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REPEATERS: A QUALITATIVE INVESTIGATION OF THE MENTAL
PREPARATION STRATEGIES AND IN-COMPETITION THOUGHTS OF
DEFENDING NATIONAL CHAMPION ROWERS IN THE 2008 CHAMPIONSHIP
RACE

A Masters Thesis presented to the Faculty of the
Graduate Program in Exercise and Sport Sciences
Ithaca College

In partial fulfillment of the requirements for the degree
Master of Science

by

Emanuel Delgado

May 2011

**Ithaca College
School of Health Sciences & Human Performance
Ithaca, NY**

CERTIFICATE OF APPROVAL

MASTER OF SCIENCE THESIS

This is to certify that the Master of Science Thesis of

Emanuel A. Delgado

**Submitted in partial fulfillment of the requirements for the degree of
Master of Science in the School of Health Sciences & Human Performance
at Ithaca College has been approved.**

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8 MARCH 2011

ABSTRACT

At the elite level, athletic competitions are often decided by inches, single points, or fractions of seconds. In many cases, the physiological differences among athletes are minimal. Often times, it is the psychological differences that decide competition and outcome (Shin & Lee, 1994).

Authors often summarize the mental skills of successful athletes (Hollander & Acevedo, 2000; Jones, Hanton, & Connaughton, 2002; Taylor, Gould, & Rolo, 2008). However, there is an absence of research that specifically examines the mental skills used by collegiate rowers. Therefore, the purpose of this study was to examine selected defending national champion collegiate rowers' mental preparations and thoughts before and during the 2008 national championship grand final. Through semi-structure interviews with the members of the 2008 national championship rowing team, the mental skills used by the national champion rowers were explored. All interviews were analyzed and common themes identified. Three themes emerged: 1) the rowers built confidence through season-long training; 2) each rower had an individual pre-race routine which consisted of various elements, including staying in the moment, visualization and imagery, reviewing the race plan, arousal control through music, relaxation, and self talk; and 3) the rowers refocused during the race from negative/irrelevant thoughts to positive/relevant thoughts.

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Thank you to my friends. You have made my time in Ithaca well spent.

DEDICATION

I dedicate this thesis project to my mother and my sister. It's my family that has gotten me to where I am, and it is my family that will help me get to where I want to be. Thank you.

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CHAPTER 1

INTRODUCTION

At the elite level, athletic competitions can be decided by inches, single points, or fractions of seconds. As such, it has been suggested that the psychological differences between competitors often decide the outcome (Shin & Lee, 1994). Several researchers have investigated the psychological differences between successful and unsuccessful athletes in various sports (Gould, Weiss, & Weinberg, 1981; Orlick & Partington, 1988; Taylor et al., 2008). Despite this research, there is a dearth of information about the psychological characteristics of successful rowers.

Much of the existing research is based on Bandura's self-efficacy theory. Self-efficacy refers to one's belief in their ability to perform a specific task (Bandura, 1977). This can be critical for athletic performance, as those athletes who possess high levels of self-efficacy typically perform better than those with less belief in their abilities (Hanton & Connaughton, 2002). Weinberg, Gould, and Jackson (1979) found that those with high self-efficacy performed better in a motor skill task than those with low self-efficacy. The participants with high self-efficacy also demonstrated more persistence during adversity, had higher levels of self-confidence, and expected more future success.

Several researchers have attempted to identify the mental characteristics of successful athletes. Orlick and Partington (1988) found 3 elements that differ between successful and unsuccessful Olympic athletes: 1) total commitment to excellence, 2) quality training, and 3) quality mental preparation. Quality mental preparation was identified as the most critical element and consisted of numerous factors including imagery, visualization, goal setting, positive self talk, focus, confidence, and anxiety

control. In another study, Gould, Dieffenbach, and Moffett (2002) identified 12 characteristics of U.S. Olympic champions, including: 1) anxiety control, 2) confidence, 3) mental toughness, 4) sports intelligence, 5) ability to focus, 6) competitiveness, 7) strong work ethic, 8) goal setting, 9) coachability, 10) hope, 11) optimism, and 12) a certain degree of perfectionism. Finally, Gould, Eklund, and Jackson (1992a) found the optimal prematch mental state of Olympic wrestlers to include positive expectancies, augmented arousal, and increased effort, with positive expectancies being the most critical element. To achieve a proper mental state, most of the wrestlers had a mental preparation routine, a strategic focus, as well as a specific motivational strategy. Self-talk, visualization, and a physical warm up were also strategies used by the wrestlers to achieve their desired prematch mental state (Gould et al., 1992a).

Despite the abundance of research investigating the mental characteristics of successful athletes, research specific to rowers is limited. Therefore, the purpose of this study was to examine the defending national champion collegiate rowers' mental preparations and thoughts before and during the 2008 national championship grand final.

Purpose Statement

The purpose of this study was to examine the defending national champion collegiate rowers' mental preparations and thoughts before and during the 2008 national championship grand final.

Research Questions

The following questions were examined:

1. How do national champion rowers mentally prepare prior to the 2008 national championship grand final?

2. What are the primary thoughts of national champion rowers during the 2008 national championship grand final?

Significance of the Study

The results from this study are beneficial for rowers, coaches, and sport psychology consultants interested in identifying the mental preparation strategies of successful rowers.

Definition of Terms

“Ability to handle adversity:” having the personality characteristics and the psychological capacity to deal with the routine setbacks and anxiety associated with training and competition in developmental and elite levels of competition (Gould et al., 2002).

Drive: the motivation, dedication, and determination to meet others’ expectations, and to please others (Gould et al., 2002).

Concentration: when stated in a sport and exercise setting, it consists of four parts:

1) focusing on the relevant cues in the environment, 2) maintaining that attentional focus over time, 3) having awareness in that situation, and 4) shifting attentional focus when necessary (Weinberg & Gould, 2003).

Mental Toughness: the natural or developed psychological edge that enables athletes to cope better than their opponents with the many demands of sport, be more consistent, and be better than their opponents in remaining determined, focused, confident, and in control under pressure (Jones, Hanton, & Connaughton, 2002).

Motivation: the amount of goal dedication and drive (Gould et al., 2002).

Self-Efficacy: the strength in one’s conviction that he or she can execute a behavior required to produce a certain outcome (Weinberg et al., 1979).

Delimitations

The delimitations of this study are as follows:

1. Only male rowers from a national championship crew were interviewed.
2. Only those rowers who rowed in a varsity boat in more than one national championship were interviewed.

Limitations

The limitations of this study are as follows:

1. The results may not be generalized to female rowers or male rowers at different competition levels.
2. The rowers were asked to discuss events which occurred between 1, 12, and in some cases, 24 months prior to the interviews, which may have influenced their ability to recall specific information.

CHAPTER 2

REVIEW OF LITERATURE

While several researchers have identified the characteristics of successful athletes (Gould et al., 2002; Orlick & Partington, 1988), there is a dearth of information on the mental skills used by successful rowers. Therefore, the purpose of this study was to examine the defending national champion collegiate rowers' mental preparations and thoughts before and during the 2008 national championship grand final. The following provides an overview of the existing literature on self-efficacy, the characteristics of successful and unsuccessful athletes, and the psychological factors believed to be important for successful rowing.

Self-Efficacy

Self-efficacy refers to one's belief in his/her ability to perform a specific task (Bandura, 1977). Efficacy expectations refer to the amount of effort people put toward a task and how long they will persist in the face of adversity (Bandura, 1977). Bandura (1982) stated that self-efficacy affects performance by raising individual effort and persistence in challenging situations. Other research supports Bandura's claim, showing that people's perceptions of their performance capabilities significantly affect their performance (Feltz, 1994). As a result, it is important for athletes to think and act confidently in order to perform at a high level (Treasure & Duda, 2006).

Investigating self-efficacy and performance, Weinberg et al. (1979) found that performers with high self-efficacy had higher expectations of success and were able to perform more leg extensions in a competitive situation than those with low self-efficacy. These same authors found that high self-efficacy performers were more likely to persist

in the face of adversity and were more self-confident than their counterparts. These results highlight the connection between self-efficacy and performance.

In a study of 70 high school wrestlers, researchers examined the correlation between self-efficacy, wrestling performance, and affect prior to competition (Treasure, Monson, & Lox, 1996). Results indicated that self-efficacy was positively associated with positive affect. The authors also suggested that those wrestlers with higher levels of self-efficacy perceived situations as less threatening than wrestlers with low self-efficacy. In another study of 22 male gymnasts ranging in age from 7 to 18, researchers found that self-efficacy had a positive correlation with successful performance (Weiss, Wiese, & Klint, 1989). Again, both studies highlight the positive effects of self-efficacy on performance.

While research exists highlighting the connection between self-efficacy and performance, research on rowing and self-efficacy is limited. However, this limited research had provided some important findings. In a study of 154 rowers, Magyar, Feltz, and Simpson (2004) found that task self-efficacy was the strongest predictor of personal perceptions of collective efficacy. Simply stated, those who were more confident in their own abilities were more likely to be confident in their crew's ability to row successfully.

Other authors (Feltz & Lirgg, 1998; Watson, Chemers, & Preiser, 2001) have studied team efficacy and performance, with results also relevant to rowing. Feltz and Lirgg (1998) studied the relationship between team efficacy, player efficacy, and team performance in collegiate ice hockey. Results showed that the collective team self-efficacy was a better predictor of team success than collective player self-efficacy. Similarly, Watson et al. (2001) researched collegiate basketball teams and found group

size, past performances, and confident leadership all contributing to the collective efficacy of the team. These same researchers also found collective efficacy to be a shared belief (i.e., there is a significant interdependence on team members' beliefs and collective efficacy).

Successful Athletes

It has been suggested that successful athletes have common psychological characteristics. These characteristics include a total commitment to excellence, clear goals, confidence, emotional control, automaticity, self-talk, imagery training, simulation training, focus, the ability to handle adversity, and a mental preparation routine for competition (Greenleaf, Gould, & Dieffenbach, 2001; Orlick & Partington, 1988; Taylor et al., 2008).

In addition to these traits, several researchers (Gould et al., 1981; Hanton & Jones, 1999; Jones et al., 2002; Orlick & Partington, 1988) have suggested that mental preparation is critical for successful performance. In fact, Orlick and Partington (1988) suggested that the best athletes typically have a well rehearsed mental plan established for competition. Included in this plan is the use of mental imagery, proper physical warm up, positive thoughts, and cues to focus on what had previously worked well (Orlick & Partington, 1988). Hanton and Jones (1999) also suggested that using mental imagery and goal setting prior to competition was linked to successful performances. In addition, Gould et al. (1992a) also found that successful wrestlers differed from unsuccessful wrestlers in their mental preparation for upcoming matches. Successful wrestlers focused solely on the immediate upcoming match, used positive self-talk, and had attentional focus while unsuccessful wrestlers had negative and/or task-irrelevant thoughts.

In addition to quality mental preparation, a total commitment to excellence and mental toughness have been identified as characteristics of successful performers (Jones et al., 2002; Jones, Hanton, & Connaughton, 2007). Jones et al. (2002) investigated the term “mental toughness” with 10 elite international performers. These authors found 12 attributes linked to mentally tough performers: 1) having an unwavering self belief in one’s ability to achieve set goals, 2) bouncing back from a setback as a result of increased determination to succeed, 3) having a firm self-belief that one possesses unique abilities to be better than his/her opponents, 4) having an avid desire to succeed, 5) remaining completely focused despite athletic distractions, 6) regaining mental control despite uncontrollable events, 7) pushing through boundaries of physical and emotional pain while maintaining technique, 8) accepting and coping with anxiety, 9) not being affected by others’ performances, 9) thriving on the pressure of competition, 11) remaining focused despite personal distractions, and 12) switching sport focus as needed. The participants in this study described their motivation as an over-powering desire to win, with the motivation to succeed impacting their practice and preparation, as well as their competition. Jones et al. (2007) verified their description of mental toughness with the interviews of 8 Olympic or world champions, 3 coaches, and 4 sport psychologists. Furthermore, Hollander and Acevedo (2000) found the common theme of “total commitment” as a quality of successful English Channel swimmers. Following a interview format, a sense of “being driven at almost all costs” was expressed by the swimmers. Despite the risk of losing the social support of their families, the financial support of their employers, their careers, and their overall health, the swimmers felt obligated to do “whatever it takes” to complete the task.

Goal setting has been identified as another skill employed by successful athletes (Connaughton, Hanton, & Jones, 2010). Orlick and Partington (1988) found clear and daily goal setting to be an important skill used by successful performers. Accordingly, the best athletes set daily goals, including short-term goals to define what they want to do during each workout and each portion of practice. Hollander and Acevedo (2000) also stated that goal setting was a common skill used by the successful English Channel swimmers. One swimmer stated his goal was “continuously on (his) mind.” In a separate study with swimmers, Hanton and Jones (1999) found goal setting to be a major strategy employed by athletes. In this study, swimmers used process goals, which ultimately led to the completion of outcome goals, as well as long term goals, which were broken down into daily goals.

Imagery training is yet another skill that has been identified in and used by successful athletes. Gould, Weinberg, and Jackson (1980) found that imagery produced increases in strength performance, confidence, and effort. Orlick and Partington (1988) listed imagery as one of the mental links to excellence, suggesting that imagery is a skill used to prepare for training, perfect a skill, make a correction, and visualize success. Orlick and Partington (1988) also suggested a direct correlation between imagery and successful Olympic performances for male athletes, while imagery positively improved readiness in female athletes. Hanton and Jones (1999) stated imagery to be a technique used by successful swimmers in their precompetition race routines. Swimmers used imagery techniques to see themselves in a winning position and to imagine the power of their stroke in competition. Shin and Lee (1994) also supported the argument that imagery and visualization are correlated to higher elite athlete performances.

Furthermore, Beauchamp, Bray, and Albinson (2002) found imagery to mediate the relationship between confidence and performance in collegiate golfers.

Successful athletes also possess the ability to limit distraction. Orlick and Partington (1988) stated “athletes who performed at their highest level consistently had excellent strategies for getting back on track quickly when things didn’t go well, or when faced with distractions” (p.117). Jones et al. (2002) listed the ability to remain focused on a task in the face of specific distractions as one of their 12 mental toughness attributes. The successful athletes interviewed in the Jones et al. (2002) study believed the most “mentally tough” to be those who could stay focused on the task at hand despite everything else that was going on around them. An earlier study of Big Ten wrestlers also showed a correlation between success and the ability to focus solely on match-related thoughts (Gould et al., 1981).

The ability to manage anxiety is another skill often practiced by successful athletes (Hanin, 2000). Hanton and Connaughton (2002) examined anxiety symptoms, self-confidence, and performance of swimmers and found a positive correlation between perceived control of the events and performance. If the swimmers thought pre-competition anxiety could improve their performance, or they associated the pre-competition feelings with success, they typically were successful. For these swimmers, thoughts and somatic symptoms that were seen as “controllable” led to a positive interpretation, which increased self confidence, focus, positive thoughts, motivation, and performance. In short, somatic symptoms resulted in positive thoughts, increased focus, motivation, confidence, and improved performance. Hanton and Jones (1999) also found a correlation between early race preparation and anxiety perception. Results showed that

successful elite swimmers perceived pre-race anxiety to be positive. In fact, swimmers believed that the nervous feelings would bring out their best performance and these feelings were necessary to performing well. Jones et al. (2002) further suggested that successful athletes expect and better handle precompetition anxiety.

Hanton and Jones (1999) also found that anxiety might be perceived as positive for young, inexperienced swimmers. Similar to the elite swimmers, young swimmers accepted their pre-race anxiety, going as far to say they would be more concerned if the anxious feelings were absent. This may be a result of older athletes, coaches, and parents having told the young swimmers that anxiety and nerves can bring out “best” performances. These young swimmers perceived their anxiety as positive and believed that the nerves would improve their performances. From a young age, these swimmers developed the ability to perceive this anxiety as performance improving; making the pre-race butterflies “fly in formation” (Hanton & Jones, 1999, p.19).

Research on collegiate tennis players also supports previous research on anxiety and performance. Covassin and Pero (2004) found that winning tennis players had lower levels of anxiety than losing tennis players. These authors suggest that winning tennis players may start with higher levels of self-confidence, which may lower their anxiety, resulting in better performances. It is also suggested that those performers who start with low self-confidence and high anxiety start at a disadvantage, one that they may be unable to overcome.

Focus is another important element that has been associated with success. Successful athletes have a well thought out and developed focus plan for competition (Gould & Maynard, 2009; Orlick & Partington, 1988). Such plans are often aimed at

helping athletes focus on the task, maintain a high level of intensity, eliminate distractions, increase confidence, determination, positive self talk, and feelings of power. Additionally, focus plans help athletes direct their attention toward relevant cues and avoid uncontrollable and irrelevant cues, such as opposing competitors or the final outcome (Orlick & Partington, 1988). Gould et al. (2002) divided focus into three categories: ability to automatize, ability to focus on controllable factors, and ability to block out distractions. Jones et al. (2002) also included “maintaining focus” as a mentally tough attribute. These focus attributes often require self-discipline and well-developed focusing skills.

In-competition focus is also correlated to success. For example, successful wrestlers have been found to focus on strategies or tactics related to their current match (Gould, Eklund, & Jackson, 1992b). Tactics often include focusing on strengths and controlling breathing through the use of breathing techniques. One particular wrestler focused on having and maintaining a specific attitude toward his opponent during the match (Gould et al., 1992b). In sum, focus ability is an attribute found in many successful athletes across a number of sports (Gould et al., 2002; Jones et al., 2002).

Self-confidence has also been linked to success. As previously noted, self-confidence can be correlated with anxiety perceptions (Covassin & Pero, 2004). When anxiety is perceived as a positive, it can increase self-confidence and enhance performance (Hanton & Connaughton, 2002). Hanton and Connaughton (2002) suggested that anxiety and confidence together directly influence the performance outcomes of swimmers. Similarly, successful tennis players typically have lower levels of anxiety and higher levels of confidence prior to matches compared to less successful

tennis players (Covassin & Pero, 2004). The same can be said for Big Ten wrestlers (Gould et al., 1981), Olympic level athletes (Gould et al., 1992a; Greenleaf et al., 2001), and elite college athletes (Mahoney, Gabriel, & Perkins, 1987).

Other qualities of successful athletes include positive self talk, a positive mindset, and the ability to handle adversity (Covassin & Pero, 2004; Gould et al., 2002; Hollander & Acevedo, 2000). Self talk is often used in mental preparation strategies (Gould et al., 1992a; Gould et al., 1981), for thought control (Hanton & Jones, 1999), maintaining mental toughness (Connaughton, Hanton, & Jones, 2010) and as a cognitive strategy to improve performance (Hollander & Acevedo, 2000). Hollander and Acevedo (2002) also suggested that having a certain mindset prior to and during competition is critical to success. Having a mentally tough mindset has been shown to improve chances of success in swimmers. A successful “mindset” for tennis players has been defined as being able to remain calm under pressure, and is believed to be the characteristic that separates successful and non-successful tennis players (Covassin & Pero, 2004; Hollander & Acevedo, 2002). In short, low anxiety and increased resiliency prior to and during performances seems to be important for success.

The ability to handle adversity is also a key attribute of successful athletes. Handling adversity can be divided into two categories: coping with setbacks and dealing with anxiety (Gould et al., 2002). Both describe an athlete’s ability to deal with difficult athletic situations (Gould et al., 2002). Covassin and Pero (2004) studied mood disturbances using the Profile of Mood States (POMS) and found tennis players with low mood disturbance scores had the ability to “shake off” negative events without significant

changes in attitude or expectations. Jones et al. (2002) also found the ability to “bounce back” from a negative setback related to self-determination.

These successful attributes can be learned. Many athletes do not start their careers with goal setting, imagery skills, precompetition routines, and distraction control techniques. However, athletes can develop, execute, and improve these techniques. Many successful athletes have also acknowledged that they could have been much more successful earlier in their careers had they improved on these mental techniques earlier (Orlick & Partington, 1988).

Unsuccessful Athletes

Authors have also revealed several common characteristics of unsuccessful athletes (Gould et al., 1981; Morgan & Johnson, 1978). For example, less successful athletes often experience negative feeling states, a lack of focus, and negative perceptions (Gould et al., 1992b). Despite a negative connotation, these unsuccessful traits are more often associated with “average” psychological health, as opposed to an unhealthy psychological profile. In fact, Raglin (2001) stated that some athletes who are deemed “unsuccessful” are still elite or Olympic level athletes.

The presence of a negative feeling state is common among Olympic athletes during their worst performances (Gould et al., 1992a). A study of the 1988 Olympic wrestling team showed that 27 percent of the wrestlers referred to an unwanted or negative feeling state during their worst performances. These feelings included “anxiety,” being “mentally let down,” and “too relaxed.” Other negative feelings included being “tired,” “sluggish,” or “not feeling right” (Gould et al., 1992a).

Task-irrelevant thoughts and distractions are also related to unsuccessful performances. Gould et al. (1992a) identified task-irrelevant thoughts as a major factor in poor performances for members of the 1988 Olympic wrestling team. The wrestlers' thoughts included an inability to focus, focusing on the consequences of losing, concerns about the officials, thoughts about a lack of readiness, and negative thoughts. Similarly, Gould et al. (1981) stated that the ability to recover from mistakes, either the officials' or their own, and maintaining attentional focus separated successful and unsuccessful wrestlers. In fact, 47% percent of wrestlers felt they were unable to focus their attention during their worst performance (Gould et al., 1992b). No doubt other Olympic performers have had similar experiences. Olympians who performed poorly believed they were physically well trained but ill prepared for the distractions that come with the Olympics (Orlick & Partington, 1988). These athletes lost their focus on the task at hand, instead focusing on the crowd, the cameras, the opponents, or the possible outcomes (Orlick & Partington, 1988). As a result, these Olympians did not live up to expectations and did not perform optimally.

An athlete's perception of the environmental demands can also have a significant impact on his or her performance. Athletes who perceive competition negatively can have lowered self confidence, which in turn, decreases performance (Hanton & Connaughton, 2002). Hanton and Connaughton (2002) also suggested that swimmers who perceive somatic anxiety symptoms to be uncontrollable have decreased self confidence, and as a result, perform poorly. Negative perceptions of anxiety symptoms can lead to over-thinking the technical aspects of a performance, and may lead to

choking. The swimmers suggested that their thoughts were an indication that their preparation was ineffective, and this lack of preparation resulted in bad performances.

Other behaviors that have been found to hinder performance include changing behavioral patterns and habits, late selection to competition, and poor strategy (Orlick & Partington, 1988). According to Orlick and Partington (1988), changing behavioral patterns is one of the greatest obstacles to successful performances. For example, a common change might be an increase in workload, which can leave athletes feeling exhausted. Other changes include last minute modifications in strategy, which can negatively influence athletes' confidence. In addition, some athletes are not informed of their participation in an event until just prior to the competition, which can also contribute to poor performances. This late selection leaves athletes with minimal time to prepare and can leave an athlete with doubts about a coach's belief in his or her abilities. Poor strategy selection, including limiting intensity and effort, can also hinder performance (Orlick & Partington, 1988). In some cases, athletes try to "play it safe," and as a result, lower their chances of being successful (Gould et al., 1992).

Rowing

Many of the characteristics shared by successful athletes in other sports can also be beneficial to rowers. Jones et al. (2002) stated that most successful athletes are able to maintain technique and effort while experiencing physical pain. This is essential for successful competitive rowing. Another skill which can transfer to rowing is compartmentalization. Compartmentalization is a common strategy often used by English Channel swimmers and involves breaking a long race into smaller parts, and then focusing on selected smaller sections of that race (Hollander & Acevedo, 2000). This is a

commonly used rowing strategy, as rowers typically break a 2000 meter race into smaller segments. Another transferable rowing skill is arousal regulation. Gould et al. (1980) suggested preparatory arousal strategies to help performance throughout a muscular endurance task. A 2000 meter rowing race can take between 5 ½ and 8 minutes, thus becoming an endurance task in which arousal regulation might prove beneficial.

Rowing specific research has shown some connection between motivation and ergometer tests (Raglin, 2001). More specifically, results indicated a correlation between self-motivation and erg scores (Raglin, 2001). Results from a 1978 study assessing the personality characteristics of successful and unsuccessful rowers concluded that rowers of higher ability scored lower on anxiety, tension, anger, and fatigue, and higher on vigor than less successful rowers (Morgan & Johnson, 1978). These characteristics are congruent with the iceberg profile, a Profile of Mood States score, which has been used to predict successful and unsuccessful athletes, based on tension, depression, anger, vigor, fatigue, and confusion (Morgan, 1979). With that said, little is known about the qualities and characteristics surrounding successful rowers.

Conclusion

Despite differences in terminology, researchers typically agree on the qualities of successful athletes. These characteristics include a total commitment to excellence, clear goals, confidence, emotional control, automaticity, self-talk, imagery training, simulation training, focus, the ability to handle adversity, and a mental preparation routine for competition (Greenleaf et al., 2001; Orlick & Partington, 1988; Taylor et al., 2008). Unsuccessful athletes have a negative perception of the event, negative feeling states, task-irrelevant thoughts, poor strategy selection, and are often overwhelmed by

distractions (Gould et al., 1992b). The six main qualities that successful athletes possess are low anxiety, positive self talk, high self confidence, a positive mindset, the ability to focus on relevant cues, and the ability to handle adversity (Gould et al., 1981; Gould et al., 2002; Jones et al, 2002; Mahoney et al., 1987). Concerning rowing, the literature is limited, although there is at least some support for an iceberg profile for successful rowers (Morgan & Johnson, 1972).

CHAPTER 3

METHODS

The purpose of this study was to examine the defending national champion collegiate rowers' mental preparations and thoughts before and during the 2008 national championship grand final. The following highlights the research design, participants, and data collection analysis.

Research Design

A qualitative methodology was followed in the current study. Creswell (1998) defined qualitative research in the following way:

“Qualitative research is an inquiry process of understanding based on distinct methodological traditions of inquiry that explores a social or human problem. The researcher builds a complex, holistic picture, analyzes words, reports detailed views of informants, and conducts the study in a natural setting.” (p. 15)

In sum, using this method allows the researcher to understand the thoughts and feelings of the participants. In this study, a qualitative design (using a semi-structured interview format) allowed for detailed reports from the defending national champion rowers.

Participants

Participants in this study had already won multiple collegiate national championships. As requested by the coach, anonymity was maintained, including the use of pseudonyms, and the exclusion of the participating institution (team), weight class, governing body, as well as collegiate division. The coach identified four rowers who met the requirements (i.e., multiple national championships in a varsity boat). All four rowers

were recruited (Appendix A) after a post season practice and were asked to voluntarily participate. All four agreed to participate in the study.

Data Collection and Analysis

As stated, and upon HSR approval, subjects were recruited via the head coach. After agreeing to participate, each participant signed an informed consent form (Appendix B) before scheduling a day and time to participate in the interview. Each rower was interviewed individually using a semi-structured interview guide (Appendix C), which was used to minimize interviewer effect (Patton, 1987). The semi-structured interview guide allowed the researcher to ask the outlined questions, but also allowed for follow up and additional probing questions as deemed necessary. Interviews were conducted in the week following the 2008 National Championship race, at a location convenient for the participant. Interviews were recorded on a digital voice recorder and interview files were kept on a password protected flash drive.

The following steps, adapted from Shelley (1999), were used to analyze the data.

1. Each interview was recorded and transcribed verbatim, and each participant read over the transcript to ensure accuracy.
2. The researcher then read each transcribed interview (multiple times) to become familiar with it.
3. Significant statements were extracted from the interview transcripts.
4. Significant statements were then used to create meanings (i.e., meaning units) as they related to the overall research questions.
5. Meaning units were then combined into lower-order themes.

6. Lower-order themes were then combined to create higher-order themes for each participant. These higher order themes were the answers to the research question for each participant.
7. Participants were then asked to review the higher-order themes to ensure accuracy and validity. An opportunity was provided for each participant to clarify misunderstandings if they did not agree with the higher-order themes.
8. Finally, individual higher-order themes were compared to find common themes across the four participants. These common themes represent the final answers to the research questions for all four participants.

In order to establish a more rigorous study, attention was given to developing trustworthy data, via member checking and the use of a study auditor.

Trustworthiness

Trustworthiness is described as a way to establish credible, transferable, dependable, and confirmable data (Lincoln & Guba, 1985). It consists of truth value, applicability, consistency, and neutrality. Truth value refers to the confidence one has in the findings of the study (Lincoln & Guba, 1985). Applicability is the ability to use the findings in relative situations (Lincoln & Guba, 1985). Consistency is the ability to find the same information with the same subjects if the study was to be repeated (Lincoln & Guba, 1985). Neutrality is the removal of researcher biases (Lincoln & Guba, 1985). To establish trustworthiness, the researcher conducted member checking and used a study auditor.

Member Checking

Member checking is a procedure used to test for interpretative accuracy. Member checking in a qualitative study can be accomplished by having the participants read over their interview transcripts to ensure accuracy and validity (Lincoln & Guba, 1985).

Allowing the participants to review their transcripts and higher-order themes gives them the opportunity to clarify any discrepancies and “add to” the transcript in order to obtain the most accurate data. Member checking took place following step 1 and step 7 of the data analysis process.

Study Auditor

The study auditor is responsible for overseeing the analyses and helping the researcher clarify the results. The study auditor is more closely related to the research process and oversees the reliability of the study by 1) examining the data collection process, 2) verifying the accuracy of the transcripts, 3) examining the data, and 4) questioning and challenging the analysis results (Lincoln & Guba, 1985). The study audit occurred throughout the research process, via a series of on-going meetings with the primary researcher’s thesis advisors.

Chapter 4

RESULTS

Analysis of the four interviews revealed 3-4 higher-order themes for each participant (see Appendices D-G). Further analyses of these higher-order themes exposed three common themes across participants (Appendix H). The three common themes include: 1) The rowers built confidence through season-long training; 2) Each rower had an individual pre-race routine which consisted of various elements, including staying in the moment, visualization and imagery, reviewing the race plan, arousal control through music, relaxation, and self talk; and 3) The rowers refocused during the race from negative/irrelevant thoughts to positive/relevant thoughts. Each theme helped to answer the research questions: 1) “How do national champion rowers mentally prepare prior to the 2008 national championship grand final?” and, 2) “What are the primary thoughts of national championship rowers during the 2008 national championship grand final?” Each common theme, along with supporting quotes, is presented below.

In response to the research question “How do national champion rowers mentally prepare prior to the national championship grand final?” the following common themes emerged.

Common Theme #1

The rowers built confidence through season-long training.

The rowers in this study spoke about the training they did throughout the season and how that enhanced their confidence going into the national championship race.

Athlete 1 supported the theme in the following statement regarding in practice race simulation:

Having that experience going as hard as you can, and then having to make another step to beat a boat just ingrained in your head over and over again. It gives you the confidence when you are actually in the race in the final.

Athlete 1 also spoke of racing in practice and how it prepared him for the race:

Just having that racing experience, three, four, five times a week...really mentally prepares us for (the race).

Athlete 2 stated a similar sentiment towards preparation and confidence:

I think that the biggest thing, that because you work, and you weight lift, and you erg, that your speed is going to be better than theirs. And racing builds confidence, but it is in practice that you start to get that speed, when you start to go a certain speed. And come race day, you're confident, not because you know you can beat this team, but you know they can't beat you.

Athlete 2 spoke of a overcoming a technique problem from early in the season and its effect on the championship race:

We won the (national championship) on (date), but we didn't win it that day. We won it in December when I was on the ergs, and in January when I figured out how not to crash at the finish.

Athlete 3 spoke of the role his coach played, reminding him of the training he had done leading up to the championship race:

I think our coach built us up, saying we did a lot more work, did all the work that you needed to deserve winning nationals again. And no other team was doing as much work as us. Although I don't know if he knew [whether they had done more work] or not, but it helped us get more confident.

Common Theme #2

Each rower had an individual pre-race routine which consisted of various elements, including staying in the moment, visualization and imagery, reviewing the race plan, arousal control through music, relaxation, and self talk.

All four rowers spoke of an individualized pre-race routine. However, each athlete had different components to their pre-performance routine. Athlete 1 said this regarding his pre-race thoughts and focus:

Leading up to it, the hours before, I'm trying to focus on the thing we are doing at that time instead of the race itself. So if we are going to warm up on the erg, I'm focusing on how best I can get myself warmed up. So I'll be thinking about it as I'm warming up on the erg.

In the moments before the race, athlete 1 said he didn't think past the first stroke:

I find when I just think about the first stroke, I take my best first stroke. When you take your best first stroke, it's easier to take your second stroke.

Athlete 1 stated this regarding visualization:

I'll be sitting there thinking about the race, how we are going to win it and trying to visualize myself taking a move through this boat, being on the medal dock, which really gets my juices flowing considering we have been training for that all year.

Furthermore, athlete 1 also visualized his race plan the night before the race:

I'll go over in my head the night before the whole race, just laying in bed. I'll think through it, every stroke of the race. I'm not counting the strokes, but I know what I'm going to do at the start, what I'm going to do in the middle of the race. That's just our race plan.

Finally, athlete 1 stated the importance of having and knowing the crew's race plan:

Going through (the race plan) and getting it ingrained in my mind, so that during the race, I don't really have to think about it.

Athlete 2 stated the following regarding the use of music in his pre-race routine:

Actually, I just started doing it this year. But I listen to my Ipod and it depends on the song of the week, whatever it is, but I listen to the same song, over and over

again. It kind of gets me distracted from everything else, and there are so many things around you when you're warming up for the race, you get really distracted.

Athlete 2 also talked about "connection" before the race; connection is a feeling the rower has when the blade is moving through the water correctly.

Before our race, I think of connection. I think about the great feelings; how it'll be amazing when I connect and how fast we are going to go.

Athlete 2 also mentally prepared for the pain he was going to experience in the race:

I also think of how much it's going to hurt before the race, and I have to convince myself that you know, it's going to hurt. No big deal, if it hurts, it hurts. And that's it. I just got to let myself do it.

Athlete 3 stated his thoughts about the first stroke and how it helped him relax:

Since I was focusing on one thing that was just so specific and not the whole race, it kind of helped me stay a little bit more relaxed, and that helped me through the first few strokes.

In addition, athlete 3 talked about the importance of the start of the race:

The thing that stands out the most is probably thinking about the beginning of the race. It's just what I always fall back to. It's one of the things I've always thought about the most. I just kept running through (the start).

Athlete 4 visualized various scenarios he might face during the race:

Visualization has always been key to me. But I don't like to break it up into the stroke level of specificity, but into the scenario specificity. So if we are down off the start, what are you going to think about?...I almost put myself in the situation and say, alright, be mature enough to know the race is just starting, and there is 1800 meters to go. Or 1000 meters down, the race isn't even half way down. Be mature enough to commit to pulling as hard as you can every stroke.

Athlete 4 also thought about his training prior to the race:

Just basically drawing on the preparation of the past. And saying, I've worked too hard to let them take this from me, and go do my job now. And that's the sort of mindset I have. This is the time to show it. This is the time to execute it. And that's the sort of mindset I like to put myself in.

When athlete 4 wanted to relax between races, he listened to relaxing music:

I resigned to not sleeping within the first ten minutes of getting to bed. I said at least I can relax and try and calm down. Again, try and talk myself down, listen to some calming music.

Furthermore, to get himself ready to race, athlete 4 listened to arousal increasing music:

I'm not listening to you know, a classical sonata by Bach. I'm listening to some raging solo.

And finally, athlete 4 stated managing his emotions was an important skill in preparation for the national championship race:

I think in terms of just mental skills, the most important, just being able to get yourself to the point where you can do your best job. And for me, that's being able to manage emotion and logic.

Common Theme #3

The rowers refocused during the race from negative/irrelevant thoughts to positive/relevant thoughts.

In response to the research question "What are the primary thoughts of national champion rowers during the national championship grand final?" the above theme surfaced. All four rowers displayed a shift in focus during the 2008 national championships. Athlete 1 stated that at one point he thought they were going to lose the 2008 championship race. He had the following thought:

We thought we'd easily run them down in the middle of the race, somewhere, cause we usually take a big move in the middle and we took that move and didn't go anywhere. Took another move, still didn't get through them. So going into the last, maybe 600 meters, I think everybody in the boat thought that we could probably lose the race.

However, athlete 1's thoughts shifted to a positive focus:

I just kind of said well, you know...screw it, whatever happens, happens and I'm just going to go nuts. I think everybody, talking to everybody in the boat, kind of felt that way; that just at some point this is it, go for it.

Athlete 2 also had negative thoughts during the 2008 championship, which then turned positive:

I can remember we took the move and it wasn't working, and my first thought was how the hell are these guys doing this? Because I know we are stronger than they are, and I know we are faster, but yet they are beating us. Our move isn't working. That was my only thought about that during the race.

I kind of think of rowing, or when you are working out, you have to make a decision. And you are faced with a decision everyday in practice. And that culminates in the decision you make at the race. And it's the point in which your mind thinks you can't do anything else, and then you have to decide "Am I going to bow out, stop pulling as hard as I can, or am I going to make it hurt even more but really go for this?"

So that's when I decided I'm going to go crazy right now, and just pull as hard as I possibly can.

Athlete 3 also shifted his thoughts from losing the race to pulling hard:

And at that point, we were down a boat length on (the first place crew), if not a little more, and I thought I don't think we are going to win this race, but I am going to go crazy for this last little bit of it and see what happens. Maybe we'll make a big move and everybody will think that's a pretty cool move at the end.

Athlete 3 continued to have more positive thoughts once they started the comeback:

And I thought, well that's cool. We'll see where this is going, cause we are moving really, really fast and you could see them creeping, creeping up on us, cause we were just walking through them. And little bit by little bit, once we had taken 4 or 5 seats, I thought, wow, we are going to win this race if we keep doing this.

So we just kept going with it. And we pulled up even to them, and that was really exciting. And I guess, that excitement, everybody just fed off it, cause we just continued to do that, that sprint, and led all the way through.

Like the others, athlete 4 experienced negative thoughts during the 2008 championship race:

Around 1000 meters, when (the first place team) took this monster move, I remember thinking for those 3 strokes or so, [xxx] damn, did they just drop it? Did they just pull away from us like this? This is no way to go out. And then, maybe on the 3rd stroke, I had almost this resign, like well 2nd place isn't so bad.

Then, athlete 4 also shifted his thoughts and refocused:

Immediately after that, I'm like, "no". I still have 1000 meters to do this. And I refocused a little and said this is still our race to win.

Summary

Three common themes were identified from the analysis of the four interviews:

1) The rowers built confidence through season-long training; 2) Each rower had an individual pre-race routine which consisted of various elements, including staying in the moment, visualization and imagery, reviewing the race plan, arousal control through music, relaxation, and self talk; and 3) The rowers refocused during the race from negative/irrelevant thoughts to positive/relevant thoughts. These results illustrate the mental preparation strategies and primary in-race thoughts of the selected national championship rowers.

Chapter 5

DISCUSSION

The purpose of this study was to examine the defending national championship rowers' mental preparations and thoughts during the 2008 national championship grand final. The following three common themes emerged from this study: 1) The rowers built confidence through season-long training; 2) Each rower had an individual pre-race routine which consisted of various elements, including staying in the moment, visualization and imagery, reviewing the race plan, arousal control through music, relaxation, and self talk; and 3) The rowers refocused during the race from negative/irrelevant thoughts to positive/relevant thoughts. Each common theme is discussed below.

Common Theme #1

The rowers built confidence through season-long training.

Confidence has been well documented to be a characteristic of successful athletes (Gould et al., 2002; Gould & Maynard, 2009; Mahoney et al., 1987). Confidence is also associated with Bandura's (1977) study of self-efficacy. In fact, Treasure and Duda (2006) have outlined the need for athletes to think and act confidently in order to perform at a high level.

Performance accomplishments are believed to have the greatest positive effect on self-efficacy (Hardy, Jones, & Gould, 2001). In a study of 14 world-class athletes, physical preparation emerged as a primary source of confidence (Hays, Maynard, Thomas, & Bawden, 2007). Similarly, athletes in this current study stated their

confidence resulted from the training they had started at the beginning of the year, 10 months prior to the 2008 rowing national championship.

More specifically, athletes in this study noted race simulation training, throughout the season, provided them confidence going into the 2008 national championship race. Orlick and Partington (1988) found quality training and simulation training to be important elements of successful Olympians. This is congruent with the statements made by the rowers in this study; the athletes either noted the quality and intensity of their training or the inter-team racing that occurred during practices.

Previous research also outlines imagery (Gould et al., 1980; Wadey & Hanton, 2009), focus plans (Orlick & Partington, 1988), and anxiety control (Hanton & Connaughton, 2002) as important elements which contribute to confidence. The athletes in this study also noted similar elements, but not in relation to their confidence. These same elements were used as part of a pre-performance routine, and while the athletes in this study did not state that such elements explicitly contributed to their confidence, a pre-performance routine may have indirectly impact confidence prior to practice and competition.

Common Theme #2

Each rower had an individual pre-race routine which consisted of various elements, including staying in the moment, visualization and imagery, reviewing the race plan, arousal control through music, relaxation, and self talk.

The rowers in this study indicated that an individualized pre-race routine mentally prepared them for their 2008 national championship competition. This is congruent with previous research indicating that pre-performance routines aid in successful performances (Connaughton et al., 2010; Orlick & Partington, 1988). Orlick and Partington (1988) also

stated that a pre-competition planning is one of four important elements to mentally preparing for competition. The four elements included mental imagery, proper physical warm up, positive thoughts, and reminders of what had previously worked well.

The rowers in this study used the element of “staying in the moment” to block out distractions and control anxiety. This is similar to a competition focus plan, which can be beneficial to helping an athlete focus on the task at hand (Gould et al., 1992; Orlick & Partington, 1988). Staying in the moment also has similar qualities to distraction control training, which is a strategy many athletes use to refocus when faced with distractions (Gould & Maynard, 2009; Orlick & Partington, 1988). Jones et al. (2002) stated that remaining focused on the task at hand, and in the face of competition-specific distractions, is an important element for mental toughness. Athlete 1 said he would focus on what he was doing instead of the race itself. Athlete 3 stated he wanted to think of “each moment by itself.” Although stated differently, both athletes clearly attempted to focus on what they were doing at each moment.

Visualization and imagery are also techniques used by many successful athletes when carrying out their pre-performance routines (Beauchamp et al., 2002; Cohn, 1990; Gould et al., 2002; Orlick & Partington, 1988). Thomas, Hanton, and Maynard (2007) reported that 100% of the athletes in their study used visualization in preparation for competition. In addition, Gould, Weinberg, and Jackson (1980) found imagery techniques and preparatory arousal skills to have the greatest impact on performance. In the current study, all four athletes used some form of imagery or visualization, though the specifics of each varied from athlete to athlete. Athlete 1 visualized scenarios that occurred during the race. Athlete 2 did not explicitly state he visualized the starting

sequence, although he stated that he thought about the starting sequence as well as what he needed to do. Athlete 3 stated he thought about “connection” and the feeling associated with connection. Similarly, athlete 4 used imagery to prepare for his first stroke and the technical aspects of the stroke. None of the athletes stated they had any formal mental training and some of the athlete’s pre-race thoughts may have been visualization, but the athletes did not explicitly state in such terms.

Race and performance plans have also been shown to be vital elements to successful performances. Orlick and Partington (1988) found a competition focus plan to be an important element of success; the best athletes had the best focus plans during competition. Orlick and Partington also noted that poor focus occurred when the athlete focused on factors in which they had no control. Mallett and Hanrahan (1997) compared the use of a race plan against not having a race plan and concluded a race plan improved performance. The national champion rowers in this study said they too had a race plan in which they focused on their own boat and the strategic moves they would perform throughout the race. Athlete 3 stated that the crew talked about what they needed to think about, as well as the race plan, before the race. Athlete 1 stated he liked to have the race plan ingrained in his mind so that during the race he did not have to think about it. Athlete 1 also stated the race plan helped him relax. In this study, one athlete used a race plan to increase focus and another used a race plan to control his thinking and increase relaxation. In sum, both athletes noted the importance of their race plans.

Music was another element used in two of the four rower’s pre-performance routines, though each athlete used music for different purposes. Athlete 2 used music to increase focus and block out distractions. Thomas, Hanton, and Maynard (2007) reported

music as a means overcome negative pre-performance symptoms. Gould et al. (2002) listed the ability to focus and block out distractions as one of the characteristics of Olympic champions. Additionally, Hanton and Jones (1999) reported the use of music as a strategy in pre-race routines in order for athletes to better focus on their own races. Athlete 4 used music to vary his state of arousal based on the specific situation. In fact, he listened to both arousal increasing music to psych himself up and arousal decreasing music to relax.

Relaxation before competition was also shown to be an important element in the pre-performance routines of the rowers in this study. Athlete 3 stated he made a conscious effort to stay relaxed despite feeling nervous before the race. He said he accomplished this by making light-hearted jokes and talking about being nervous with his teammates. Athlete 2 mentioned that when his intensity was too high before a race, it became counter-productive. As a result, he relaxed in an to attempt to get into a “comfort zone.” Relaxation is one of the skills used by many athletes, for example elite field hockey players, to overcome negative pre-performance symptoms (Thomas et al., 2007). Hanton and Jones (1999) reported that the swimmers in their study attempted to stay relaxed using a variety of strategies including sleeping, music, stretching, and controlled breathing techniques. Many of these same strategies were reported by the rowers in the current study.

Self-talk was the final pre-performance strategy used by the national championship rowers. Athlete 2 used self-talk to prepare himself for the physical pain the race would bring. Athlete 3 acknowledged he used self-talk to increase his confidence prior to the race. Athlete 4 used self-talk in a confrontational manner, telling

himself that the other rowers could not be stronger than he was. Research indicates self-talk to be a beneficial strategy in pre-performance routines (Bunker & Owens, 1985; Bunker & Rotella, 1982; MacNamara, Button, & Collins, 2010; Rotella, Gansneder, Ojala, & Billing, 1980; Wadey & Hanton, 2008). Hanton and Jones (1999) identified self-talk as a strategy to control thoughts and feelings prior to competition. Thomas et al. (2007) also identified self-talk as a strategy to rationalize and restructure negative pre-performance symptoms. In this study, the rowers described strategies which were defined as self-talk, although none of the rowers stated it as self-talk.

Overall, pre-performance routines were used by all 4 rowers, though the elements used in their routines varied. In short, the rowers individualized their routines in order to control anxiety and focus on relevant thoughts before their national championship race.

Common Theme #3

The rowers refocused during the race from negative/irrelevant thoughts to positive/relevant thoughts.

At some point, the primary thoughts of the rowers were negative and irrelevant. However, all the rowers changed their thoughts to positive and relevant thoughts during the race. All four of the rowers, about halfway through the race, stated they thought they were going to lose the 2008 championship. Yet, the rowers were the able to refocus to positive/relevant thoughts, and subsequently, went on to win the 2008 national championship.

Hatzigeorgiadis and Biddle (2001) have outlined how cognitive interference during competition influences concentration and effort. These authors have defined cognitive interference as thoughts individuals experience while performing a task, which are not related to the execution of the task. Such “interfering” thoughts might also be

labeled negative/irrelevant thoughts. In sum, the more frequent the self-evaluating thoughts, the more difficult it becomes to accomplish the task.

In this study, the rowers demonstrated the ability to overcome their negative/irrelevant thoughts with positive/relevant thoughts. The rowers mentioned that their 2008 negative thoughts occurred in the middle of the race, before they were able to refocus. Their ability to limit their negative/irrelevant thoughts and refocus obviously improved their overall performance. Athlete 3 even stated that he had a thought of escape, recalling that if he didn't win, it would be okay because he would be able to go "get lunch" and the high pressure situation would be over. According to Hatzigeorgiadis and Biddle (2001), had Athlete 3 continued to have such thoughts, his performance would have likely been negatively effected.

Focus is clearly a vital element to success. Jones et al. (2002) stated regaining psychological control following unexpected, uncontrollable events to be an important element of mental toughness. Orlick and Partington (1988) outlined distraction control, a strategy for getting back on track quickly when things do not go well, as a mental link to excellence. Similarly, Gould et al. (2002) stated focus as a primary characteristic of Olympic champions, especially the ability to focus on what one can control. Lastly, Grandjean, Taylor, and Weiner (2002) suggested that elite athletes in closed-skill sports might be able to better focus, as well as refocus following distractions.

In a similar manner, these national championship rowers were able to refocus from negative/irrelevant thoughts to positive/relevant thoughts. Each rower experienced thoughts of losing the 2008 national championship. There were thoughts of "not winning this year," thoughts of resigning to 2nd place, rationalization that second place was

acceptable, as well as doubt in their ability to have a successful sprint in the final 400 meters of the race. Important to these rowers was their ability to recognize the negative thoughts and refocus on positive/relevant thoughts. All rowers were able to refocus their thoughts, helping them to relax, “go crazy,” and recognize that half the race was still left.

Summary

Several researchers (Dieffenbach & Moffett, 2002; Greenleaf et al., 2001; Mesagno, Marchant, & Morris, 2008; Orlick & Partington, 1988) stress the importance of confidence, pre-performance routines, and one’s ability to focus, as they related to successful performances. The purpose of this study was to examine the defending national champion collegiate rowers’ mental preparations and thoughts before and during the 2008 national championship grand final. Three themes emerged from the data: 1) The rowers built confidence through season-long training; 2) Each rower had an individual pre-race routine which consisted of various elements, including staying in the moment, visualization, reviewing the race plan, arousal control through music, imagery, relaxation, and self talk; and 3) The rowers refocused during the race from negative/irrelevant thoughts to positive/relevant thoughts. These findings are supported by previous research, examining the importance of such elements to success and performance accomplishment. All findings were discussed in relation to the research questions outlined for this study.

Chapter 6

SUMMARY, CONCLUSIONS, AND RECCOMENDATIONS

The purpose of this study was to examine the defending national champion collegiate rowers' mental preparations and thoughts before and during the 2008 national championship grand final.

Summary

Three common themes emerged regarding the mental preparation strategies and primary thoughts of national champion rowers: 1) The rowers built confidence through season-long training; 2) Each rower had an individual pre-race routine which consisted of various elements, including staying in the moment, visualization and imagery, reviewing the race plan, arousal control through music, relaxation, and self talk; and 3) The rowers refocused during the race from negative/irrelevant thoughts to positive/relevant thoughts.

These themes represent the preparation strategies and primary thoughts of these selected national championship rowers. In response to the research question "How do national champion rowers mentally prepare for the national championship grand final?," the rowers all responded by stating that their season-long training enhanced their confidence throughout the year. This was best illustrated by Athlete 2, who talked about the importance of practice, and how good training impacted confidence of the crew members.

The athletes also used individual pre-performance routines to mentally prepare for the 2008 national championship grand final, though routines varied from athlete to athlete. Athlete 1 visualized successful moments. Athlete 2 used self-talk and focused on personal technique. Athlete 3 focused his thoughts on of the start of the race and used

relaxation techniques to control his body. Athlete 4 visualized race-specific scenarios and listened to music in order to control his arousal. All rowers used their routines to increase focus and decrease anxiety prior to racing.

Each athlete was also able to refocus from negative/irrelevant thoughts to positive/relevant thoughts. During the 2008 national championship race, the rowers were down a substantial margin, and all four (at some point) thought the race was lost. The rowers then refocused to positive/relevant thoughts, such as “going crazy,” and reminded themselves they still had half the race to come back. The rowers were then able to overcome the halfway margin to win the 2008 national championship.

Conclusions

Similar to previous research (Dieffenbach & Moffett, 2002; Orlick & Partington, 1988), the rowers in this current study had characteristics that were similar to other successful athletes. The athletes stated several factors impacting their confidence, with the most prominent being winning. All of the rowers in this current study had won national championships prior to their 2008 race. Other factors impacting confidence included their teammates, various psychological strategies, their coach, and their past training experiences.

Pre-performance routines were also a primary preparation strategy for these rowers. Researchers have stated the importance of pre-performance routines (Beauchamp, Halliwell, Fournier, & Koestner, 1996; Cohn, 1990; Czech, Ploszay, & Burke, 2004; Mesagno, Marchant, & Morris, 2008). Elements of the rowers' pre-performance routines included staying in the moment, visualization and imagery, reviewing the race plan, arousal control through music, relaxation, and self-talk. None of

the rowers used every element in their pre-performance routine. However, they were all consistent in the use of a specific pre-performance routine. In short, the routines were used to increase focus and decrease anxiety prior to racing.

Lastly, the athletes were able to refocus from negative/irrelevant thoughts to positive/relevant thoughts. Each of the four rowers experienced thoughts of losing the 2008 national championship race, then refocused their thinking and collectively came back to win.

In conclusion, each theme is strongly supported. One theme is supported by three of the four rowers and the other two themes are supported by all four rowers. Based on the previous research and the current results, it can be concluded that the mental strategies used by these rowers are contributing factors to successful rowing.

Future Recommendations

While the results of this study provide valuable information for coaches, athletes, and sport psychology consultants, additional research is needed. The first recommendation for future research would be to replicate this study utilizing the same methodology with an entire crew. For this study, only four rowers who had won multiple national championships were included. At the time of the interviews, there were five other crew members who had just won their first national championship. Second, it would be beneficial to investigate each theme in more detail. While confidence, pre-performance routines, and focus emerged as important considerations, an in-depth study of each may prove more beneficial. More in-depth data might allow for better understanding of how each factor is developed prior to and during a race. Future research could also focus on assessing rowers' mental preparations and thoughts across gender and

competitive levels (Division I, II, III, Olympics, etc.) Lastly, further research should be devoted to the application of such findings to current athletes. It seems important to assess how mental training programs focused on the elements found in this study (i.e., confidence, pre-performance routines, and focus) might effect rowers not already using such training practices.

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Appendix A

Recruitment Statement

Hello. My name is Emanuel Delgado. I am a graduate student in the Department of Exercise and Sport Sciences at Ithaca College. I am researching the mindset of successful rowers and would like to invite you to be a subject in my graduate thesis study. This would entail answering several questions about your [national] championship races during a 45-60 minute interview, checking the transcripts for accuracy, and reviewing the final results. Checking for accuracy and reviewing the final results should take approximately 30 minutes each and are not required. The information gained from your participation in this study will be useful to coaches, athletes, and sport psychology consultants interested in improving rowers' performances. If you are interested and are at least 18 years of age, please contact me via email or phone within the next 72 hours in order to set up a time and date to conduct the interview. Please contact me with any questions you have regarding the study.

Contact Information:

Emanuel Delgado
Cell Phone: 845-313-7736
E-mail: edelgad1@ithaca.edu

Appendix B

Informed Consent Form

1. Purpose of Study—The purpose of this study is to identify the thoughts and mental preparation strategies of successful collegiate rowers.
2. Benefits of Study— The results of this study should be of significant interest to rowers, coaches, and sport psychology consultants. Coaches will likely benefit from learning what successful rowers think about before and during a race, while the participants may benefit from the chance to understand how their thoughts influence their performances.
3. What you will be asked to do—You will be asked to answer several questions about your rowing experiences over a 45-60 minute interview. I will tape, transcribe, and analyze the interview data. You will be asked to review the transcripts and results for accuracy; these steps will take approximately 30 minutes each and will not be required.
4. Risks— The study will pose no serious risk of injury or harm to you.
5. If you would like more information about the study—Please feel free to contact the primary investigator, Emanuel Delgado, at 845-313-7736.
6. Withdrawal from the study—You are free to withdraw from the study at any time without penalty. You may omit any questions you feel uncomfortable answering.
7. How the data will be maintained in confidence—You will be given the opportunity to choose a pseudonym for your interview data. If you choose not to pick a pseudonym, one will be chosen for you. Your pseudonym will be used throughout this study and in any subsequent publications. All interviews will be recorded, and tapes will be locked in the office of Dr. Noah Gentner. Only the principle investigator and faculty advisors will have access to the tapes, and once the interviews have been transcribed, all tapes will be destroyed.

I have read the above and I understand its contents. I agree to participate in the study. I acknowledge that I am 18 years of age or older.

Print Name: _____

Signature: _____

Date: _____

I give permission to be audiotaped.

Signature: _____ Date: _____

Appendix C

Semi-Structured Interview Guide

Background Questions

What is your year and class in school?

When did you start rowing?

What boat have you been in while at college? Like, novice, JV, Varsity?

What years have you participated in the varsity boat at [nationals]?

What years have you won the [national championship race]?

What do you like most about collegiate rowing?

Major?

Age?

Seat in the boat?

Research Questions

1) Can you tell me about the grand finals of [nationals] this year, 2008?

∞ Walk me through [nationals], the warm up and through the race

2) Tell me about your preparation leading up to the 2008 grand final.

∞ Tell me about your prerace preparation in terms of the hours before the race, or the minutes?

3) Tell me about your state of mind just before the race?

4) Tell me about your state of mind during the race

5) Tell me about the grand finals of [nationals] in 2007

6) Tell me about the preparation leading up to that race.

∞ Tell me about your prerace preparation in terms of the hours before the race, or the minutes?

7) Tell me about your state of mind just before the 07 grand finals.

8) Tell me about your state of mind during the 07 race.

9) Talk about any mental skills leading up to, just before, and during these championship races.

10) In terms of mentally preparing for these championships, what stands out to you the most? And were there any differences between 07 and 08.

11) In terms of specific thoughts just before and during the race, what stands out to you the most?

12) And just lastly, is there anything else you would like to share about your rowing experience and that you have shared thus far?

Appendix D

Higher-Order Themes for Athlete 1

Theme #1: Preparation builds confidence

This theme was apparent from the following statements:

Gaining confidence from the experiences of the season

- ∞ “I look at it as we start preparing the day we get back to school, in the fall.”
- ∞ “So just having that racing experience, like, 3- 4- 5 times a week, because we do pieces in the afternoon too, really mentally prepares us for it.”
- ∞ “Just being able to, have that experience going as hard as you can, and then having to make another step to beat a boat just ingrained in your head over and over again, it gives you the confidence when you are actually in the race in the final.”

Confidence from qualifying heat

- ∞ “We knew we had them under control going into the final. Then it was just a matter of who from the other heat was going to challenge us.”
- ∞ “I just this feeling that we are going to run them down and that’s not going to be a problem.”

Confidence from teammates

- ∞ “There wasn’t so much pressure on me cause I was a sophomore in the boat, 6 of those guys had done it before and won that race so I felt pretty confident being in that boat.”

Confidence from a good warm up

- ∞ “Really think about executing the warm up perfectly. Cause I think the warm up really important to set you up for being confident going to the line.”

Theme #2: Having a pre-race routine, consisting of staying in the moment, physical warm up, a response to nervousness, and having a race plan.

This theme was represented through the following statements:

Staying in the moment

- ∞ “Leading up to it, the hours before, I’m trying to focus on the thing we are doing at that time instead of the race itself. So if we are going to warm up on the erg, I’m focusing on how best can I get myself warmed up, you know, so ill be thinking about that as I’m warming up on the erg.”
- ∞ “During the warm up, it’s pretty easy to not think about the race so much, because you are focused on the warm up, I shouldn’t say it’s really easy to do that, but I try and do that.”

- ∞ “Once we get on the water, I’m trying to think about the thing we are doing. And at that time, so that drill or that 10 we are doing to get warmed up.
- ∞ “I’m just trying to clear my mind at that point, and just think about the first stroke of the race.”

Physical Warm up

- ∞ “Get some food in us so that we are not down there with food sitting in our belly at the race and just be awake, so I drink coffee in the morning before the race. It gets me woken up a little bit. And just making sure that we aren’t sitting in our room watching TV, but actually walking around and getting our blood flowing.”
- ∞ “Get on the ergs and warm up for 10 -15 minutes, just because when you are on the course, or when you are out warming up on the course warming up, there’s just not that much space.”
- ∞ “Then meet up with the coach, talk a little bit, get on the water, do our warm up, you know, execute.”

Visualization

- ∞ “I’ll be sitting there thinking about the race, how we are going to win it and like, trying to visualize myself taking a move through this boat, being on the medals dock. Which really gets my juices flowing considering we have been training for that all year.”

Response to nervousness

- ∞ “But typically, as you go out to the line, I start to get real nervous. The heart starts pounding and everything.”
- ∞ “I was just really amped up and ready to go, long before the race started. Which, I don’t know if it helped or hurt, but it was definitely different.”
- ∞ “Start to feel your heart going a little faster, umm, not really breathing harder, but you like sitting there.”

Having a race plan

- ∞ “Everybody meeting together, and making sure we have our race plan down pat, so everybody knows what they have to do at each point in the race and that helps relax people too.”
- ∞ “I’m trying to think about executing our plan.”
- ∞ “I’ll go over in my head the night before the whole race, just laying in bed, I’ll think through it, every stroke of the race. I guess, I’m not like counting the strokes, but I know, I know what I’m going to do at the start, what I’m going to do in the middle of the race, you know, that’s just our race plan.”
- ∞ “Going through that and getting it ingrained in my mind, that during the race I don’t really have to think about it.”

Theme #3: Refocus from negative/irrelevant thoughts to positive/relevant thoughts.

This theme was demonstrated through the following statements:

Negative/Irrelevant thoughts

- ∞ “We thought we’d easily run them down in the middle of the race somewhere cause we usually take a big move in the middle and we took that move and didn’t go anywhere. Took another move, still didn’t get through them. So going into the last maybe 600 meters, I think everybody in the boat thought that we could probably lose the race.”
- ∞ “We felt like, at least I felt like, we were probably going to lose the race.”
- ∞ “I think, with 600 meters down, 600 meters to go, thinking that we were going to lose really stood out you know.”
- ∞ “I was, not scared, but just kind of like “oh crap” this is it.”
- ∞ “I could kind of feel it slipping away.”
- ∞ “I mean at first, obviously it’s a negative, you think oh man, we are going to lose this race.”

Positive/Relevant thoughts

- ∞ “I just kind of said well, you know...screw it, whatever happens happens and Im just going to go nuts. I think everybody, talking to everybody in the boat, kind of felt that way; that just at some point this is it, go for it.”
- ∞ “Like, nobody’s expecting us to win the race at this point so we got nothing to lose. You just do everything you can, and whatever happens, happens.”
- ∞ “[Opponent] was up on us longer than we thought they would be, I’m just waiting for, you know instead of trying to do it all myself and say you know, were down, I got to go crazy and take these seats back on my own, I’m just waiting for the coxswain to say when to go”

Appendix E

Higher-Order Themes for Athlete 2

Theme #1: Pre-race routine including self talk, technical thoughts, physical pre-race routine, and getting “locked in.”

The theme was apparent from the following statements:

Self-Talk

- ∞ “And I also think how much it’s going to hurt before the race, and I have to convince myself that you know, it’s going to hurt. No big deal, if it hurts, it hurts. And that’s it. I just got to let myself do it.”
- ∞ “The only thing, I don’t actively do this, but like I’ve done this before, but nothing ever good has come from something that was easy. You know, so like if it doesn’t hurt, there is something wrong with that.”

Technical Thoughts

- ∞ “And we were really trying to focus on being clean and fast off the start, because that’s something we had a problem with.”
- ∞ “So I was really focused on trying to be, cause I sit in the bow, and my biggest thing is setting the boat up, almost, its not really solely that, but it’s the last person that to maintain a stable boat.”
- ∞ “So I was really trying to focus on making sure the boat was straight and even keel.”
- ∞ “When I’m focusing, I’m thinking about the technical thing I have to do to make sure the boat goes as fast as possible.”
- ∞ “And focus on the things I need to do to make the boat go fast.”
- ∞ “And before our race, I think about getting connection, I think about the great feelings. How it’ll be amazing when I connect and how fast we are going to go.”

Physical Pre-race routine

- ∞ “This is actually I just started doing this year, but I listen to my Ipod and it depends on the song of the week, whatever it is, but I listen to the same song, over and over again. It kind of gets my distracted from everything else, and there are so many things around you when you’re warming up for the race, you get really distracted.”
- ∞ “Then once I’m mentally there, then my biggest thing is warming up on the ergs. I love to get warm. I love to get loose. I stretch out a lot cause I’m a pretty small guy, and I’m generally tight by nature. So I stretch out a lot before the race and in the warm up, and it really gets me going.”
- ∞ “And first thing we do is we warm up on the erg, the rowing machine, and I like to get pretty warm on those, so I do it for about 12 minutes.”

Getting “locked in”

- ∞ “And its kind of secluded, and you take these real small circles, like 200 meters in a circle, and that’s where we got locked in mentally and focused and we warm up into our power strokes, and we have a progression we go through, its like 20 strokes at a certain rating, and that gets us into that groove, and we kind of play around with that.”
- ∞ “And kind of understand, the less I do, the better it is, because I kind of like the boat do its own thing, and that’s what I was trying to focus on.”

Theme #2: Preparation and Confidence

The theme was represented from the following statements:

- ∞ “So preparation for me is getting our rowing as clean as possible.”
- ∞ Like, yea we won [National Championship] on [date], but we didn’t win it that day, we won it in December, but we didn’t win it that day. We won it in December when I was on the ergs, and in January when I figured out how not to crash at the finish.” It really starts in the winter time, I mean, it actually starts in the fall. Truly, it’s a continuous process like the first time you row
- ∞ “But I really start to engage in high intensity training in the winter time, when we have the erg season, because it’s too cold to row outside. So we stay inside and we lift and we erg, and that’s kind of how we get our fitness.”
- ∞ “3 times I week, I’d go extra in the erg room and I’d do what we call steady state, and its basically rowing, its kind of like jogging on the erg. You got a cardiovascular fitness base, and that allows you to train at a high intensity later on in the spring. So in addition to the 6 days a week we have practice, I’d 3-4 times a week on my own and I’d go and workout, and that’s really the foundation of our program. Being more intense, working our more than other teams.”
- ∞ “And it just comes down to all the training we did, and all the weight lifting, how strong we were, and anytime we took a move all year, it worked.”
- ∞ And we were never nervous at any point into the race, because we knew, when we want to, when we take our move, no one can touch us.
- ∞ “And, like we were in 6th place, but like, we were close enough that, we were so confident in our base speed, in just our, consistent speed, that we just knew, like, there is no one out there that could possibly be as fast as we are.”
- ∞ “Confidence is something we built all year long.”
- ∞ “And I think that’s the biggest thing, like you know that because you work, and you weight lift, and you erg that your speed is going to be better than theirs. And racing building confidence yea, but its in practice that you start to get that speed, when you start to go at a certain speed. And come race day, you’re confident, not because you know you can beat this team, but you know they can’t beat you.”
- ∞ “In a 2000 meter race, from start to finish, you know, you may be leading after 1900 meters, but as long as we are ahead at the end, that’s all that matters. So for us, its just like, being confident knowing, in practice, we did our thing and we rowed and we went as fast as we had to, and as long as we do our thing, and race

our race. No one can touch us. It doesn't even matter who else is in the race. That's the kind of confidence you have."

∞

Theme #3: Relaxation and Nervousness

This theme was constructed through the content of the following statements:

- ∞ "I like to get in my comfort zone, so like I said before, I found when I listen to like death metal, that gets me way too intense. I don't want to do that, I like to be in my comfort zone for every race. So just listening to, kind of like, relaxing music, is the best thing for me."
- ∞ "It's a funny thing, cause I tend to get really nervous and it something I've gotten better over time with, but even now I still get extremely nervous, so the biggest thing for me in the warm up, is getting my body loose enough, I get rid of all my nervous energy, and I just stay completely relaxed, like really relaxed as possible."
- ∞ "I also found that when I, I think too much, or get too intense, its actually counter productive so I try and relax a little bit and have a little fun too."
- ∞ "Whenever I find myself getting too tense, I just think of something stupid and I laugh. I try and be as much of me as possible."
- ∞ "So during those pieces I try to kind of like, take a lot of deep breathes."
- ∞ "I hope one day to figure out to be completely comfortable before a race, but the best I can do to get in a comfort zone before a race, is to think as little as possible about, think about what I have to do, but freak out as little as possible."
- ∞ "The day of, I really can't any sleep the night before because its just too nerve racking."
- ∞ "And the night before, I have this mental image of this guy in my head and I think there is no way these guys are faster than we are. And, its get my way to revved up and I can't sleep at all."
- ∞ "I get nervous cause I don't know how our speed is going to compare to other teams' speeds."
- ∞ "In 2007, I was more nervous about messing up and letting everybody down. So I was pretty, I feel overall, in 2007 I was just freaking out about the race."
- ∞ "In 2008, I just wanted to win the race, and I was nervous we weren't going to win the race."

Theme #4: Refocusing in race from negative to positive thoughts

This theme was demonstrated by the following statements:

Negative thoughts

- ∞ "We tried to push through them and it didn't work, and that kind of got me a little nervous."
- ∞ "This is not a position we were in at all, all season, especially given our power moves, which is like our bread and butter. They weren't working. And then it started to really freak me out."

- ∞ “I can remember we took the move and it wasn’t working, and my first thought was how the hell are these guys doing this? Because I know we are stronger than they are, and I know we are faster, but yet they are beating us. Our moves not working. That was my only thought about that during the race.”
- ∞ “But I remember thinking how is this possible, like how are they faster than we are.”
- ∞ “I remember during the race there was that feeling, like, man this hurts a lot and I really, maybe we are not going to win this year.”
- ∞ “Two things that come to mind right now are, not understanding how we weren’t winning.”

Positive thoughts

- ∞ “I kind of think of rowing, or when you are working out, you have to make a decision, and you are faced with a decision come every day in practice, and that culminates the decision you make at the race. And it’s the point in which your mind thinks you cant do anything else, and then you just, you have to decide am I going to bow out, stop pulling as hard as I can, or am I going to make it hurt even more but really go for this.”
- ∞ “So that’s when I decided I’m going to go crazy right now, and just pull as hard as I possibly can.”

Appendix F

Higher-Order Themes for Athlete 3

Theme #1: Building confidence throughout the season

This theme was demonstrated by the following statements:

- ∞ “We were pretty confident that we could win cause we had won [the league championship].”
- ∞ “I thought we were the fastest team coming out of sprints, so I figured we’d be the fastest but you don’t really know what’s going to happen.”
- ∞ “The confidence, it came from, I guess our previous experience, winning sprints that is. Having a pretty good regular season. Umm, we had just lost, we had only lost to two teams.”
- ∞ “I got confidence I guess, all the years before when we had won, and from doing well in the erg season for myself. And winning [the league championship], and on the other hand, I was, I was the stroke of the boat at the varsity 8 and [the national championship], with all this past success and all these great things going.”
- ∞ “I think our coach kind of always built us up, saying we did a lot more work, did all the work, that you needed to deserve winning nationals again. And no other team was doing as much work as us. Although I don’t really know if he knew or not, but it helped to get us more confident.”
- ∞ “We knew that we were fast, and it was pretty much based off a little bit past results, and our practice times, stuff like that.”

Theme #2: Pre-race routine consisting of thinking of the start of the race, keeping relaxed, and a pre-race meeting

This theme was demonstrated by the following statements:

Thinking of the start of the race

- ∞ “Think about the very beginning segment of the race, when we do the starting strokes, to get the boat up to speed.”
- ∞ “So I thought that, if I just focus completely on doing the starting strokes well, and just completely think about that and focus on that.”
- ∞ “I just kept running the starting strokes through my head, what I had to do.”
- ∞ “Since I was focusing on one thing that was just so specific and not the whole race, it kind of helped me stay a little bit more relaxed and that helped me through the first “few strokes.”
- ∞ “So what you got to keep thinking about, where you’re, how you are finishing your stroke and how you are picking up the next stroke. Putting your blade in the water and taking it out, umm, applying the pressure in the right way. To get the boat up and moving from a dead stop, instead of just cranking on it, from the very very beginning.”

- ∞ “One thing that I would do this year to try and get my nerves down, there was thinking through the starting strokes, that kind of things.”
- ∞ “And then there was trying to forget about the other boats around me, and try looking at just my oar and thinking about what I was going to do with it, how I had to move it and all that kind of thing.”
- ∞ “The thing that stands out the most is probably, I guess it would be, thinking about the beginning of the race. It’s just what I always fall back to. Its one of the things I’ve always thought about the most probably. I just kept running my thoughts through that.”

Keeping Relaxed

- ∞ “The biggest challenge was trying not to let your nerves get to you. Especially for [the league championship] and [the national championship], we had heats in the morning and finals in the afternoon, umm, its really hard to stay calm in between then, so you, at least for me, I get really, when I get nervous, I get even more nervous.”
- ∞ “And compared to the other years, we had never talked so much about trying to stay relaxed, which was interesting, cause I’m not sure why. But we were, well I guess we had some people in our boat that was particularly nervous about stuff.”
- ∞ SO I knew this year, I really really really had to stay calm and stay in control.
- ∞ “Being calm and understanding what was going to happen and what could happen, and thinking things through a little bit more instead of nervously going crazy.”

Pre-Race Meeting

- ∞ “We talked about what our race plan as going to be and what we each needed to think about, what our strengths were and weaknesses were.”

Theme #3: Having the ability to refocus during the race

This theme was constructed through the content of the following statements:

Negative thoughts

- ∞ “And at that point, it was just kind of like, slipping away. And I remember when we were crossing the 1000 meter mark, I thought to myself, there are 3 minutes left, this whole season has been a huge effort towards one goal, and its just been counting down and winding down, and umm, now there is 3 minutes left until the culmination of everything, the potential goal or the failure.”
- ∞ “I guess it wasn’t huge, I thought that it would be a big, I had this thought it my head and thought “wow, that’s a powerful thought” like maybe that will stir me on. But they continued to stay to stay at that lead, if not move up a little bit more.”
- ∞ “I was thinking well you can’t really expect to never lose. I had won the past two years, and thinking, nobody ever wins every single time, cause that’s not really fair, and you can’t really expect to do that.”

- ∞ “And I was thinking 2nd place isn’t that bad and I even had a thought of us getting to the medal dock to get our silver medals; I had a lot of thought during this race.”
- ∞ “But I could already imagine people saying, well, you did really well. You can’t win ‘em all, and silver is good, and all that stuff. I don’t know, people trying to, make you feel a little better. But still looking disappointed. And that disappointment, I was thinking about that disappointment, and it was like the magical sports movie moment that didn’t happen or something like that.”
- ∞ “And I looked and I thought “oh no, what if we overcome all this just to forget about this other team.” and lose to the other team. But they were a little bit too far behind, and we just kept going at it.”
- ∞ “I think another thought I might have had was, “well at least, at least the race will be over, even if I don’t win, because well, the race will be over, and this high pressure situation will be over and I can just go back, and have some lunch and go to sleep or something, and this will be all over with and ill be, at least that’s a good thing.” And when you do that, umm, you’re definitely not motivating yourself to go faster.”
- ∞ “I wasn’t trying to search for things I had to do better or any sort of motivation. And my thoughts weren’t all over the place, and I was thinking about losing, which is really uncomfortable.”
- ∞ “During the race, I guess I was in shock a little bit cause I didn’t expect that to happen.”

Positive/Relevant thoughts

- ∞ “But it was kind of a do or die kind of thing. And that kind of mentality just kind of clicked in.”
- ∞ “And at that point we were a boat length down on [the first place crew] or something like that, if not a little but more, and I thought, I don’t think we are going to win this race, but I’m going to go crazy for this last little bit of it and see what happens. Maybe we’ll make a big move and everybody will think that that’s a pretty cool move at the end.”
- ∞ “I can’t really remember, I yelled at the coxswain to go, to take a power 20 and move or something like that. And he called it, and I took the stroke rating up one or two, and it was really like, going into this some kill or be killed mode. And I was going as hard as I possibly could, and everybody else was too, and I talked to them after that. Everybody, it was like the flip of a switch or something like that.”
- ∞ “And I thought, well that’s cool, like we’ll see where this is going, cause we are moving really really fast, and you could see them creeping, creeping up on us, cause we were just walking through them. And little bit by little bit, I don’t know, somewhere, once we had taken 4 or 5 seats, I thought, wow, we are going to win this race if we keep doing this.”
- ∞ “So we just kept going with it. And we pulled up even to them, and that was really exciting. And I guess, that excitement, everybody just fed off it, cause we just continued to do that, that sprint, and led all the way through.”

Theme #4: Having the ability to refocus before the race

The theme was constructed through the following statements:

Negative pre-race thoughts

- ∞ “And I was rooming with another guy, and we were trying to go to sleep, but all we could think about was the race. Were just lying there, with our hearts going, having all these nervous thoughts.”
- ∞ “Also, I guess I wasn’t as nervous cause, there was a lot of talk about 3-peating this year, winning for the 3rd year in a row, which had never been done. Umm, and so, that was a pretty big pressure.”
- ∞ This year, yea, it was the opposite for this year. We were the team to beat this year. We definitely were trying to 3-peat this year. It even said in the program for the race, the title of the little summary for the [division] race, “Will [we] 3-peat”? So, when we got there a few days before hand, that was the question on everybody’s mind.”
- ∞ “This year, me and the other guy that had been all 3 years, kept talking “wouldn’t it be cool if we were 3 time [national] champs?” So we kind of built that pressure up ourselves.”
- ∞ “I saw how strong the tailwind was. And for a minute, it hit me, like wow the tailwind is pretty strong right now, I don’t really know how this is going to cause this is a pretty strong tailwind. And a headwind is a lot more comforting, so that was really, that really kind of scared me.”

Staying in the moment

- ∞ “After the heats, I just try and just think about every moment by itself. So now its time to eat, and now its time to walk back to the hotel. And now I don’t know, its time to take a shower or sit down and talk about something.”

Appendix G

Higher-Order Themes for Athlete 4

Theme #1: A pre-race routine consisting of visualization, self talk, music, a physical warm up, and nerve management

The theme was constructed through the following statements:

Visualization

- ∞ “When before I go to bed, I just sit by myself. If I’m in a hotel room with another rower, I go and find a quiet place and just try and visualize the race. Not in terms of the actual rowing motion, but in terms of just, sitting at the start line. I try to picture the start line, try and picture the people, the boats sitting next to me. Try to picture the countdown, you know, “5, 4,3,2,1, attention”...you know, pull back a little on the oar, get it seated, go. You know, and just mentally play out the race in my mind.”
- ∞ “It’s not really the stroke I’m visualizing, it’s more the scenarios. SO ok, we are down all crews, what are we going to do? We’ll [the coxswain] is probably going to call a 10 and we are going to have to move back. OK, we’re sitting even with a crew, [Opponent 1] is going on our left, you know, we are going to take it up. [Opponent 2] just walked through us, you know, what are you thinking about now?”
- ∞ “Just to general scenarios. If you are down at 1000 to go, what are you going to do?”
- ∞ “So I think preparation, it’s just a matter of visualizing how I am going to respond to general scenarios at this point.”
- ∞ “And I don’t like to think of the whole race at that time. I want to break it down. I want to think, execute the start, ok, do the start, then execute the next 15 settle, settle out, and just break the race into chunks.”
- ∞ “It’s just more of a mental run through for the next day, so I have an idea.”
- ∞ “And then again, go through, find a quiet place, go through, kind of a mental visualizing of the race, but really try and draw up the emotions.”
- ∞ “And a lot of times, in the past, I would actually write out 2000 meters, and I’d take a piece of paper, draw a line on the paper to equate the 2000 meters. And then write in various points in that line, what I wanted to be thinking about at that time. So just mental encouragements, whether it be the person in the boat next to me that I really hated, or something positive like, you know, the amount of time that I have put into this sport.”

Self-Talk

- ∞ “And trying to say, just basically drawing, drawing the preparation, you could say, of the past. And saying, I’ve worked too hard to let them take this from me, and go do my job now. And that’s the sort of, that’s the mindset I have. This is the time to show it. This is the time to execute it. And that’s the sort of mindset I like to put myself in.”

- ∞ “I’m trying to talk myself out of nerves that day, and I think that was certainly an indication there was an added level of stress on me, that I was putting an added level of pressure on myself. To be, to do something that hadn’t been done.”
- ∞ “I always like to look over and size up the rowers next to me when we’re locking on, and I remember thinking, [Opponent], just looking down the boat like I’m not afraid of any of these kids.”
- ∞ “So I’m looking down the boat, I’m thinking, there’s no way you’re stronger than me, there’s no way you’re stronger than me.”
- ∞ “But I pay specific attention to the guy in my seat as well, so I’m thinking in terms of our ability to move boats, one on one, I’m going to out pull you.”
- ∞ “I think that turning the stress into an almost confrontational, like, almost authoritative, I’m better than you attitude, its comforting because it removes some of that pressure. It refocuses you. So instead of thinking 3-peat man, best program in the country, all this stuff. It’s I’m stronger than you, and I’m going to prove it. And it’s a way of changing the mindset, I think that’s the mindset you need to being at the starting line.”

Music

- ∞ “Stuff that gets you moving. I’m not listening to, you know, a classical sonata by Bach. I’m listening to some raging rock solo.”
- ∞ “Starting listening, put my Ipod in, started listening to accappella and classical music.”
- ∞ “I resigned to not sleeping within the first ten minutes of getting to bed. I said at least I can relax and try and calm down. Again, try and talk myself down, listen to, listen to some calming music if you will.”
- ∞ “And when I’m actually doing that, that’s last visualization, I’m listening to one song each time. And its kind of, it’s become a pattern since my freshmen year that I’ve listened to that. “
- ∞ “Something that I’ve, that’s I’ve listened to in the past. I am very superstitious about the songs, so I have an order, an order of songs I listen to.”
- ∞ “But it’s comforting to have those, those elements still present. And I think it doesn’t help me to at least; to ignore some of the other factors, if I just have my music on, think about what I need to be thinking about. Just helps me just tune out the world.”

Routine warm up

- ∞ “I was up and moving almost immediately. Cause Id take some coffee, just to get me going. For the [national championship race], it was early, like 7 o’clock, so we were down there like 6:40. So I’m up there, shaking out, shaking out the limbs, stretching out. Listening to my Ipod, I got this whole pre-race mix going there. And then I get on the erg, get a quick warm up, stretch out.”
- ∞ “But I can stay with high confidence it was the same at 08. Coming down, starting moving around when we are at the tent, listening to the music, getting on the ergs, listening to music, listening to that one song, visualizing the race, and just hands on time to go.”

Nerve management

- ∞ “I’m nervous as hell, I’m like all right calm down, this is just, just the biggest race of your life.”
- ∞ “I feel that I sometimes use, I need my nerves, I need to be kind of amped up and worried and excited, to race to my potential.”
- ∞ “So I was nervous just because its game time, and I’ve come to know its going to happen for me; I’m used to those nerves. As I said I kind of feed off them at times.”
- ∞ “But I was, I was trying to calm myself, as well as other people too, at the same time.”
- ∞ “SO coming up to the line, I’m still nervous as hell, and I’m still trying to calm people down.”
- ∞ “I think nerve control and ability to manage emotions is something that I’ve really, I’ve really developed thought the years. In that, I used to be almost paralyzingly nervous as some points, and that, not as much here, but definitely in some of the other, you know, my earlier races in my career.”
- ∞ “I think in terms of just mental skills, the most important, just being able to get yourself to the point where you can do your best job. And for me, that’s being able to manage emotion and logic.”
- ∞ “Certainly preparation was managing that sort of, that sort of emotion and that sort of stress and pressure.”

Theme #2: Refocused during the race from negative/irrelevant thoughts to positive/relevant thoughts

This theme was constructed from the following statements:

Negative/Irrelevant thoughts

- ∞ “And the thought, for maybe two or three strokes flashed in my mind, like oh crap, this did not just happen, you know. These little weaklings are going to take us down here, in the middle of the [national championship], with this move.”
- ∞ “So, around 1000, like I said, when [the first place crew] took like this monster move, I remember thinking for those 3 strokes or so, god damn, did they really just drop it, did they really just pull away from us like this? This is no way to go out. And then, maybe on the 3rd stroke, I had almost this resigned, like, well, 2nd place isn’t so bad.”

Positive/relevant thoughts

- ∞ “And immediately after that, I’m like, no, I still have 1000 meters to do this. And I refocused a little, and said this is still our race to win.”
- ∞ “And that mindset there, it was just one of, I can’t even describe it, its just you guys are going down. You know, we’d just drawn blood, and we are about to kill you. There’s no, there’s no sugar coating it. There is no nice eloquent way to put it. It’s all out war. And it’s pulling as hard as you can for 40 strokes, until the finish line. I think that’s what it was, it was just, at one point we just said fuck this, we’re going to go for it. And that’s when it worked.”

- ∞ “And I remember thinking, wow, you know, we’ve all but got this in the bag. We just need to chase these guys down. And it definitely was an extra little incentive, like, if they think they are going to hold off 6 seats ahead of us and just cruise, oh no. So what, our coxswain called our move maybe 3 stroke after that call, I think the whole boat decided ok time to end this little charade.”

Theme #3: Refocusing before the race

This theme was constructed from the following statements:

Negative/irrelevant warm-up thoughts

- ∞ “Not only did we have the big, mighty [opponent] next to us, but obviously we had all this pressure of the 3-peat.”
- ∞ “And I, I felt like I was nervous, not necessarily for myself, but for our boat. But because I know what nerves can do to a boat. And a lot of time when we get nervous off the start, we have a pretty crappy start.”
- ∞ “In terms in sitting at the line, still nervous, still yea, we have a target on our back. Granted this year, we had a huge target but removed from the knowledge of this year, last year we felt we had as just a big of target. You know, hey we are defending national champions, everyone wants to take us.”
- ∞ “And I’m thinking, you know, [Coach], this is, this is the third national championship. We’ve got everybody looking to take us down. We couldn’t have a bigger target on our back. The program, the written [national championship] program, started off the light weigh section with, Will [we] complete the trifecta? So I’m saying, how can you come here and say this is just another race. But I understood what he was trying to do, so I went with it.”
- ∞ “So sure, when we’re locked in, I’m thinking wow, time to go, I’m nervous. I’m not saying I’m not dealing with nerves in that race, which is definitely not true. But I certainly did not have the thoughts of everyone is out to get me.”

Positive/relevant thoughts

- ∞ “We have the ability to move our boat. We don’t need to worry about other boats. What they do off the start is their business, we going to worry about our boat.”
- ∞ “I want to be focused on what I need to do, and that’s make the boat go as fast as it can.”
- ∞ “And again, I don’t really have a lot of details to give in terms of where boats where, or, you can fact check this and it could be completely wrong, just because I wanted to focus on my boat. I don’t think it does any good to be looking out and seeing them. I certainly see them, and I see them out of the periphery.”
- ∞ “And, that was basically, that was basically the whole mantra of the crew. You know, this is, this is our opportunity to right now.”

Appendix H

Common Themes

COMMON THEME #1: (A1:1, A2:2, A3:1):

The rowers built confidence through season-long training

COMMON THEME #2: (A1:2, A2:1, A3:2, A4:1):

Each rower had an individual pre-race routine which consisted of various elements, including staying in the moment, visualization and imagery, reviewing the race plan, arousal control through music, relaxation, and self talk

COMMON THEME #3: (A1:3, A2:4, A3:3, A4:2)

The rowers refocused during the race from negative/irrelevant thoughts to positive/relevant thoughts