any of these within the pre-game speech. The coach can call on the players, encouraging them to share their emotion with the team; the coach can carefully choose energetic words and phrases such as "are you pumped?" and "can you feel it?"

Hanin (2000) also suggested that athletes considered feelings of motivation optimal for performance. A coach should remind the athletes of their goals within the speech. These goals can be both broad and specific; "don't give them a corner kick," and "let's play the best we can." The reason is twofold: one, motivation is considered the link between the drive and the goal (Schilling & Gubelmann, 1995) and two, because it reminds the athletes of their purpose, another of Hanin's (2000) top nine optimal positive emotions.

In conclusion, the current literature suggests self-efficacy and an athletes' emotional state are important contributors to performance. Additionally, verbal

persuasion, a readily available tool for coaches, is believed to be an effective tool for enhancing self-efficacy (Gould et al., 1989; Vargas-Tonsing et al., in press); however, little is known of the impact of verbal persuasion, specifically the coach's pre-game speech on self-efficacy and emotion. Research is needed to examine the effectiveness of this technique. Gaining insight into this tool would offer valuable information to coaches as they attempt to ready their athletes for performance.

Chapter Three

Method

Pilot Data

Six pre-game speeches were recorded from premier soccer coaches to sample the variation in content and length of speeches, and to determine the protocol for categorizing a speech as emotional, informational, or a combination. The majority of the speeches were collected from an under-18 (U18) women's soccer coach. One of the speeches was collected from a rival U18 soccer coach. Speeches can be found in Appendix A with the emotional words and phrases printed in bold print.

Speeches B, C, D, and E showed pre-game speeches that centered on strategy and information. Speech A was a combination of both strategy and emotion. It began with strategy and ended with more emotional phrases such as "let's get dangerous" and "you are going to bury it." Speeches F and G showed a more emotional style of pre-game speech. The coaches chose emotional words and phrases such as "battle," "punish," and "send them a message." The importance of this pilot testing was twofold: first, these speeches indicated that coaches used different techniques in their pre-game speeches, and second, that the content of the speech may have focused athletes on either internal or external factors. Therefore, it is important to not only study the content of coaches' pre-game speeches, but to also study athletes' reactions to them.

Participants

Participants for this study were 151 soccer players representing 10 soccer teams (five male and five female teams). The soccer teams were selected due to their status and membership in a Midwestern premier soccer league (within this premier league, teams

compete at the state level against other elite teams) and represented one U12, one U13, two U14, two U15, two U16, one U17, and one U18. Athletes had a mean age of 14.21 years (SD = 1.85) and had spent an average of 2.31 years (SD = 1.51) playing with the team and an average of 2.01 years (SD = 1.56) playing under the same coach. Athletes had an average of 8.83 years (SD = 2.26) of soccer playing experience. Of the participating athletes, 7% considered their primary position to be goalkeeper, 27% considered their position to be primarily that of defender, 32% considered themselves midfielders, and 24% considered themselves to be forwards. Three percent listed multiple positions. The remaining 7% of participating athletes did not indicate a position.

Also participating in this study were the 10 head coaches of these teams. All coaches were male. The coaches had a mean age of 32.78 years (SD = 8.56) and had an average of 12.56 (SD = 5.50) years of coaching experience.

Dependent Measures

The coach and his athletes were asked to complete an initial questionnaire containing demographic information (i.e., age, gender, coaching/playing experience) (Appendix B). On game day, athletes were asked to complete three surveys. The first was a pre-game questionnaire that contained self-efficacy and emotional mood state measures designed by the author based on Hanin's (1997) suggested functional and dysfunctional emotions (Appendix C). To assess athletes' feelings of self-efficacy, athletes responded to three questions, each beginning with the following stem question, "At this moment, how certain are you that you can..." to indicate their level of efficacy in playing well, playing to the best of their ability, and in contributing to the team's victory. The efficacy questions used an 11-point probability scale of 0 (not at all certain) to 100

(absolutely certain). In order to assess the athletes' emotional states, the athletes were asked the following stem question, "At this moment, do you feel..." followed by 10 emotions representing functional (i.e., charged, energetic) and dysfunctional (i.e., tranquil, tired) categories. Athletes were asked to indicate on a 10-point scale from 0 (not at all) to 9 (extremely) the extent to which they felt that emotion. The order in which the emotions were presented to the athlete were randomly sequenced so as to avoid any potential effects of the sequence of presentation. In addition, the order in which athletes responded to the efficacy questions or emotion questions was also alternated; in other words, approximately 50% of the athletes answered the efficacy questions first followed by the emotion questions and approximately 50% of the athletes completed the emotion questions first and then completed the efficacy questions. There was no order effect for self-efficacy for Time 1 nor for Time 2 of administration of the questionnaires.

The survey that athletes completed following the conclusion of the coach's pre-game speech was almost identical to the aforementioned efficacy and emotional state questionnaire, but began with two items that asked athletes to indicate the amount of emotional and informational content within the coach's speech on a scale of 0 (not at all) to 9 (extremely) (Appendix D). The coach was also asked to indicate his perception of the amount of emotional and informational content within his speech on the same scale (Appendix D). The final questionnaire given to the athletes was used to gather in-depth information about the athletes' perceptions of the speech. The post-game questionnaire began by asking the athletes to report the victor of the competition and the final score, as well as to indicate if they and their team performed well. In addition, athletes were asked to recall any words, phrases or ideas from their coaches speech and were also asked if

they liked the speech, if the speech impacted their performance, if the speech met their emotional needs, if the speech met their psychological needs, what else they would have liked their coach to have said and what could have made the speech more effective (Appendix E).

Procedure

Permission to conduct this study was obtained from the institutional review board for human subjects. With this approval, coaches were approached and asked not only for their participation, but also for assistance in gaining permission from the athletes' guardians, as they were minors. Consent to conduct this study was received from athletes, athletes' parents/guardians, and the coach prior to completion of any surveys. Informed consents are contained in Appendix F.

Each team was surveyed once during their season. Together, the researcher and the coach selected the game in which the athletes and coach would be surveyed. The selected game was chosen by the strength of the opponent (i.e., harder opponents were chosen). This was done to increase the variability of players' efficacy levels. It is likely that players will have higher, and less variable, efficacy beliefs against a less challenging team than against a more challenging team.

Once a game was selected, the athletes completed a mock questionnaire at one of their practices the week before the selected competition. They were given a similar questionnaire to what they would be asked to complete on game day. This was done to ensure that athletes would be familiar with both the vocabulary and the directions on the survey. Thus, athletes would be able to complete the questionnaires in a timelier manner and this would help to lessen the intrusiveness of the questionnaire. At this practice,

athletes were also assured that their answers would remain anonymous and confidential and were told that in order to do so, they would be using an identification number. Their identification number would be their birthday (month-day-year) followed by their middle initial. The researcher had no knowledge of the names of the participants as linked to their birthdays. They were then asked to complete the demographic questionnaire (Appendix B). The coach and athletes were also reminded of the procedure that would occur at the selected soccer game.

At the selected game, the investigator was present at the soccer field prior to the athletes' arrival. When the athletes arrived, and before they began to warm-up, athletes completed the first questionnaire. Following this, they were to go about their normal routine of warming-up. While they did so, the investigator spoke with the game officials and with the opposing team's coach to inform them that a study was being conducted and requested that they please have patience if/when their opponent was delayed taking the field.

The second questionnaire was administered immediately after the coach gave his pre-game speech. When the coach asked the team to come in, the researcher was present within the huddle and tape-recorded the speech (coaches' pre-game speeches can be found in Appendix G). Upon the conclusion of the speech, the coach and athletes were given the post-speech questionnaire. They then took the field to begin the start of the game. At the conclusion of the game, athletes completed a final questionnaire (the post-game questionnaire). Following this, the athletes and coaches received a debriefing form detailing their role in this study.

Treatment of Data

The first hypothesis, that athletes will show a greater increase in self-efficacy following a highly perceived emotional pre-game speech as opposed to a highly perceived informational/strategic pre-game speech, was tested using a repeated measures regression. Efficacy scores taken before the pre-game speech were compared to efficacy scores given after the speech and served as the within-subjects variable. The athletes' perceptions of the emotional and informational content in the speech served as predictors within the analysis.

Due to the small number of teams involved in this study (n = 10), the individual was used as the unit of analysis. This was accomplished by standardizing all variables in relation to the team mean. This allowed for individual comparisons while controlling for the influence of the team (Black & Weiss, 1992; Horn, 1984).

For the second hypothesis, that athletes will show a greater change in emotion following a highly perceived emotional speech as opposed to a highly perceived informational/strategic pre-game speech, three repeated measures regressions were conducted with each emotion serving as a within-subject variable and athlete perceptions of the speeches again serving as predictors. However, an exploratory factor analysis (EFA) of the 10 emotions was first conducted to examine if the 10 emotions were distinct from one another at both Time 1 and Time 2. A varimax rotation was used so that the common factors would be uncorrelated. However, Factor 1 and Factor 3 were revealed to be slightly correlated prior to the rotation. Decisions regarding factor retention were based on Hanin's (1997) IZOF theory, eigenvalues above the angled descent on the scree plot, and factors that had eigenvalues > 1.0. Any item that indicated a loading of >.30 on

more than one factor was not included. With these guidelines in place, the EFA yielded two factors for both Time 1 and Time 2, accounting for 46.14% and 43.38% of the variance respectively (see Table 2). Scree plots can be found in Appendix H.

The first factor included the emotions of *charged*, *determination*, and *energetic*. The second factor included the emotions of *unwilling*, *sluggish*, *tense*, *dissatisfied*, and *tired*. Correlations among the 10 original emotions at Time 1 and Time 2 can be found in Table 3. Factor scores were calculated and used in subsequent regressions.

Participants were assured of the confidentiality of their responses. All appropriate procedures for the protection of human subjects were adhered to. An application for the use of human subjects was approved by the University Committee on Research Involving Human Subjects was approved by the University Committee on Research Involving Human Subjects (Appendix F).

Several additional analyses were used to address the exploratory questions within this study. In order to explore athletes' perceptions of their coach's pre-game speech, descriptive analyses were used.

To begin exploring congruency among athletes' and coaches' perceptions, the data were aggregated to the team level. However, prior to aggregation, consensus among teams was first shown. The analysis was conducted according to the recommendation of James, Demaree, and Wolf (1993) of the r_{wg} statistic as a measure of interrater agreement. The r_{wg} estimate is computed using the equation of $r_{wg} = 1 - (s_{xj}^2 / \sigma_{EU}^2)$ where s_{xj}^2 is the observed variance in the responses to item x within Team j, σ_{EU}^2 is the expected variance, and $\sigma_{EU}^2 = (A^2 - 1)/12$ where A equals the number of categories on the scale, in this case

Table 2.

Rotated Pattern Matrix From Exploratory Factor Analysis at Time 1 and Time 2

	Factor Loadings			
Factor	Time 1		Time 2	
	1	2	1	2
1. Factor 1				
charged	0.897	-0.031	0.733	-0.123
determined	0.784	-0.005	0.620	-0.167
energetic	0.671	-0.316	0.762	-0.218
2. Factor 2				
unwilling	-0.227	0.348	-0.131	0.391
sluggish	-0.242	0.563	-0.202	0.472
tense	0.157	0.495	0.006	0.551
dissatisified	-0.025	0.559	-0.117	0.513
tired	-0.177	0.686	-0.226	0.659
Eigenvalue (rotated solution)	2.045	1.592	1.628	1.569
Alpha coefficients	.82	.65	.77	.64

Table 3.

Relationships Between Reported Emotions at Time 1 and Time 2

	1	2	3	4	5	6	7	8	9	10
1. Charged	-									
(T2)	(-)									
2. Determined	.73**	-								
(T2)	.49**	(-)								
3. Unwilling	-.21*	-.27**	-							
(T2)	-.11	-.27**	(-)							
4. Sluggish	-.23**	-.21**	.33**	-						
(T2)	-.24**	-.17*	.19*	(-)						
5. Tranquil	-.07	-.03	.10	.12	-					
(T2)	-.08	-.05	.02	.15	(-)					
6. Tense	.05	.08	.11	.28**	.01	-				
(T2)	-.04	-.11	.33**	.12	.08	(-)				
7. Dissatisfied	-.04	-.07	.32**	.22**	.03	.29**	-			
(T2)	-.13	-.18*	.46**	.33**	.13	.32**	(-)			
8. Easygoing	.03	.10	-.04	.03	.35**	-.16	-.10	-		
(T2)	-.02	.04	-.23**	.03	.27**	-.09	-.03	(-)		
9. Tired	-.17*	-.11	.18*	.47**	.06	.29**	.39**	-.14	-	
(T2)	-.27**	-.18*	.36**	.36**	.12	.15	.09	.06	(-)	
10. Energetic	.62**	.50**	-.20*	-.32**	-.05	.01	-.18*	.15	-.41**	-
(T2)	.58**	.52**	-.22*	-.19*	-.05	-.02	-.11	.10	-.31**	(-)

*$p < .05$ **$p < .01$

10 (James, Demaree, & Wolf, 1984). Consensus estimates should range from 0 to 1; the closer the r_{wg} estimate is to one, the higher the consensus. Consensus among athlete perceptions for emotional content ranged from .34 to .8, with a mean consensus of .58. Consensus among athlete perceptions for informational content ranged from .43 to .87 with a mean of .71. The mean consensus for perceptions of both emotional and informational content was within the guideline (range = .50 or greater) proposed by Moritz and Watson (1998, p. 291). The data were then aggregated to the team level to better examine the athletes' congruency with that of their coach. The aggregated data were correlated with coaches' perceptions to begin to examine congruency. A paired sample *t* test was also conducted to examine potential mean differences between team and coach perceptions.

A regression analysis was used to explore whether athletes' emotions predicted their perceptions of the pre-game speeches' content. This regression was conducted using the reduced two emotional factor score estimates. Correlations were also conducted among the two factors of emotion and feelings of efficacy.

Chapter Four

Results

Tests of Hypotheses

Means and standard deviations for all measures are contained in Tables 11 and 12 in Appendix I. Analyses were separated by the two primary dependent measures: efficacy beliefs and emotions.

Effect of Pre-Game Speech on Perceptions of Efficacy

A repeated measures regression was performed on athletes' perceptions of self-efficacy. Predictors were the athletes' perceptions of emotional and informational content within their coach's pre-game speech. The predictors were not related to one another, $r = .16$, $p > .05$. Of the participating 151 athletes, a sample size of $n = 138$ was used due to missing or incomplete data.

Prior to creating a composite efficacy score, alpha coefficients were computed on the three efficacy items at both Time 1 (before the pre-game speech) and Time 2 (after the pre-game speech). The alpha coefficients were $\alpha = .86$ and $\alpha = .91$ respectively. These coefficients were above the minimum criterion of .70 (Nunnelly, 1978) and thus, following the standardization of the items by the team mean, the items were summed and divided by three to create an overall efficacy score at both Time 1 and Time 2. Perceptions of self-efficacy did not vary significantly from Time 1 to Time 2, $F(1, 135) = 2.87$, $p = .09$. Correlations among predictors and perceptions of self-efficacy are shown in Table 4. The predictor of perception of informational content was significantly associated with perceptions of self-efficacy at both Time 1 and Time 2. After partialing

Table 4.

Relationships Between Predictors and Athlete Perceptions of Self-Efficacy at Time 1 and Time 2

	1	2	3	4
1. APEC	-			
2. APIC	.16	-		
3. Self-efficacy Time 1	.14	.18*	-	
4. Self-efficacy Time 2	.14	.34**	.75**	-

APEC = athletes' perception of emotional content
APIC = athletes' perception of informational content

*$p < .05$
**$p < .01$

out perceptions of emotional content, athletes' perceptions of informational content significantly related to changes in self-efficacy, $F(1, 135) = 6.60, p < .05$, with a moderate strength of relationship, $\eta^2 = .05$ (Cohen, 1988). Perceptions of emotional content were not significantly related to changes in self-efficacy, $F(1, 135) = .60, p = .44$. This suggests that it is athletes' perceptions of informational content that influence post-speech efficacy perceptions and not athletes' perceptions of emotional content. Therefore, the first hypothesis that athletes will show a greater increase in self-efficacy following a highly perceived emotional speech as opposed to a highly perceived informational speech was not supported. A summary of regression results can be found in Table 5.

Effect of Pre-Game Speech on Perceptions of Emotion

Correlations among predictors and the two emotion factors are shown in Table 6. A repeated measures regression was performed on the two factors of athletes' perceptions of emotion. Of the 151 participating athletes, only 134 athlete responses were used in this analysis as the remaining athletes had missing or incomplete emotion data. Predictors were the athletes' perceptions of emotional and informational content within their coach's pre-game speech.

The regression results indicated that perceptions of Factor 1 varied significantly from Time 1 to Time 2, $F(1, 134) = 6.37, p < .05$ with athlete perceptions informational content being significantly related to changes in Factor 1 emotions, $F(1, 134) = 6.22, p < .05$. Perceptions of emotional content was not related to changes in Factor 1, $F(1, 134) = .35, p = .56$. Perceptions of Factor 2 did not vary significantly from Time 1 to Time 2, $F(1, 134) = .00, p = .96$. Neither of the predictors was significantly associated with

Table 5.

Summary of Repeated Measures Regression for Self-Efficacy

Source	df	SS	Ms	*F*	η^2
	Within Subjects				
Predictors					
Perception of Emotion	1	0.04	0.04	0.60	0.00
Perception of Information	1	0.42	0.42	6.60*	0.05
Pre/Post	1	0.18	0.18	2.87	0.02
Error	135	8.53	0.06		
Total	138				
	Between Subjects				
Perception of emotion	1	0.76	0.76	1.82	0.01
Perception of information	1	4.62	4.62	11.15**	0.08
Error	135	55.98	55.98		

*$p < .05$
** $p < .01$

Table 6.

The Relationship Between Predictors and Emotion Factors at Time 1 and Time 2

	APEC	APIC	1	2
APEC	-			
APIC	.16	-		
Factor 1	.16	.19*	-	
(T2)	.15	(.33)**	(-)	
Factor 2	.07	.03	-.05	-
(T2)	.07	(-.11)	(-.13)	(-)

*denotes significance level of $p < .05$
** denotes significance level of $p < .01$

perceptions of Factor 2 emotions nor were the predictors significantly related to changes in Factor 2 scores.

Given these results, the second hypothesis that athletes will show a greater change in emotion following a highly perceived emotional speech as opposed to a highly perceived informational/strategic pre-game speech, was not supported. A summary of regression results can be found in Table 7.

Exploratory Research Questions

What Are Athletes' Perceptions of Pre-Game Speeches?

Athletes' mean perception of the non-standardized emotional content of their coach's pre-game speech was 5.21 (SD = 1.91) and their mean perception of the informational content was 6.57 (SD = 1.73) on a 10-point scale. Of the 151 participating respondents, 130 athletes (86.1%) reported liking the coach's speech while 10 (6.6%) athletes reported not liking the speech; the remainder of the participating athletes (n = 11, 7.3%) did not complete this question. Over half of the responding athletes (n = 96, 64%) indicated that they believed the speech impacted their performance while 48 (32%) reported that it did not. Seven athletes did not complete this question. When asked if the pre-game speech met their emotional needs, again over half of the athletes (n = 100, 66%) responded in the affirmative with 38 athletes (25%) stating that the speech did not meet their needs. Thirteen athletes did not complete this question. The majority of the athletes (n = 119, 79%) also believed that their coach's speech met their psychological needs while 24 (16%) responding athletes did not believe it to do so. Eight athletes did not complete this question. A listing of athletes' response frequencies according to team can be found in Table 8.

Table 7.

Summary of Repeated Measures Regression for Emotion Factors

Source	df	SS	Ms	*F*	η^2
	Within Subjects				
Factor 1 Predictors					
Perception of Emotion	1	0.45	0.45	0.35	0.00
Perception of Information	1	8.09	8.09	6.22*	0.05
Pre/Post Factor 1	1	8.28	8.28	6.37*	0.05
Error	131	170.35	1.30		
Total	138				
Factor 2 Predictors					
Perception of Emotion	1	0.02	0.02	0.06	0.00
Perception of Information	1	0.01	0.01	0.02	0.00
Pre/Post Factor 2	1	0.00	0.00	0.00	0.00
Error	131	31.68	0.24		
Total	138				
	Between Subjects				
Intercept	1	9.37	9.37	9.82**	0.07
Perception of Emotion	1	3.44	3.44	3.61	0.03
Perception of Information	1	4.51	4.51	4.73*	0.04
Error	131	124.92	0.95		

* $p < .05$
** $p < .01$

Table 8.

Athletes' Perceptions of Pre-Game Speeches

Team	Gender of team	Length of speech	Game outcome	% liking speech	% impacted performance	% met emotional needs	% met psychological needs
1	Female	1:38	Loss	89%	78%	67%	89%
2	Female	0:52	Loss	77%	47%	53%	71%
3	Female	1:52	Win	100%	71%	86%	93%
4	Female	1:20	Win	44%	50%	31%	50%
5	Female	2:17	Win	93%	40%	47%	80%
6	Male	1:28	Win	94%	75%	75%	88%
7	Male	5:16	Tie	88%	53%	77%	65%
8	Male	2:38	Win	100%	93%	80%	93%
9	Male	3:32	Win	87%	60%	73%	87%
10	Male	3:30	Loss	100%	75%	88%	75%

Are Athletes' Perceptions of the Pre-Game Speech Congruent With Their Coach's Perception?

Coaches' mean perception of the emotional content of their pre-game speech was 4.82 (SD = 2.54) and their mean perception of the informational content was 5.93 (SD = 1.75). Aggregated athlete perceptions showed no significant relationship with that of their coaches for emotional content, r = .29, p = .42, nor for informational content, r = .35, p = .32. A paired sample t test comparing coaches' perceptions with the aggregated athlete perceptions did not indicate a difference between coaches' and athletes' perceptions of the emotional content of the speech, $t(9)$ = -0.42, $p > .05$, d = -0.2 (M_C = 4.95, SD = 2.59; M_A = 5.28, SD = .67), nor a difference for informational content, $t(9)$ = -1.12, $p > .05$, d = -0.5 (M_C = 6.00, SD = 1.70; M_A = 6.57, SD = .72).

Do emotions influence athletes' perceptions of the pre-game speech heard from their coach?

Of the 10 listed emotions, athletes rated the feelings of *determined, charged* and *energetic* as the most intense. The least intense emotions were *dissatisfied, sluggish*, and *unwilling*. The intensity ratings of the listed emotions can be found in Table 9.

A multiple regression analysis was conducted using the two emotion factors at Time 1 to predict athletes' perceptions of emotional and informational content within the pre-game speeches. Of the 151 participating athletes, only 140 athletes were used in this analysis as 11 athletes had missing or incomplete emotion data. Results of the multiple regression did not show an overall effect for perceptions of emotion, F (2, 137) = 2.22, p = .11, R = .18, R^2 = .03 or for perceptions of information, F (2, 137) = 2.54, p = .08, R = .19, R^2 = .04.

Table 9.

Athletes' Perceptions of Intensity of Felt Emotion

Emotion	Before Speech (Time 1)		After Speech (Time 2)		
	M	*SD*	*M*	*SD*	*d*
Charged	6.60	1.80	7.31	1.31	.46
Determined	7.37	1.65	7.76	1.26	.27
Unwilling	2.19	2.18	1.72	1.97	-.23
Sluggish	2.94	2.20	2.17	1.91	-.37
Tranquil	5.05	2.43	4.45	2.35	-.25
Tense	3.54	2.40	4.13	2.54	.24
Dissatisfied	2.50	2.32	2.46	2.24	-.02
Easygoing	5.96	2.22	5.41	2.34	-.24
Tired	3.16	2.36	2.50	2.10	-.30
Energetic	6.50	1.77	7.23	1.27	.48

Which Self-Reported Emotions of Athletes Are Associated With Higher Feelings of Efficacy?

A pearson's product correlation was conducted on the two emotion factors and athletes' feelings of self-efficacy at both Time 1 and Time 2. Prior to the pre-game speech (Time 1), both Factor 1, r = .44, p < .01, and Factor 2, r = -.20, p < .05 showed a significant relationship. After the pre-game speech (Time 2), again, Factor 1, r = .53, p < .01, and Factor 2, r = -.30, p < .01 showed significant relationships with the athletes' feelings of efficacy. All correlations can be found in Table 10.

Additional Exploratory Analyses

Do Male and Female Soccer Athletes' Perceptions Differ?

A multiple analysis of variance (MANOVA) was conducted on the data for male and female athletes' perceptions of self-efficacy, perceptions of emotional and informational content within the pre-game speech, and the two emotion factors. Due to missing or incomplete data, 127 athletes (54 males, 73 females) were represented within the analysis. The Wilks Lambda statistic showed an overall effect for gender, $F(8, 118) = 2.41, p < .05$.

Male and female athletes significantly differed in their reported perceptions of self-efficacy at both Time 1, d = .43 ($M_M = 83.77$, $SD = 13.75$; $M_F = 77.49$, $SD = 15.33$) and Time 2, d = .48 ($M_M = 87.47$, $SD = 11.67$; $M_F = 80.91$, $SD = 15.46$). At both times, male athletes reported higher perceptions of self-efficacy. Male and female athletes also significantly differed in their perceptions of the informational content within the pre-game speech with male athletes perceiving higher informational content, $d = .58$ ($M_M = 7.17$, $SD = 1.53$; $M_F = 6.19$, $SD = 1.82$). There was no significant difference between

Table 10.

The Relationship Between Athletes' Emotions and Reported Self-Efficacy

	SE	1	2
Self-Efficacy (SE)	-		
(T2)	(-)		
Factor 1	.44**	-	
(T2)	(.53)**	(-)	
Factor 2	-.20*	-.05	-
(T2)	(-.30)**	(-.13)	(-)

*denotes significance level of $p < .05$
** denotes significance level of $p < .01$

genders for perceptions of emotional content, $d = .33$ (M_M=5.48, SD= 1.90; M_F = 4.83, SD = 2.01). Results also revealed a gender difference between emotion factor scores for Factor 1 following the pre-game speech, $d = .5$ (M_M = .24, SD = .74; M_F = -.19, SD = .97) and for Factor 2 following the pre-game speech, $d = -.35$ (M_M = -.21, SD = .81; M_F = .06, SD = .72). A summary of the MANOVA results can be found in Table 11.

A one-way analysis of variance revealed a significant difference in the length of time of the pre-game speech given to male and female teams with male teams receiving longer pre-game speeches, $F(1, 9) = 6.25$, $p < .05$ (M_M = 196.80, SD = 83.60; M_F = 103.80, SD = .32.21; d = 1.95).

Table 11.

Summary of MANOVA Results by Gender

Dependent Variable	df	SS	Ms	*F*	*p*
Efficacy Time 1	1	1222.91	1222.91	5.67	0.02
Error	125	26951.71	215.61		
Efficacy Time 2	1	1334.06	1334.06	6.88	0.01
Error	125	24432.12	195.46		
Perceptions of Emotion	1	13.22	13.22	3.43	0.07
Error	125	481.59	3.85		
Perceptions of Information	1	29.92	29.92	10.32	0.00
Error	125	362.25	2.9		
Factor 1 Time 1	1	0.48	0.48	0.53	0.47
Error	125	112.78	0.9		
Factor 1 Time 2	1	5.64	5.64	7.29	0.01
Error	125	96.68	0.77		
Factor 2 Time 1	1	0.43	0.43	0.6	0.44
Error	125	91.11	0.73		
Factor 2 Time 2	1	2.21	2.21	3.84	0.05
Error	125	72.11	0.58		

Chapter Five

Discussion

The results of this study found that athletes' perceptions of informational content within a coach's pre-game speech can impact athletes' feelings of self-efficacy as well as athletes' emotions. A major strength of this study was its ability to assess athletes' perceptions and feelings at the time in which they were occurring.

Effect of Pre-Game Speech on Self-Efficacy

The hypothesis that athletes would show a greater increase in self-efficacy following a more highly perceived emotional pre-game speech as opposed to a highly perceived informational/strategic pre-game was not supported. In fact, there was no significant difference between athletes' perceptions of efficacy from Time 1 to Time 2. It is possible that a significant difference was not found between Time 1 and Time 2 due to the number of participants as this resulted in a power of .39.

However, it is also likely that this lack of significance may be influenced by the athletes' membership within a premier soccer team. These teams are considered to be among the best in the state and athletes must try-out, and are selected, before they are able to join a team. Therefore, these athletes likely already had high perceptions of efficacy and thus, the variance between Time 1 and Time 2 was smaller than it might have been within a less elite participant pool. Additionally, the teams involved within this study had played together for an average of 2 years with the same coach, which likely resulted in higher levels of cohesion. Group cohesiveness has been linked to higher perceptions of efficacy (Spink, 1990). Again, making it likely that this sample of athletes ~~likely~~ had higher perceptions of efficacy entering into the competition than they

would have had they played together for less time. While there was no significant difference in athletes' efficacy from Time 1 to Time 2, there was an overall increase in efficacy perceptions. Thus, it is perhaps important to comment on the practical significance of such a finding. To show even a small overall increase in efficacy within these athletes for just one game out of their entire season, and when their efficacy beliefs were likely already higher than average, is noteworthy. These results may begin to underscore the importance of examining this technique amongst less elite teams as well as teams that have not had as much opportunity to play together before their competitions, such as Olympic and World Cup teams.

It is important however, to note that the change in athletes' perceptions of efficacy from Time 1 to Time 2 was significantly influenced by athletes' perceptions of the informational content within the pre-game speech. This is not surprising as athletes often link their perceptions of ability with informational feedback received from their coaches (Amorose & Weiss, 1998). Therefore, the perceived informational content of a coach's speech may be a salient source of efficacy information on which athletes judge the strength of their self-efficacy. As well, previous research has also found that athletes prefer coaches who provide more technical instruction than those who provide more encouragement (Smith, Smoll & Curtis, 1978).

The perceived emotional content of the speech did not appear to be related to athletes' perceptions of efficacy. This may have occurred for several reasons. To begin, although athletes were given a practice survey the week prior to the competition, several athletes still asked for definitions of emotions on the day of competition. The most commonly asked for definitions were for the emotions of *tranquil* and *sluggish*. Some

athletes may have guessed or answered questions incorrectly when they did not know the meaning of the word. Emotions may have been more influential if athletes had been allowed to create their own list of meaningful emotions that were relevant to them as suggested by Hanin (1997). This may also have been much more appropriate for the younger athletes.

The lack of an emotional effect may also be due in large part to the actual content of the pre-game speech. Athletes and coaches both considered there to be more informational content than emotional content within the speech. More research is needed to examine the effects of speeches with greater portions of emotional content as previous studies have found emotion to positively influence self-efficacy (Kavanagh & Bower, 1985; Samsom & Rachman, 1989).

Effect of Pre-Game Speech on Athletes' Emotions

The second hypothesis that athletes will show a greater change in emotion following a more highly perceived emotional pre-game speech as opposed to a highly perceived informational/strategic pre-game speech was not supported. However, results showed that the functional emotions contained in Factor 1 (*charged, determined* and *energetic)* increased from Time 1 to Time 2. These three emotions are considered to be among the top three optimal emotions for soccer (Hanin, 2000). The dysfunctional emotions contained in Factor 2 did not show a change from Time 1 to Time 2. This seems to suggest that not only may the functional emotions in Factor 1 be the most critical emotions for optimal performance in soccer, but that these emotions may also be the most susceptible to a coach's influence, particularly in the pre-game speech. Further research should continue to examine optimal emotions, as well as their susceptibility to a coach's

speech, within other sports. Cerin, Szabo, Hunt and Williams (2000) suggest that different sports may require different levels and patterns of pre-competitive emotions.

Results also indicated that athletes' perceptions of informational content were related to variations in Factor 1 emotions from Time 1 to Time 2. Deci (1980) suggested, "emotion is a reaction to a stimulus event...and can energize subsequent behaviors (p.85)." Through the use of information and strategy within a pre-game speech, the coach may be offering a stimulus event in the form of an action plan, which causes the athletes to react with emotion. The felt emotions would then energize subsequent competitive behaviors and may further increase feelings of determination and energy because their goal appeared to be achievable. Burton and Naylor (1997) suggest that positive expectancies will lead to positive emotions, such as excitement, which can then assist performance.

It is also possible that athletes showed this increase in functional emotions as a result of an increase in efficacy (though the self-efficacy changes were not statistically significant). In other words, athletes perceiving higher levels of informational content may have also perceived cues regarding their ability (Amorose & Weiss, 1998), which then increased their feelings of efficacy. Lazarus (1991) believed that confidence can generate emotion and is, in fact, often linked with emotion. This would appear to be consistent with social cognitive theory, which suggests that the relationship between efficacy and emotion may be reciprocal (Bandura, 1986). With a reciprocal relationship, coaches may be able to increase optimal emotions in athletes by increasing feelings of efficaciousness through informational feedback, or, by increasing optimal emotions in

athletes, coaches may be able to increase feelings of efficacy. This may offer coaches two different techniques to achieve the same goal.

Athletes' perceptions of emotional content within the speech did not influence any of the emotion factors. This again may be due to the overall perception that there was more informational content within the speech as opposed to emotional content. It is also possible that due to the experience and elite status of these athletes, many were already capable of manipulating their emotions to the desired level for optimal performance and thus their needs were best met through instructions and information as opposed to additional emotion.

What are Athletes' Perceptions of Pre-Game Speeches?

Athletes generally perceived their coaches' speeches in a positive manner, with the majority of athletes noting that overall, they liked their coaches' speech and that they felt the speech met their psychological needs. However, it is difficult to know if the athletes' perceptions of the speech were based solely on the pre-game speech, or if there were additional variables that might have been impacting their perceptions. Athletes commented on these perceptions at the end of the competition and it is possible that the outcome of the game and/or their performance left them feeling more positively about their coach and his speech. This would be consistent with Niedenthal and Setterlund's (1994) view that stimuli is often perceived in line with their emotion. It is also possible that the perceptions of the speech are indicative of the athletes' overall perceptions of the coach. Athletes who feel more compatibility with their coach are more likely to evaluate him or her in a positive manner (Kenow & Williams, 1999).

There did, however, appear to be less agreement among athletes on whether or not the coaches' speeches impacted their performance and whether the speeches met the athletes' emotional needs. These individual differences may be due to differences in playing experience at the elite level, as some of these athletes probably believed that they were prepared for performance regardless of the coach's speech. Conversely, several of the athletes may have believed that their emotional needs were not met due to too much informational content or even because their position was not included within the information given by the coach, and thus, they found that the speech was not helpful to their performance. However, while there was less agreement, it is important to note that more than 50% of the athletes believed the coaches' speeches to have met their needs. This is highly important information for coaches as it implies that the majority of athletes find the pre-game speech to be beneficial prior to competition.

In examining the athletes' perceptions, it is interesting to note the perceptions of Team 4 (see Table 8). Out of the 10 teams surveyed, this female team reported the lowest positive perceptions for liking the coach's speech (44%), the speech meeting their emotional needs (31%), and the speech meeting their psychological needs (50%). Team 4 had the second lowest positive perceptions of the speech impacting their performance (50%). Upon the examination of the coach's speech (Appendix G) and the recollection of the characteristics of this team, it is not surprising to note these low perceptions and it perhaps serves as a reminder to all coaches of the importance of the content within the pre-game speech. Team 4 was among the older female participants and their age would suggest that they were more susceptible to deriving ability cues from informative feedback than the younger teams surveyed (Amorose & Weiss, 1998; Black & Weiss,

1992). The coach's pre-game speech began by noting that the team had been lacking intensity, a criticism that would likely negatively impact the athletes (Black & Weiss, 1992). Additionally, the speech failed to offer the athletes any real strategy or offer a plan for goal attainment; rather, the speech informed the team that they would need to figure the plan out on their own within the first few minutes of the game. This speech's lack of instructional cues and overall focus on improving what the team had previously been lacking likely lessened the effectiveness of the speech for the team. Future research should consider in-depth interviews with athletes to help explain the causes for their perceptions.

Are Athletes' Perceptions of Pre-Game Speeches Congruent with their Coaches' Perceptions?

In examining athletes' perceptions in comparison to their coaches, athletes' and coaches' perceptions of emotional and informational content were not related. Further examination revealed that there was no significant difference in the mean perceptions of content between coaches and their teams. However, while this result was not significant (likely due to the small sample size, $n = 10$), it did show a medium effect, which begins to suggest that coaches' and athletes' perceptions may differ. This would be expected as previous research has suggested that the perceptions of athletes and coaches are often incongruent (Vargas-Tonsing et al., in press). On the other hand, a lack of clear differences may be the result of the athletes having played with the coach for more than one season. Teams reported an average of over two years of playing under their coach. This may have created better cohesion and communication among them. The lack of significance may also be due to the coach and teams sharing similar emotional states.

Future research should measure not only the athletes' perceived emotions prior to competition, but also the perceived emotions of the coach, as the coach's emotional state may impact not only his/her choice of content within the pre-game speech, but the congruency between him/her and the team.

Which Self-Reported Emotions of Athletes are Associated With Higher Feelings of Self-Efficacy?

Analyses revealed that the positive functional emotions of *determined, charged* and *energetic* loaded onto the same emotion factor (Factor 1). The emotions of *unwilling, sluggish, tense, dissatisfied* and *tired* loaded onto Factor 2. While the loadings on Factor 1 are not surprising, the loadings on Factor 2 were not expected. The emotions of *tense* and *dissatisfied* are negative functional emotions whereas the emotions of *unwilling, sluggish* and *tired* are considered negative dysfunctional emotions (Hanin, 1997). This seems to suggest that athletes may be viewing these five emotions all as negative dysfunctional emotions.

Factor 1 showed a high positive correlation with self-efficacy. Prior to the pre-game speech, Factor1 showed a positive relationship with self-efficacy and Factor 2 showed a negative relationship with self-efficacy. Following the conclusion of the pre-game speech, Factor 1 and Factor 2 continued to show these same relationships. The higher an athlete's efficacy, the lower the athlete's emotional intensity on Factor 2. This negative relationship between self-efficacy and Factor 2 seems to support the inference that athletes viewed all the emotions in Factor 2 as dysfunctional for performance. However, this is only conjecture, as athletes were not asked to indicate how facilitative they found each of the emotions to their performance.

The athletes indicated that on the day of competition, both before and after the coaches' pre-game speeches, the most intense emotions felt were *determined, charged,* and *energetic*, respectively. This is consistent with Hanin's (2000) findings that soccer players reported these emotions as the top three positive functional emotions in soccer. However, Hanin also suggests that *easygoing* and *tranquil* are among the top positive dysfunctional emotions in soccer. The present participants reported feeling high levels of both *easygoing* and *tranquil* (they were the next most intense emotions following *determined, charged* and *energetic*). It is possible that the present athletes viewed both of the terms positively, and therefore believed that they should feel relaxed prior to a game. However, the fact that these felt emotions did decrease following the pre-game speech, might imply that these emotions are far less influential than the positive functional emotions of *determined, charged,* and *energetic*. While the perceived intensity of emotions prior to the speech did not correspond with previous research, the trends of increasing intensity of positive and negative functional emotions and decreasing intensity of positive and negative dysfunctional emotions did seem to correspond to the predicted pattern.

Do Emotions Influence Athletes' Perceptions of the Pre-Game Speech Heard From Their Coach?

According to multiple regression analyses, athletes' reported emotions did not predict their perceptions of emotional and informational content within their coach's speech. This is surprising as one's emotional state is thought to influence the interpretation of situations (Bower, 1981), convey information regarding the perceived importance of an event (Fridja, 1986; Green & Sedikides, 1999), and lead to the

perception of similar emotional stimuli (Niedenthal & Setterlund, 1994). It is possible that athletes' perceptions were influenced by some other variable such as compatibility with the coach or even the athletes' perceived efficacy. Future research should explore these potential predictors.

Do Male and Female Soccer Teams' Perceptions Differ?

Male and female athletes differed in their perceptions of self-efficacy. Male athletes reported higher feelings of self-efficacy at both Time 1 and Time 2. This is consistent with the research findings that male athletes report higher feelings of confidence and self-efficacy when compared to female athletes (Krane & Williams, 1994; Vargas-Tonsing & Bartholomew, 2004). Additionally, research has found that prior to competition female athletes report gradual increases in somatic anxiety and decreases in self-confidence while male athletes show no changes in self-confidence or anxiety (Jones & Cale, 1989). However, research has also suggested that male participants in sport tasks may overestimate their efficacy scores in relation to their performance (Feltz, 1988). Future research should continue to explore performance differences, if any, between male and female athletes in relation to their reported efficacy beliefs.

Male and female athletes also differed on their perceptions of informational content within the speech. This difference may have occurred for several reasons. Male athletes may prefer informational content within a speech, and thus are more prepared to listen for, and hear, informational content, whereas previous research has suggested that females have a desire for more emotionally sensitive interactions with their coach (Vikander, Solbakken, & Vikander, 1998). It is interesting to look at the general trend among male and female responses regarding whether their coach met their emotional

needs. Female athletes appear to disagree with the statement more than their male counterparts indicating that their coach did not meet their emotional needs. It is possible that while male athletes benefit from informational pre-game speeches, female athletes may need more emotional content. It is important to recall that the coaches participating in this study were all male coaches. Female coaches have been found to engage more often in general encouragement than male coaches (Millard, 1996). It is likely that female coaches and female athletes may share a more emotional relationship as opposed to female athletes of male coaches. It would be interesting for future research to compare female athletes' perceptions pf pre-game speeches according to coach gender.

It is also very possible that the content of the speeches differed. The male coaches may have altered the content of the speech based on the gender of the team. As well, analyses revealed that the length of the pre-game speech differed for male and female teams making it likely that the male teams perceived more informational content because there was more content. The speeches of coaches of female athletes may not have met their athletes' needs because there was not enough speech to meet their emotional needs. However, future research should independently examine the content of pre-game speeches to check for perceptual or actual differences.

Gender differences also existed between reported emotions on Factor 1 at Time 2. Male athletes reported higher levels of Factor 1 emotions than did females. It is important to remember that these emotions are considered to be optimal functional emotions for soccer (Hanin, 2000) and females may be at a disadvantage in competition if these emotions are not at high levels. This may be a result of the female athletes reporting that the speech did not meet their emotional needs. Male and female athletes

also differed on Factor 2 at Time 2. Factor 2 emotions seemed to include what athletes considered to be dysfunctional emotions. Thus, female athletes reported higher feelings of these dysfunctional emotions immediately following the pre-game speech and immediately prior to the competition. This may be a result of increased anxiety and decreased efficacy, as both have been found to occur more to women than to men in athletics (Jones & Cale, 1989). Yet, again, this may also be a result of male athletes inflating their beliefs. Regardless, it appears that female athletes are reporting lower intensity levels of functional emotions and higher levels of dysfunctional emotions prior to competition than their male counterparts. Future research should explore if the lower intensity levels are in fact, detrimental, and if so, what can be done to intervene.

Conclusion

While this study has offered several valuable insights into athletes' perceptions regarding their coaches' pre-game speeches, it is important to note that this study was not without its limitations. However, these limitations should not undermine the value of these results. To begin, the individual athletes did not hear the speech, nor react, independently of one another, and thus, athletes within teams should have been considered in the analysis (Silverman, 2004). However, the small sample number of teams participating in the study prevented the use of hierarchical linear modeling analysis and thus, it was not possible to analyze the natural nesting of the data. Additionally, as this was a field study, it was impossible to hold all outside variables constant for each game. For example, captains may have been called away by the game officials during the coach's pre-game speech, or inclement weather would disrupt athletes' attempts to complete questionnaires. Additionally, the nature of this study was intrusive and coaches

may have altered their routines and speeches to help ease the extent of the intrusiveness. As well, coaches may have also spent more time preparing for the pre-game speech as they knew it would be observed. While this does not necessarily impact the results of this study, the possibility remains that athletes may have been influenced by subtle changes in the coaches' tone or choice of content. Future research should consider following coaches across multiple games to account for any such change. A case study design would allow the researcher to garner a better idea of the decision making process the coach utilizes when deciding to implement a highly emotional speech. For instance, coaches may choose to use such a speech when placed in a championship game. This study was not able to fully examine emotional content, as coaches would likely save such a speech for the biggest game of the season; to use emotion weekly would only undermine its impact.

In the future, it would also be important to examine the content of coaches' speeches by an independent observer to obtain the actual amount of emotional and informational content. In addition, where in the speech (beginning, middle, end) the emotional content is placed may be more important than how much of it the speech contains. The impact of pre-game speeches on the construct of not only self-efficacy, but also team-efficacy, should be further explored.

It is important to note that the pre-game speech may act through various mechanisms on the athletes' performance, of which efficacy beliefs and emotions are but two aspects. Pre-game speeches may also influence performance by impacting other motivational processes such as goal attainment. By offering information on goal progress, the coach helps sustain motivation in athletes, thus promoting performance

(Schunk, 1995). Pre-game speeches may also encourage a sense of shared purpose amongst the team which helps to promote team unity and cohesion; cohesion can help lead to a successful performance (Carron & Chelladurai, 1981; Shangi & Carron, 1987). It is also possible that pre-game speeches may help focus athletes on more task/performance oriented behavior, which can promote higher effort (Burton, 1989; Duda, 1988), including when faced with difficult goals (Dweck, 1975). Future research should begin to incorporate and examine the role of these various constructs as impacted by the coach's pre-game speech.

As researchers continue to gain knowledge and understanding of a coach's influence through his/her pre-game speeches, it will become important to begin to explore the impact of halftime speeches. Both pre-game and halftime speeches should be explored under varying conditions, such as athletes and teams representing the underdog/favorite and being behind/ahead at halftime. Additionally, future research should begin to explore the robustness of pre-game speeches. While it is not expected that the effect of a pre-game speech would last through an entire competition, it would be hoped that the pre-game speech would last long enough to create a positive cycle for the team. In other words, coaches use the pre-game speech to assist athletes in having a strong opening sequence within their competition. This would hopefully then create a positive cycle in which the strong performance would increase positive feelings of expectancy and efficacy, which would then continue to positively impact performance. However, it is unknown if the pre-game speech actually has a long enough effect to provoke such a positive cycle, or if the speech's effect can prevent a breakdown when athletes struggle in the opening moments of a competition.

In summary, the results of this study indicate a coach's potential to increase athletes' feelings of self-efficacy and emotion prior to competition through the effective use of a pre-game speech. While further research is necessary to fully address the questions and limitations of this study, the present research should be considered a starting point for such inquiry.

APPENDIX A

Pilot Pre-Game Speeches

Pilot Pre-Game Speeches

Speech A (1 minute, 35 seconds)

I want to really focus on the intensity and the amount of focus that you guys have had over the last two weeks at practice. Ever since we kind-of got handled by the boys, you guys have just refocused yourselves, the intensity in practice with the switching drill, and the crossing drill, finishing those-excellent. Wherever our heads were there, that's where we need to be right now. That's the kind of intensity we come into this game with, that's the kind of focus that we had. First ten minutes I want you guys really concentrating on your touch. Keeping things nice and simple. Keep things clean by concentrating on that first touch, giving yourselves more time on the ball, a chance to find somebody. We are playing wide. Getting the ball out to our wings. Letting them get the ball down. **Letting them be dangerous**. We do that, it opens up stuff through the middle. Get the ball out to the wings. **Let's get dangerous that way**. You guys are great in the air, you're great at finishing crosses, we saw that Tuesday. Let's do it in the game. Let's get that ball out here. Let's get it put in front of the box off of a cross, and go to the ball. **Have the attitude that you are going to find the ball. You are going to win it.**

It is not going to be put on your head. **You're going to get there, and you are going to bury it.**

Speech B: (3 minutes, 15 seconds)

What I want to focus on today...is what we have been focusing on forever. But lets start the season out getting that stuff done early. Let's make it a habit. I want to focus on wide play. Limited touches. As we come out of our back, get the ball out wide, limit our touches, go back in, we'll get the switch. Ok, we'll be playing to our forwards, get a

switch that way. Limit your touches coming from the back, coming through that mid-field third. And lets use our outside mids as much as possible. As we attack the goal, I really want to focus on playing the ball well, near post run, getting the middle of the goal and getting the back post. All right? Part of that comes from whoever is crossing the ball. If we are just going to throw balls in without looking, we are not going to have a chance to frame the goal. All right? If we've got it early, got the goal framed early, let's go ahead and do it. Get the cross in. If we need to let it develop, take that girl into the corner, whether it's a one-two, or a dribble, and send the ball across. That's up to whoever has the ball out wide. All right-you girls know how much I love that early cross. So let's really work on getting forward and allowing us to use the early cross or the early switch. All right? Lastly, our corner kicks-let's mix them up. Let's go one and two. All right? One man, two man, we don't have to call out a play. We got two people there, go ahead and keep two people on the ball. If you see two people on the ball, you people on the goal need to hold your runs a bit. All right? If we've got one, it's a direct service all right? Mix that up as well. Go near post, far post. All right? Think about clearance based off a service; we know G* is very good in the air. Let's flood a bunch of people to a near post ball, send that first corner towards the near post. Second one, flood the near post, and let's drop the ball in on the back. All right? With the people there to help out. Ok? **This is where it starts. We got a tough state cup group. We have to take care of every game as we go through**-one at a time. All right? This is the first one. Let's get this done, over with, playing smart. We can move on from there in practice. All right? Captains, what do we got? [we've got the wind]. Wind first half? All right, let's use it; lets get the ball in play. All right. [starting lineup called out].

Speech C (2 minutes, 43 seconds)

We've been talking all week in practice, about a little bit better effort, working a little bit harder. All season we have been talking about how we are going to move the ball, pass the ball more effectively, by switching fields a lot. All right, what I really want you guys to focus on today is using the wide parts of the field, getting the ball out by the touchlines, or the sidelines, all right, and using the speed that I am putting out there in our formation. In our half, when we are defending this goal, I want you guys making sure we pass the ball forward out of the back. Ok, whether its out wide and forward or its up to one of our midfields or center forward. I want us passing out of the back, passing to our midfield. As we attack their goal, we can start to dribble a little bit more but I really want you to get the ball to the farthest person up the field. So don't be dribbling somebody when you've got another girl you could have passed to up the field. Make sure you pass to that girl. If you are one on one, and you can beat her and get a shot off, that's when we can look to dribble. So that means, closer to their goal, their final third, where we start to attack the goal, our attacking third. Really concentrate on your passes. See yourself passing perfectly technique wise. Our toe is up, heel is down; our passes are all going to be perfect. Were aiming right for that spot we want to hit the girl. Whether it's into space for her to run onto, if she's moving, if she's standing, play it right to her foot. You guys do a very nice job of switching fields when you concentrate on it. So lets go into the game thinking about that. We're going to switch fields a lot. We're going to use the wide parts of the field all game long. **And we are going to come out of this game, one and o, first win, on our way to a tournament championship.** Can we do that?

Remember, I won't get mad if there is 100% effort on the field all game long. I'm only going to get mad if we don't do our best, or don't work as hard as possible. CA on three.

Speech D (2 minutes, 5 seconds)

This team is going to play much like the team yesterday. They are going to look to work it through the back. Make sure we don't give too much pressure to that center back. If we devote everybody to pressuring her and making her play the ball, allowing her to go wide, that's what going to allow them to release those two outside players. Let her go wide, and then we lock that girl in. Just like yesterday. We play this game just like we did yesterday, we come out of here with a win. **We come out of here with a win. We are in the driver's seat**. The only thing I want to see a little bit different today is more wide balls, getting our outside mids in. We started off with a goal, going from one outside mid to the other. I think our second goal two came off of playing the ball into the corner. Maybe it wasn't to one of our wide players, but the ball went wide. Let's look to use these corners. That's where the space is going to be. Use it. Now, if they are playing with a flatback four, which I think they do from last year, lets attack the flatback four appropriately. We run across the face of that defense and we look to slide our players in. Make sure we are bringing a forward, or both forwards across, to the ball side when it gets out wide so we can slant one of you guys down line. But lets not get caught offsides with a trap or by running in behind a flat defense. Run across the face of it. Really look to use our width and let them get the ball in deep. Simple as that. Keep the focus that we had yesterday. Let's step up the intensity a little bit. We are going to start the same way we started yesterday.

Speech E (1 minute, 1 second)

This time you guys know what we have to do. Same style of play. Same focus we have had all along. It is going to get us there. **We need a win. We need a win.** Let's go out there exactly the same way. Let's keep using our width. Make sure we keep our shape in the middle. That's the key to our game is keeping those three in the middle-keeping good shape. Rotating around to whoever's got to go pressure the ball, the other two are there covering for them. Keep using the width though, keep using Allison when she's out there, Laura, Lauren, if she comes out there, let them get in. This field is going to be crappy. Make sure we are focusing on perfection with our passes. If they are going with the flatback four, if they are trying to knock it through the back, we know how to handle it. Let's lock them in out wide. Let's bring some pressure, bring some support, and then get that ball loose.

Speech F (47 seconds)

It is going to be a battle today. It is going to be hard. You have to work for each other. They are a good team, **but I guarantee they have not been through as much as we have...up to our state cup disappointment where we did not get the breaks that I think we deserved. We've been through a lot and it's helped us grow as a team. You guys have to do everything in your power to play for each other.** Say stuff to each other. If you get mad at each other, get through it. Pick each other up. Work hard for each other and you guys will be great. 90 minutes. We drove all the way out here. **We need a win** and I know you guys can do it. Be smart about it. **Don't get rattled.** 90 minutes-just work. **Battle-your individual battles are going to be the key.** Good luck out there ladies-**enjoy this.**

Speech G (1 minute, 42 seconds)

Let's get out there and get after this. I told you guys Sunday that what happened to us in State cup is our fuel for the rest of the season. Go out there and punish every single team we face. Send a message back to the state that they keep getting these game scores back. 7-0 on TKO. What message are we going to send with this game? I will not change things tactically. I will not go and say "oh we're up by 5 goals, lets put, uh, B* and J*, you guys go play forward for us, we'll play without a goalie." –That kind of crap. No. **We are going to go after teams. We are going to punish teams.** You put up 10, you put up 20, I don't care. **You are going to punish them.** That's the mentality we are going to go into these games with. **Send the state a message when I call in the game scores. Let's send them a message. Play with a chip on your shoulder. Play a little bit nasty.** Stay with the focus that we had all last week leading into the weekend and that we had all weekend. And we will achieve that goal that I want, going undefeated for the rest of the league season.

APPENDIX B

Demographic Questionnaires

Coach Demographic Questionnaire

The following section asks you general background or demographic information.

1. How many years have you coached this team? _____years

2. How many years have you coached soccer? _____years

3. What is your age? _____

4. What is your gender identity? Male Female
(circle one)

5. What is the gender of your team? Male Female
(circle one)

Athlete Demographic Questionnaire

1. What is your chronological age? _____years

2. How long have you played with this team? _____years

3. How long have you played under this coach? _____years

4. How long have you played soccer? _____years

5. What position do you primarily play? (circle one)
goalkeeper defense midfield forward

APPENDIX C

Athletes' Pre-Game Questionnaire

ID Number_____

Please answer the following questions according to how you feel ***at this moment.***

1. At this moment, how certain are you that you can play well against this team?
Circle the number that best indicates your degree of certainty

not at all certain *absolutely certain*

0---------10---------20---------30---------40---------50---------60---------70---------80---------90---------100

2. At this moment, how certain are you that you can play to the best of your ability?
Circle the number that best indicates your degree of certainty

not at all certain *absolutely certain*

0---------10---------20---------30---------40---------50---------60---------70---------80---------90---------100

3. At this moment, how certain are you that you can positively contribute to the team's victory?
Circle the number that best indicates your degree of certainty

not at all certain *absolutely certain*

0---------10---------20---------30---------40---------50---------60---------70---------80---------90---------100

At this moment, do you feel—

3. **charged?**

No, not at all charged *Yes, extremely charged*

0 1 2 3 4 5 6 7 8 9

4. **determined?**

No, not at all determined *Yes, extremely determined*

0 1 2 3 4 5 6 7 8 9

5. **unwilling?**

No, not at all unwilling *Yes, extremely unwilling*

0 1 2 3 4 5 6 7 8 9

6. **sluggish?**

No, not at all sluggish *Yes, extremely sluggish*

0 1 2 3 4 5 6 7 8 9

7. **tranquil?**

No, not at all tranquil *Yes, extremely tranquil*

0 1 2 3 4 5 6 7 8 9

8. **tense?**

No, not at all tense *Yes, extremely tense*

0 1 2 3 4 5 6 7 8 9

9. **dissatisfied?**

No, not at all dissatisfied *Yes, extremely dissatisfied*

0 1 2 3 4 5 6 7 8 9

10. **easygoing?**

No, not at all easygoing *Yes, extremely easygoing*

0 1 2 3 4 5 6 7 8 9

11. **tired?**

No, not at all tired *Yes, extremely tired*

0 1 2 3 4 5 6 7 8 9

12. **energetic?**

No, not at all energetic *Yes, extremely energetic*

0 1 2 3 4 5 6 7 8 9

APPENDIX D

Post Speech Questionnaires

ID Number_____

Please circle the number that best describes your coach's pre-game speech.

1. How emotional was your coach's pre-game speech?

Not at all emotional *Extremely emotional*

0 1 2 3 4 5 6 7 8 9

2. How informative/strategic was your coach's pre-game speech?

Not at all informative/strategic *Extremely informative/strategic*

0 1 2 3 4 5 6 7 8 9

Please answer the following questions according to how you feel ***at this moment.***

3. At this moment, how certain are you that you can play well against this team?

Circle the number that best indicates your degree of certainty

not at all certain *absolutely certain*

0---------10---------20---------30---------40---------50---------60---------70---------80---------90---------100

4. At this moment, how certain are you that you can play to the best of your ability?

Circle the number that best indicates your degree of certainty

not at all certain *absolutely certain*

0---------10---------20---------30---------40---------50---------60---------70---------80---------90---------100

5. At this moment, how certain are you that you can positively contribute to the team's victory?

Circle the number that best indicates your degree of certainty

not at all certain *absolutely certain*

0---------10---------20---------30---------40---------50---------60---------70---------80---------90---------100

At this moment, do you feel—

3. **charged?**

No, not at all charged *Yes, extremely charged*

0 1 2 3 4 5 6 7 8 9

4. **determined?**

No, not at all determined *Yes, extremely determined*

0 1 2 3 4 5 6 7 8 9

5. **unwilling?**

No, not at all unwilling *Yes, extremely unwilling*

0 1 2 3 4 5 6 7 8 9

6. **sluggish?**

No, not at all sluggish *Yes, extremely sluggish*

0 1 2 3 4 5 6 7 8 9

7. **tranquil?**

No, not at all tranquil *Yes, extremely tranquil*

0 1 2 3 4 5 6 7 8 9

8. **tense?**

No, not at all tense *Yes, extremely tense*

0 1 2 3 4 5 6 7 8 9

9. **dissatisfied?**

No, not at all dissatisfied *Yes, extremely dissatisfied*

0 1 2 3 4 5 6 7 8 9

10. **easygoing?**

No, not at all easygoing *Yes, extremely easygoing*

0 1 2 3 4 5 6 7 8 9

11. **tired?**

No, not at all tired *Yes, extremely tired*

0 1 2 3 4 5 6 7 8 9

12. **energetic?**

No, not at all energetic *Yes, extremely energetic*

0 1 2 3 4 5 6 7 8 9

Coaches' Post- Speech Questionnaire

Please circle the number that best describes your coach's pre-game speech.

1. How emotional was your pre-game speech?

Not at all emotional *Extremely emotional*

0 1 2 3 4 5 6 7 8 9

2. How informative/strategic was your pre-game speech?

Not at all informative/strategic *Extremely informative/strategic*

0 1 2 3 4 5 6 7 8 9

APPENDIX E

Athletes' Post-Game Questionnaire

ID Number_____

1. Did you win? _____YES _____NO

2. What was the final score? _____

3. Did you perform well in today's game? _____YES _____NO

4. Did your team perform well in today's game? _____YES _____NO

5. What specific words, phrases or ideas do you remember from your coach's speech immediately prior to the game?

_____
_____
_____
_____
_____
_____
_____
_____

6. Did you like the speech your coach game immediately prior to the game?
_____YES _____NO

7. Why or why not?

_____
_____
_____
_____
_____
_____
_____
_____

8. Did the speech your coach gave immediately prior to the game, impact your performance?
_____YES _____NO

9. If so, how?

_____
_____
_____

10. Did the speech your coach gave immediately prior to the game meet your emotional needs (i.e. was calming or arousing)? _____YES _____NO

11. Why or why not?

12. Did the speech your coach gave immediately prior to the game meet your psychological needs (i.e. helped you focus, feel more confident, etc.)?
_____YES _____NO

13. Why or why not?

14. What else would you have liked to hear from your coach in the speech immediately prior to the game?

15. What would have made the speech your coach gave immediately prior to the game more effective?

APPENDIX F

Institutional Review Board Approval and Informed Consent

MICHIGAN STATE
UNIVERSITY

October 1, 2003

TO: Deborah L. FELTZ
130 IM Sports Circle
Dept. of Kinesiology
MSU

RE: **IRB# 03-707** CATEGORY: EXPEDITED 2-6, 2-7

APPROVAL DATE: September 30, 2003
EXPIRATION DATE:August 30, 2004

TITLE: AN EXAMINATION OF PRE-GAME SPEECHES AND THEIR EFFECTIVENESS IN INCREASING ATHLETE'S LEVELS OF SELF-EFFICACY

The University Committee on Research Involving Human Subjects' (UCRIHS) review of this project is complete and I am pleased to advise that the rights and welfare of the human subjects appear to be adequately protected and methods to obtain informed consent are appropriate. Therefore, the **UCRIHS approved this project.**

RENEWALS: UCRIHS approval is valid until the expiration date listed above. Projects continuing beyond this date must be renewed with the renewal form. A maximum of four such expedited renewals are possible. Investigators wishing to continue a project beyond that time need to submit a 5-year application for a complete review.
REVISIONS: UCRIHS must review any changes in procedures involving human subjects, prior to initiation of the change. If this is done at the time of renewal, please include a revision form with the renewal. To revise an approved protocol at any other time during the year, send your written request with an attached revision cover sheet to the UCRIHS Chair, requesting revised approval and referencing the project's IRB# and title. Include in your request a description of the change and any revised instruments, consent forms or advertisements that are applicable.
PROBLEMS/CHANGES: Should either of the following arise during the course of the work, notify UCRIHS promptly: 1) problems (unexpected side effects, complaints, etc.) involving human subjects or 2) changes in the research environment or new information indicating greater risk to the human subjects than existed when the protocol was previously reviewed and approved.

If we can be of further assistance, please contact us at (517) 355-2180 or via email: UCRIHS@msu.edu. Please note that all UCRIHS forms are located on the web: http://www.humanresearch.msu.edu

Sincerely,

Peter Vasilenko III, Ph.D.
UCRIHS Chair

PV: jm

cc: Tiffanye Tonsing
6322 Beechfield
Lansing, MI 48911

OFFICE OF
RESEARCH ETHICS AND STANDARDS
University Committee on Research Involving Human Subjects
Michigan State University
202 Olds Hall
East Lansing, MI
48824
517/355-2180
FAX: 517/432-4503
Web www.msu.edu/user/ucrihs
E-Mail: ucrihs@msu.edu

Informed Consent Form for Athletes

You are being asked to participate in a study conducted by graduate student Tiffanye Vargas-Tonsing under the supervision of Dr. Deborah Feltz from Michigan State University. The primary purpose of this study, entitled "The Effectiveness of Pre-Game Speeches," is to examine the use and effectiveness of coaches' pre-game speeches. It is our hope that the research project will help us develop a better understanding of athletes' needs.

As part of this research, you will be asked to complete a demographic questionnaire about yourself and your soccer playing experience. Later in your season, you will be asked to complete three surveys on game days. The first survey will be prior to warm ups and will ask about the upcoming game. Each game, you will be asked to complete two more questionnaires; one before you take the field and the other at the end of the game. We estimate that each questionnaire will take one to five minutes to complete. Your responses to the survey questions will remain confidential and will be kept in a locked cabinet in a locked room. Investigators will have sole access to the completed questionnaires. All identifying data will be destroyed within five years. Additionally, all subsequent results will be reported within larger group-based findings. Your privacy will be protected to the maximum extent allowable by law. In addition, you may receive a copy of the group results at the study's completion if you so choose.

Your participation in this study would be greatly appreciated. However, please know that your participation is voluntary. You may choose not to participate or to discontinue participation at any time without penalty. If you have any questions concerning participation in this study, please contact the study's principal investigator, Dr. Deborah Feltz, at (517) 355-4730 [dfeltz@msu.edu] or Tiffanye Vargas-Tonsing at (517) 355-4763 [vargasti@msu.edu]. If you have any questions or concerns regarding your rights as a study participant or are dissatisfied with any aspect of this study, you may contact- anonymously, if you wish- the UCRIHS Chair, Dr. Peter Vasilenko, PhD, at (517) 355-2180 [ucrihs@msu.edu].

Thank you for your time and cooperation,

_____ _____

Dr. Deborah Feltz, Principal Investigator Date

_____ _____

Tiffanye M. Vargas-Tonsing, Graduate Student Date

Your signature below indicates your voluntary agreement to participate in this study.

_____ _____

Signature Date

Informed Consent Form for Coaches

You are being asked to participate in a study conducted by graduate student Tiffanye Vargas-Tonsing under the supervision of Dr. Deborah Feltz from Michigan State University. The primary purpose of this study, entitled "The Effectiveness of Pre-Game Speeches," is to examine the effectiveness of coaches' pre-game speeches. It is our hope that the research project will help us develop a better understanding of athletes' needs.

As part of this research, you will be asked to provide investigators with access to your athletes as well as complete two questionnaires: a questionnaire about yourself, your coaching experience, and your coaching confidence and a questionnaire concerning your beliefs about the upcoming game. Investigators will need access to athletes at the beginning and end of games. During your season, you will be asked to allow investigators to make an audio recording of your pre-game speech. You will also be asked to provide access to your athletes prior to warm ups, immediately following your speech and following the games conclusion. Following your speech, the athletes will be given a short (approximately one to two minute) survey. The athletes' survey at the end of the game will take approximately five minutes to complete. All surveys, given to yourself and to your athletes, will take approximately one to five minutes each to complete. Your responses to the survey questions, as well as your pre-game speech, will remain confidential and will be kept in a locked cabinet in a locked room. Investigators will have sole access to the completed questionnaires. All identifying data will be destroyed within five years. Additionally, all subsequent results will be reported within larger group-based findings. Your privacy will be protected to the maximum extent allowable by law. In addition, you may receive a copy of the group results at the study's completion if you so choose.

Your participation in this study would be greatly appreciated. However, please know that your participation is voluntary. You may choose not to participate or to discontinue participation at any time without penalty. If you have any questions concerning participation in this study, please contact the study's principal investigator, Dr. Deborah Feltz, at (517) 355-4730 [dfeltz@msu.edu] or Tiffanye Vargas-Tonsing at (517) 355-4763 [vargasti@msu.edu]. If you have any questions or concerns regarding your rights as a study participant or are dissatisfied with any aspect of this study, you may contact- anonymously, if you wish- the UCRIHS Chair, Dr Peter Vasilenko, PhD., at (517) 355-2180 [ucrihs@msu.edu].

Thank you for your time and cooperation,

_____ _____

Dr. Deborah Feltz, Principal Investigator Date

_____ _____

Tiffanye M. Vargas-Tonsing, Graduate Student Date

Your signature below indicates your voluntary agreement to participate in this study.

_____ _____

Signature Date

Informed Consent Form for Parents

You child is being asked to participate in a study conducted by graduate student Tiffanye Vargas-Tonsing under the supervision of Dr. Deborah Feltz from Michigan State University. The primary purpose of this study, entitled "The Effectiveness of Pre-Game Speeches," is to examine the effectiveness of coaches' pre-game speeches. It is our hope that the research project will help us develop a better understanding of athletes' needs.

As part of this research, your child will be asked to complete a demographic questionnaire about him/herself and his/her soccer playing experience. Later in the season, your child will be asked to complete a survey on game days prior to warm ups. This survey will ask about the upcoming game. Your child will also be asked to complete two more questionnaires; one before taking the field and the other at the end of games. We estimate that each questionnaire will take one to five minutes to complete. Your child's responses to the survey questions will remain confidential and will be kept in a locked cabinet in a locked room. Investigators will have sole access to the completed questionnaires. All identifying data will be destroyed within five years. Additionally, all subsequent results will be reported within larger group-based findings. Your child's privacy will be protected to the maximum extent allowable by law. In addition, you and your child may receive a copy of the group results at the study's completion if you so choose.

Your child's participation in this study would be greatly appreciated. However, please know that participation is voluntary. You may choose not to have your child participate or to discontinue participation at any time without penalty. If you have any questions concerning participation in this study, please contact the study's principal investigator, Dr. Deborah Feltz, at (517) 355-4730 [dfeltz@msu.edu] or Tiffanye Vargas-Tonsing at (517) 355-4763 [vargasti@msu.edu]. If you have any questions or concerns regarding your child's rights as a study participant or are dissatisfied with any aspect of this study, you may contact-anonymously, if you wish- the UCRIHS Chair, Dr. Peter Vasilenko, PhD, at (517) 355-2180 [ucrihs@msu.edu].

Thank you for your time and cooperation,

_____ _____

Dr. Deborah Feltz, Principal Investigator Date

_____ _____

Tiffanye M. Vargas-Tonsing, Graduate Student Date

Your signature below indicates your voluntary agreement to allow your child to participate in this study.

_____ _____

Signature Date

APPENDIX G

Pre-Game Speeches

U15 Girls (52 seconds)

You guys know exactly what your coaches expect and today is the type of day where it is turned over to you. It's your responsibility what happens today. Coaches don't win games for you, right? You had a good warm-up today, a really good warm-up today. The runs that I saw in that small game, the overlapping runs, the possession, the patience-that's what gets you victories over teams that can compete with you, ok? So this is a must win for us. We've got to come out, we've got to play hard. If you want a chance at going up to division I, you've got to pull out points from this game. You've got to win, ok? [asked the team] Which way are we going today? We are going against the wind in the first half. You know the starting line-up. Let's put one together. Every game we improve, and the thing we need to improve on the most is our possession. Let's find that today-all right? And let's attack, attack, attack, attack. All right? Let's get some goals out there today. All right? It's yours. It's yours.

U18 Girls (1 minute 20 seconds)

Listen up; listen up. All right, I think in the last couple of games we've lacked a little bit of intensity, coming out to start and maintaining that through the game so I really want you guys to focus on that today. All right, come out hard. He said, he is going to let you guys play physical. See what the limits are. All right? Get after them physically. All right? We got our chance here to seal up. Beating this team, we've beat every team except for G* V*. Let's start here today with them. All right? Watch for their fast girl, the blond girl. You guys remember her from last year? Little skinny blond girl?

Fast as all hell? I want J** on her. All right? Let's find out where she is right away and make the adjustment back. All right? So we mark her out of the game.

She is the only one that's given us any problems. Let's make sure we take care of her. There have been a lot of changes with this team over the past year too. So you guys are going to have to get a feel for them right away. Find out what that girl you're going up against has got. All right? First 10 minutes let's figure out what they've got and figure out how we are going to go after 'em. All right, keep the intensity high though. I want everything intense. I want us winning every 50/50 ball. I want tackles hard so that they get nervous. All right? Win the first couple of 50/50 balls hard, harder than you need to, and they are going to quit. All right? Focus on having our intensity so high that we force them to back off this game. All right? And hand it to us. Ok? We are going to start with...[starting line-up]

U14 Boys (1 minute 28 seconds)

We need a lot of communication in the back. M**, lots of communication in the back. Lots of communication. The subbing will be a little different today. Not too much different, but only because we've got one more player. So we have our full squad here today. So there's going to be a couple of situations, I mean you guys are going to be playing essentially the same position as you have been all year but the rotation might be a little more different than what you are used to. Ok, couple of things. As I have said before, this team is 3 and 3. Which means nothing to us. Ok? It should mean nothing to us. As you know, if you take any game, any game whatsoever, you've got to come out hard. It's got to be all about winning 50/50 balls. It's all about playing the feet. Going

back to what we looked at the other night when we played the girls, where you guys, I think everyone was there except for L*, we looked terrific. We looked absolutely terrific. Yeah, we gave up one goal, but I don't care. The long and short of it is that we looked so solid in the mid, solid in the back, and solid in the attack, because we were playing the feet. [whistle blows, " ok captains-we want to defend this goal to start. A**, get that tucked in please."] OK, guys, guys. Remember, it is all about playing our game. Playing our game is playing the feet. Playing our game, playing our game is playing hard and winning all the 50/50 balls, all right? And lets go out and play hard. ok? Simple as that.

U14 Girls (1 minute 52 seconds)

Are we ready? Ok, girls, I want you to focus. Ok? That has been our biggest, biggest, problem this year has been focusing. All right? Consistent play. All right? The last four games here, last two, today's game, tomorrow's game, next weekend's game. We have got to bring the A team ready to go all the time. Win every ball. Ok? Can't lose track of your, uh, discipline, to go forward and win the 50/50 balls girls. All right? You've got to high pressure. All right? But you want to make sure that you are smart high pressure. Do we want to jump in? [No] What happens when we jump in? [they get around us] So we are going to smart, we are going to challenge for the ball with some intelligence going forward. We don't want to jump in, but if you think you can win that ball, you go hard. All right? And the last thing I want to talk about before we go into the game is in G** V** last Sunday you guys were very patient at the end. If you have the ball at your feet, and no one's open, and you don't have anyone covering you, do you need to kick the ball

away? [No] What do we do? [hold or dribble] For possession right? Hold it for possession. Make sure that they attack you. When they attack you to get the ball, what do you do then? [answer] Yeah. You guys know the drills. You know how to do everything. I have faith in you girls but you have to have faith in yourself to go forward and win the game. You have to battle, every, every little battle that is on the field. 1 v 1. The girl that you are marking-who is going to win the battle? [we are] Right.
Ok? Any questions?

U17 Girls (2 minutes 17 seconds)

Ok girls, quickly. P** you are going to be in goal. How are you feeling P**? [answer] Promise? M** how are you feeling? [starting lineup] All right, let's have...P** have you been captain yet? P**'s captain with [who hasn't been captain?]. Ok, M**, good. Listen, I don't have much to say here. The motivation, the determination, is already been set in the last game when we played this team. They beat you 8 nothing, or eight to one. So, you should be ready. You should be thinking about this since the day you left M*. You knew you were going to play them again. So we need all the effort. You need to win the ball, the 50/50 balls. Focus. It's not running around just chasing a ball. I want you to go out there with your intelligence and go forward and play with your head. So, pretty easy. Determination-you guys should already be there thinking about the game. You have the starting lineup. And we are off. Ok? You had a good warm-up, I hope. I didn't get a chance to see it but I appreciate you here early. I appreciate your helping with Coach T**. And I want you guys ready to go. Captains, when they call the captains. Go on girls. You need to play hard. OK?

U12 Girls (1 minute 38 seconds)

Right now I want you guys focusing in on the game. Everything we have worked on in practice, this is the end of the season-let's put it all together. All right? Forget who we are playing. It's just another soccer team. Let's put everything together that we have worked on throughout the season. We use our wit. All right? We are going to outwork this team. We've been letting that slip a little bit; I want to pick it back up. Remember, if you guys can outwork a team, I will never be mad at you. If you guys give me everything you have on the field, I'll never be mad. All right? I want you guys to outwork this team. I want that to be our biggest focus. All right? Everybody is playing with a lot of intensity, going after every single loose ball. All right? Make them be the ones that back down because you guys are going in so hard. All right? Play physical with this team. Who cares if you get a foul called on you? Nothing happens. All right? We don't send you to jail. We don't yank you out of the game and sit you for the rest of the time. I want you, I want you guys playing physical. All right? See what you are allowed to do. This team will play physical against you guys, and if you don't do it back, you're just handing them the game. All right? Physical, physical, physical. Every 50/50 ball. J** wants every 50/50 ball every game. You haven't given that to him yet. All right? Let's give it to him today. Every 50/50 ball is ours. And play smart. And what's the biggest-when do we play our best? [have fun] When we are having fun. All right? So we go out there and we kick the crap out of them. [laughter] All right? And you have

fun doing that. It's fun to knock somebody down. It's fun to make people cry. [laughter] All right? Get out there and have some fun but play intense. All right?

U15 Boys (5 minutes 16 seconds)

While we are talking, if you are at all tight, go ahead and stretch. It's not going to bother anybody else. There are four players on this team that Mr. K*** and I looked at that are going to cause some difficulty for us. Two of them are going to cause us a lot of difficulty but if we take care of them, we can handle this team. We are far more skilled, we are better prepared, we have better set pieces, we have more depth on our bench, we have more fitness, we have more tactical knowledge and we have more technique. OK? Now, yesterday they beat a team that's not a bad team by using one thing that they have, brute strength. This guy in the back, 21, is an absolute beast. He will run you over as soon as look at you. He got carded yesterday. He yelled at the parents yesterday. Certain referees would have red-carded him. Ok? But, he absolute dominated the second half and was an impact player because he would win the ball in the back, dispossess and get the ball, he would gain about ten to twenty yards, and then he was sending it long. This guy, #16, one of the blond haired kids that play in the center, this guy, everything went through him. When the defense collapsed on him, he just one touched it here, and he immediately went here, and received it back. So simple stuff, simple give and go, he touched it here and received it back. He scored two of their three goals and set up the third. He will also run you over as soon as look at you. Ok? He got yellow-carded for running into the keeper. He kicked the keeper in the head while he was on the ground.

[laughter from team-"that's a yellow?"] That particular referee gave him a yellow card. Here's the plan. All right? I left here yesterday with a sick feeling in my stomach that took the entire drive to K** to go away. I feel better today. I know none of you made mistakes yesterday on purpose. And frankly we outplayed the other team, who had a great record last year and was a good team. I just felt sick that you guys did not earn the three points that you deserved from the effort you had. All right? If there is a shread of doubt in your mind, that you are worthy, to take the goods out of the basket, and bring them home, forget it. You paid the price. You paid the price by playing futsal all winter. You paid the price by being good athletes on all of your high school teams in the fall. You paid the price by driving in the middle of the night to get to W** and getting home at 2:00am in the morning in order to sharpen your skills. Did we technically outplay that team yesterday? You don't sound like a team that is convinced. Did we? [Yeah] Did we far and away dominate the possession? [Yes] Did we have 5x as many quality shots on goal? [yes] All right, then you know what? You have already paid the price, you have the goods in the basket, and you are driving around the store. Let's go to the checkout line and we take that stuff home. This is a state cup game, ok. J*, are you ready to the goods home? All right, here is your assignment. You're going to start us off. You are going to man mark #16, and he will get frustrated. You are going to be his worst nightmare. You are not going to let them play him the ball. And they will not know what to do. #2 is kind of fast, #3 is kind of a beast, he will push his way around; we can handle them. S* is going to be our central defender. S** is going to be left defender. He is going to be marked up on 2, or 3. Let's start with M* here, on uh, the right. Ok? M* you will be looking at either 2 or 3. And this will be J* G* man marking

#16. And that's our back four. When J* is tired, we are going to bring in B* F*, ok? And B** will be worst nightmare #2. OK? So your job is to study the great and awesome G* and imitate him when you get in. Mr. M*, wearing that yellow jersey in our warm-up, has a set of skills we are going to make use of. T* is very good at lofting the ball. He is going to loft it into these corners because their defense plays flat across the back. As soon as they are under pressure, they are very compact. And we will eat them alive in these corners gentlemen. We are going to insist on that because Mr. S* is going out to right mid, ok, and uh, Mr. K*, you are going to be the other person here. So we are going to start with Mr. C* on the left. Ok? J* you can take them. Get down line and either be open wide or cross it. Service from the flanks will win the game. Now, up top, ok, they will not have an answer for this, R* is going to be our left forward, M* is going to be our center forward, and I know he will withdraw because he does that no matter what I tell him, so he is going to be our withdrawing center forward, ok? And up top with them will be the beast from M**, S** A*. You can take their defenders. S** you absolutely can. Ok? If any of you came today thinking, oh, yeah, we are not that good of a team, forget about it. That's what I am here to tell you. You guys are here; you've arrived. The goods are in the basket. Today is the day to take them out of the basket. Let's check out. We are going to check out. All right? If we get the chance Mr. C*, we want the wind in the first half. If we don't get it, no big deal. We will still be prepared. But everything this team does is long ball stuff. Everything will be a long service. They do not have guys that can outplay our midfielders, um, you know it doesn't mean that we just walk out there and dominate them, that's not going to happen. They are going to try hard, you know they have good, good, heart, but this, this will work. I promise you.

U13 Boys (2minutes 18 seconds)

All right, listen up to me. Let's go J**. Ok guys. This is state cup. This is big. This is huge. Victory today sets the tone ok. We are supposed to beat this team according to rankings, whatever those are worth, ok. You have to come ready to play. You have to be focused. Yesterday we played a fantastic game. The more I thought about it, the more I thought we deserved to win and just didn't. Sometimes that happens. It is not an excuse though; we don't use excuses. Today there is no deserve to do anything. We are just going to come out and win. Understand your role. Understand what it is going to take to win today. You come out, and you're focused, play hard, you run hard, you do things the way we are supposed to do them, and we are going to win this game. If we lose focus, if we let down, if we don't have intensity, we'll lose. This sets the tone for State Cup. You can start State Cup one and o. You can start State Cup on top of your bracket. You'll be on top. Send a message. If you lose today, it really hurts our State Cup chances. It really, really hurts. You have to come and play hard today. You must play hard. Put yesterday behind us. It means nothing. Today is everything. It is 70 minutes to come and play extremely hard. It is 70 minutes to come and take care of business. This is how we are going to start all right? D* and A* are up top, K* you are in goal, K** you're an outside mid, J* you're a marking back, D** you're an outside mid, S* center mid, J** sweep, H* center mid, S* stop, and J*** you're and outside back. No playing time requirements in State Cup, but that's not really going to matter. Just so you know though, ahead of time. Ok? J*** stay within here, J** lots of communication, D** and K** get up and down the field. Up and down. D** beat them wide and put the ball across. A* and D*, goals

today. You have to score. Put some goals in early and we'll defend. [Let's go you guys] We'll win. Let's go over to our bags, get your blue uniforms on.

U16A Boys (3 minutes 32 seconds)

Ok, guys listen up. All right, it's a different, a different attitude today because it is not a State Cup game. I don't know where that puts your level of concentration or your focus, but that's my point, is that is has to be the same every single game. We are playing like it's a championship game. The opponent does not matter. Every single game I have seen you guys drop, which has not been that many, but when you do, it's yourself you're beating. All right? Do you agree with that? Granted we have lost to good teams, but you guys are the main factor. Because we didn't lose games where we were playing at the top of our game and we just ended up losing. We ended up losing because we didn't show up. So you need to focus. That is our biggest, biggest point this evening. Learn to approach games, and learn to prepare for games mentally. I know how good you can play. I have seen every single one of you play amazing. Amazing. The potential and the capability is always there for you to have the best game that you can have. You can do that because I have seen you do it. The problem is you need to find a way to prepare yourself to do it consistently. That means, the night before, the day before, up to the game, up to this point, it's a league game against an old team that you used to have trouble with. Ok? At this point, we are coming out to play 80 minutes of flawless soccer. That's our goal-not the opponent. That will take care of itself. You guys take care of yourself, prepare for this game, come out and play soundly, knock the ball around, 1-2 touches, play simple, and play like professionals. And everything else will

take care of itself. All right guys? This morning I woke up, hopefully the same way you woke up; I'm excited. I am always excited to watch you guys play the game. All right? I truly am. I wake up, and I'm excited. I can't wait for the game to start. There is no apprehension, no nervousness; there's nothing like that because I know how you guys can perform. So let's go out there, and let's do it, and let's show [the opponent] that they are no longer in the same league as [team name]. They used to think so. No longer in the same league as us. That's what we're doing today. All right? Let's go. Starting line up is going to be E*, J*, and C* centrally. J** and D* outside, but J**, on the right, and you're on the right, and I want you guys switching. Ok? Switch out there. You want to make some runs forward? Get going. Ok? In the midfield, Z*, F* and E*. You guys, like Z* said earlier, don't let that weak side, don't be, don't be sticking on that weak side when we are sliding as a group because then you guys are working as two midfielders. So E*, F* and Z*, work together and slide left. We need our forwards, M*, N* and P*, if you're weak side P*, coordinate your weak side; you are going to come back on that group ok? You're going to come back in with the midfield group and help us, help defend, ok, and then it's a 4-4-2. All right? So let's go out and have a ballgame.

U16B Boys (3 minutes 30 seconds)

This is the first game of the season. We have just the one scrimmage under our belts and we didn't even have our full team there, our full starters. Uh, but we got an idea of the things we really need to focus on today to make sure we are successful. The biggest one that we talked about was communication, especially you back four. All right? We have to communicate with each other or else we are going to be exposed constantly. Talking

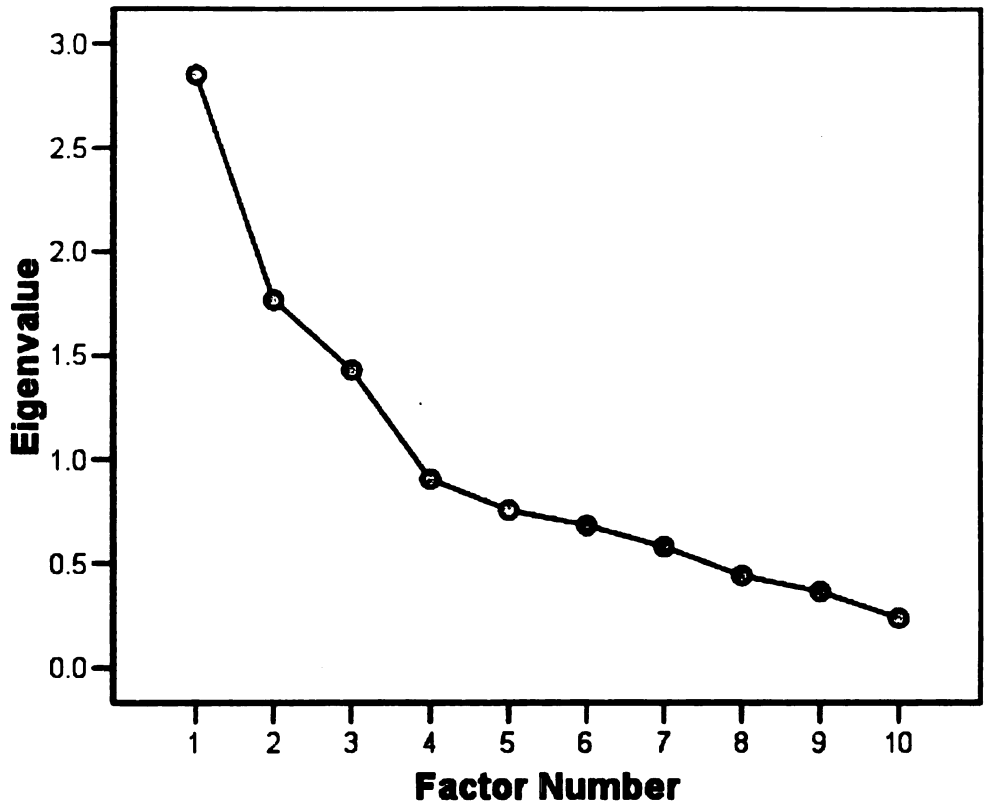
about switching marks as they come across the back, the two center backs, when we need to involve an outside back marking if they are sending one of their forwards wide. Making sure that we don't have one outside back getting in behind the other three backs holding people onsides. All right? So the communication about when to step, when to switch off marks, when a guy is entering your zone, when a guy is leaving your zone, making sure we're pulling in, we're talking, we're calling out marks, we're watching overlaps, we're watching through balls, all that stuff. We've got to communicate with each other in the back. All right? We talked about our midfielders, making sure our two outside mids are staying wide, our two center mids making sure that we're switching play, quickly and often. All right? We saw how much we got one of the best teams in the state completely exposed on that weak side. All right? If we can do that to one of the best teams in the state, what do you think we can do to these guys? Yeah, we can destroy them if we use that weak side run constantly and if we're looking to switch play. All right? So make that a goal today. That's our game plan, to look for that switch to the weak side immediately. All right? If it is not on, then I'll talk to you guys about how to switch our game plan. All right? My job here is to focus on their team and how we can expose them. Your job is to go out and execute the things we have worked on in practice. All right? The other thing I want to see, I tell this to y 12's, I will never be upset with my team if they come off the field and tell me they worked as hard as they possibly could. Win, lose, draw, it doesn't matter as long as each one of you can come off the field and look your teammate in the eye and tell him you gave him everything you had. Then nobody can be upset with you. All right? We want to focus on winning the little battles, the things that we can control. We can play harder then them. We can work harder than

them. We can win 50/50 balls if our mind says we are going to win them all. All right? So make sure that that is our mindset. Win the battle playing harder. We are going to win the battle of who has more heart. And hopefully, if we play skillfully on top of that, that translates into a win for us. All right? But don't leave anything where you can say, if I had just done this, if I had just done that. Do it. Put in the effort. Put in the extra work and put this team away. All right? Start the season off with something you guys didn't get last year. All right? Get that feeling under us, in our skin, and know what it's like to win again. And we are going to go places. This is a team that can win the second division. All right? Put the state in a horrible place next year where they've got two of, two teams from the same club up in D1. All right? But it starts today. We get after this team today. It is not about the end of the season tournament. It is about today. Beating them, winning our home games. All right? Get after them. 100% heart. I can't express it enough you guys, as long as you guys play with the heart that I know you can, we are going to do fine. All right? Put them away. Do it in the first ten minutes. You win that first ten minutes with our heart; they'll shut down. Get after them.

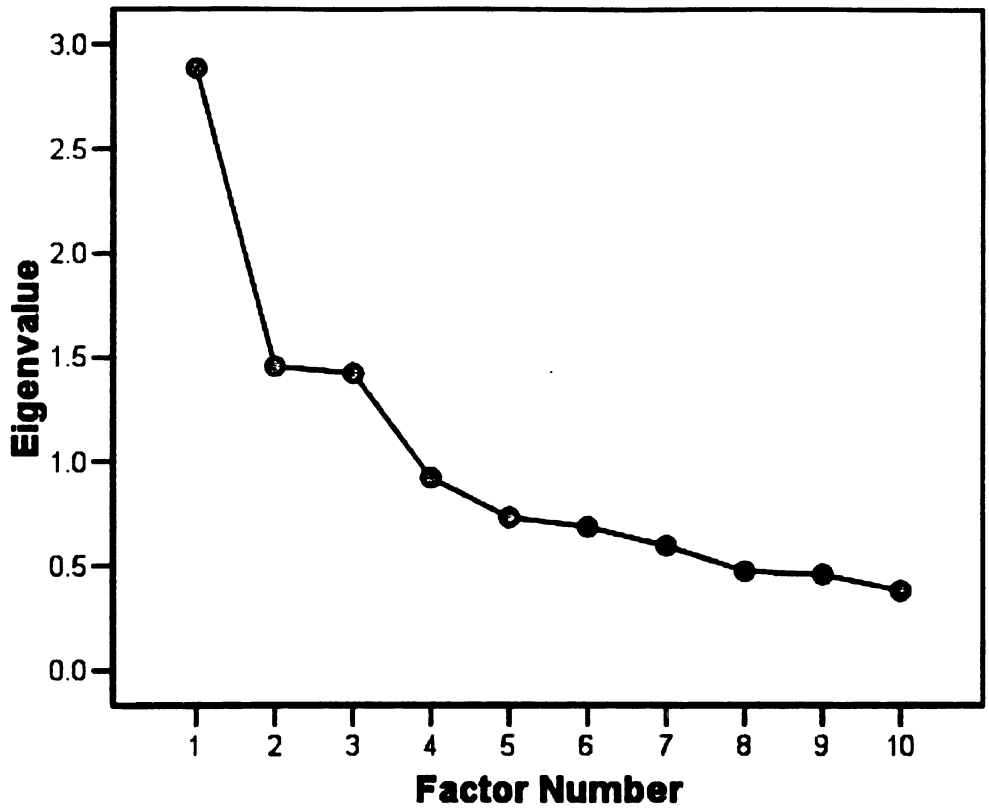
APPENDIX H

Scree Plots

Scree Plot for Emotion Factors at Time 1



Scree Plot for Emotion Factors at Time 2



APPENDIX I

Means and Standard Deviations of all Measures

Table 12.

Means and Standard Deviations Across Measures By Team at Time 1

(Female teams)	Team 1 U12		Team 2 U15		Team 3 U14		Team 4 U18		Team 5 U17	
	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*
Efficacy	83.43	14.34	73.63	11.76	79.29	16.34	77.29	16.33	75.00	16.63
Adjusted Efficacy	1.00	0.17	1.00	0.16	1.00	0.21	1.00	0.21	1.00	0.22
Factor 1	0.020	0.840	-0.020	1.300	0.000	0.800	-0.004	0.830	-0.004	0.867
Factor 2	0.030	1.140	0.030	0.760	-0.040	0.870	0.017	0.969	0.017	0.567
Factor 3	0.004	0.870	0.040	0.690	-0.010	0.740	0.000	0.661	0.000	0.723

(Male teams)	Team 6 U14		Team 7 U15		Team 8 U13		Team 9 U16		Team 10 U16	
	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*
Efficacy	86.41	8.44	87.11	14.25	85.33	11.74	78.00	17.99	84.17	6.61
Adjusted Efficacy	1.00	0.10	1.00	0.17	1.00	0.14	1.00	0.23	1.00	0.08
Factor 1	0.100	0.845	-0.051	0.693	-0.034	0.462	-0.004	1.632	-0.004	0.327
Factor 2	-0.106	0.691	-0.106	0.806	0.117	1.050	0.017	0.800	0.017	0.865
Factor 3	0.017	1.191	0.037	0.920	-0.094	0.994	0.000	1.173	0.000	0.516

Table 13.

Means and Standard Deviations Across Measures By Team at Time 2

(female teams)	Team 1 U12		Team 2 U15		Team 3 U14		Team 4 U18		Team 5 U17	
	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*
Efficacy	87.45	11.76	73.43	11.79	83.10	14.41	85.31	16.00	75.33	16.85
Adjusted Efficacy	1.01	0.14	1.00	0.16	1.00	0.17	1.00	0.19	1.00	0.22
Apec	5.44	2.33	4.91	1.82	4.64	1.60	4.63	2.06	4.93	1.79
Apic	6.28	2.16	6.38	1.50	6.71	1.27	6.19	1.83	4.93	1.94
Factor 1	0.022	0.609	-0.003	1.203	-0.003	0.946	-0.003	1.055	-0.003	1.037
Factor 2	0.000	0.838	0.004	0.582	0.004	0.666	0.004	0.744	0.004	0.462
Factor 3	0.082	0.926	-0.016	0.883	-0.016	0.741	-0.016	0.914	-0.016	0.690

(male teams)	Team 6 U14		Team 7 U15		Team 8 U13		Team 9 U16		Team 10 U16	
	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*
Efficacy	80.71	14.92	91.88	9.73	84.76	14.48	87.62	12.08	85.42	10.22
Adjusted Efficacy	0.99	0.18	1.00	0.11	1.02	0.17	1.00	0.14	1.00	0.12
Apec	4.88	2.19	5.50	2.07	6.00	1.51	5.13	1.41	6.75	1.04
Apic	6.63	1.78	8.00	0.82	7.00	1.41	6.60	1.50	7.00	1.65
Factor 1	0.023	0.845	-0.003	0.924	-0.003	0.626	-0.021	0.763	-0.008	0.399
Factor 2	0.015	0.907	0.004	1.330	0.004	1.080	-0.008	0.767	-0.069	0.766
Factor 3	0.075	0.759	-0.016	0.725	-0.016	0.887	-0.042	0.729	-0.033	0.618

BIBLIOGRAPHY

BIBLIOGRAPHY

Abernathy, B. (1993). Attention. In R.N. Singer, M. Murphy, & L.K. Tennant (Eds.), *Handbook of research on sport psychology* (pp. 127-170). New York: Macmillan.

Adler, P. & Adler, P. (1978). The role of momentum in sport. *Urban Life, 7*, 153-

Alexander, V., & Krane, V. (1996). Relationships among performance expectations, anxiety, and performance in collegiate volleyball players. *Journal of Sport Behavior, 19*, 246-266.

Allen, J.B., & Howe, B.L. (1998). Player ability, coach feedback, and female adolescent athletes perceived competence and satisfaction. *Journal of Sport and Exercise Psychology, 20*, 280-299.
176.

Amorose, A.J., & Weiss, M.R. (1998). Coaching feedback as a source of information about perceptions of ability: A developmental examination. *Journal of Sport and Exercise Psychology, 20*, 395-420.

Anshel, M. H. (1990). *Sport psychology*. Scottsdale, AZ: Gorsuch Scarisbrick.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*, 191-215.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Englewood Cliffs, NJ: Prentice-Hall, Inc.

Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York: W.H. Freeman and Company.

Barling, J., & Abel, M. (1983). Self-efficacy beliefs and tennis performance, *Cognitive Therapy and Research, 7*, 265-272.

Beauchamp, M.R., Bray, S.R., & Albinson, J.G. (2002). Pre-competition imagery, self-efficacy and performance in collegiate golfers. *Journal of Sport Sciences, 20*, 697-705.

Black, S.J., & Weiss, M.R. (1992). The relationship among perceived coaching behaviors, perceptions of ability, and motivation in competitive age-group swimmers. *Journal of Sport and Exercise Psychology, 14*, 309-325.

Biddle, S. (1999). Sport emotion and the role of the coach. *Portuguese Journal*

of Human Performance Studies, 12, 53-65.

Bock, M. (1987). The influence of emotional meaning on the recall of words processed for form or self-reference. *Psychological Research, 48,* 107-112.

Bower, G.H. (1981). Mood and memory. *American Psychologist, 36,* 129-148.

Burton, D. (1988). Do anxious swimmers swim slower? Reexamining the elusive anxiety-performance relationship. *Journal of Sport and Exercise Psychology, 10,* 45-61.

Burton, D. (1989). Winning isn't everything: Examining the impact of performance goals on collegiate swimmers' cognitions and performance. *Sports Psychologist, 3,* 105-132.

Burton, D., & Martens, R. (1986). Pinned by their own goals: an exploratory investigation into why kids drop out of wrestling. *Journal of Sports Psychology, 8,* 183-197.

Burton, D., & Naylor, S. (1997). Is anxiety really facilitative? Reaction to the myth that cognitive anxiety always impairs performance. *Journal of Applied Sport Psychology, 9,* 295-302.

Carron, A.V., & Chelladurai, P. (1981). Cohesion as a factor on sports performance. *International Review of Sport Sociology, 16,* 21-41.

Cerin, E. (2003). Anxiety versus fundamental emotions as predictors of perceived functionality of pre-competitive emotional states, threat, and challenge in individual sports. *Journal of Applied Sport Psychology, 15,* 223-238.

Cerin, E., Szabo, A., Hunt, N., & Williams, C. (2000). Temporal patterning of competitive emotions: A critical review. *Journal of Sport Sciences, 18,* 605-626.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.

Deci, E.L. (1980). *The psychology of self-determination.* Lexington, MA: Heath, Lexington.

DiCicco, T. (2002). Feedback is the breakfast of champions: Communicating with your team. In T. DiCicco, C. Hacker, & C. Salzberg (Eds.), *Catch them being good.* (pp.119-132). New York: Penquin.

Duda, J.L. (1988). The relationship between goal perspectives, persistence, and behavioral intensity among male and female recreational sports participants.

Leisure Sciences, 10, 95-106.

Dweck, C.S. (1975). The role of expectations and attributions in the alleviation of learned helplessness. *Journal of Personality and Social Psychology, 31,* 674-685.

Easterbrook, J.A. (1959). The effect of emotion on cue utilization and the organization of behavior. *Psychological Review, 66,* 183-201.

Eviator, Z., & Zaidel, E. (1991). The effects of word length and emotionality on hemispheric contribution to lexical decision. *Neuropsychologia, 29,* 415-428.

Fellows, R. (Producer), & Bacon, L. (Director). (1940). *Knute Rockne: All American* [Motion picture]. United States: Warner Brothers.

Feltz, D.L. (1982). Path analysis of the causal elements in Bandura's theory of self-efficacy and an anxiety-based model of avoidance behavior. *Journal of Personality and Social Psychology, 42,* 764-781.

Feltz, D.L. (1988). Self-confidence and sports performance. In K.B. Pandolf (Ed.), *Exercise and Sport Science Reviews* (423-457). New York: MacMillan.

Feltz, D.L. (1988). Gender differences in the causal elements of self-efficacy on a High avoidance motor task. *Journal of Sport and Exercise Psychology, 10,* 151-166.

Feltz, D.L., & Lirgg, C.D. (2001). Self-efficacy beliefs of athletes, teams and coaches. In Singer, R.N., Hausenblas, H.A., & Janelle, C.M. (Eds.), *Handbook of sport psychology* (pp. 340-361). New York: John Wiley & Sons, Inc.

Feltz, D.L., Weiss, M. (1982). Developing self-efficacy through sport. *Journal of Physical Education, Recreation and Dance, 53,* 24-36.

Fenz, W., & Jones, G. (1972). Individual differences in physiologic arousal and performance in sport parachutists. *Psychosomatic Medicine, 34,* 1-8.

Forgas, J.P. (1992). Affect in social judgments and decisions: A multi-process model. In M. Zanna (Ed.), *Advances in experimental social psychology* (pp. 227-275). New York: Academic Press.

Forgas, J.P. (1995). Mood and judgment: The affect infusion model (AIM). *Psychological Review, 17,* 39-66.

Fridja, N. (1986). *The emotions.* Cambridge: Cambridge University Press.

Gallmeier, C.P. (1987). Putting on the game face: The staging of emotions in professional hockey. *Sociology of Sport Journal, 4*, 347-362.

George, T.R. (1994). Self-confidence and baseball performance: A causal examination of self-efficacy theory. *Journal of Sport and Exercise Psychology, 16*, 381-399.

Green, J.D., & Sedikides, C. (1999). Affect and self-focused attention revisited: The role of affect orientation. *Personality and Social Psychology Bulletin, 25*, 104-119.

Gould, D., Feltz, D., Horn, T., & Weiss, M.R. (1982). Reasons for discontinuing involvement in competitive youth swimming. *Journal of Sport Behavior, 5*, 155-165.

Gould, D., Hodge, K., Peterson, K., & Giannini, J. (1989). An exploratory examination of strategies used by elite coaches to enhance self-efficacy in athletes. *Journal of Sport and Exercise Psychology, 11*, 128-140.

Gould, D., Horn, T., & Spreeman, J. (1983). Competitive anxiety in junior elite wrestlers. *Journal of Sport Psychology, 5*, 58-71.

Hanin, Y. (1978). A study of anxiety in sports. In W.F. Straub (Ed.), *Sport psychology: An analysis of athlete behavior* (pp. 236-249). Ithaca, NY: Mouvement.

Hanin, Y. (1997). Emotions and athletic performance: Individual zones of optimal functioning model. *European Yearbook of Sport Psychology, 1*, 29-72.

Hanin, Y.L. (2000). Successful and poor performance and emotions. In Hanin (Ed.). *Emotions in Sport* (pp. 157-187). Champaign, IL: Human Kinetics.

Hanin, Y.L. (2000). Soccer and emotion: Enhancing or impairing performance? In J. Bangsbo (Ed.), *Soccer and science* (pp. 69-89). Copenhagen, Denmark: Copenhagen University.

Hanin, Y.L. & Syrja, P. (1995). Performance affect in soccer players: An application of the IZOF model. *International Journal of Sports Medicine, 16*, 264-269.

Hoffman, J.R., Bar-Eli, M., & Tenenbaum, G. (1999). An examination of mood changes and performance in a pro basketball team. *Journal of Sports Medicine and Physical Fitness, 39*, 74-79.

Horn, T.S. (1984). Expectancy effects in the interscholastic athletic setting: Methodological Considerations. *Journal of Sport Psychology, 6*, 60-76.

Horn, T.S. (1985). Coaches' feedback and changes in children's perceptions of

their physical competence. *Journal of Educational Psychology, 77,* 174-186.

Horn, T.S. (2002). Coaching effectiveness in the sport domain. In T.S. Horn (Ed.), *Advances in sport psychology,* (pp. 309-354). Champaign, IL: Human Kinetics.

Izard, C. E. (1977). *Human Emotions.* New York: Plenum Press.

Izard, C. E. (1993). Four systems for emotion activation: Cognitive and non-cognitive processes. *Psychological Review, 100,* 68-90.

James, L.R., Demaree, R.G., & Wolf, G. (1984). Estimating within-group rater reliability with and without response bias. *Journal of Applied Psychology, 69,* 85-98.

James, L. R., Demaree, R. G., & Wolf, G. (1993). rwg: An assessment of within-group rater agreement. *Journal of Applied Psychology, 78,* 306-309.

Jones, G., & Cale, A. (1989). Precompetition temporal patterning of anxiety and self-confidence in males and females. *Journal of Sport Behavior, 12,* 183-195.

Jones, G., & Hanton, S. (2001). Pre-competitive feeling states and directional anxiety interpretations. *Journal of Sport Sciences, 19,* 385-395.

Kane, T.D., Marks, M.A., Zaccaro, S.J., & Blair, V. (1996). Self-efficacy, personal goals, and wrestlers' self-regulation. *Journal of Sport and Exercise Psychology, 18,* 36-48.

Kavanagh, D., & Bower, G.H. (1985). Mood and self-efficacy: Impact of joy and sadness on perceived capabilities. *Cognitive Therapy and Research, 9,* 507-525.

Kavanagh, D. & Hausfeld, S. (1986). Physical performance and self-efficacy under happy and sad moods. *Journal of Sport Psychology, 8,* 112-123.

Kendzierski, D & DeCarlo, K.J. (1991). Physical activity enjoyment scale: Two validation studies. *Journal of Sport and Exercise Psychology, 13,* 50-64.

Kenow, L., & Williams, J.M. (1999). Coach-athlete compatibility and athletes' perception of coaching behaviors. *Journal of Sport Behavior, 22,* 251- 259.

Klavora, P. (1977). An attempt to derive the inverted-U curves based on the relationship between anxiety and athletic performance. In D.M. Landers & R.W. Christina (Eds.), *Psychology of motor behavior and sport-1977* (pp.369-377). Champaign, IL: Human Kinetics.

Krane, V., & Williams, J. (1994). Cognitive anxiety, somatic anxiety, and

confidence in track and field athletes: The impact of gender, competitive level and task characteristics. *International Journal of Sport Psychology, 25*, 203-217.

Kuckenbecker, R. (2003). Halftime talk: Use your time wisely. *Success in Soccer, 6*, 24-29.

Landers, D.M., & Boutcher, S.H. (1986). Arousal-performance relationships. In J.M. Williams (Ed.), *Applied sport psychology: Personal growth to peak performance* (pp. 163-184). Palo Alto, CA: Mayfield.

Lazarus, R.S. (1993). From psychological stress to the emotions: A history of changing outlooks. *Annual Review of Psychology, 44*, 1-21.

Lazarus, R.S. (1999). *Stress and emotion: A new synthesis.* London: Free Association Books.

Leventhal, H. (1974). Emotion: A basic problem for social psychology. In C. Nemeth (Ed.), *Social Psychology-classic and contemporary integrations* (pp. 1-51). Chicago: Rand McNally.

Lowe, R. (1971). *Stress, arousal and task performance of Little League baseball players.* Unpublished Doctoral dissertation, University of Illinois.

Maddux, J.E., & Meier, L.J. (1985). Self-efficacy and depression. In J.E. Maddux (Ed.), *Self-efficacy, adaptation, and adjustment: Theory, research and application* (pp. 143-172). New York: Plenum Press.

Marsden, K. (1998). The relationship between self-efficacy, intrinsic motivation, and performance following negative feedback: A study of collegiate

McAuley, E. (1985). Modeling and self-efficacy: A test of Bandura's model. *Journal of Sport Psychology, 7*, 283-295.

Meyer, W., Bachmann, M., Biermann, U., Hempelman, M., Ploger, F., & Spiller, H. (1979). The informational value of evaluative behavior: Influence of praise and blame on perceptions of ability. *Journal of Educational Psychology, 71*, 259-268.

Millard, L. (1996). Differences in coaching behaviors of male and female high school soccer coaches. *Journal of Sport Behavior, 19*, 19-31.

Miller, M. (1993). Efficacy strength and performance in competitive swimmers of different skill levels. *International Journal of Sport Psychology, 24*, 284-296.

Morgan, W.P. (1980). Test of champions: The iceberg profile. *Psychology Today, 14*,

92-99.

Moritz, S.E., & Watson, C.B. (1998). Levels of analysis issues in group psychology: Using efficacy as an example of a multilevel model. *Group Dynamics, 2,* 285-298.

Moritz, S.E., Feltz, D.L., Fahrbach, K.R., & Mack, D.E. (2000). The relation of self-efficacy measures to sport performance: A meta-analytic review. *Research Quarterly for Exercise and Sport, 71,* 280-294.

Mules, J.R. & Kerr, J.H. (1996). Stress, emotion and performance in elite slalom canoeists, *The Sport Psychologist, 10,* 17-36.

Ness, G.R., & Patton, R.W. (1979). The effects of beliefs on maximum weight lifting performance. *Cognitive Therapy and Research, 3,* 205-211.

Nideffer, R. (1976). Test of attentional and interpersonal style. *Journal of Personality and Social Psychology, 34,* 394-404.

Niedenthal, P.M., & Setterlund, M.B. (1994). Emotion congruence in perception. *Personality and Social Psychology Bulletin, 20,* 401-411.

Nunnelly, J. (1978). *Psychometric theory* (2nd ed.). New York: McGraw-Hill.

Samsom, D., & Rachman, S. (1989). The effect of induced mood on fear reduction. *British Journal of Clinical Psychology, 28,* 227-238.

Scanlan, T., Stein, G.L., Ravizza, K. (1989). An in-depth study of former elite figure skaters II: Sources of enjoyment. *Journal of Sport and Exercise Psychology, 11,* 65-83.

Schunk, D.H. (1995). Self-efficacy, motivation, and performance. *Journal of Applied Sport Psychology, 7,* 112-137.

Schwartz, N., Strack, F., Kommer, D., & Wagner, D. (1987). Soccer, rooms and the quality of your life: Mood effects on judgments of satisfaction with life in general and with specific life domains. *European Journal of Social Psychology, 17,* 69-79.

Schilling, G. & Gubelmann, H. (1995). Enhancing performance with mental training. In S. Biddle (Ed.), *European perspectives on exercise and sport psychology* (pp. 179-190). Champaign, IL: Human Kinetics.

Shangi, G., & Carron, A.V. (1987). Group cohesion and its relationship with performance and satisfaction among high school basketball players. *Canadian Journal of Sport Sciences, 12,* 1-20.

Silverman, S. (2004). Analyzing data from field research: The unit of analysis issue. *Research Quarterly for Exercise and Sport, 75,* iii-iv.

Smith, C.A., & Lazarus, R.S. (1990). Emotion and adaptation. In L. Pervin (Ed.), *Handbook of personality* (pp. 609-637). New York: Guilford Press.

Smith, R.E., Smoll, F.L., & Curtis, B. (1978). Coaching behaviors in Little League baseball. In F.L. Smoll, & R.E. Smith (Eds.), *Psychological perspectives in youth sports* (pp. 173-201), Washington, D.C: Hemisphere.

Spink, K.S. (1990). Group cohesion and collective efficacy of volleyball teams. *Journal of Sport and Exercise Psychology, 13,* 301-311.

Sports quotations. Retrieved June 30, 2003, from http://www.top-quote-and-quotations.com/sports.html.

Sports quotations. Retrieved June 30, 2003, from http://vincelombardi.com/quotes/winning.htm.

Terry, P. (1995). The efficacy of mood state profiling with elite performers: A review and synthesis. *The Sport Psychologist, 9,* 309-324.

Terry, P. & Slade, A. (1995). Discrimination effectiveness of psychological state measures in predicting performance outcome in karate competition. *Perceptual and Motor Skills, 81,* 275-286.

Treasure, D., Manson, J., & Lox, C. (1996). The relationship between self-efficacy, wrestling performance, and affect prior to competition. *The Sport Psychologist, 10,* 73-83.

Vallerand, R. J. (1987). Antecedents of self-related affects in sport: Preliminary evidence on the intuitive-reflective appraisal model. *Journal of Sport Psychology, 9,* 161-182.

Vallerand, R. & Blanchard, C. (2000). The study of emotion in sport and exercise: Historical, definitional, and conceptual perspectives. In Y. Hanin (Ed.), *Emotions in Sport* (pp. 3-37). Champaign, IL: Human Kinetics.

Vargas-Tonsing, T.M. & Bartholomew, J.B. (2004). *The Effects of a Persuasive Pre-Game Speech on Team-Efficacy Beliefs.* Manuscript submitted for publication. The University of Texas at Austin.

Vargas-Tonsing, T.M., Myers, N.D., & Feltz. (in press). Coaches' and athletes perceptions of efficacy enhancing techniques. *The Sport Psychologist.*

Vikander, N., Solbakken, T., & Vikander, M. (1998). Women elite athletes: Do they differ from men? Gender patterns in psychological characteristics of international cross-country ski medalists. *Women in Sport and Physical Activity Journal, 7,* 95-105.

Watkins, B., Garcia, A.W., & Turek, E. (1994). The relation between self-efficacy and sport performance: Evidence from a sample of youth baseball players. *Journal of Applied Sport Psychology, 6,* 21-31.

Watson, D., Clark, L.A., & Tellegen, A. (1985). Towards a consensual structure of mood. *Psychological Bulletin, 98,* 219-235.

Weinberg, R., & Jackson, A. (1990). Building self-efficacy in tennis players: A coach's perspective. *Journal of Applied Sport Psychology, 2,* 164-174.

Weinberg, R.S., Gould, D., Yukelson, D., Jackson, A. (1981). The effect of preexisting and manipulated self-efficacy on a competitive muscular endurance task. *Journal of Sport Psychology, 4,* 345-354.

Weiner, B. (1977). Attribution and affect: Comments of Sohn's critique. *Journal of Educational Psychology, 69,* 506-507.

Weiner, B. (1985). An attributional theory of achievement motivation and emotion, *Psychological Review, 92,* 548-573.

Weiner, B. (1986). *An attributional theory of motivation and emotion.* New York: Springer-Verlag.

Weiss, M.R., Wiese, D.M., Klint, K.A. (1989). Head over heels with success: The relationship between self-efficacy and performance in competitive youth gymnastics. *Journal of Sport and Exercise Psychology, 11,* 444-451.

Yerkes, R.M. & Dodson, J.D. (1908). The relation of strength of stimulus to rapidity of habit-formation. *Journal of Comparative Neurology and Psychology, 18,* 459-482.

Zurcher, L.A. (1982). The staging of emotions: a dramaturgical analysis. *Symbolic Interaction, 5,* 1-22.

Footnotes

[1] Although some have suggested that the Individual Zones of Optimal Functioning model confuses emotions (e.g., sad, happy) with behaviors (e.g., aggressive, lazy) and with motivated cognitive states such as confidence, Hanin contends that the model has ecological validity because athletes selected the affective states (1997).

[2] The terms affect and feeling are considered to be closely related forms for the concept of emotion. Even though both are somewhat discrete of one another, literature often treats the terms as synonyms (Syrja, 2000).