

The development, implementation and evaluation of a mental skills training programme
for rowers at Rhodes University

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of Master of Arts in Psychology

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By

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Abstract

In the ever increasingly competitive world of sport, there is a pressing need for training methods that have the potential to improve the performance of athletes. It is for this reason that practices associated with sport psychology (such as mental skills training) have increased in popularity. This desire for improved performance has seen a rising number of athletes seeking out the assistance of sport psychology methods. In this research, a mental skills training (MST) programme was developed and implemented into the training regime of Rhodes University rowers in Grahamstown, South Africa. The process of this research adhered to the Organisational Development Process Model's format. Information collected from focus groups and performance profiling were utilised to design a MST programme tailored to the context of this group of athletes. This programme was implemented over one month and comprised of theoretical and practical sessions focussing on the topics of goal-setting, arousal regulation and imagery. After the programme had been completed, the participants evaluated the process in the form of individual interviews and were required to repeat the initial performance profile exercise. The results gathered from the various assessment and evaluation measures were used to compare and add to existing literature regarding MST and related disciplines. The benefits and effects of the programme have been detailed, and recommendations have been made which could possibly answer to the limitations of this research. These recommendations could provide insight into the manner in which MST programmes could possibly be more effectively implemented in future.

Keywords: mental/psychological skills training, rowing

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Chapter 1: Introduction

1.1. The Rationale Behind the Research

The health, sport, exercise and fitness industries have developed exponentially over the past few decades. The world of competitive sport is no different, with professional to recreational athletes having vested interest in employing various measures to gain more of a competitive edge. Athletes are under more pressure than ever to improve performance and standards are constantly increasing. It is now not unusual to find physiologists, psychologists and biomechanists amongst an increasing conglomerate of support consultants for athletes (Magdalinski, 2009).

Considering that a continuous drive for efficiency and effectiveness exists in the increasingly competitive world of modern day sport, there is not only a greater emphasis on the physicality of sport performance, but also an increasing interest from coaches, players and spectators to identify certain mental skills and psychological attributes that facilitate improved performance (Golby & Sheard, 2004). Mental skills training (MST) assists in the development of athletic potential and has long been identified as a crucial component in distinguishing between winning and losing athletes, in highly competitive sporting environments (Collins, Button, & Richards, 2011).

Even though there is an increasing amount of interest in the psychological aspects of sport performance, there is a lack of formal knowledge on the contribution of beneficial psychological practices. Golby and Sheard (2004) support this by stating that the roles of physiological boundaries in predicting achievements in the realm of amateur and professional sports are well-known and established. However, the attention to the role of psychological traits, characteristics and mental training such as hardiness is sparse (Golby & Sheard, 2004).

This is evident in many sport environments, where the bulk of training is focussed mainly on the physical aspects of sport. The heavy focus on physical training provides a possible window of opportunity for athletes, who could potentially gain a psychological advantage over their opponents by using mental training methods. Athletes have indeed started to realise this, and are seeking the assistance of sport psychology consultants in increasing numbers. This is typically seen in elite athletes, but has not necessarily filtered into other spheres of competitive sport. An example of this, and the context of this research, is the world of competitive student sport. Here the academic demands are high and as a result, the mental aspects of training and performance are not prioritised or may be ignored completely. It is for this reason that mental skills training is posed as a vital exercise for student athletes. This training could be incorporated into student athlete training programmes and this could in turn, enhance student athlete performance. These sentiments mirror the rationale of this particular research project in which student rowers at Rhodes University were exposed to various mental skills training methods, specifically tailored to their needs, for the purpose of improving their performance and well-being as athletes.

1.2. Contextualising the Research

The competitive sporting arena is characterised by an increasing demand for greater levels of success and the highest accolades and rewards go to those who achieve gold medal status. As a result, there is a greater desire from sport professionals to explore and single out various psychological traits that produce an exceptional athlete and to find ways in which these desired mental characteristics can be developed and effectively practised (Etnier, 2009; Golby & Sheard, 2004). Mental skills training, or psychological skills training, is a sphere of sport psychology that strives to improve an individual's performance and well-being by developing these desired psychological traits via certain mental training techniques and exercises.

Mental skills training comprises of the allocation of a set of particular mental strategies that are utilised by athletes to improve their ability to deal effectively within training and competitive environments, as well as improve their well-being and performance (Kellmann, Bubmann, Anders, & Schulte, 2006; Weinberg & Gould, 2011). This involves the practice of exercises such as positive self-talk, visualisation, dissociation and association and goal-setting (Birrer & Morgan, 2010; Weinberg & Gould, 2011). Whilst the incorporation of mental skills training can enhance performance, it is of importance to factor in the athlete's environment, as well as the complicated nature of the many psychological and non-psychological concerns that also play a part in achievement in sport (Bull, Shambrook, James, & Brooks, 2005; Greenleaf, Gould, & Dieffenbach, 2001).

The utilisation of specific psychological preparations is recognised in various fields, although historically, it has been neglected in many sporting contexts by coaches, athletes and sport professionals (Rushall, 2000). Even though there is an increased interest in the psychological aspect of performance in sport, there is still a lack of formal knowledge about the contribution of beneficial psychological practices. This is particularly evident in the sport of rowing, where literature regarding the psychological aspects and even the physical dimensions of the sport is rare and limited. When evaluating the existing body of academic literature surrounding the sport of rowing, it is evident that the bulk of rowing related information is concerned with the physical aspects of the sport. Connolly and Janelle (2003) support this notion by stating that the bulk of performance-related research in competitive rowing revolves around the bio-mechanics of the motion of rowing and the physical changes that occur whilst training physically.

Rowing is a sport that is renowned for the excessive demands that it places on an athlete and their endurance, both physically and mentally. Rowers are expected to produce synchronised movements and maintain a high level of concentration for extended periods of

time whilst being subjected to intensive physical demands (Connolly & Janelle, 2003; Cornett, Bush, & Cummings, 2008; Meehan III, 2007).

Considering the physical and mental pressures that rowers are placed under, it is surprising that very little research has been conducted in this field. It is evident that there are currently no studies regarding mental skills training programmes designed specifically for rowers, both nationally and internationally.

1.3. Research Question and Aims

The purpose of this research is to provide an account of the events and the effects of the development and implementation of a mental skills training programme customised to the needs and context of rowers who form part of the Rhodes University Rowing Club. The purpose of this research is to cater to the following statement:

- How can a mental skills training programme be developed and implemented in a manner that would align with the physical training of rowers at Rhodes University?

The overarching ethos of this research was to develop and implement a mental skills training programme that would provide certain tools and appropriate knowledge to this group of rowers with the intention of increasing their ability to improve their performance and their well-being as an athlete. With this in mind, the specific aims of the research are provided in the points below:

- Develop and implement a mental skills training programme, tailored specifically to the rowers participating in the research.
- Explore the perceptions of the participants on their experience of the mental skills training programme.
- Contribute to theory concerning the development of programmes in sports psychology, more specifically to the context of rowing.

Chapter 2: Literature Review

2.1. Introduction

Athletes and coaches regularly attempt to amend poor performance by increasing practice time, however insufficient physical skills are not the culprit for poor performance; rather a deficit in mental skills can be viewed as the root of concerns surrounding performance (Weinberg & Gould, 2011).

Mental skills training focuses on improving performance in teams and individuals and falls under the broader discipline that is sport psychology. Sport and exercise psychology is a dimension of investigation that is related to, and incorporates, concerns in line with motor learning, injury rehabilitation, imagery, disabilities, gender issues, methodologies, cross-cultural perspectives and the treatment of multiple emotional, behavioural and mental disorders, as well as many other issues in conjunction with the areas of psychology and performance (Tenenbaum, Morris, & Hackfort, 2008).

2.2. Sport Psychology in Context

Sport psychology has transitioned from a fledging academic domain limited to research on motor behaviour in laboratory environments, to an extensive, multi-disciplinary profession where psychological methods are available to a broad scope of physically active people (Vealey, 2007). This evolving sphere of psychology is a growing field that has shifted the focus of athletic performance to include the profound role that the mind plays in performance.

Sport and exercise psychology is a professional and scientific stream of knowledge that concentrates on multiple dimensions of behaviour within the sport and exercise environment (Tenenbaum et al., 2008). Sport psychology is related to several other fields of psychology, which include health psychology, rehabilitation psychology and exercise psychology (Rejeski & Brawley, 1988). Kornspan (2012) adds two other dimensions of sports psychology, namely participation and motivation. Many past definitions of sport psychology have included the application of psychological principles to environments such as sport performance and organised sport as a fundamental characteristic (Rejeski & Brawley, 1988).

When contextualising the realm of sport psychology, it is important to review the evolution of this discipline in order to get a richer understanding of the characteristics

pertaining to it and to engage with the different forces that have contributed to the development of this field. Elements of sport psychology were first noted by the ancient Greeks, however psychological research within sport as an entire discipline, only started to appear at the turn of the nineteenth century (Lavallee, Kremer, Moran, & Williams, 2003). Even though elements of sport psychology can be traced to ancient times, the development of sport psychology as a discipline has been inconsistent and complicated, with psychologists historically demonstrating a delayed recognition of sports as a legitimate field of research (Mahoney & Avenier, 1977; Tatenda, 2013). This is due to the fact that, historically, sport psychology developed in physical education departments prior to its re-birth in other areas such as kinesiology, exercise and human movement sciences (Andersen, Van Raalte, & Brewer, 2001). Coaching and educational models formed the basis of applied sport psychology (Andersen et al., 2001; Morris & Thomas, 1995). This is still often the case in modern communities, particularly in South Africa, where elements of sport psychology are practised at a rudimentary, informal level, with very little formal sport psychology related practice. This is largely due to the reasoning that sport psychology, developed mostly during the 20th century, is seen as a relatively novel discipline with only more recent literature, starting to focus on the development of sport psychology as a profession, (Kornspan, 2012; Tenenbaum et al., 2008).

There is minimal information available about sport and exercise psychology during the 1890 to 1920 period. Recently however, published literature has given a more extensive account of the development of this discipline (Kornspan, 2012). Researchers propose that the first study considered to be characteristic of the contemporary idea of sport psychology was Triplett's research on the effects that competition has on motor performance (Whelan, Mahoney, & Meyer, 1991). Triplett (1898) studied cyclists in several different settings. These included the participants performing against a particular standard or goal, against time and against other performers in a competitive environment. Triplett's experiment concluded that the cyclists in this particular setting performed best when they were competing against other cyclists (Triplett, 1898).

The next stage in the history of sport psychology took place between 1920 and 1940 and was characterised largely by the development of sport psychology laboratories and psychological testing in the field of sport (Kornspan, 2012). Most of the testing that took place within these laboratories and during this time frame focused on the identification of certain attributes that possibly made performers successful (Kornspan, 2012).

Shortly after the founding of the first experimental psychology laboratory in Germany by Wilhelm Wundt in 1879, the first sport psychology laboratory was created in 1920 by Robert Werner Schulte in Berlin (Tenenbaum et al., 2008). In Russia, the first sport psychology department was established by P.A. Rudik in 1920 in the city of Moscow (Rodionov, 2010). In addition to the induction of sport psychology laboratories in Germany and Russia, other sport psychology departments and establishments began to arise in other areas of the world. In Japan in 1924 the National Institute of Physical Education was created by the ministry of Education in Tokyo (Fujita, 1987). This included a specific division of the organisation that was dedicated to research in psychology, pertaining particularly to that of sport and physical education (Fujita, 1987). Coleman Griffith, one of the most widely recognised historical figures in sport psychology, is considered to be one of the key contributors to the establishment of the first sport psychology laboratory in the United States in 1925 at the University of Illinois (Gill, 1995; Tenenbaum et al., 2008).

During the 1940s and 1950s, physical educators and psychologists began to consider different methods that psychology could apply in order to work with athletes in an attempt to aid them in improving their performance (Kornspan, 2012). However, Tenenbaum et al. (2008) regard this era as a dormant period, subsequently stating that sport psychology experienced significant growth during the 1960s in both America and Europe, as a result of university professorships and the establishment of the International Society of Sport Psychology (ISSP) in Rome in 1965 (Seiler & Wylleman, 2009). In the late 1960s, following the formation of the ISSP, many countries throughout the world started to introduce sport psychology associations. This included the establishment of the North American Society for the Psychology of Sport and Physical Activity (NASPSPA) in 1966, the British and the French Societies of Sport Psychology in 1967, the Canadian Society for Psychomotor Learning and Sport Psychology and the Association for Sport Psychology in Germany in 1969 (Kornspan, 2012).

The development of sport psychology during the 1960s and 1970s was characterised by sport psychologists exploring the impact of psychological factors such as self-esteem, anxiety and personality on sport and motor skill performance. They also focussed on how involvement in sport influences psychological development such as aggression and personality (Weinberg & Gould, 2011).

From the mid-1970s to the year 2000, the field of sport psychology experienced significant growth throughout the world (Tenenbaum et al., 2008; Weinberg & Gould, 2011). This period saw an increased acceptance and interest from the public as well as researchers

concentrating on application issues associated with the discipline of sport psychology (Weinberg & Gould, 2011). Sport psychology developed into an entity of its own as a result of separating itself from the psychology related fields of motor development, control and learning in the area of sport and exercise science (Weinberg & Gould, 2011). More books were published in this era along with increased and better quality research and the development of conferences and speciality journals within this field (Weinberg & Gould, 2011).

Contemporary sport and exercise psychology is an interesting and vibrant field, with an increased amount of attention paid to the stream of performance enhancement (Kornspan, 2012; Weinberg & Gould, 2011). Historically, physical activity for disease prevention and rehabilitation has dominated research within the fields of sport and exercise psychology. Though this continues to be a major focus for psychologists concerned with exercise, an increasing amount of these psychologists are utilising their skills and research to improve athletic performance in teams and individuals (Dubbert, 2002). From the early 1990s until present, it is evident that the focus of sport psychology has shifted to the area of performance enhancement, with many journals, books and publications indicating a trend towards this particular topic of interest. There is a demonstrated tendency to focus on enhancing the performance of athletes at an elite level. The elite sporting arena is not only perceived as the peak environment for coaches and athletes, but it is also seen thus by those who are part of the sport science support system; those who work intricately with elite performers in the build-up, preparation and orchestration of these sport competitions (Sharp, Hodge, & Danish, 2014). Recently, however, sport psychology literature has also begun to focus on the use of these enhancement practices on athletes of all levels. The focus here is on all athletes who could benefit from sport psychology principles and techniques such as psychological skills training.

2.3. Evolution of Mental Skills Training

Mental skills training, also known as psychological skills training, is a branch of sport psychology that aims to improve an athlete's performance and well-being by utilising certain mental training techniques. It is important that the evolution of this sub-section of psychology is investigated in terms of its origin and progression over the past few decades, for the purpose of creating a greater understanding of the rationale and purpose behind this approach.

Sport psychology was well-established as a field for a significant amount of time before sport psychologists began to concentrate and involve themselves in performance enhancement of athletes via psychological training methods (Morris & Thomas, 2004). The

connection between sport and psychology was generally placed in the hands of physical educators whose sole purpose was to attempt to understand this dimension of human behaviour, rather than trying to control and alter it. Over time, economic and political pressure for athletes and coaches to perform on an international stage placed higher demands on people of the sporting world. It was at this time that sports administrators began to employ the skills of technique-based coaches and physiologists trained in physical conditioning to prepare athletes more adequately for training and competing. However, even after these methods were incorporated into their training, a considerable amount of these competitors still performed poorly, despite their flawless technique and superior physical conditioning. It was at this point that the world of sport began to turn to sport psychology for answers and ways to improve performance and hence the practice of mental skills training was born (Morris & Thomas, 1995).

The first country noted in the systematic incorporation of mental skills with coaches and athletes was the Soviet Union in the 1950s (Ryba, Stambulova, & Wrisberg, 2005). Avksenty Puni, noted as a pioneer in Soviet sport psychology, established possibly the first mental training model, incorporating elements such as confidence, distraction control, goal setting, self-regulation of arousal and attentional focusing (Weinberg & Gould, 2011). The Soviet focus on psychological training within sport infiltrated other Eastern Bloc countries throughout the 1970s and 1980s (Kornspan, 2012).

The systematic application and investigation of mental skills training was not evident in North America until the 1980s, however a handful of pioneers started to practice in mental training methods before this time (Vealey, 2007). An example of this was Coleman Griffith who was employed by the Chicago Cubs professional baseball team in 1938 for the purpose of improving the group's performance (Vealey, 2007). Another individual in this era, who formed part of the cartelisation of the utilisation of mental skills training in America was Dorothy Hazeltine Yates, who worked predominantly with boxers, specialising in a mental preparation and a "relaxation set-method" (Kornspan & MacCracken, 2001).

These are only a few of the examples of the start of mental skills training procedures in the early to mid-1900s. It was only in the 1970s and 1980s that concrete matter regarding the field of sport psychology became apparent. Studies questioning athletes about psychological traits that aid performance became more commonplace during this period and for some time, the main preoccupation of sport psychologists was to create methods that had the ability to improve the psychological traits identified in prior peak performance research. Psychological skills training was generally used to increase self-confidence by using positive

self-talk and positive imagery for the purpose of seeing oneself as in control. The training was also focussed on improving concentration, stress management, centering and attention control, goal-setting to improve commitment and determination as well as mentally rehearsing performance sequences (May & Brown, 1989; Morris & Thomas, 2004; Murphy & Ferrante, 1989). However, the focus of research at this time mainly rested on the role of relaxation and imagery in relation to their effect on performance and also considered the role that positive self-talk and imagery had on confidence levels. There is little information relating to the effective and appropriate ways of implementing these measures and it was not until the 1990s that ideas surrounding the practice of these mental skills and frameworks for psychological training interventions began to surface (Morris & Thomas, 2004). In recent years more practical guides on what sport psychologists actually do, rather than the models they follow, have come to light and whilst considerable bodies of information solely dedicated to mental skills training are not commonplace, an adequate amount of literature is now available on this particular topic.

2.4. Defining Mental Skills Training

Mental skills training refers to various psychological training methods that are used to improve the performance of athletes. These mental training techniques can include goal-setting, imagery, mental preparation, association and dissociation, arousal regulation and self-talk.

Self-talk is an essential mental skill that plays a significant role in performance. Thelwell and Maynard (2002) state that positive self-talk can enable performers to concentrate on cues that are relevant to the task at hand, as well as to underpin an appropriate focus on goals and aspirations. A similar method to self-talk is the use of certain forms of vocabulary by the athlete. Rushall (2000) advises the use of certain words that emote, vitalise or energise the performer. These are words that result in a certain physical reaction within the body, that when said with an appropriate feeling result in an emotional outcome or movement (Rushall, 2000). Techniques such as these can assist in the development of stamina and mental skills in athletic performance.

Another mental skill is that of imagery, more specifically that of mastery imagery (Thelwell & Maynard, 2002; Rushall, 2000). Mastery imagery entails the performer imagining oneself as being successful, from either a process or outcome point of view. This enables them to be motivated and experience optimistic perceptions of their performance in the future (Thelwell & Maynard, 2002).

Birrer and Morgan (2010) stress the effectiveness of using disassociation and association strategies in psychological skills training and developing mental skills and stamina. Research typically concerned with endurance type sports, mostly indicates that associative techniques, where the athlete focuses on bodily sensations and performance-specific hints, correlate with more effective performance (Birrer & Morgan, 2010). Disassociation methods may entail attentional distractions such as thinking about the landscape, work or focusing on music - any element that is not related to the current activity (LaCaille, Masters, & Heath, 2004).

Other aids used to develop mental skills, as stated by Rushall (2002), include positive self-statements and thinking, and segmenting the performance or race into sections or segments. This technique is of importance particularly when the event is lengthy and when there is a greater demand for the performer to display high levels of endurance (Rushall, 2002).

When reviewing the past body of research on psychological skills training, it is clear that several researchers, writers and theorists have put forward a variety of ideas, research results and definitions regarding this particular subject. From these it is evident that there are a number of varying definitions and ideas that surround this area of research and knowledge. When attempting to understand the development of mental skills training programmes it is imperative that we understand and consider the manner in which individuals have defined and explained the idea of mental skills training.

Morris and Thomas (2004) provide an encompassing definition and explanation of the fundamental processes that form the mental skills training process. They state that the mental skills training approach requires performers to make use of a number of techniques to emulate or improve mental characteristics that are associated with peak performance in general sport psychology literature. The goal is to mirror the peak performance state, based on the sentiment that this will increase the likelihood of a successful performance to occur more regularly (Morris & Thomas, 2004).

Frey, Laguna, and Ravizza (2003) provide a broad definition of this construct by referring to mental skills training as the experience with a consultant such as a coach or sport psychologist who introduces an athlete to psychological skills or where psychological skills training techniques have been taught to a sportsperson.

Weinberg and Gould (2011) elaborate on this definition slightly by stating that psychological skills training can be described as the regular and systematic utilisation of mental or psychological techniques in order to heighten performance, greater enjoyment, or

achieve increased personal satisfaction in physical activity and sport. Now that several definitions have been developed it is important to discuss the scope of mental skills training and all that this field encompasses as well as the current nature of this discipline and the characteristics of current mental skills training programmes.

Modern day mental skills training techniques stem from a wide variety of sources and encompass both older mental skills training techniques such as imagery and relaxation and extend to newer techniques such as biofeedback. Weinberg and Gould (2011) provide more information on the nature of psychological skills training techniques by stating that they generally comprise of various tools and methods that originate from an extensive scope of sources, most of which fall within the field of mainstream psychology. These sectors include “behaviour modification, cognitive theory and therapy, goal-setting, attentional control, progressive muscle relaxation, and systematic desensitisation” (Weinberg & Gould, 2011, p. 248). Behncke (2004) supports this statement and adds to the list by stating that psychological skills training in sport can be viewed in connection with various cognitive-somatic methods such as visio-motor behaviour rehearsal, biofeedback, cognitive-behaviour therapy, mental imagery as well as visualisation and mental rehearsal.

Current psychological skills training programmes involve the provision of a sequence of specific psychological procedures to athletes to improve their aptitude to engage in competition and training, as well as enhance their well-being and performance (Kellmann, Bubmann, Anders, & Schulte, 2006; Weinberg & Williams, 2006). This involves the athletes' use of techniques such as positive self-talk, thought stopping, routines, anxiety management, goal-setting, mastery imagery, dissociation and association and segmenting the performance into phases (Birrer & Morgan, 2010; Thelwell & Maynard, 2002; Weinberg & Williams, 2006). Whilst most comprehensive psychological skills training programmes strive to develop most of these attributes, it is generally very difficult to transfer all of these elements into a mental skills training programme as often situational restraints and environmental factors limit most of these programmes to an abbreviated form. By using a summarised form of these programmes participants are also safeguarded from becoming overwhelmed by too many mental skills training methods being introduced at once (Weinberg & Williams, 2006).

Whilst more mental skills training programmes like these are being implemented into various organisations and the utilisation of specific psychological preparations is now recognised in various fields, this dimension of athleticism is still neglected by athletes, coaches and sports psychologists (Rushall, 2000). Despite an increased interest in the psychological aspect of performance in sport, there is a deficit in formal knowledge

surrounding the contribution of beneficial psychological practices as opposed to physical. Golby and Sheard (2004) second this notion by stating that the roles of physiological boundaries in predicting success in the sphere of professional and amateur sports are well-known and established. However, the knowledge of the scope and boundaries of sport and psychology is not yet as extensive and mental skills training has a less established knowledge base and practice component. Whilst these might be the existing, defining characteristics of this field, there is an increasing interest in the role that the mind plays regarding performance in sport. This translates into a great need for research in sport psychology, particularly in mental skills training to support athletes to meet the continually rising demands for success in their highly competitive fields.

2.5. Effectiveness of Mental Skills Usage and Training

One of the most important questions that sport psychology consultants should consider relates to the effectiveness of their mind-based interventions in terms of improving performance and fostering personal well-being and growth (Weinberg & Williams, 2006). The same concerns revolve around the utilisation of mental skills and attending programmes that aim to teach and develop these skills.

Psychological training methods involve the provision of a collection of mental strategies used by athletes for the purpose of improving their ability to deal with competitive and training environments with greater levels of success (Dosil, 2006). Whilst this is considered to be the over-arching ethos of mental skills training, it is imperative that the effectiveness of mental skills utilisation is explored in order to discover whether or not sentiments like these ring true. Investigating the effectiveness of mental skills training programmes is imperative when conducting research concerning the creation and implementation of a similar programme because the aim of this research is to improve the performance and well-being of the athlete. By reviewing the effectiveness of related programmes, we are able to gauge whether or not these processes and techniques are beneficial and, if so, to work out the most effective ways to conduct them. When discussing the effectiveness of mental skills training, it is useful to discuss the mental strategies used by athletes in attempts to improve their performance. Various studies identifying the mental attributes and cognitive strategies of successful athletes have been conducted. These findings indicate that the use of mental practice by athletes can be an effective means of improving their performance.

One of these studies was Gould, Weinberg, and Weiss's (1981) assessment of successful and less successful wrestlers and the psychological nature of their experiences

when training and competing. Their findings indicate that successful athletes, in comparison with less successful athletes, use different cognitive strategies and skills. Their results state that the more successful wrestlers showed more confidence than the wrestlers who were not as successful and that the more successful wrestlers prepared themselves mentally more frequently by means of focusing their attention on solely match-related thoughts. The more successful athletes also reported higher usage of other mental skills which included visual imagery and positive self-talk as part of their pre-competition strategies.

Another study that focuses on the mental training characteristics of successful athletes is that of Fletcher and Hanton's (2001) study on the nature of the relationship between psychological skills incorporation and competitive anxiety responses of non-elite and elite swimmers. The hypothesis that athletes who display higher usage of psychological skills will perceive pre-competitive anxiety side effects as facilitative and will have greater self-confidence was partially supported in the case of self-talk, imagery and relaxation. Most notably, relaxation was credited as being the most effective mental skills technique in this study. The results demonstrate that swimmers who used relaxation strategies regularly whilst competing, experienced lower intensity levels and viewed cognitive and somatic anxiety as more facilitative than those who used less tools for relaxation. These athletes also indicated that they have higher levels self-confidence (Fletcher & Hanton, 2001).

Another study that mirrors the findings of Fletcher and Hanton's (2001) research on the relationship between mental skills usage and competitive anxiety symptoms is Orlick and Partington's (1988) research on Canadian Olympians who were analysed in terms of their mental readiness for participation in the Olympic Games. In this particular study the focus was on the consistent success factors connected to psychological skills usage, as well as on the factors that were detrimental to performance. One of the prominent psychological skills apparent in this research endeavour was the utilisation of imagery by this collection of Olympic contenders. These particular athletes had advanced imagery skills and made use of them on a daily basis. These Olympians used imagery for mental preparation purposes in order to attain their objectives, perfect skills and make corrections to their technique. Imagery was also used to imagine themselves to be successful when competing as well as to envision themselves attaining their ultimate achievement.

After analysing research findings like these it is evident that athletes who use mental skills have experienced them to be beneficial to their performance to some degree and that they are more successful in their sporting endeavours. However, this does not produce a direct link between improved performance and mental skills training in the form of a

structured intervention or formal education and application. Fortunately researchers such as Beauchamp, Fournier, Halliwell, and Koestner (1996) have conducted research on the effect of psychological skills training methods in the form of a cognitive-behavioural programme on golfers. In this study a group of golfers were subjected to a 14 week intervention and were compared with a control group and a physical skills training group. The results demonstrated that the group in the cognitive-behavioural programme showed greater intrinsic motivation, better putting performance, more consistent utilisation of pre-putt routines and a significantly lower usage of introjection (a harsh type of self-regulation) in relation to participants in the other two samples. The researchers also stated that these findings indicated that these types of interventions can produce promising motivational effects on athletes.

These positive findings are supported in various other studies concerning similar interventions and are supported by Greenspan and Feltz's (1989) meta-analysis which reviewed a total of 23 interventions (19 published studies) and found that in general, remedial cognitive restructuring and relaxation-based interventions with athletes have a positive effect on their performance.

Whilst more information could always be useful when attempting to produce a more substantial link between mental skills training and improved performance, it seems that from the findings reviewed in this section and according to Cumming, Hall, and Shambrook (2004), mental skills have long been viewed as an integral component of what causes an athlete to be successful at elite levels. Therefore, it seems that there is value in implementing mental skills interventions.

2.6. Development of Mental Skills Training Programmes

When designing and developing mental skills training programmes it is important to keep certain aims and ideals in mind in order to provide an effective and beneficial tool for athletes to incorporate into their training. Balague (2000) states that an aim of mental skills training programmes is to help athletes to maximise their ability via learning and to improve the athlete's performance consistency by enhancing their sense of control over their performance. In relation to Balague's (2000) stance on the importance of improving an athlete's level of control through mental training, another prominent aspect of mental skills training that enables greater self-control, is the ability to self-regulate. Weinberg and Williams (2006) believe that one of the most critical elements of implementing a mental skills training programme successfully is the utilisation of self-regulation. It is imperative when designing a mental skills training programme that the researcher provides the correct knowledge and tools for the participants to be able to self-regulate effectively.

Weinberg and Williams (2006) provide various guidelines for the setting up and design of a mental skills training programme. One of the first steps in this process is to discuss what you want to do with the athletes and give them more information on the particulars of the approach that you plan to take, as many athletes are unaware of what psychological training involves. When the initial meetings take place, it is also imperative that the consultant emphasises the need and importance of systematic psychological training and that they create an optimistic belief structure around this subject.

Once adequate information regarding the approach and the importance of psychological skills have been given, the consultant should conduct a needs assessment pertaining to mental skills that are deficient or that will have the most notable effect on performance and well-being. It is also worthwhile for the assessor to explore the demands of the particular sport and that the contextual details particular to the participant group are noted.

Once the assessment has been conducted the consultant must determine which psychological skills will be the most appropriate for the situation at hand and how many of these techniques should be incorporated into the programme according to the time and resource allocations provided by the participant group (Weinberg & Williams, 2006).

2.7. Implementation of Mental Skills Training Programmes

Once the design of the mental skills training programme has been completed, steps towards the implementation of the intervention can commence. According to Weinberg and Williams (2006) most comprehensive psychological skills training programmes emphasise the building of mental techniques and skills such as goal-setting, concentration, confidence, routines, negative thought blocking, imagery, anxiety regulation and self-talk to name a few. The vast range of possibilities makes it challenging to integrate all of the aspects into one all-inclusive programme. In essence, environmental and contextual restraints (for example the fact that athletes only have a few weeks to mentally train before competing) do not generally allow for the conduction of an exhaustive psychological skills training programme (Weinberg & Williams, 2006). These are important considerations that need to be taken into account throughout the research process and are elements that should constantly be re-evaluated to ensure that appropriate adjustments are made in order for the implementation of the programme to be successful.

When implementing a mental skills training programme it is important to note that whilst the utilisation of such an intervention can improve performance, one must remain mindful of the complex nature of the multitude of psychological and non-psychological

elements that also play a role in successful sporting performance, as well as considering the athlete's environment (Bull, Brooks, James, & Shambrook, 2005; Gould, Greenleaf, & Dieffenbach, 2001; Morris & Thomas, 2004).

Anderson, Mahoney, Miles, and Robinson (2002) mention another noteworthy aspect to consider when implementing a mental skills training programme. This involves the ethical responsibility and accountability that the consultant has towards the welfare of the athlete, a consideration that remains central to the practice of psychological services. Anderson et al. (2002) also believe that as a sport psychology consultant, one also has a responsibility to themselves to strive continually to provide the best service possible and to act in the best interest of the athletes with whom they deal.

When implementing a mental skills training programme it is also good to be well-versed in the behaviours, existing beliefs and tendencies of athletes who attend psychological training programmes and also to be aware of the possible pitfalls that may occur. Measures should be put into place to prevent these from occurring. Morris and Thomas (2004) discuss some of the common issues associated with the implementation of mental skills training endeavours which may arise. These include: fitting the programme in with other professionals who work with the athletes, difficulty working with the coach and players, the possibility that not all athletes and environments will be conducive to every process or aspect of certain mental skills practices.

Another consideration to keep in mind when implementing a mental skills training programme is the tendency that athletes generally have to neglect their psychological training and to overly concentrate on the physical side of their training. Another similar tendency that athletes often demonstrate is the inclination to focus on the psychological aspects of their performance when competing and neglect this side of their mental awareness when they are training. This tendency is illustrated in the findings produced by Frey, Laguna, and Ravizza (2003) on the psychological skills usage profiles of athletes in training and in competitive environments. The study found that in the practice environment, 11 (5.5%) of the 199 participants demonstrated a high mental skill use, 150 (75.4%) utilised psychological skills moderately often and 38 (19.1%) indicated that they had a low usage of psychological skills. The findings of the research also indicate that a higher amount of mental skill usage took place during competition, as out of the 199 participants, 51 (25.6%) scored in the high range, 141 (70.9%) made use of psychological skills moderately, and 7 (3.5%) indicated a low usage of psychological skills. Therefore the hypothesis stating that a higher usage of psychological skills would be evident during competition in comparison to

practice was supported. This type of research is valuable to the implementation process of mental skills training as it advises the intervention consultant on the considerations that should be noted in order to orchestrate a programme that has the most promising effect on the athletes. An example of such a consideration could be that the consultant knows to encourage the athletes to practice mental skills more during their training sessions – this should result in a greater improvement in the athlete's competitive performance because athletes spend the vast majority of their time doing practice sessions rather than competing.

2.8. Evaluation of Mental Skills Training Programmes

Weinberg and Williams (2006) warn that it is not an easy process to evaluate a mental skills training programme and to accurately gauge the impact that it has had on the athletes involved. The evaluation process is an extremely important part of the conduction of a mental skills training programme as it has the power to improve the psychological training programme and the skills of the person who administers it, and in-turn provide useful information to aid future research endeavours and related sport psychology methods and interventions. An evaluation process should be an essential component of any intervention associated with group or organisational conglomerates as well as individual entities.

Several approaches to evaluation have been utilised in applied sport psychology, clinical psychology, organisational psychology and educational psychology and can be sub-categorised into non-experimental measures. How appropriate these evaluation methods are for analysing applied sport psychology programmes such as mental skills training interventions, are reviewed in light of the nature and traits of the practice environment and the specific reasoning behind the orchestration of an evaluation in that particular context. (Anderson et al., 2002).

Weinberg and Williams (2006) state that besides the responsibility that ethical demands place on the sport psychology consultant to evaluate the effectiveness of the intervention measure they have put in place, practical aspects are also to be noted.

Firstly the evaluation of the programme produces valuable information for consultants as well as coaches in order for these entities to get a realistic indication of the effectiveness of their intervention efforts and to make amendments where they are required.

Secondly, the evaluation process produces an opportunity for participants to make valuable contributions in terms of feedback regarding certain aspects of the intervention that were neglected or omitted, as well as having the chance to make suggestions revolving around the manner in which the programme was implemented.

Lastly, evaluation is the only process in which we can objectively look at whether or not the mental skills training programme achieved the intended goals that were set in terms of altering certain aspects of the athletes' or team's behaviours and performance.

2.9. Considerations for Mental Skills Training Programme Development

When developing a mental skills training programme it is important to discuss certain considerations regarding the formalities and process that are characteristic of these intervention strategies. Weinberg and Gould (2011) advise that three prominent phases take place when conducting psychological skills training, namely the educational phase, the acquisition phase and the practice phase.

The first phase of this sequence of events is the educational phase. Mental skills have to be learned, practised and acquired over time, with the skills developing and encompassing a propensity for refinement over an extended period of time.

The next phase of the development of mental skills training involves the acquisition phase. This phase focuses on the particular techniques and procedures that enable the learning of different mental skills strategies and ensures that the programme is tailored to suit individual needs. In this phase general subject matter can be provided to the team or group but when developing an individual's mental skills training programme, a more specific approach should be adopted.

The practice phase involves the active learning of mental skills, which means that there should be a progression from simulations and practice to real-life competition settings. This phase emphasises the automation of skills by means of active learning, incorporation of mental skills into training and simulating the actions and skills that you want to apply to competitive settings in reality (Weinberg & Gould, 2011).

2.10. Sport Psychology in Rowing

It is a well-known sentiment that, in the world of sport, there is often a tendency of athletes, coaches and sport practitioners to neglect the psychological dimension of sporting performance and instead to focus on the physical elements of the athlete's training and competition strategies.

Connolly and Janelle (2003) maintain a similar stance, but state specifically that within the context of rowing in a competitive crew, the bulk of performance-related research focuses on the bio-mechanics of the motion of rowing and the physiological alterations that occur in training. As psychological stamina and concentration are essential factors for a successful rowing team, the relative deficit in knowledge and lack of focus on the psychological sphere of rowing are surprising (Connolly & Janelle, 2003). Simply rowing an

excellent and technically sound race does not necessarily translate into the crew performing to its full potential (Cornett, Bush, & Cummings, 2008). The crew's ability to focus on producing their utmost effort, their dedication to the race, and their perceived exertion are all mental functions linked to their competitive placing (Cornett et al., 2008). The crew's degree of power exerted correlates with how well the rowers focus, and their tendency to be distracted by counterproductive thought patterns (Cornett et al., 2008). In order to ensure that their movements are identical and in time with the other athletes in the team each rower must maintain their concentration and focus when competing (Connolly & Janelle, 2003; Meehan III, 2007). Failing to keep momentum and disrupting the synchronisation of team members' movements can prove to be disastrous to the performance of the boat and it is for this reason that a momentary lapse of the mind is to be avoided at all costs, in order to prevent these events from occurring. Considering this, the continuous practice of certain psychological skills is vital for rowing success and to improve rowing performance.

Despite the lack of information on psychological skills in rowers, certain events and attributes that are characteristic of similar contexts can also be applied to the rowing context. An example of this would be the research carried out by Côté and Sedgwick (2003) on the effective behaviours of Canadian elite rowers and their expert professional rowing coaches. Findings concerning the favourable behaviours of the coaches that could be acquired by the rowers themselves included the conducting of goal-setting procedures and the development of confidence (Côté & Sedgwick, 2003). Generally, research concerned with endurance type sports, usually indicate that associative techniques, where the athlete focuses on bodily sensations (such as muscular tension and breathing) and performance-specific hints (such as the stroke rate in rowing) correlate with quicker performance results (Birrer & Morgan, 2010). Kellmann et al. (2006) supports the use of specific mental training aspects applicable to the context of rowing as well as the use of specific elements which should be considered in the immediate, medium and long-term preparation phases. These components can be applied in any order, as well as simultaneously, and include techniques such as providing advice for the coach, team consulting and individual consulting (Kellmann et al., 2006). Specific mental skills training techniques mentioned by Kellmann et al. (2006) within the context of rowing include relaxation measures, debriefing and communication and synchronising internal processes (emotions, thoughts and self-talk).

Whilst literature linking rowing to the field of sport psychology is available as evidenced above, the base of knowledge on this subject is very limited. It is clear that there is

a great need for research in the realm of sport psychology and the nature of the relationship that it has with the sport of rowing.

2.11. Mental Skills Training Programmes for Rowing

Considering the scarcity of information regarding sport psychology and rowing, it is not surprising that the amount of information on mental skills training and rowing is almost non-existent. However, certain processes that hint on the usage of mental skills training procedures and the exploration of mental skills characteristics regarding rowing are evident in several texts.

Shambrook (2009) provides considerable insight into specific details pertaining to the aspects of consultancy that in his experience, have proved to be beneficial in the improvement of the performance mind-set of rowers in general and to particular crews of rowers. Shambrook (2009) provides information on his experience as a sport psychologist for the Great Britain Rowing team and the particulars of the delivery of sport psychology related methods to elite athletes such as these.

Whilst Shambrook's (2009) work provides a small amount of relatable content to mental skills training in rowing, it does not provide direct knowledge on the effects that mental skills training programmes have on rowers, nor does it focus on the implementation of a specific, structured and comprehensive psychological skills training programme within the context of rowing.

Another body of information that vaguely mentions rowers in relation to mental skills training is that of Loberg, Reed, Simpson, Withycombe, and Wrisberg's (2009) study on the National College Athletic Association (Division I) student-athletes' receptivity to psychological skills training by sport psychology consultants. This study made use of 244 web-based surveys sourced from university athletes, of which 168 were rowers. The purpose of this research was to explore university student-athletes' willingness to accept and incorporate the mental skills training aspect and the likelihood of them providing support for a place for sport psychology consultants in university environments. The findings showed that the participants' openness and inclination to seek help to develop their personal psychological skills and perceptions of the possible rewards of psychological training for their teams was largely reliant on sport type, gender, and prior experience with a consultant. Whilst this study made use of university student-athletes who happened to be rowers, it did not state any sport specific findings, therefore no information relating to mental skills usage in rowers was sourced.

It is clear when reviewing mental skills training literature about the sport of rowing, that there is a great need for more information on this dimension of sport and that a considerable gap in this field of research exists.

2.12. Summary

In this chapter the context of sport psychology was first provided and a brief history of this academic discipline was provided along with the current nature of this field and the range of topics that it encompasses.

Following the section on sport psychology was the explanation of how the practice of mental skills training evolved over the past few decades, noting traces of this practice in the early 1900s, but with only substantial evidence of this approach forming from the 1970s onwards.

The construct of mental skills training was then described and defined by several prominent sport psychology authors and researchers, along with the current nature of psychological skills training in society today.

An important aspect of mental skills training is the proposed effectiveness of this approach. This aspect of psychological skills usage and the systematic programmes that impose these methods was discussed and research investigating its effectiveness was presented. The general conclusion reached when reviewing studies investigating the effectiveness of mental skills was that they are generally beneficial to athletes in terms of their performance and well-being.

The methods associated with the development, implementation and evaluation of mental skills training programmes were discussed, as were the considerations that should be noted in order to conduct effective and successful interventions.

Finally, the theory and research relating to sport psychology and mental skills training pertaining to the sport of rowing was discussed. It was evident that research in this area is sparse and that there is scope for further research.

Chapter 3: Methodology

3.1. Introduction

This chapter will discuss the methods utilised in this research. It will provide a background on action research, explaining the different phases of the approach incorporated in the study.

A qualitative research design has been used in this research, an approach which is characterised by discovery and concentrates on understanding and viewing various aspects via the perspective of others, a method in which the social environment and events are seen and conveyed from the eyes of people (Bryman, 2012; Morse & Richards, 2002). A qualitative approach was adopted in this research as it enabled the researcher to consider particular elements of the research in an in-depth manner, therefore providing a rich account of relevant themes. In addition to this, a qualitative approach was utilised in this research as it allowed the investigator to explore various aspects of the project with a sense of openness, which makes it a suitable approach when using the action research process.

This research project made use of the Organisational Development Process (ODP) model advised by McLean (2005). This particular model is complimented by the action research approach and will be discussed in more detail in this chapter.

This chapter will also focus on the various research techniques that were incorporated into this study, as well as elaborate on several factors considered during the collection of data. These include elements of trustworthiness, credibility and reflexivity relative to this particular study. Ethical considerations surrounding this project will also be raised in the commencement of this chapter and, finally, a summary of the methodology process will be provided.

3.2. Action Research Model

The process of action research can be described as the cycle of planning, action and then reviewing the action, a process that is continuous (Cherry & Bowden, 1999; Hinchey, 2008). In this continual cycle, action is constantly enriched by reflection, planning and the injection of various ideas, concurrently the action creates experience which alters the manner in which we think about things. This research strategy pursues knowledge as well as action in an interactive fashion via participatory and cyclical means (Cherry & Bowden, 1999; O'Leary, 2004).

The goal of action research is to identify action that will materialise in a manner that serves to create some form of improvement that the researcher deems as significant (Hinchey, 2008). Considering that these principles correlate with the purpose of this particular research project, action research was deemed the most appropriate approach.

Action research entails a collaborative partnership, that is, the researcher and the participants. Their roles and relationships are mixed in order to maximise mutual support, yet at the same time also adequately differentiated to enable individuals to provide appropriate contributions considering the existing constraints (Hinchey, 2008). Action research is a procedure of systematic inquiry, a process that is orchestrated by those who are inside a community rather than by experts who form part of the periphery (Hinchey, 2008). This is applicable to this particular study, as the researcher and the participants are all members of the same local community. The researcher is part of the Rhodes University Rowing Club (RURC), which is where all the research participants were sourced.

According to Somekh (2006), the action research approach aims to integrate research and action in a collection of pliable cycles that incorporate steps in a holistic rather than isolated manner. These steps include, "the collection of data about the topic of investigation; analysis and interpretation of those data; the planning and introduction of action strategies to bring about positive changes; and evaluation of those changes through further data collection, analysis and interpretation" (p.6). Considering that this research makes use of almost identical principles and that these steps correlate with the criteria of the ODP model, action research is well suited to this particular study.

Whilst the steps and cycles of action research can be defined in several ways, they are often defined through interactional decision-making. However, as demonstrated in *Figure 1* they typically include a degree of variation on observation, reflection, planning as well as action (O'Leary, 2004).

A basic action research model is depicted in *Figure 1* below:

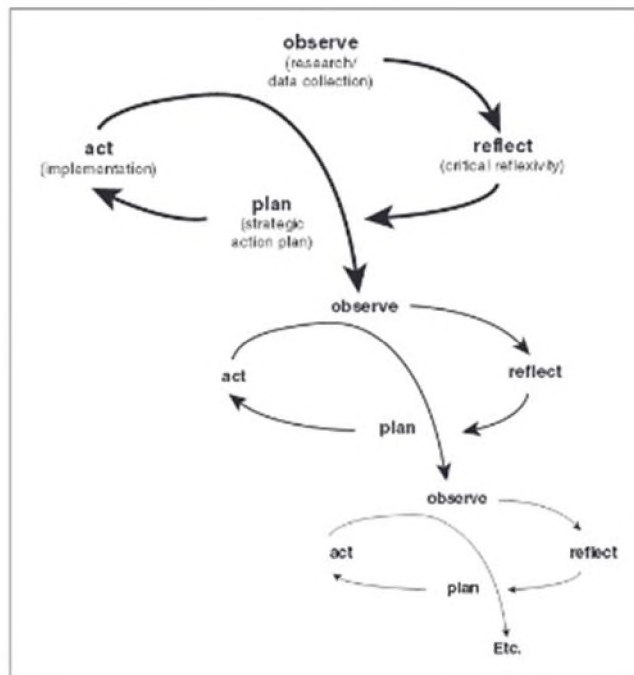


Figure 1. O’Leary’s (2004) diagram of cycles in action research

Koshy (2005) states that orchestrating action research is primarily about developing the process of knowing by means of reviewing, watching, listening, enquiring and being immersed in the acquisition of one’s personal knowledge. This viewpoint on action research correlates with the nature of this particular study as the researcher worked closely with the participants and used all of the techniques listed prior to acquire knowledge on this particular area of study.

Action research is considered an appealing approach for the conduction of this research as this method incorporates planning, action and reflection involving both the researcher and the participants. Whilst the principles of action research were applied to this study, the Organisational Development Process (ODP) model was utilised as the general framework for the process of this research.

3.3. The Organisational Development Process Model

The organisational development process (ODP) model was applied in this study. This framework comprises of eight inter-active phases (McLean, 2005). These steps include entry, start-up, assessment and feedback, action plan, implementation, evaluation, adoption and separation (McLean, 2005).

3.3.1. Entry

The entry phase entails the process of the consultant, who in this case is the researcher, identifying a need for change within an organisation. In the context of this research, this happened to be that there was a need for mental skills training within the Rhodes University Rowing Club (RURC) as the rowers endured a considerable amount of physical training but did not practice as much mental training (Rothwell, Stavros, Sullivan, & Sullivan, 2010). Only one of the participants had experienced some form of formal mental skills training, but this was at a basic, introductory level. Several of the other participants had encountered certain practices that are related to mental skills training, such as setting one general goal for themselves or doing visualisation for mental preparation purposes for team race plans. However, these practices had been reported by the participants as only taking place once or twice in their sporting careers. Some of the participants had not practised any form of mental training whatsoever. The researcher identified a desire or a goal of the organisation. This goal was to develop and implement a mental skills training programme, designed for this particular group of athletes, which would be beneficial to the performance of the group and to the club at large. Once this goal had been postulated, the researcher was able to start searching for help in order to facilitate the desired change directed towards the achievement of this dream (Rothwell et al., 2010).

This first step entailed the researcher informally talking to the athletes in the year before the research commenced, enquiring as to whether there would be a need and an interest in mental training. The response from the rowers was promising and the verbal interest demonstrated by the rowers for such an endeavour meant that the researcher could begin to implement the appropriate research processes. Appendices A, B and C demonstrate the permission forms that, before the research commenced, were sent to the dean of students, the head of sports administration of Rhodes University and the president of the RURC.

After these forms had been signed and collected, the researcher sent a message to the general RURC group asking if anyone would like to be part of this research, explaining the purpose of the research and requesting email contact addresses of those who expressed

interest. A form (see Appendix D) was sent to those who had expressed interest in the mental skills training programme detailing all that would be required of them and a messaging group was set up for all of the participants in case they had any questions. This forum was also utilised to set dates and times for the interviews, focus groups, performance profiling and mental skills training workshops. As the researcher was a member of the RURC, the researcher had spoken to all of the participants personally and had explained the details to all of the participants. This ensured that by the time the research commenced, the participants had full knowledge of what would be required of them. This was an important part of the entry phase, as good rapport was established at the beginning of the research process. This is imperative in a small, in-depth study of this nature as the research requires that participants feel that they can safely disclose personal details regarding their psychological experiences in sport - a field where responses of this nature are often viewed as being irrelevant or as a sign of weakness.

This is why the entry phase is vital, considering that psychological interventions such as the practice of mental skills training often deal with athletes who are reluctant to seek out assistance regarding the mental aspects of their performance. Gee (2010) supports this notion by stating that recent research indicates that many sport administrators, coaches and athletes are still reluctant to actively pursue the services of a sport psychologist, even if they have the knowledge that this contact could improve performance. One of the main reasons for this reluctance is that there is very little understanding of the process and the instruments through which mental skills influence the performance of athletes (Gee, 2010).

When contrasted with the “harder sciences” such as the biochemistry and physiology of sport (where sports people experience palpable results in themselves and in those around them) the unknown and sometimes esoteric realm of psychology in sport seems to regularly prevent a considerable amount of athletes from incorporating these useful techniques into their training (Gee, 2010).

The above considerations were kept in mind when approaching the athletes in the entry stage. In addition the researcher was aware of other considerations such as the fact that the athletes had various other commitments and that their time was often limited. For this reason, most of the initial correspondence with the athletes took place electronically. These enabled participants to communicate easily and to save time as all had varying timetables and were occupied with lectures, training and various other obligations.

To establish good rapport with the athletes and to prevent them from possibly perceiving the mental skills programme as extra work, more training or an added expectation,

they were assured that the initial focus group and mental skills training workshop would take place during the July holiday training camp and that the sessions and interviews after that would not be unnecessarily time consuming.

These considerations were important when dealing with the athletes in the entry phase as if they had not been addressed, the researcher would have run the risk of the athletes possibly not partaking in the research or not seeing the entire process through. This could possibly have had a negative effect on the researcher's findings.

The research process was also screened and approved by the Research Projects and Ethics Review Committee (RPERC) and was submitted to and approved by the Humanities Higher Degrees Committee (HHDC).

3.3.1.1. Research participants and sampling. This study utilised purposive sampling, a type of non-probability sampling in which participants are specifically chosen in relation to the particular aims and context of the research (Bryman, 2012; Edwards Jr et al., 2006).

The researcher chose this particular approach because the participants were all locally based and could be easily accessed. Bearing this in mind, there were several considerations that were incorporated into the selection process of the participants for this study.

The selection of the participants was based on certain criteria which included that they were bona fide students of Rhodes University who actively row for the university and that they were over the age of 18 at the time that the research commenced. It was initially stated that there would be between six and eighteen participants. Five female and five male participants were present at the beginning of the process, with eight of the ten participants being members of the 1st VIII teams. Whilst there were ten participants who informally took part in the mental skills training programme at various stages, six participants took part in the final interview. These participants were chosen for the final interview as they had participated in every mental skills training session. This was done so that the researcher could ensure that the highest level of accuracy was obtained in the findings regarding the evaluation of the programme as all of the participants would have been subjected to the same treatment. Whilst this was not a requirement in the selection of the final participants, all of the final six were first team rowers, three of them female and three of them male.

The participants were assured that their participation in the study would in no way be detrimental to their well-being and that the mental skills training programme was designed to improve their performance.

3.3.2. Start-up

The start-up phase of the ODP model occurs after an agreement has taken place for the parties involved to collaborate together, as well as the establishment of some kind of infrastructure (McLean, 2005). In this particular case, the planning of the dates and times that the participants would have to commit to were discussed and decided on between the researcher and the athletes who, at that time, comprised of three female and four male first team rowers. The performance profile and questions for the focus group were drawn up and approved by the supervisor of the research. Stationary, clipboards and folders were bought for the participants to have something in which they could keep all of their notes and worksheets that they would acquire over the duration of the mental skills training programme.

The start-up phase also involves the researcher having to discover what could possibly be done in the process of the study, as well as the acquisition of the consent of the participants, typically in the form of contracts (Rothwell et al., 2010). Whilst the researcher had received verbal commitment from the participants involved in the study, official written consent was obtained in the form of a contract (see Appendix E) which was signed by the athletes before the assessment meeting commenced.

3.3.3. Assessment and feedback

This phase consists of information being collected about which processes would be beneficial to the parties concerned and providing a chance for each entity to become involved and contribute to the change process that could be utilised to design the intervention (Rothwell et al., 2010). In this particular scenario, a focus group took place where the participants were able to voice their opinions and experiences regarding the psychological aspects of performance in sport, therefore aiding in the designing of the mental skills training programme that would then be tailored to their specific needs. This initial method of analysis was preceded by a performance profile exercise where a list of mental skills was generated and refined into several prominent mental skills which were then used to make up the official performance profiles that the participants were required to complete individually. The mental skills list generation, performance profile and the focus group exercises all took place concurrently at the beginning of the July holiday rowing camp.

The July holiday camp is held in preparation of the annual universities' Boat Race in September. The South African universities' rowing season generally runs throughout the year, but peaks between January and September as most of the regattas are held during this time. The first half of the season is classified as "sprint season" which runs from January until May and is followed by "Boat Race season" which ends in September. Holiday training

camps are held at the end of every term throughout the year in order to increase the students' training load when they do not have to be at university.

During the July holiday training camp the men and women rowers stayed in two separate houses. The reason for these living arrangements is that at Rhodes University, students have to vacate the student residence halls during the university holiday period. As a result the rowers stay in teams in residential homes close to the rowing venue. For transportation and logistical purposes as well as to manage the intensive training load experienced during rowing camps, the rowers choose to reside together as teams in communal houses. Due to these living arrangements, one mental skills list formation and the focus group and performance profile assessment were conducted with the female participants (on the 9th of July 2014) at their place of residence and the same exercise took place at the male place of residence (on the 8th of July 2014). This was done due to the fact that it was impossible to find one time that would enable both groups, who had differing training sessions occurring several times a day, to meet. Another reason was that some of the participants did not have means of transport to reach a common venue. In addition, there was no venue available within walking distance of the two places of residence. For these reasons it was decided that the researcher would go to the different places of residence to do the skills list formation and the profile assessment. This was done in the hope that it would attract more participants to the research, particularly in the early stages of the study.

The measures used in these assessment sessions include the focus group question schedule which can be viewed in Appendix G and the performance profile worksheet which can be found in Appendix H.

Once the assessments had taken place, the researcher was left to obtain feedback from the information that had been gathered from these methods of analysis. The focus group was video and audio recorded and then transcribed with the consent of the participants (see Appendix F). These transcriptions were then analysed by means of thematic analysis, in this particular case, Braun and Clarke's (2006) six phase approach to thematic analysis was used to evaluate the information obtained in the focus group interviews. These phases include; familiarisation with the gathered data, coding prominent elements of the accumulated data, collating codes into possible themes, reviewing the themes, defining and terming the themes, and finally reporting the results (Braun & Clarke, 2006). This particular method of analysis was deemed most appropriate for this research because it is a flexible, user friendly approach that provides a rich, intricate exploration of qualitative information.

Whilst exploring the information obtained from the focus groups, themes that emerged from the data where contrasted with existing material on mental skills training. The particular types of mental skills training techniques that where most needed by the participants were analysed in conjunction with the most effective mental skills training methods apparent in existing literature. This helped the researcher to thoroughly evaluate the acquired data and to find three of the most suitable mental skills training techniques for this particular group of athletes.

Braun and Clarke's (2006) thematic analysis framework was also applied to the final evaluation stage of this research. This method of analysis was used to evaluate the final data set obtained at the commencement of the research when the participants had to evaluate the mental skills training programme that they had been a part of.

3.4. Why Thematic Analysis?

Thematic analysis is a qualitative thematic method of inquiry that was utilised in this research. Qualitative research focuses on empathy and viewing various aspects via the viewpoint of others, a method in which social environments and occurrences are seen from the perspective of people (Bryman, 2012). These elements of the qualitative approach relate to this research as it focuses on the feelings and experiences of individuals, in this case the athletes. This study focuses on personal information, thus requiring an empathic, in-depth and considerate attempt at gaining that type of knowledge. Qualitative research typically focuses on diction rather than quantification (Bryman, 2012). This feature of qualitative research is suitable to this research as it strives to address the experiences of rowers at Rhodes University via verbal interactions and the utilisation of wording within particular categories and themes.

When using thematic frameworks as an analysis tool, fundamental elements that are characteristic of several approaches in qualitative analysis are incorporated (Attride-Stirling, 2001). Thematic analysis involves a combination of deductive coding (sourced from the philosophical framework) and inductive coding (themes developed from the participants' discussions), which are both tools that are evident in the analytic methods used in this study (Fereday & Muir-Cochrane, 2008). This is evident in the manner in which the researcher compared the particular mental skills training needs and characteristics of the participants to previous studies and information on related topics.

Thematic analysis is also an appropriate tool of analysis as it collaborates with the principles of action research. Both frameworks strive to provide an in-depth, dense and comprehensive account of the context at hand.

It is for these reasons that thematic analysis was chosen as the preferred method of analysis for this study. This approach provides an intricate and broad understanding of a unique group of individuals and their lived experiences.

3.4.1. Braun and Clarke's (2006) six step thematic analysis framework

The ideas and framework proposed by Braun and Clarke (2006) for thematic analysis were used when carrying out this research. Braun and Clarke (2006) prescribe six steps for qualitative data analysis in the form of thematic analysis. These steps are explained in *Table 1* below:

Phase 1 – Familiarising Yourself With The Data
Transcription of the data as well as reading and re-reading the accumulated data and finally, the noting of initial thoughts and codes.
Phase 2 – Generating Initial Codes
Generation of the headmost codes. This phase consists of certain steps that involve the coding of interesting elements within the data, as well as gathering data connected to each code.
Phase 3 – Searching for Themes
Searching for themes by collecting codes into possible themes, and collating all data linked to each potential theme.
Phase 4 – Reviewing the Themes
The process of reviewing the themes. Phase four includes making sure that the themes work in relation to the coded extracts and the entire data set. A thematic framework of the analysis is generated, thus completing the final instruction of phase four.
Phase 5 – Defining and Naming the Themes
Involves the defining and naming of themes. This entails continual analysis in order to narrow down the particulars of each theme, and the general story that the analysis describes. Visible names and definitions for the themes are identified and created.
Phase 6 – Producing the Report

The production of the report is the last opportunity for analysis. The final phase entails the selection of profound extract examples, final analysis of the selected extracts, reviewing the antecedent analysis of the research question and literature, and the creation of a report of the analytic process

Table 1. Braun and Clarke's (2006) six phase approach to thematic analysis

This approach was deemed suitable and applicable to this study as it assisted in identifying certain themes, which were guided by the interactions with the participants. This method was also highly relevant to this research as the interviews were conducted on the competitive and highly trained rowers' experiences. The participants had been rowing between two to eight years and even the less experienced rowers had still done a considerable amount of training and racing that forms part of their physical training programme and competitive calendar. These individuals are considered to be a knowledgeable and experienced source, exploring certain traits and themes via discussion. This made the approach of thematic analysis most appropriate.

3.4.2. Specialised thematic analysis process

The first phase of this particular approach to thematic analysis that was incorporated into the analysis of this research included the familiarisation of the researcher with the data (Braun & Clarke, 2006). This entailed the transcription of the data from the video recordings, as well as reading and re-reading the accumulated data and finally, initial thoughts were noted (Braun & Clarke, 2006). The researcher utilised video recordings for the focus group exercises in order to more accurately distinguish which participant was talking at a particular moment in time. This reasoning was explained to the participants in order to ensure that they felt more comfortable with the researcher video recording. The participants were well aware that the video recording of the focus group was solely for practical purposes and that their identities and actions would be protected by all means. The participants were required to fill out a form regarding the recording and transcription of the information that they would provide. In this form the participants had the option to state whether they would like the information to be video or audio recorded or not to recorded at all. All of the participants were more than willing to be video recorded and many of them indicated that confidentiality was not a grave concern for them as the nature of this research is not particularly sensitive. It is for these reasons that the effect of the video recording device on the responses was deemed

insignificant as all of the participants chose to be video recorded without hesitation. The first focus group that took place was with the male participants, this was later transcribed by the researcher. However, due to time considerations relating to the fact that the researcher had to transcribe the interviews as well as to design and implement the mental skills training programme during the limited time available in the rowing camp, the second focus group with the female athletes was transcribed by a professional transcriber rather than by the researcher.

Once the focus groups had been transcribed, the second phase of analysis could commence - this involves the practice of generating the headmost codes (Braun & Clarke, 2006). This phase consisted of certain steps that involved the coding of interesting elements within the data, as well as gathering data connected to each code (Braun & Clarke, 2006).

The third stage consisted of searching for themes by collecting codes into possible themes, and collating all data linked to each potential theme (Braun & Clarke, 2006).

The fourth phase entailed the process of reviewing the themes (Braun & Clarke, 2006). Phase four included making sure that the themes worked in relation to the coded extracts and the entire data set. A thematic framework of the analysis was generated, thus completing the final instruction of phase four (Braun & Clarke, 2006).

The fifth phase involved the defining and naming of themes (Braun & Clarke, 2006). This entailed continual analysis, in order to narrow down the particulars of themes within the general story that the analysis described. Visible names and definitions for the themes were identified and created (Braun & Clarke, 2006).

The final phase was the production of the report, which was the last opportunity for analysis (Braun & Clarke, 2006). The sixth phase entailed the selection of profound extract examples, final analysis of the selected extracts, reviewing the antecedent analysis of the research question and literature, and the creation of a report of the analytic process (Braun & Clarke, 2006).

3.5. Data Collection Process

3.5.1. Focus group

As a result of its ability to elicit individual expression, promote group interaction and encourage group responsibility of issues and solutions concurrently, the focus group method

is considered to be a nurturing approach towards the gathering of qualitative data (Sim, 1998).

A focus group can generate information on a variety of feelings and ideas that people possess on particular topics, including the similarities and differences in perspective amongst collections of people (Rabiee, 2004). This process is effective in exploring the knowledge that people possess, and can be utilised not only to establish what humans think, but also the manner in which they think and the particular reasoning behind their thinking (Kitzinger, 1995).

The focus group method can be useful in acquiring data that is often lost in the process of the collection of information. Focus groups do not discriminate against those who have trouble articulating themselves and can foster participation from individuals who are wary of partaking in interviews, or feel as if that they very little to talk about (Kitzinger, 1995).

It is, however, important that the researcher considers the role that they play in their ability to extract useful, rich data from their participants. The function of the researcher within the focus group setup is imperative to the type of data that is elicited from the participants and the quality of this particular information (Sim, 1998). According to Kitzinger (1995), the researcher can initially take a step back and simply listen and take note of the conversations that take place between the participants. Although, as the focus group progresses, the researcher can begin to intervene in the communication process in order to encourage debate and extend the communication process to elicit more information (Kitzinger, 1995).

The researcher needs to be mindful of the difficulty that lies in maintaining the correct balance between taking a passive or active role. The researcher must attempt to stimulate interest and conversation about a certain point of interest. This topic is in line with the researcher's academic or professional interest, but the moderator must be careful not to lead the participants to reinstate the researcher's beliefs, prior expectations or reinforce an existing hypothesis concerning the study (Sim, 1998).

It is also imperative that the researcher takes into consideration the particular environment that the focus group is held in, as this can be a crucial component in the acquisition of relevant information from the participants. The environment should be relaxed and comfortable and should preferably take place with all of the participants seated in a circle in order to create a setting that promotes as much communication as possible (Kitzinger,

1995). The participants were placed in a comfortable setting within a circular or semi-circular shaped seating position to encourage discussion and to put the group members at ease. The video recording device was placed in the room in a non-obtrusive manner - it was situated in the corner of the room on the floor and as far away from the group as possible. The researcher ensured that the participants were well aware of the practical reason for video recording the focus groups and conducted the practice in the most unobtrusive way possible.

3.5.2. Focus group process

For this particular research, all of the prior mentioned elements were incorporated into the formulation of the focus group session. The focus group process that formed part of this particular research included the generation of different mental skills and elements that the participants formulated around their thoughts and understanding of mental skills training. These concepts were then refined into several prominent terms that were used in a performance profile exercise. Once the participants had completed the exercise, the focus group took place where the participants answered various questions surrounding their knowledge of mental skills training and their experiences concerning the psychological aspects of their performance in sport.

These questions were drafted for the purpose of identifying three mental skills that would be useful and relevant to the participants in their particular environment. As they were deemed most appropriate and beneficial to the participants in this research, these mental skills formed the topics of the mental skills training programme sessions that the participants took part in. The focus group process was imperative to this project as it provided the foundation and the direction for the entire research project. It also gave the researcher an in-depth, realistic understanding of what the participants experience on a continual basis and provided ample information for the rest of the research project to successfully continue.

It is important to analyse and discuss the role that the researcher played in the assessment interviews and the final evaluation interviews and for the researcher to be mindful of this effect on the interviewing processes. This is particularly important in the case of this research as the researcher is also a rower and a member of the RURC. These considerations will be elaborated on in the chapter regarding the limitations and recommendations surrounding this study.

For the focus group assessment multiple questions were considered, drafted and finalised by the approval of the supervisor of this research. Sixteen questions on various themes formed part of the official interview schedule. These themes included the participants' general knowledge of mental skills training, their existing psychological patterns and utilisation of mental skills in competition and training, their psychological and critical moment coping methods when performing and their personal experiences regarding

their psychological performance. These questions are stated below:

General Questions on Mental Skills Training

1. Do you know what Mental Skills Training in sport entails? If so, what is your understanding of this concept?
2. Do you believe that the mind has the ability to affect your performance in competitive settings and in training? If so, to what extent does the mind affect your performance in both of these environments?
3. Have you ever participated in any formal Mental Skills Training or any form of mental preparation exercises as a team? If this is the case, what did these practices involve and how useful were they?

Existing Use of Mental Skills Training and Psychological Patterns Regarding Performance

4. Do you utilise any mental skills or mental preparation techniques (individually or as a team) during competitions and training? If so how do these assist you?
5. What are the differences, if any, between the mental skills (e.g. mental preparation, self-talk, pre-performance routines etc.) that you incorporate into your training as opposed to when you compete?
6. What changes would you make in your mental preparation for trials or races?
7. Please could you take me through your routines (as a team and individually) before you partake in a trial or an actual race?
8. What are the obstacles (psychologically) that you encounter most frequently when you are training or competing in a race or a trial?

Psychological Coping Methods Regarding Performance

9. How do you deal with and respond to a poor performance?

10. When you have to partake in a trial or a race, to what extent do you feel in control or overwhelmed? What are the consequences that generally result from the state you are in, and how do you deal with this?
11. When you have a trial or a race that has not gone well, does this affect your confidence and performance in the following trials and races (both individually and as a team)? How do you attempt to stay positive?

Critical Moment Coping Methods When Performing

12. What do you consider to be a high pressure situation in rowing?
13. When you are in one of these high pressure situations how would you rate your ability to make decisions and to resolve sudden, unexpected problems?

Personal Experiences Surrounding the Psychological Aspects of Performance

14. I would like you to think back to one of your best and worst performances in a competitive setting in rowing (e.g. a race or a trial). What was it about those two experiences that made them so good or so bad?
15. What psychological aspects of rowing, within your particular environment, do you feel would be most conducive to mental skills training?
16. Are there any types of mental exercises that you specifically do not want to do or that you feel are irrelevant to your particular environment?

3.5.3. Mental skills list

The first step that took place in the generation of information for this research project involved the acquisition of a list of mental skills from the participants. The athletes were asked to brainstorm and convey the attributes or characteristics that they feel describes a good rower and the mental skills that they believe are conducive to good performance within this context. The list of desirable mental skills and characteristics are listed in the order that the participants mentioned them and are depicted in *Table 2* below:

Female Group	Male Group
Commitment	
Endurance	
Perseverance	
Strength of Character	
Determination	
Courage	
Self-Motivation	

Positivity	Commitment
Rewards	Goals
Focus	Determination
Memory	Intelligence
Composure	Understanding of Body Pacing
Dedication	Pushing Limits
Desire	Consistency
Goal-Setting	Ups and Downs
	Focus
	Grit
	Seeing the Bigger Picture
	Quality

Table 2. Initial list of mental skills. After the initial list of mental skills was generated, the participants were requested to narrow down these items to a maximum of eight mental skills characteristics. Whilst the participants were doing this, they were asked to keep in mind which mental skills mentioned prior would be most needed in and conducive to their particular context.

The shortened lists chosen by the participants are presented in *Table 3* below:

Female Group

Male Group

Focus	Focus
Positivity	Commitment and Dedication
Self-Motivation	Goals
Commitment	Passion
Goal-Setting	Quality**
Composure*	Team Player

Table 3. Summarised list of mental skills

*The mental skill of “composure” was referred to as the ability to maintain control particularly in competitive settings such as trials and most importantly when racing against other teams on the water. Rowers regularly speak of the importance of maintaining their composure on the water as there are many different stressors and distractions that occur when racing, therefore their ability to be in control of their mental state, stay level-headed and unaffected by their environment and their thoughts is imperative.

**The mental skill “quality” was described as the desire to find quality in each session that the rowers partake in and their need to sustain quality performance throughout the training sessions, rather than merely going through the motions of mere participation in the extremely high volume of training sessions. The participants spoke about the “quality” of each stroke and making sure that every stroke, rather than merely a percentage of strokes in the session, was of good quality. “Quality” was also described in connection with the daily progression that they might or might not experience and being able to get as much out of each session as possible, in order to achieve their goals. “Quality” differs slightly from other similar constructs such as commitment and dedication as, in this context, the athletes refer to the manner in which an individual may indeed be committed to the sport by attending every training session but this attendance does not necessarily mean that they will achieve a quality training session. The athletes stated that the ability to consistently push themselves in every part of every training session is a desired quality trait within rowing and the more that a rower can do this, the greater their chances of improvement.

3.5.4. Performance profile

Once the revised list of mental skills characteristics had been established these items were then placed into a performance profile. Performance profiling (Jones, 2002), in conjunction with the mental skills list and the focus groups, was conducted with the participants to discuss and identify important mental aspects for rowers. The performance profile was conducted in order to explore possible scenarios and mental skills that could be included in the programme and to establish the current nature of mental skills practice within the participants.

The athletes were all given a pen and clipboard which contained a performance profile sheet that they were to fill out individually. The participants were asked to place the mental skills that they had chosen as a group into the performance profile. The participants then had to rate themselves in terms of their perceived existing ability with regards to each mental skill in the performance profile. Each section of the performance profile contained a rating of 0 (representing poor) to 10 (representing excellent). The participants indicated (by colouring in

sections) the level that they felt was representative of their competence and comfort level associated with that particular mental skill. Examples of one of the male and female individual performance profiles are displayed on the following page in *Figure 2*.

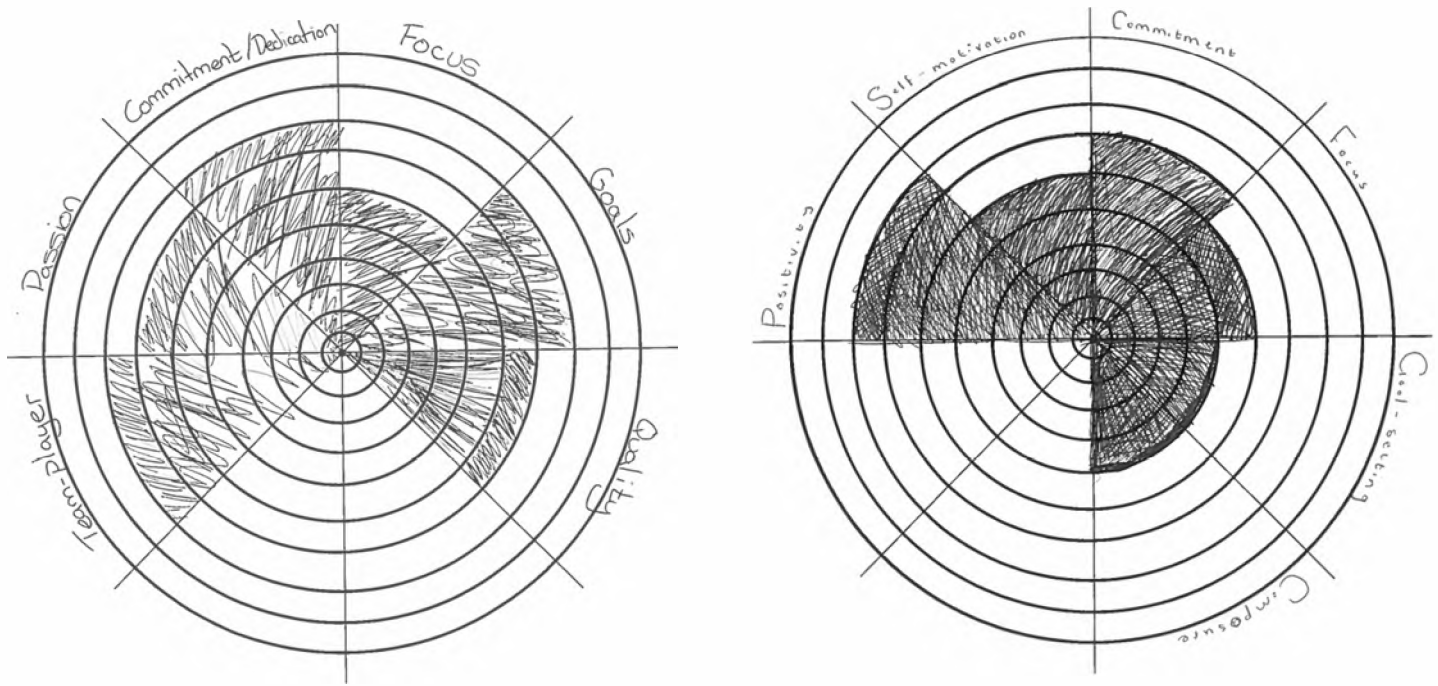


Figure 2. Example of individual performance profiles, male group participant (left) and female group participant (right)

3.5.4.1. Performance profile results. Once the performance profile exercise had been completed, the final results were tallied and an overall percentage for each mental skill was calculated for both of the participant groups. The results are represented in *Table 4* below:

Female Group

Male Group

Focus	78 %
Commitment	76 %
Goal-Setting	70 %
Positivity	78 %
Self-Motivation	68 %
Composure	72 %

Focus	62.5 %
Commitment and Dedication	82.5 %
Goals	75 %
Passion	77.5 %
Quality	67.5 %
Team Player	82.5 %

Table 4. Final group averages from the performance profile assessment

3.5.5. Focus group

In addition to the mental skills list generation and the completion of the performance profile exercises, a focus group was held with the participants. The focus group took place immediately after the mental skills list and performance profile exercise. The focus groups consisted of the participants in their same groups, discussing various topics concerning their thoughts and experiences in rowing.

The participants were given the interview schedule so that they could remind themselves of the particular subject that was under discussion at the time. This was done to stimulate their ideas and hence discussion.

Whilst the group was given an interview schedule, the researcher made it well known to the participants that the question schedule was merely a guide to create conversation and that the point of the focus group was to establish an open discussion whereby participants could freely express their thoughts and experiences.

Recording devices were used in the focus group, with the findings transcribed shortly thereafter. As mentioned previously, transcriptions were analysed via thematic analysis. The findings were categorised into several prominent themes presented in *Table 5* below:

Female Focus Group

Male Focus Group

Mental Preparation	Mental Preparation & Visualisation
Team Communication & Motivation	Anxiety
Focus	Bouncing Back
Personal and External Stressors	Control
Goals	Dealing with High Pressure
Anxiety/Panic	Pre-race Tension
	Motivation

Table 5. Focus group themes

3.6. Overview of Themes

A summary of all of the themes extracted from the mental skills list, performance profile and the focus group from both the male and female groups combined are portrayed in the diagram below. The first column contains the initial list of all of the mental skills mentioned by the participants. The participants were then asked to summarise these skills into a revised list of skills that were incorporated into the performance profile exercise (these items are listed in the second column of the table). Finally, the most prominent themes extracted from the focus group transcripts are displayed in the third column of *Table 6* below:

Mental Skills List	Performance Profile	Focus Group
Commitment	Focus	Mental Preparation & Visualisation
Endurance	Positivity	Anxiety/Panic
Perseverance	Composure	Team Communication & Motivation
Strength of Character	Self-Motivation	Personal & External Stressors
Determination	Commitment & Dedication	Goals
Courage	Goals	Bouncing Back
Self-Motivation	Passion	Control
Positivity	Quality	Dealing with High Pressure
Rewards	Team Player	Pre-race Tension
Memory		Motivation
Goal-Setting		Focus
Composure		

Dedication
Desire
Goals
Intelligence
Understanding of Body Pacing
Pushing Limits
Consistency
Ups & Downs
Focus
Grit
Seeing the Bigger Picture
Quality

Table 6. Overall summary of assessment themes

An analysis of the summarised themes will be provided in the results and discussion chapter as an introduction to the rationale behind the particular design and implementation of the mental skills training programme that was tailored to the needs of this particular group of athletes.

3.7. Action Plan, Implementation, Evaluation, Adoption and Separation

See results and discussion chapter.

3.8. Trustworthiness, Credibility and Reflexivity

Research outcomes should strive to be as trustworthy as possible, with every body of research being evaluated in connection to the processes incorporated into the course of the research (Graneheim & Lundman, 2003).

The concept of trustworthiness should always be considered as permeable, dynamic and open-ended in nature. Trustworthiness is not a case of conclusive proof where readers have to believe an account or accept it as final (Seale, 1999). This is due to the reasoning put forth by Graneheim and Lundman (2003) who propose that reality can be viewed in a multitude of ways and the understanding of this reality is subjective and somewhat dependent on the perspective of the researcher. It is for this reason that it is imperative that researchers are aware of certain aspects and predispositions that could affect the outcomes of their research. Fortunately there are certain practices that a researcher can employ when conducting research to increase the so called trustworthiness of their research process and results. These practices include procedures such as triangulation and the keeping of personal records of one’s research efforts. It is important that a researcher is constantly mindful of certain considerations so that research is fostered that is as trustworthy as possible. Credibility and reflexivity of the research will both be discussed within the context of trustworthiness.

When reviewing research methods and processes, it is advised that a researcher strives to create information that is as credible as possible. One method used to increase the credibility of one's research is to make use of triangulation.

Baxter and Jack (2008) view triangulation as a valuable method when attempting to ensure credibility. In social research, methodological triangulation involves the observation of the research setting from a minimum of two different perspectives (Flick, 2004).

In this particular research the participants were analysed via multiple viewpoints. One type of triangulation that took place was within-method triangulation. This is comprised of at least two different methods that are made use of within a certain methodological discipline (Curtin & Fossey, 2007).

Initially the participants were asked to provide a list of all the aspects that come to mind when thinking about mental skills training and the psychological side of their training and performance.

This list was then refined to several mental skills characteristics that were used in the performance profile exercise which formed part of their next form of analysis. The results of the performance profile were then contrasted with the findings that were sourced from the focus group sessions that took place.

Whilst triangulation can be practised in the form of gathering data via several different methods, it can also take place by gathering information from different groups of people and drawing out the commonalities that are evident in their different accounts; this is referred to as data triangulation (Curtin & Fossey, 2007; Flick, 2004).

The researcher completed the focus group interviews in two sessions. One of the reasons for this was that the female and male participants were on their July holiday rowing camp at the time and were staying in separate venues. It was thus more convenient for the researcher to go to the participants separately as both groups had different schedules and the total number of the initial amount of participants was too big for one entire focus group. The two separate focus group sessions were also conducted by the researcher for the reason that they would be able to gather information from the perspectives of two different groups. By conducting the focus groups this way, the researcher was able to gather a more extensive and diverse set of data and was able to get a more accurate representation of the research setting by using two different groups of subjects.

Krefting (1991) supports this notion by stating that the triangulation of data types and data sources is valuable to the research process as these techniques ensure that the phenomena are explored from a plethora of viewpoints.

When considering the trustworthiness of research, another useful concept to consider is reflexivity. Haynes (2012) states that reflexivity comprises of the awareness that the researcher has with regard to the role that they play in the orchestration of their study, and the outcomes that result from the research that they carry out.

Krefting (1991) states that research environments are dynamic in nature, with the researchers forming an integral part of the research. Researchers are not purely observers, but also adopt the role of being a participant in the research. Considering this, it is imperative that researchers engage in continuous reflection and are aware of how their characteristics could possibly influence the profile of the research. Krefting (1991) and Baxter and Jack (2008) suggest that one of the measures that a researcher can take to ensure reflexivity is to keep field notes or a journal containing their thoughts, concerns and reflections of different stages of the research.

Throughout the research process the researcher made note of the progress of the research in a personal journal. This journal contained records of personal feelings concerning the research at that particular time as well as providing accounts of events that had taken place at various stages of the research that the researcher deemed noteworthy. Curtin and Fossey (2007) state that it is imperative that researchers are explicit when disclosing their personal values, assumptions and tendencies towards bias as this could have an effect on the course of the research. By keeping a log of personal concerns, the researcher was able to be more self-aware and conscious of certain things that could have had an effect on the research, and was therefore able to be more impartial in their research endeavours.

3.9. Ethical Issues Surrounding This Project

Ethical concerns are continual in nature with regard to the process of research. These concerns cover all types of research, both qualitative and quantitative and extend further, to research other than that conducted only on humans (Gillam & Guillemin, 2004).

It is imperative that, when conducting research, particularly research that involves intricate interviewing, that the researcher is mindful of any ethical issues that could arise. Measures must be put into place to deal with any ethical dilemmas that could possibly arise during the research process.

Gillam and Guillemin (2004) advise two noteworthy categories that a researcher should consider when conducting qualitative research. These categories include procedural ethics and ethics in practice. Procedural ethics typically consist of adhering to the formalities involved in obtaining the rights from the relevant ethics committee or body, to conduct research. Procedural ethics also relate to the acquisition of permission from the participants themselves. Here the focus is on the steps that the researcher has taken to gain permission for acts such as the external transcribing of interviews and to what degree the researcher is officially allowed to reveal information surrounding the participants (Gillam & Guilleman, 2004).

Before the researcher commenced the project, a research proposal was sent to and approved by the Humanities Higher Degrees Committee (HHDC) and the Psychology Department's Research Projects and Ethics Review Committee (RPERC). The researcher also obtained written permission from many entities in the university that were concerned with or associated with the interests of the student athlete participants. This included the Rhodes University Rowing Club's President (see Appendix C), the Dean of Students (see Appendix A) and the Head of Sports Administration (see Appendix B).

Other measures in connection with procedural ethics involved the researcher obtaining consent from the participants via a signed agreement between the student researcher and the research participant. This agreement contained clauses stating that the participant was allowed to withdraw from the study at any point in time if any unusual circumstances were to occur. It also stated that the participants did not have to disclose any information that they did not feel comfortable sharing and that no personal information that could possibly identify them would be shared. They would be referred to only as male or female Rhodes University rowers (see Appendix E). The participants also agreed to their interviews being recorded and transcribed by the researcher and/or an external party (see Appendix F). The researcher has also ensured that the recordings and transcriptions have been stored in a safe environment, making them available for future research only with the consent of the participants.

The second category concerning ethics in qualitative research that Gillam and Guillemin (2004) propose is that of "ethics in practice". This is a term that refers to on-going ethically related issues that can arise on an everyday basis whilst conducting qualitative research. This research consulted a source that is of adequate age and experience and is interpreted as ethically sound. This source is comprised of bona fide adult students, who are

not considered to be a vulnerable population group. The likelihood of ethical issues arising in the practice of this type of research is very low because the mental skills training programme and the research process at large both strive to improve the performance of the athletes and focus on the positive elements of their situation.

After reviewing possible ethical dilemmas that could pose as a risk to this research, the researcher found that the only ethical concern that could be of significance was the orchestration of the interviews that were conducted on the participants. However, Birch, Jessop, Mauthner, and Miller (2012) state that qualitative interviewing is typically seen as harmless as the process leads the participants to valuable insights about themselves and allows the researcher to add to a greater understanding of the issues and experiences that individuals encounter. Considering that this practice is generally seen as benign and that these particular interviews centred on improving the performance and well-being of the participants and that the interviews focused mostly on positive themes, the interviewing processes posed no ethical concerns during the process of the research.

The researcher who conducted the interview on the participants is also a qualified Lifeline trauma counsellor and is well versed in appropriate interview practice as well as the correct procedures that need to be followed in the case of ethical dilemmas that could possibly occur in the process of interviewing.

The other ethical concern that is noteworthy concerning qualitative interviewing is possibly the effect that the researcher's presence in these interviews had on what the athletes disclosed. With regard to reflexivity and the possibility of bias, Malterud (2001) advises that throughout all stages of the research procedure, the effect of the researcher should be evaluated, and at a later stage discussed and presented in the research report.

As discussed in the chapter prior to this regarding reflexivity, the researcher kept a personal journal which included the events of the interview. This enabled the researcher to maintain a more balanced interpretation of the participants' contributions during the focus groups and the final interviews.

3.10. Conclusion

This chapter presented all of the methods utilised in this body of research. Action research was applied to this study and was discussed accordingly. Related to this research approach is the ODP model which was elaborated upon in this chapter. The steps of this model were discussed in relation to the manner in which they were incorporated into this project.

The selection of the participants and the tools that were used to analyse them were mentioned. These practices included performance profiling and interviewing in the form of a focus group.

Thematic analysis was elaborated on and spoken about in conjunction with the specific thematic approach used in this study. The themes that were discovered in the initial assessment of the participants were also mentioned.

The chapter then reviewed the concern that is the trustworthiness of the research. It explored the related concepts of credibility and reflexivity and the degree to which they were considered in the context of this particular study.

Finally, this section identified and discussed possible ethical concerns and the way in which these could be prevented and managed in various dimensions of the research process.

Chapter 4: Results and Discussion

4.1. Introduction

When assessing the participants it was clear that they had been exposed to very little, if any, mental skills training methods. Only two of the participants had engaged in formal mental skills training, but had done so at an elementary level. The participants did, however, believe that the psychological aspects of their performance were crucial and that in the sport of rowing the mind has the ability to make or break a rower.

This chapter will begin by exploring the main themes that were extracted from the information that was collected during the assessment phase and used as an aid in the development of the mental skills programme that the participants experienced. The themes are stated in *Table 7* below:

Mental Preparation and Visualisation
Anxiety/Panic
Team Communication and Motivation
Personal and External Stressors
Goals
Bouncing Back
Commitment and Dedication
Dealing with High Pressure
Pre-race Tension
Motivation

Composure/Control
Positivity
Passion
Quality
Focus

Table 7. Summary of the main themes collected during the assessment phase

4.2. Exploring the Themes

Here the various mental skills themes relevant to the assessment process will be defined and elaborated upon. Each theme will be discussed in relation to this particular study and applicable examples from the focus group interviews will be presented to give an indication of why that particular theme is of significance in this context.

4.2.1. Mental preparation and visualisation

Mental preparation is a common psychological tool that most individuals use for various activities they engage in. Mental preparation can take place in various forms and rituals that are usually particular to the athlete as an individual. The most frequently used forms of pre-match mental preparation occur in the form of visual imagery, positive self-talk and attentional focusing (Gould et al., 1981; Vealey, 2007).

Most of the participants had engaged in general mental preparation strategies before competing, but very few of them had made use of formal, learnt mental preparation techniques. As was the case with the participants in this study, mental preparation is most heavily relied on when preparing for significant events that are typically high pressure in nature. These high profile occurrences are what athletes deal with on a regular basis, most

commonly in the form of competitions and testing. For rowers these take place in the form of regattas, seat trials, ergometer trials and training performance pieces both on and off the water. Rowers are frequently subjected to physical testing which places a high demand on them mentally, thus it is imperative that they mentally prepare for these events. In this particular group of athletes, some form of testing takes place on a weekly basis as part of their training programme; hence the topic of mental preparation was highlighted by many of the group members who also placed particular emphasis on visualisation. The importance of taking the time to mentally prepare was stated by several of the participants and is summed up in the statement below:

So I think you have to mentally prepare yourself before the ergs, or like train before that. It's just setting like realistic goals. Ja, ja (other participants). You can't just go, you have to prepare yourself long before you know you've actually got to (Focus Group 2, p. 6, line 1 to 8).

When discussing how in control or overwhelmed they feel in competitive settings, the participants spoke about how the consequences to these feelings influence their performance. One of the participants explains how being mentally prepared when competing can make all the difference.

I think it also like depends on how prepared you are for it. Like I know there've been ones for me where I wake up in the morning and it's like a half six one and you just like you don't even halfway on the erg and you like, oh I'm erging, like you don't even know what you're doing and like I think that definitely, you know, like effects your confidence cause suddenly you just like oh this is so bad and like I wasn't prepared for this and then you're just sort of like hating yourself; that wasn't very positive (*Focus Group 2*, p. 12, line 1 to 6).

The participants also discussed the significance of both physical and mental preparation in connection with the management of anxiety when facing unknown elements prior to competing. One of the participants describes the thought processes that occur before competing in a regatta.

suddenly all these questions like you know, are they better than us, will their start be better? And if their start is better does that mean they'll have more in the race and just suddenly, like you don't know anything about them. Ja, I think training your brain to keep composed in that situation now, if you, and also like knowing you've tried, like your hardest, like if you know you have tried your hardest to prepare, then you do feel some assurance (*Focus Group 2*, p. 30, line 16 to 21).

It was interesting to note that almost all the participants mentioned using different mental preparation methods for races held on the water as opposed to those held off the water (indoor rowing/ergometer). Many of the participants chose to use forms of visualisation for the races held on the water, whereas in the ergometer trials the majority of them chose to block out thoughts of these trials entirely.

Uh I find its better, it's better for me to, to be able to see the race, to see the landmarks but in an erg it's just that screen, the last thing I want to do is sit there and think about it (*Focus Group 1*, p. 7, line 25 to 26).

The main reason stated for the difference in attitude towards the two types of competition is explained by the participants below:

In a race you are hurting but you look across and anything can happen, like that boat could suddenly come up on you and you have to, you have to go for it like you have to make, make a push so you have to think about it. That kind of thing, Whereas in the trial its just 5000 meters and every meter is going to hurt (*Focus Group 1*, p. 8, line 3 to 6).

When it comes to a race like for it's your mental state is different me because you know, you're racing, if I push hard this guy could break therefore he, that effects the whole crew the other seven oarsmen racing so mentally that drives me. When I'm erging I can't think that, okay well I'm not going to be able to push I'll break it's just me (*Focus Group 1*, p. 8, line 14 to 17).

When considering various mental preparation techniques to incorporate into a mental skills training programme it is vital that personal preferences are taken into account as the process of mental preparation can be heavily reliant on an individual's preferences, beliefs, customs and previous experiences. An example of one of a variety of techniques is the one mentioned below where the participant states that they use music to mentally prepare for a race, whereas some of their other teammates prefer to use other strategies.

Some people, I know I sometimes listen to music to keep calm because I panicked the one time, but some people sit separately from the groups and like stretch and calm and collected (*Focus Group 2*, p. 3, line 12 to 13).

Whilst it might be challenging to accommodate each and every one of every person's preferences, it is possible to find mental preparation techniques that are more open to subjectivity than others. It is for this reason that imagery was chosen as a technique to be included in the mental skills training programme.

ii) **Visualisation**

Visualisation is also a common psychological tool that individuals use in preparation for various activities in which they engage. Thoughts and visual representations are ultimately chosen and created by each mind singularly and according to their own predilection.

The process of visualisation or mental imagery is a popular technique used in multiple disciplines. This technique is utilised for relaxation, mental rehearsal, setting goals as well as in other practices such as psychotherapy (Bramson et al., 2008). Visualisation is a versatile mental skills method that is both convenient and user-friendly and it has proven to be an effective mental skills training method. This point is illustrated in Orlick and Partington's (1988) study on Canadian Olympians who were tested on their mental readiness for the Olympic Games. In this particular study the focus was on elements of common success factors related to mental skills, as well as those that interfered with their success. One of the mental skills that featured significantly in this body of research was the usage of imagery by this group of Olympic athletes. Orlick and Partington had this to say about the athletes' use of imagery and the positive effect it had on their performance;

These athletes had very well developed imagery skills and used them daily. They used imagery to prepare themselves to get what they wanted out of training, to perfect skills within the training sessions, to make technical corrections, to imagine themselves being successful in competition, and to see themselves achieving their ultimate goal (1988, p. 112).

This practice of imagery was one of the mental skills techniques that both focus groups mentioned using at various times in their rowing career. An example of this is provided in the following statement.

One thing that I did at school and that I did with the girls that I was coaching um, is before you go to bed the night before the race, you get to bed and then your coach basically takes you through the whole day from the time you wake up when you got to the dam to the end of the race and it sort of ends when you get to the finish line (*Focus Group 1*, p. 3, line 8 to 11).

Both groups discussed using visualisation in this particular manner. It was carried out in the form of a race plan and was not particularly descriptive or multi-sensory. It was utilised once or twice a year, typically on the night before the Boat Race heats. The athletes would sit in their teams with the coxswain who would take them through the entire race. Whilst the athletes knew of certain elements of imagery usage, they were not aware of the many other different kinds of imagery that exist as well as the most effective ways in which to practice it.

They also did not know that imagery should be practised on a more regular basis and that it can be used for a variety of purposes and via several different methods. For these reasons, imagery formed a considerable portion of the mental skills training programme.

The participants mentioned how difficult it is to mentally prepare for certain competitive environments when you do not regularly come into contact with your competitors. In this particular group of athletes, individuals have to be intrinsically motivated in order to continuously better their performance, as often they have very little idea of how strong their competitors are and may not know who they will compete against until racing day. For this reason, visualisation was chosen by the athletes as it is a useful tool that athletes can use. They use this technique during racing and training to imagine their competitors in order to motivate and prepare themselves. This is particularly relevant in one of the most important rowing regattas in South Africa, the Universities Boat Race. This regatta comprises of heats and finals races. In the heats race, boats are individually timed and subsequently placed into their respective final. Visualisation was chosen for this reason as it would be a useful tool for the athletes to use in the heats race, to mentally imagine another boat next to them whilst they are racing the clock. This situation is explained further by two of the participants in the following extracts which explain the uncertainty associated with only coming into contact with your opponent after extensive amounts of time.

You don't get prepared to have to beat somebody next to you, mentally kind of thing, you appear to like race your hardest and your crew and that, but mentally it is tough.

You can't give up when you're in that situation (*Focus Group 2*, p. 30, line 6 to 8).

We don't train sitting next to your opponent kind of thing, and I think especially with Boat Race it's a big part of what you are doing in that race. Especially in the final, if you're sitting next to the person that you are going to race, and there is only the two of you, so one person is going to come first and the other one is going to come last. So it's like a, it's a big pressure when you don't get mentally prepared properly before that situation (*Focus Group 2*, p. 29, line 20 to 25).

4.2.2. Anxiety or panic

Anxiety and panic are emotions commonly experienced by athletes during competitions or whilst training. Whilst moderate levels of anxiety are to be expected and can be beneficial to performance, many competitors often experience overwhelming anxiety which can be detrimental to their performance. Research results vary about whether performance anxiety is beneficial or debilitating in sport or whether it has an effect on performance at all (Craft, Magyar, Becker, & Feltz, 2003; Jones, Hanton, & Swain, 1994).

However, research indicates that anxiety levels and their effect on performance is largely dependent on the manner in which the athlete interprets the anxiety to be either facilitative or debilitating and also suggests that the utilisation of certain mental skills could aid in facilitating anxiety effectively. This idea is illustrated by Fletcher and Hanton's (2001) research on the relationship between psychological skills usage and competitive anxiety symptoms of elite and non-elite swimmers. The hypothesis that swimmers who show higher utilisation of psychological skills will interpret pre-competitive anxiety side effects as facilitative and will have higher levels of self-confidence was partially supported in the case of imagery, self-talk and relaxation. Most notably, relaxation was stated as being the most effective mental skill in this research. The findings propose that the swimmers who made use of relaxation procedures regularly whilst competing, experienced lower intensity levels and interpreted somatic and cognitive anxiety as more facilitative than those who used less relaxation techniques. These athletes also indicated that they have greater levels self-confidence (Fletcher & Hanton, 2001). This study indicates that using mental skills to reduce performance related anxiety could possibly be a viable option for athletes who are susceptible to experiencing this emotion. One of the participants who had previous exposure to mental skills training supports this idea and proposes that mental skills utilisation could be a way to treat states of panic and anxiety when competing and training.

And we came back and were like we were so tense, so nervous, it wasn't relaxed. I definitely think that if mental skills could help get people to relax, to not psyche themselves out, it would be a lot better (*Focus Group 1*, p. 25, line 6 to 8).

Many of the participants described how they regularly have difficulty overcoming or controlling performance related anxiety. This is particular true when rowers have to compete in races and ergometer trials. This is supported in the following quote: "I think that for trials and races, I can personally, definitely, calm down a lot" (*Focus Group 1*, p. 8, line 19).

The middle section of a race was highlighted as anxiety provoking with the reasons being that it is the section of the race where a rower has to remain composed in order to maintain technical ability and it is also the part of the race where rowers start to feel extremely fatigued. The "take it home" section (the final 250 metres) of the race was also mentioned as the cause for anxiety as the stroke rate usually increases and the speed has to increase or be maintained despite fatigue - at this stage the pressure is high as it becomes more and more difficult to be technically expert. Many experience anxiety due to fear that technical mishaps will occur as a result of the physical fatigue that they feel.

However, the highest level of concern regarding performance related anxiety was linked to either the start of the race or experienced shortly before the start. All of the participants agreed that they do struggle to reduce anxiety at these times. Another concern stated by the participants was the fear that something would go wrong with their technique during the race and that they would make a mistake that could slow the boat speed. Many of the participants, particularly the less experienced rowers, spoke of the anxiety that they experience around the possibility of them making incorrect movements or “catching a crab” (when the oar gets caught in the water due to a technical mishap). One of the participants describes the anxiety and panic experienced around such an event and mentions how it is often difficult for rowers to completely reset their minds and get back to where they were before the unfavourable occurrence took place.

Even, like if you, in an actual race for example, are in a scull...if you catch a crab, you can't just like detour off, can't detour off. You're like, you almost just have to like calm and collect yourself, and then obviously, cause I know you'll be shaking a lot because like the adrenalin's going, and you're like, 'Oh my goodness!' and then you're like trying to place your blades [the end of the oar] and just get going cause once you got the motion going, you're alright. But to get going sometimes it's a bit much and you like, 'Ooooooh!' I know in that situation I'd panic a lot, like I'd be like, I think I might actually give up but when I say give up, like I would finish the race but I wouldn't be able to, I think, motivate myself to push to maybe finish in 5 minutes as opposed to the 6 minutes now (*Focus Group 2*, p. 22, line 29 to 30; p. 23, line 1 to 6).

Considering that most of the participants, at some point of the focus groups, mentioned that they do experience performance-related anxiety and that it has a predominantly negative effect on their mental and physical state, it was deemed useful to incorporate arousal regulation and relaxation techniques into the mental skills programme.

4.2.3. Team communication and motivation

When considering teams, cognitive aspects and processes of these groups of athletes have had little, if any, consideration in the field of sport psychology research. These cognitive aspects and processes apply not only to each individual team member, but also to the unique elements particular to teams as a unit, for example, the communication and co-ordination of a team (Eccles & Tenenbaum, 2004).

Athletes often refer to rowing as the “ultimate team sport”, therefore the role of team motivation and communication is a critical aspect of their performance. As athletes are placed into a boat together and have to work as a single unit, rowers have to constantly pay attention

to the dynamics of their team. If one team member decides to stop rowing or taper off during a race, the entire boat is significantly impaired. This is why team communication and motivation dynamics are an on-going focus of discussion in rowing circles, as they can prove to be extremely valuable to the performance of rowers, both individually and as a group.

Team communication and motivational aspects were a prominent theme of discussion in the interviews, particularly within the second focus group conducted with the female rowers. The importance of motivational elements concerning the team is highlighted in the following extract where one participant stresses the idea that all team members need to be on the same wavelength in terms of their attitude and approach to training and performing effectively as a unit. “Like when obviously when you’re all together, you all need to be like as dedicated and as committed as each other” (*Focus Group 2*, p. 2, line 26 to 27).

The theme of team communication and group motivation was also prominent during the focus groups, and was again most noticeable within the female participant group. An example of this consideration, that the athletes have when they are with their rowing team, is highlighted in the excerpt below:

So we don’t like, the day of a trial or something, talk about how nervous we are or like how much you know, and we all sort of together, sort of, like - it’s sort of a positive attitude that we have going towards, even though inside we all like freaking out. Like we have sort of an outside mentality like: ‘Guys we can do this!’ which I think helps everyone (*Focus Group 2*, p. 2, line 13 to 17).

It is evident that the way in which team members communicate with one another can have a great effect on the performance of its members. Individuals will consciously hide their anxiety for the greater good of the team and the performance of the athletes in it.

Another element of team communication that was of importance was the need for the athletes to talk regularly about what they are going through both on and off the water. This serves as a method of managing stress as well as promoting team cohesion, through understanding and relatability. Two of the participants explain how team communication and discussion can serve as an effective means of dealing with the burdens associated with competitive sport.

I think often we need to and talking about exactly how we’re feeling, about the program, about everything, about personal lives; I think is a big part of almost coming together, and understanding one another, everybody gets along (*Focus Group 2*, p. 27, line 14 to 17).

And if you sit down on, like you were saying and I was taught the other day, you know,

if we sit down together and say, 'I actually can't handle you know, this session on Tuesday', and everyone else goes: 'Oh, me too'. You feel so much better about yourself, cause you're like: Oh, it's not just me. I'm not a failure, I'm not the one who is like much more tired than everyone else. It's sort of a crew thing and that helps your mentality. You just sort of like, okay, we all feel that, it's okay, you know. It will drop you know, it will weigh less on you if everyone, sort of feels that way (*Focus Group 2*, p. 27, line 21 to 26).

A considerable amount of emphasis was also placed on the pre-race team talks that the groups have before they compete. One of these practices was the creation of a race plan in both the sprint races and the longer distance courses. An example of one of these strategies is highlighted in the extract below:

I know a lot of times like, especially Boat Race, we normally do like a pre-race talk, where we like okay we will do bursts here, or okay for sprint season in your four you'll be like, we'll do a burst from the 250 and then the next one 750 type thing, and then you take it go for home type of thing (*Focus Group 2*, p. 4, line 28 to 31).

Over time, teams formulate certain techniques and routines to increase motivation and concentration amongst their members and in turn, improve performance. Before races, particularly longer distance eight man races, teams sit down with the coxswain and create a large visual diagram of the course, breaking it up into sections, with each member of the crew indicating which points of the course that they battle with the most and listing certain phrases or words that they find particularly motivating. The coxswain then takes note of these considerations on the diagram and uses them in the actual race. In the eights race, team members have also, on occasion, used the practice of drawing certain symbols on the backs of the person who sits in front of them to remind the person behind them to do certain technical movements that they battle with the most when fatigue sets in and to help with focus and motivation. Another motivational technique referred to as a 'murmur' (in this context being a specific phrase decided on by the team prior to the race) is used in the bigger boats. One of the participants elaborates on this particular motivational practice in the following statement.

We did a murmur down the boat in our Boat Race, so you pass this message down (starting from seat 8 to seat 1). Like you back the person who's in front of you, especially when you knew they were, like, when we...because we had been at a point where we knew we all died, and then we would send a murmur down the boat (*Focus Group 2*, p. 5, line 19 to 22).

4.2.4. Personal and external stressors

Athletes are faced with a plethora of stressors both personally and whilst competing and training. It is therefore imperative that they learn how to effectively overcome obstacles in order to perform to their full potential. Nicholls, Polman, and Remco (2007) state that it is widely acknowledged in sport psychology literature, that sports people, at any age or level, have to be able to overcome performance stressors and develop ways to cope with these. This will enable optimal performance and ensure that athletes have a positive experience whilst training and competing.

This is extremely important, particularly when dealing with university athletes. This unique group of athletes has to balance full-time study timetables, multiple training sessions a day, personal stressors and various other commitments and responsibilities. The participants utilised in this study are all full-time students who, on average, do four to five hours of physical training daily. Some of the participants explained how these demands that they have placed on themselves, can often result in heightened levels of pressure and stress, which in turn, unfortunately, can have detrimental effects on their performance.

If I'm also having like a rough time then and I know that I've got a trial the next day, then I try deal with both of them, and then I almost don't mentally prepare enough for the trial and then when I get to trial I'm like: 'Oh my word!' But I'm still thinking about the issue that's at home type thing. So...and then, it almost like irritates me more so cause I'm really like panicking because of the trial and then I've got more things to stress about and it just seems to be too much, and then I know that I've blown out often on a trial if I've got too much going on at home (*Focus Group 2*, p. 8, line 25 to 31).

One of the participants notes how personal demands and stress can not only affect their performance in general, but also increase the likelihood of them formulating negative distracting thoughts whilst competing, thus hampering their performance.

I think also often, like I know with me...I find that in a trial I'll get, like, if I'm very stressed or something like that, it will affect me, like ja, so I'll be like, affected if there's something like that going on in my life. It might come up, like just pop into my head, you know, while I'm at the trial...that will affect my splits (time per 500m/speed) straight away, whereas if I just didn't think of it the whole time. So that often affects the whole time trial (*Focus Group 2*, p. 7, line 24 to 28).

Personal stress and psychosocial factors can compromise an athlete's performance. Certain research has even gone as far as proposing that life stress can play a role in the rate of athletic injury (Andersen & Williamson, 1988). Whilst stress may catalyse or aggravate athletic injury, the relationship between the two constructs can also be reciprocal in nature.

Lambert, Leddy, and Ogles (1994) state that literature surrounding the effects of athletic injury and the psychological effects thereof, suggests that negative alterations in mood may be linked to athletic injury and that sports people who are injured can experience a range of psychological symptoms such as anger, anxiety, tension, depression as well as decreased vigour and self-esteem. The occurrence of an injury is an issue faced by most athletes at some point of their sporting career. One of the participants explains how an injury and the mental stress that it can induce can sometimes have an unfavourable effect on their performance.

I know me in the past when I've had injuries, often that kind of thing is going to take a mental toll and often like you are sore, but your brain when you're in pain will make it that much bigger, and it's often hard to look past it (*Focus Group 2*, p. 9, line 1 to 3).

Whilst personal stressors can be detrimental to an athlete's performance, it is often external stressors that are at the forefront of discussions concerning performance. External stressors are often unforeseen, of the unknown and can arise from a number of sources. In the focus groups various external stressors were highlighted by the athletes.

One of these stress factors was the pressure felt by the rowers not to let down their team members. In Carron, Eys, and Hardy's (2005) study on the disadvantages of high cohesion in groups of athletes, 56% of the athletes pooled stated that there could be disadvantages to high social cohesion in teams. 31% of the participants stated that there could be disadvantages to high task cohesion and 22% indicated that there could be disadvantages to both. When investigating the particular disadvantages of high task cohesion in athlete teams, researchers found that greatest numbers of reports were related to the perceived pressure that athletes experienced as a result of having to conform and not let their team mates down. This then increases their fear of failure and the stress caused by the perceived pressure that athletes feel when part of a team is evident in the following statement.

When you're competing there's a whole lot of other stuff that's been sort of going on in your head, like it's no longer just like, this is for you. You're like...this is for other people, which I think is a lot more stressful (*Focus Group 2*, p. 4, line 11 to 13).

Other external stressors can include various other distractions. These distractions may seem minor to an outsider, but when an athlete is competing and under pressure, even the slightest irritation or upset can be interpreted as being more stressful than usual. In rowing, the calls that the coxswain makes in the boat become essential to a rower's performance. Saying the wrong thing at the wrong time can be distracting and in turn stressful depending on the rower's predisposition. One of the participants provides an example of this below:

Like with me, it depends like, on the day, how it would be. Like kinds of things and how I make a decision. Like often I'll like go, like, say the cox is shouting at me in a trial, whatever. Often if they shout at me and I don't like the way or the words that they use, I'll often pull my splits up (minutes per 500m, increasing splits creates a decrease in speed and vice versa). Ja (researcher). Just to irritate them but not to do for myself. I think that's a really bad attitude to have (*Focus Group 2*, p. 18, line 13 to 16).

When a rower is competing, many other external stressors can influence their performance. One of these factors is the pressure that they feel from spectators and from people on the outside who expect them to do well. Whilst some athletes thrive under the pressure of the spotlight, others can often view this scenario as daunting and stressful, and this could possibly be the reason why so many athletes perform better when training as opposed to competing. In Baumeister, Hamilton, and Tice's (1985) experiments on public and private success expectancies, the first experiment showed that the performers' personal expectations regarding success led to better performance, however the audience's expectations of success negatively affected performance. The second experiment indicated that spectator expectations for success improved performance if they were sufficiently convincing to the point where the performer personally started to expect success. Although (unconvincing) expectations of success placed on the performer by the audience once again proved detrimental to their performance. Baumeister et al. (1985) state that "These results appear to fit a model holding that audience expectations of success constitute performance pressure, which harms performance except when substantial private confidence is created" (p. 1447). The external stress and pressure of the audience is noted by the participants.

All these things rush through your mind kind of thing and you know there's millions of people watching you on bank, and you have to perform. You don't want that crew to row through you because you trained hard, so it's like this, this task is going to be a hard race (*Focus Group 2*, p. 29, line 27 to 29; p. 30, line 1).

Last year it wasn't too bad but especially in 2012 when there was a helicopter and that kind of thing, it was like super stressful. And also having boats following you as well; the people watching you, you are not used to having, on a training sessions like 8 boats following you. Ja (other participant). So it's very stressful in that way (*Focus Group 2*, p. 30, line 3 to 6).

Considering the stressful nature of competing in a rowing race, and the tendency that this environment has to induce anxiety and detract from one's ability to focus, it was deemed

necessary to include relaxation techniques into the mental skills programme as well as visualisation to help prepare the rowers for such situations as described above.

4.2.5. Goals

Goal-setting is a powerful tool used to maintain levels of motivation and in order to achieve desired outcomes. Goal-setting is a highly adaptable method utilised to increase the likelihood of achieving personal ideals and it can be applied to a broad range of contexts. Weinberg and Gould (2011) emphasise the importance of goal-setting by stating that by declaring certain goals, this process enables us to have direction and achieve certain feats that we might not have previously thought were possible.

Most of the participants in this group had an idea of how vital it is to set goals, but they did not necessarily know what kind of goals they should be setting and the correct manner in which to implement these strategies. As demonstrated below, the participant explains how, often the interim steps in extensive training periods are neglected and that goals are not always concretely stated and adhered to until the sudden reality of competing becomes apparent soon before the event. In this case goal-setting would help the individual to focus on process goals during training and not focus on long-term goals at these times. “Ja, when you are training you’re thinking about like the long run, like what’s to come, when you’re competing. It’s like right there. Ja this is it, ja” (*Focus Group 2*, p. 4, line 15 to 20).

Goal setting was chosen as one of the mental skills training techniques within the programme, as many of the athletes placed emphasis on the acclaim received from beating their competitors or achieving certain positions or awards. Evident in the extract below, focus was generally placed on outcome-based goals and thus it was deemed appropriate to teach the athletes about the long-term benefits of setting process and performance-based goals. One of the athletes demonstrates the emphasis typically placed on outcome goals in the following statement, “When I’m competing it’s, I’m beating that guy” (*Focus Group 1*, p. 5, line 18).

Goal setting was relevant to this particular group of athletes as a considerable amount of discussion revolved around the wins and losses that they had experienced during their rowing careers. Many of the participants spoke of their best and worst experiences in connection with either winning or losing. This is evident in the example below:

Under 19’s know in fact the under 17’s destroyed us - and it was the SA crew and that was like, I remember saying like, I’m done with rowing I can’t do this again, That was one of my worst races ever, just to have everything... feeling like you’ve done so much to get to that point and then like in six, six and a half, seven minutes everything gets taken from you (*Focus Group 1*, p. 23, line 16 to 20).

When athletes, like this particular group of rowers, sacrifice many hours of their day in deliberate training programmes, year in and year out, it is understandable that they will experience a significant amount of disappointment and sadness when they don't achieve the result that they had hoped for. However, the participant's response does emphasise the fact that the participants did not paid full attention to the full range of his person goals and other types of satisfaction that they get from their sport, for example the reward that one gets from seeing improved fitness in their ergometer performance etc. The inclination of athletes to not focus on or track their personal progress and instead place high value on winning and losing is evident in the following statement.

What, what makes it even worse is that not because, well if you come last in the race but if you put so much effort into it but you still perform badly then. Mm, it makes it even, much worse, ja (*Focus Group 1*, p. 24, line 1 to 4).

Perhaps if this participant had set personal goals, focusing on performance (e.g. the time taken to complete the distance), the disappointment that was felt would have been experienced to a lesser degree? It is for this reason that goal-setting was implemented into the mental skills training programme, in an attempt to increase motivation and decrease disillusionment.

Weinberg and Gould (2011) believe that the issue with goal-setting is not that people necessarily cease to set goals, but rather that they don't always set the correct type of goals. The right kind of goals should give direction and improve motivation. By setting appropriate goals, people learn how to commit to these ideals for a longer period of time and in turn, increase their likelihood of achieving them.

The need to set appropriate types of goals mentioned prior to this is evident in the extract below, where one of the participants discusses the demotivation experienced when attempting to achieve unrealistic goals that are heavily dependent on the performance of an external entity.

Why am I doing this? That person is so much better than me, and I get silly because obviously like, everyone can build up and there's always people better than you in things in life, but that's also like such a psychological block. You just like, ah, you know, like I'm pulling like such, like my split is so much worse than the person next to me but you know, I think that's also then, you just like, then you do worse, cause you, I, like...what's the point? I'm never going to reach them (*Focus Group 2*, p. 9, line 13 to 17).

It is for these reasons that goal-setting was chosen to be part of the mental skills training

programme for this group of rowers. Enabling them to set the correct kinds of goals was deemed necessary and possibly of great benefit to them and their performance, in both their training and competitive environments.

4.2.6. Bouncing back

The careers of sports women and men are characterised by regular fluctuations of success which result in athletes having to go through both the elation of victory as well as crushing defeats (Mummery, Perry, & Schofield, 2004). An inspiring example of how some athletes handle unfavourable circumstances and bounce back in their sporting career is the case of South African rower, Lawrence Brittain, who unknowingly had Hodgkin's disease (lymph node cancer) for two years until being diagnosed in October of 2014 when it had reached stage four. In spite of being unaware that he was suffering from cancer he still managed to finish fifth in the Coxed Pair final at the 2014 World Championships in Amsterdam and reached the semi-final of the 2014 Henley Regatta. After a mere four months of being cleared of the cancer Brittain was selected to represent South Africa at the 2015 Henley Royal Regatta and 2015 Rowing World Cup in Switzerland (De Villiers, 2015). This case is an inspiring comeback story and the ultimate example of how a positive mind-set can enable an athlete to bounce back even from the most severe of circumstances. This optimistic stance is evident in Lawrence's advice to other cancer patients: "Do not allow the cancer to get to you. This means that you should have a positive attitude and the right mind set to tackle the cancer head on" (as cited in SASCOC, 2015, para. 13).

However, in contrast, certain athletes do not seem to cope as effectively and do not effectively bounce back after the occurrence of a catastrophic event. This can be seen in the case of Sally Robbins who, at the 2004 Summer Olympics in Athens, stopped rowing in the final of the women's eights race, collapsing approximately 500 metres from the finish line. This left the highly fancied Australian team to finish in last place of the final. After this highly publicised incident, information about previous similar incidences emerged. Robbins's quad teammates had experienced her stopping just short of the finish line whilst participating in the 2002 Rowing World Championships. Robbins also dropped her oar a mere 400 metres before the finish line when Australia had been leading the entire way and were sure to attain the world title (Peacock, 2004). These examples might apply to slightly different scenarios but they demonstrate the need for two distinct approaches to effectively reinventing oneself and bouncing back after encountering misfortune.

When attempting to establish what the predominant approach to bouncing back was amongst the focus group participants, there were disparities. Most of them stated that if they

encountered a bad situation whilst training, they would generally utilise that experience to motivate them subsequently and would draw from that experience in an optimistic style. Many of them used the reasoning that, even if a training session is perceived as poor, they would find comfort in the notion that it will still benefit their performance eventually. Two of the participants elaborate below:

If I have a bad erg I'd be bleak, but how do I get myself back? I just come back to training if I have a bad erg. Just don't um don't stop training, like go back and use the next one, the next one after that... to be better and always know it's going to be.

Maybe that's how we deal with it, is that I always know, um... that it's going to be worth it at some point (*Focus Group 1*, p. 12, line 8 to 12).

It's done and I know the fact that I did it, it's still going to be worthwhile at some point, whether it's going to be two weeks later... where I have an awesome one and am like, yes. I'm, glad I did that piece two weeks ago, that its now. I'm here because I'm, I'm where I should be (*Focus Group 1*, p. 12, line 16 to 18).

Others stated that the way they would bounce back was simply by going back to training as soon as possible and making a concerted effort to ensure that the following training sessions were promising. This practice was carried out in an attempt to make sure that they did not become complacent about poor performance and to ensure that poor performances did not become an on-going trend. This is explained as follows:

Like it, it...it is depressing, especially if you have a bad water session um, like I know I'll come home and I won't talk to anyone in the bus and I'll listen to some music or something like that but ja, eventually I'm like, I need to make that better, I need to go to that session tomorrow to make it better um. Ja (other participants). So don't want to repeat the same thing, don't want it to. Come back again so the only way to do that is to keep going (*Focus Group 1*, p. 14, line 6 to 13).

Similar attitudes regarding bouncing back were not as evident when discussing adversity occurring in the competitive context. It seems that sometimes a bad trial or performance can cause an athlete to become stuck in a specific mind-set and experience repeat performances of the same nature. This often has a detrimental effect on confidence in their athletic ability and tends to result in reoccurring mishaps. This is outlined in the following text:

So coming here I was like my last race, my last 2k I did was a horrible mess um, so it had a knock on effect on me, ja those were definitely the worst ones (*Focus Group 1*, p. 23, line 26 to 28).

Different athletes demonstrate varying degrees of resilience when attempting to overcome the many challenges that they encounter during their sporting careers. The terms resilience, resiliency and resilient are regularly utilised by the media and coaches to explain the preferred responses that certain sportsmen and women have to unfortunate circumstances. These circumstances may be extensive slumps, injuries, personal difficulties and the feared event that is “choking” (Galli & Vealey, 2008). “Choking” is the term used to describe “a critical deterioration in the execution of habitual processes as a result of an elevation in anxiety levels under perceived pressure, leading to substandard performance” (Mesagno, Marchant, & Morris, 2009, p.1).

While some of the participants demonstrated the ability to bounce back in terms of training, it seems that when partaking in a race, once control is lost, it is near impossible to regain composure and “choking” can occur particularly when under huge amounts of pressure in trials and on-water races. It was evident that once something goes wrong or when they lose control, these athletes more than often fail to regain their composure and are unable to rebound to the mentally tough state in which they were in prior to the disruption occurring in their performance. This is explained by the participants as follows:

Suddenly you just like you know you feel overwhelmed and you think I can't bring it down and then you, it sort of spirals out. I don't know if it happens the other way round. I don't think it ever happened whereby I started off getting overwhelmed and then, and then, it was like, you know, I'm in control of this (*Focus Group 2*, p. 12, line 25 to 28).

The only exception to the scenario explained before this is when the competitor's opponent experiences the same thing. It is only when the failure of the challenger becomes apparent to the competitor that they are able to regain their form and conduct themselves in more propitious form. This occurrence is explained in the text below:

We were in the pair, and we started off really badly, it was quite funny actually, and we became in control once we saw this other team break and we knew we could overtake them. So that's the only experience I've had where it went from really bad to controlled, but I do agree it's not very often that it's that way round (*Focus Group 2*, p. 13, line 7 to 10).

Goal-setting was chosen in light of the text above as this statement conveyed the propensity that the participants have to be overly influenced by the performance of their opponents as opposed to focussing on their own progress to motivate them. The two previous

statements made by the participants also highlight the need for the athletes to repossess control once it has been lost and to bounce back throughout the course of a race.

Relaxation techniques were incorporated into the mental skills training programme in order to combat the panic and anxiety that many of the participants experience when they fail to remain in control or regain their composure. Arousal regulation was posed as a measure to hopefully assist the participants in mastering the ability to remain at an optimal mental state and to realise the importance of doing so to improve their performance.

It is these considerations that were taken into account when choosing the definitive mental skills techniques that were incorporated into the programme.

4.2.7. Commitment and dedication

Commitment and dedication were themes that were brought up during the performance profile exercise. However, they were not particularly noteworthy within the focus groups. It is likely that these themes weren't discussed in length or detail because they are viewed as automatic requirements within the sport of rowing. Diligence, consistent hard work and early morning training sessions are seen as necessities and are expected as part of the job within this milieu.

4.2.8. Dealing with high pressure

Why do certain competitors have the ability to perform under immense pressure, yet other athletes have the tendency to become overwhelmed by the weight of intensive competition, mental stress and physiological arousal? (Vickers & Williams, 2007). Researchers have yet to formulate a definitive answer to this question. However, countless examples of incredible performances in times of immense pressure have occurred, not only in the sporting arena, but also in the police force, emergency healthcare, the military, fire-fighting etc. (Vickers & Williams, 2007).

It is both a perplexing and fascinating phenomenon that people can have polar reactions to comparable situations and even more so that the same individual can also have contrasting behavioural reactions when placed in a highly pressurised environment. These scenarios are discussed by the participants when they were asked about the manner in which they confront a high pressure scene. A response follows:

Um I think a little bit of panic, sometimes I realise that, sometimes I feel like there's a lot more pressure on me to perform better, so sometimes I sharpen up a bit more. Other times it's happened to me a few times it just, just puts everything into disarray. Like last year, a few crabs at Boat Race and that kind of just, just like messes with me mentally. Okay well, well we just missed a few meters here... it's going to screw us

up at the end. Ja (researcher). Then sometimes it can make you pull harder like I said that whole survival sort of rowing - if you go into that I'm just like you know, what if it's like the last 200 metres? I might as well just go for it you know (other participant) (*Focus Group 1*, p. 21, line 10 to 18).

Even though the participants would agree that, on occasion, they have experienced a boost in their performance when under pressure, many of the participants described feeling overwhelmed when enduring increased amounts of pressure. One of the participants describes how the plethora of demands characteristic of competitive rowing can affect an individual.

Rowing is such a high-pressure situation and sometimes you take it all on yourself and it's actually too much and then you feel like you can't do this trial and you can't do this session, you just, it's all too much (*Focus Group 2*, p. 27, line 18 to 20).

One of the participants explains the emotions experienced within the context of rowing whilst under pressure, "People feel like some of the other girls and stuff, they feel like so much pressure is on them. It's like they they're scared. Like I'm scared when I feel like pressured" (*Focus Group 2*, p. 28, line 2 to 4).

The participants explain how an immensely pressurised situation can be greatly influenced by external entities. Below, two of the participants point out how the coxswain and fellow athletes can play a role in the way they experience situations characterised by increased levels of pressure.

If someone tells me to go (final sprint to the end) at one five (1500 metres left to the end) kind of thing, in a 5K (5km race), I'm just not going to listen and I almost affect my brain. Now my pressure's up cause you're really feeling pressured, they almost sometimes make you do worse because you'll feel tired, because you'll think this is a long way to go, I can't go for home yet and that kind of thing. So it's like in that way, it will affect you to go negative (*Focus Group 2*, p. 19, line 10 to 14).

I think the issue is that a trial is really like the highest pressure situation that you can come across and then you know if someone comes up to you and tells you: no it's the first split, it means that they don't think you're doing your best, and suddenly you like, oh you know this is actually my best that I'm doing, and if you believe, don't believe that this is my best and you honestly, you know don't believe in me and you sort of just, your whole mind-set, just sort of you know goes away because you sort of just like: oh ok you know, you think I can do better and then I've shown you I can't. So then you just like, I'm not as good as you think I am. It's just like all these things also running through your mind because it already is such a high pressure situation that you're not

thinking clearly and you know little things that are just normal comments can affect you a lot more than if it was just like a normal conversation, because you just, your brain's not thinking and you're in so much pain. There's such a lot going on in this situation (*Focus Group 2*, p. 21, line 11 to 22).

The participants were also prompted to identify which situations in the sport they considered to be high pressure situations. The middle section of a race was highlighted as high pressure with the rationale being that it is the block of the race whereby one has to remain composed in order to maintain technical ability when exhaustion starts to set in. The "take it home" (i.e. final 250 metres) of the race was also defined as being highly pressurised as the stroke rate is typically elevated and the speed has to rise or be sustained despite fatigue. At this stage the pressure is high as it becomes increasingly challenging to be technically precise and efficient. Many rowers experience stress as a by-product of the fear that technical mishaps will occur when physical fatigue sets in. However, most of the participants declared that the most pressurised part of the race was either on the starting line or in the period preceding the start. All of the participants agreed that they interpret this situation as highly pressurised and stressful and as evidenced in the extract below, negative thinking can occur with a focus on what could go wrong during the race.

Participant 3: I think us definitely sitting at the start of the race.

2: Ja.

3: The worst definitely, that's the most high pressure situation.

2: Ja.

4: Ja because you actually know if you mess up the start its going to be a long 5k's.

3: And you're sitting there and you know what's coming.

2: Ja.

3: That and you sit there and you look back and the finish line is (points into the distance).

2: Ja (group laughs).

3: And you know between here and there.

2: Ja (laughter).

4: It's not that far (joking).

2: Ja, for me it peaks just before the marshal says, 'Hold on all crews!' That's when I...

3, 4: Shew (nodding).

2: But after he says, 'Go...go', it's a bit of a relief. It calms you (all participants nod in agreement).

3: Can focus. It's that anticipation.

2: Ja it's just that anticipation.

3: That's the high pressure.

2: Ja, high pressure.

3: But once, once you're there, you just like okay. I know what to do now.

4: Another one for me is also for me that middle k, between actually between 1 5 (1500m) and, and 500 (metres). It's that middle k for me that's also, like for me, do or die. I've been like...you have to make a plan, you have to be able to get up into a position and hold that. That's why I really pace myself (*Focus Group 1*, p. 18, line 18 to 24; p. 19, line 1 to 20).

It is these considerations that were taken into account when designing the mental skills training programme. Seeing that all of the participants felt that the beginning stages of competing were characterised by intense levels of pressure and stress, it was deemed appropriate to include arousal regulation and relaxation techniques into the programme in an attempt to assist the athletes to create clearer, more optimistic thought patterns.

4.2.9. Pre-race tension

Sport psychology traditionally regards the onset of overly emotional states as harmful to an individual or a team's performance in the sporting context (Locke, 2003). It is therefore imperative that athletes learn how to acquire the correct tools and practices to enable them to control their emotional states and deal with, or prevent, the onset of feelings that they experience as debilitating in conjunction with their performance. According to sports psychologists, athletes striving for optimal performance must attain a mental state that will foster this standard of performance (Locke, 2003).

When considering the mental skills techniques that could be integrated into the mental skills training programme, attention was paid to the concerns of the participants. Arousal regulation was deemed important, specifically due to the fact that a considerable number of the participants expressed difficulties with performance in the period leading up to a race and at the start of the race. Pre-race anxiety and nervousness was widely and commonly experienced by the participant group. Further evidence of this concern is provided in the extract below:

I know that like, when they say, like, 'sit at front stops'... (Seconds before the umpire starts the race) are you ready to go kind of thing? It's a huge like mental, when you're

like: Is this going to go ok? How are we going to do? (*Focus Group 2*, p. 29, line 25 to 27).

The focus in this excerpt is on the outcome and not the process and it is for this reason that teaching the participants more effective goal-setting behaviour could be beneficial not only to their performance, but in terms of reducing excessive pre-race tension.

The participants also explained the manner in which pre-race tension can affect their actions and alter their conventional thinking patterns and coping mechanisms. One of the participants outlines a related incident.

I think you are a lot more nervous before you compete and that means that, like sometimes, that like, overrides your self-talk, that you sort of use for training, because you're a lot more calm and you can sort of listen to yourself (*Focus Group 2*, p. 4, line 9 to 13).

It is apparent that increased amounts of pressure are felt by participants in the moments leading up to a race. The start of a race is often anxiety provoking for athletes and this experience is often compounded by several other concerns and stressors. An example of this is given by a participant.

Like a high pressure situation can be before a race as well, because you put a lot on yourself to do well, you know because you have prepared yourself for something. So I found in, I think when I was a novice and I...in 2012. It was probably bigger when I knew I was racing with girls that obviously were like, better than me. I think it was like a very high pressure, hope to perform in that (certain) way, think reaches high pressure, in general. Also having people watching you, that have done it before, that are rooting for you. I think that adds pressure before a race (*Focus Group 2*, p. 16, line 16 to 21).

Participants in both of the focus groups mentioned that they regularly struggle to overcome anxiety before competing. This was particularly the case for the male participants who frequently mentioned that they experience an excessive amount of pressure and in turn nervousness, before they are about to compete. When the participants in the male focus group discussed what part of their rowing would benefit most from mental skills training, or the areas of their performance that needed a bit more attention psychologically, they responded as follows.

Participant 4: (Unclear) something else before a big race, being able to block it out. So like preparation? (researcher). Ja, having something to do before a big race that, that makes you at ease.

2: Mm.

4: Otherwise it's tense, that sounds best.

2: Mm. Mm (researcher).

3: Ja, just relaxing, because a lot of the time we, we've rowed flipping well just on the river and then it comes to a race and it's a dog show. Okay (researcher). Um, just separating ourselves from the race and putting ourselves in the boat as opposed to looking (points in different directions).

2: Ja.

3: You know (*Focus Group 1*, p. 24, line 11 to 23).

It is evident from the statement above that this particular group of athletes would benefit from incorporating mental skills techniques, and possibly routines that are aimed at eliminating or curbing anxiety that athletes face prior to competing. It is for reasons such as these that arousal regulation concentrating on relaxation techniques was chosen as part of the mental skills training programme for the student athletes.

4.2.10. Motivation

Vallerand (2004) defines motivation as “the hypothetical construct that is used to describe the internal and/or external forces that lead to initiation, direction, intensity, and persistence of behaviour” (p. 427). Motivation is typically broken down into two main constructs: intrinsic motivation and extrinsic motivation. Both of these forces play an important role in the career of an athlete and people at large.

Blais et al. (1995) state that sports people who are intrinsically motivated toward their sport attend practice because they perceive it to be satisfying and of interest to them. These intrinsically motivated individuals can also practice their sport for the enjoyment of continuously attempting to surpass their own standards.

The participants did not convey a lot of information regarding intrinsic motivation and spoke more of the various elements that played a role in motivating them extrinsically. Vallerand (2004) describes extrinsic motivation as the engagement in an activity or past time, not for the purpose of the activity itself but as a means to an end.

When conducting the focus groups it was apparent that most of the athletes placed more emphasis on extrinsic motivation. Various elements that form part of extrinsic motivation were mentioned by the participants and have been discussed in previous sections of this chapter. These aspects included the pressure of spectators, coaches, other members of the team as well as supporters. Other people that were mentioned by the participants who play a role in extrinsic motivation were the coxswains of the team. Many participants spoke

of how these individuals can have a significant effect on their levels of motivation and in turn their performance. The statement below showcases a scenario where the coxswain was motivating the athlete in a trial on the ergometer and it underscores the fact that that coxswains should be aware of their impact when attempting to motivate a rower.

Like the fact that I'm still moving up and down this erg is like you know I'm using all the brain power I have and the fact that you saying I know you can do better just makes me want to like get off and just like walk away, because you're just, you know, you're actually not helping. And I think that often then I just like, you know like, you know I'll just like pull a much, you know, like worse time because I'm just you know, irritated and that's obviously not a good way to deal with the problem (*Focus Group 2*, p. 19, line 18 to 23).

It is evident from the statement above that there is a fine line between motivating an athlete and making them feel overly pressured and overwhelmed. As seen below, it seems that the best approach for a coxswain or external motivator is to subtly enable an athlete to achieve a realistic and acquirable standard of performance. This is why goal-setting is imperative, so that the coxswain knows what the individual wants to achieve and can assist them in achieving their goals.

Some coxes are really bad, and they'll tell you to go lower and lower and it actually doesn't motivate you, and you actually just end up going higher and higher (*Focus Group 2*, p. 21, line 7 to 9).

Other factors noted by the participants concerning the motivational characteristics of a coxswain, that could also be applied to other people who play a motivational role in the life of an athlete, concern issues connected to reliability, respect and tone of voice. These concerns are highlighted in the following statement, "She's also got a very calm voice. And I think we also kind of respect her cause she does ergs with us" (*Focus Group 2*, p. 20, line 5 to 7).

4.2.11. Composure or control

Emotions form a central component in sporting performance. It is therefore imperative that athletes have the ability to access a variety of techniques and practices to aid and improve their emotional control (Jones, 2003). In the sport of rowing, it is of particular importance that athletes remain composed at all times and that they take the necessary steps to do so. Athletes need to take responsibility for composing themselves and not allowing others to distract or unbalance them, particularly when they are in a boat with other team members where their actions have the ability to affect the whole team, both physically and

mentally. The participants in the male group explain how this situation has played out in their personal experiences and how difficult it can be for an athlete to regain composure. It is important that athletes learn to deal with setbacks, accept that bad things happen and recover quickly whilst still trying to do their best. Visualisation is a promising way to ensure that this happens and that scenarios like the one described below are avoided.

Participant 3: If something's unexpected at the start of the race I'm done.

4: You can ask him about that on trial weekend (points to participant 2).

2: Oh ja.

4: A few crabs.

2: Crabs, you, air strokes, ja. It hinders your performance it's hard to get back (overlap), it remains on your mind.

4: Ja.

2: You can't just.

1: Rowing especially because I mean when you are in the boat you are supposed to be thinking with one mind. You know you've got the guy in front of you (mumbling). If one guy does something different, that's going to upset everyone else and they are all going to.

4: Ja.

1: To lose it (*Focus Group 1*, p. 20, line 11 to 23).

Most of the participants reported a general tendency to feel overwhelmed, as opposed to feeling in control, when competing. This typical trend is reflected upon by the participants in the male group in the excerpt below:

Participant 3: For me to a great extent I'd say um, I feel overwhelmed in a trial.

Especially even races um, I don't I think I've only ever felt in control once in a trial when it was the first 5k trial we did.

2: Ja.

3: Um that was the only time I ever felt in control, otherwise generally I feel overwhelmed just hanging onto the handle for dear life.

4: Mm.

3: (Mumbling) Ja, it's difficult to get control of - like trying to control a raging horse in the shape of a steam train (laughter). It's ja, I don't think I've...I don't think you... ja, I think you only feel in control when you're winning.

1, 2, 4: Ja.

3: That's it.

2, 4: Ja.

3: If you're losing, you feel completely, you can't do anything (*Focus Group 1*, p. 14, line 25 to 27; p. 15, line 1 to 12).

This extract highlights the usefulness of incorporating arousal regulation into the mental skills training programme. By regulating emotional responses, an athlete has a greater likelihood of being able to regain at least some form of composure when they feel like they are losing control. It also suggests that, incorporating goal-setting into the mental skills training programme could be a valuable means of enabling athletes to place more importance on achieving high levels of individual performance standards, rather than relying heavily on the acclaim they receive from winning. One of the participants further explains how the stance of a competitor can have a pronounced effect on how composed and in control they feel and how this can, in turn, diminish their performance.

I think in a race, I start feeling overwhelmed well, like when I get overtaken and that can often affect the performance. Then if I just kept composed and if I just like relaxed and just thought about my own rhythm...whereas, if someone overtakes you, you often think ah, you like start falling to pieces, and that kind of thing. Um, so I think in a race especially, that you can become overwhelmed and that can affect your performance...if someone overtakes you. Same with on the ergo, if you're sitting next to someone that you're obviously competing with, and they're on the same split as you and they start overtaking you and you start blowing. Instead of keeping your composure, actually trying to get things together, you go the opposite way often and that makes it worse (*Focus Group 2*, p. 12, line 8 to 16).

The past two statements made by the athletes, support the incorporation of goal-setting and arousal regulation into the programme. This could enable the athletes to develop a greater reliance on their internal locus of control and further develop their ability to control emotional reactions to situations, and to focus more on their own performance rather than on that of their opponents.

One participant's response, when responding to a question concerning mental state during an outstanding rowing performance, further supports this notion. The participant indicates that the reason for composure and control during this performance was due to concentration on individual performance, coupled with a lack of concern about external entities.

So I think that was also my favourite. Just because you feel prepared and I think also that was like, when we're composed, when you're working within your real crew and

you are not worried about the people around you. I think that can affect how you do in a big scale. Ja (*Focus Group 2*, p. 26, line 19 to 22).

This statement also showcases the possible value of incorporating mental preparation techniques into the mental skills training programme for this specific group of rowers. With regards to sporting performance, the importance of being mentally prepared is paramount and can prove to be effective in improving an athlete's sense of control and competence.

4.2.12. Positivity

The incorporation of an active lifestyle and the resulting athletic success, are typically associated with an optimistic disposition towards exercise (Theodorakis, 1994). It is no surprise that the theme of positivity was a point of discussion during the focus group interviews. As seen in the statement below, the role that attitude plays is vital, not only to the level of success that the athlete attains, but also to the quality of the experience that they have as a whole.

I definitely think it can have a knock-on effect. There are times that literally your trials after that won't go well at all because you haven't had a positive trial in a while and then you don't know how to anymore. You don't know how to like, hold the split without being negative and that kind of thing (*Focus Group 2*, p. 13, line 20 to 23).

This statement also highlights the manner in which attitude affects performance when competing and how it has the ability to make or break an athlete in a performance piece. This notion is supported in the excerpt below, where the athlete explains how attitude starts to affect the likelihood of a successful performance well in advance of the actual competitive event.

If you go into a trial thinking, I'm not ready for this... I'm feeling weak...I'm. Yeah (other participant). It's going to be a bad trial. If you go in there thinking...you know what? I'm going to kill it. I'm going to hit it hard. I've got my race plan, I know what to do, I'm confident. Just that change of mind-set it. It's huge (*Focus Group 1*, p. 2, line 15 to 19).

As demonstrated in the two previous statements made by the participants, a pessimistic approach can prove to be severely damaging to performance. However, in certain cases, it can also be utilised to serve as a form of motivation for subsequent trials and competitions. This occurrence is explained by the following participant:

Hmm, was it? (RURC Alumni Rower) said something about that. Like, if you have a bad trial, giving it emotional power to go and smash the next one. Obviously it's not part of your race plan but being able to draw that emotional power from not doing

well (other participant nods in agreement). Like being able to transfer that into the next one and just go for it (*Focus Group 1*, p.17, line 1 to 3).

These words demonstrate the significance of developing a positive attitude and underscore the need for athletes to develop effective mental skills coping methods to enable them to rebound from undesired performances and to maintain a positive attitude towards their sport.

4.2.13. Passion

The theme “passion” was discussed by the participants in the performance profile exercise. However, it was not specifically mentioned in the environment of the focus group. This could possibly be due to the reasoning that one is expected to be passionate about rowing if they spend a significant amount of their day partaking in such an activity.

4.2.14. Quality

The theme “quality” was also not directly quoted in the context of the focus group, but it was described at length during the performance profile exercise. The theme “quality” was described as the quality of each training session that the athletes undertake. It was also ascribed to their ability to carry out top performances throughout their training, rather than mere participation in the high volume of training sessions that they do. The participants spoke about the “quality” of each stroke and the importance of making every stroke worthwhile rather than merely a few of the strokes in the session. Quality was also described in relation to the daily progression that they may or may not experience as well as having the ability to gain as much out of each session as possible, in order to achieve their goals.

4.2.15. Focus

How quickly a skill or movement is learned and how long it is retained is largely dependent on one’s focus of attention that is induced by the feedback conveyed to an individual (Wulf, 2007). Considering that the sport of rowing involves continuously focusing on each movement of every stroke, it is imperative that a rower is able to focus on perfecting a stroke and being aware of how individual movements affect the boat. A significant portion of the participants’ training sessions is dedicated to their rowing technique, learning new skills and movements and correcting ineffective technique. The ability of a rower to maintain focus for extended periods of time is often indicative of how well and quickly they will progress in the sport.

Not only is the ability to sustain focus important to a rower in terms of skill acquisition but it is also important with regards to them being able to perform to their full

potential. As one of the participants explains below, distracting thoughts and other stimuli are often an issue that can negatively impact performance.

Also people walking around, in trials, you like, you're trying to focus, focus. Next minute there, you see people walking...oh, ja, focus. So I think in that situation we need to learn how to focus like, because you have all these sudden, unexpected problems (*Focus Group 2*, p. 21, line 23 to 25).

As one of the participants demonstrates below, keeping a clear mind is vital to staying focused. By using certain mental tactics, the following participant explains how, over time the crew have had to train their mind to not be affected by distracting elements, in order to be more present and improve their performance.

This year I cleaned a lot of that out, and I've gone to things like land trials without music, on purpose. To almost affect my brain in that way...to almost deal with it because in the boat you don't have music. You don't have someone shouting at you all the time (*Focus Group 2*, p. 18, line 23 to 26).

4.3. Action plan and Implementation

After the entry phase involving the sampling, gaining consent from the organisational bodies involved and obtaining verbal consent from the participants, the start-up phase took place. This included the acquisition of written consent from the participants and planning the dates and times that suited to all parties. It was then that the assessment and feedback phase could commence with focus group assessments, performance profiling and finally the researcher identifying prominent themes that were obtained from this data. It is this information that feeds into the action plan and implementation phase of the Organisational Development Process (ODP) model.

McLean (2005) states that the action plan stage involves the formulation of plans based on what was deciphered in the assessment and feedback processes, with that information then being considered in light of the objectives and goals of the project at hand. Once this information has been gathered, plans are formulated and then the way in which they will be accomplished is strategised. This process then leads into the implementation phase whereby these procedures are actively implemented.

In this research project the themes that were obtained via the focus group, mental skills list and performance profile exercises in the assessment and feedback stage were utilised in order to formulate applicable action plan strategies that were then implemented in the form of a mental skills training programme.

4.3.1. Mental skills training programme layout

After analysing the information generated by the mental skills list, focus group and performance profile, specific mental skills techniques were deemed appropriate for the specific group of athletes who constitute part of this study. The participants were asked during the focus group, what they would and would not like to do during the mental skills training programme and also if there was any specific content, mental skills or exercises that they would like to cover or focus on. Once the participants had been collaborated with on the content of the sessions and the transcripts from the focus group had been analysed, the mental skills training programme was designed. The general structure and content of the mental skills training programme for Rhodes University rowers are depicted in the following diagram (*Figure 3*):

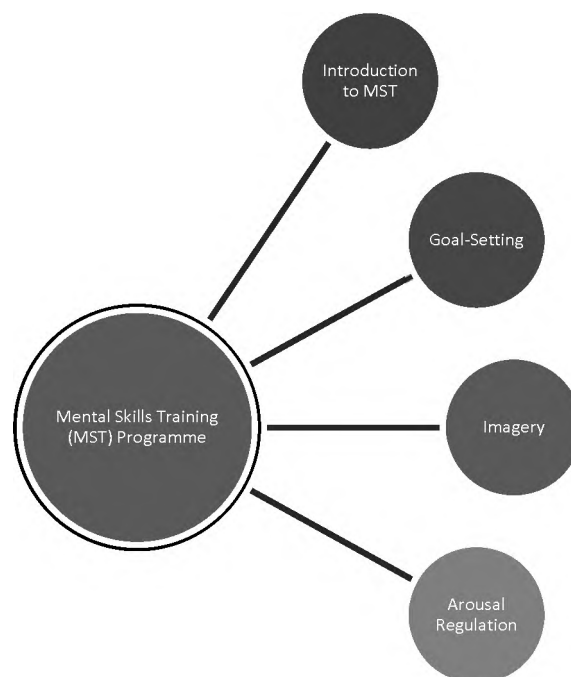


Figure 3. Mental skills training programme content

The programme followed the traditional mental skills training format prescribed by Weinberg and Gould (2011), commencing with the education phase, followed by the acquisition and then the practice phase. Each mental skills training session comprised of three definitive activities.

At the beginning of the each session video clips of material related to that particular mental skill were shown. Following that, a presentation on the theory behind that mental skill was given and practical exercises were taught to the athletes.

All of the content in this mental skills training programme was formulated in accordance with the overarching ethos and aim of mental skills training. As stated by Vealey (2007) the primary purpose of psychological skills training is to enhance the performance and wellbeing of an individual by providing them with the required tools and knowledge to more aptly enable them to control their emotions and thoughts. This particular mental skills training programme was structured in conjunction with those ideals.

4.3.2. Mental skills training programme structure

It was initially proposed that the mental skills training programme would be implemented during the rowing training camp held in July. Although the programme extended slightly beyond the holiday period, most of the activities did indeed take place within that time period.

The number of mental skills training sessions/workshops that would be held was discussed by the participant group and the researcher. A minimum of six sessions was initially proposed by the researcher but after consulting with the participants, it was deemed more feasible and realistic to combine some of these sessions into a total of three workshops. The sessions were therefore slightly longer than was originally planned and each workshop was approximately one hour in length.

The first workshop comprised of the introductory course to mental skills training, followed by the section on imagery. The second workshop focused on goal-setting and the third workshop dealt with arousal regulation.

Due to time restraints and schedule clashes the video, theory and practical exercises were combined in all workshops. Each mental skill workshop took place, on average, every ten days. Initially it was planned to hold a workshop every week, however, due to various other obligations that the participants had, make-up sessions had to take place. Owing to these extra sessions, the programme took slightly longer to complete than what was initially envisaged. The structure of the programme was marginally altered from what was originally proclaimed. This was due to unforeseen circumstances which will be elaborated on in the sections discussing the recommendations and limitations of the study.

The mental skills training programme was designed to accommodate as many people as possible as it aimed to improve the performance of the participants and the Rhodes University Rowing Club (RURC) as a whole.

Participants were asked to contact the researcher if they would be interested in attending the workshops. Initially ten individuals came forward and participated in the focus group, mental skills list and performance profile exercises, with several others sitting in on

the first session's presentation.

After the assessment phase, seven people remained and attended the mental skills training workshops. Six of these participants completed all the mental skills training courses. The seventh participant attended all but the last workshop. This was not due to lack of interest or commitment, but rather that the individual had several other commitments which prevented completion before competition.

It is interesting to note that all seven athletes who voluntarily attended the workshops were members of the men and women's 1st VIII. These teams consist of the more dedicated and successful rowers in the club. It is for this reason that the researcher felt that even though certain participants did not complete the programme, the ones that did would be able to benefit the most from it. This is due to their existing disposition, experience, knowledge and willingness to commit to improving their performance and well-being. Thus the researcher also had a higher chance of gaining useful, quality information in the evaluation stage due to the commitment of these particular athletes to learning and being open to trying different methods for improving their standards.

4.3.2.1. Session structure. The overall structure of the mental skills training programme has been displayed in *Figure 4*, with the layout and content depicted in *Figure 5* (see Appendix J). The first session comprised firstly, of showing the participants a video clip on sport psychology and the mind in relation to athletic performance (<https://www.youtube.com/watch?v=d8DSzLpEru0>). This was followed by a presentation on the basic concepts of mental skills training and related topics of interest. The structure of this session is depicted in the diagram (*Figure 4*) below:

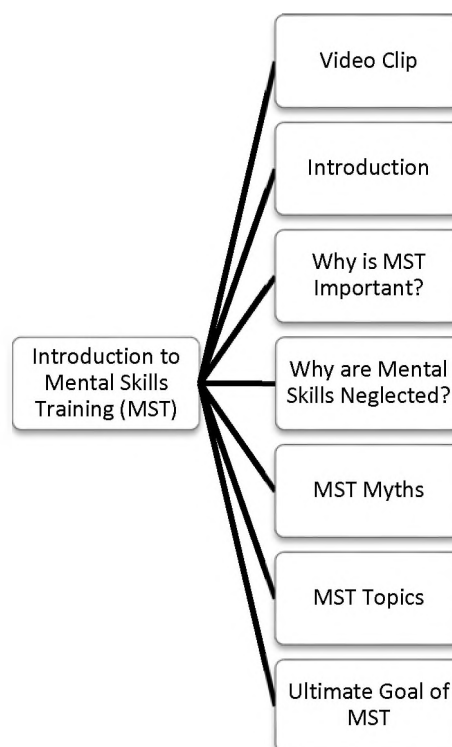


Figure 4. Session 1 (part 1) structure-introduction to mental skills training

After the introduction to mental skills training was given, part two of session one took place. This included an introductory video to the benefits of using observation and imagery in rowing (BBC The Human Mind 3-Making Friends 34:40 to 38:00 Minutes) and utilising visualisation to master a skill (<https://www.youtube.com/watch?v=e4kohD16m0c>). After the imagery clips were shown a presentation on imagery was given followed by the researcher going through the practical aspects of imagery with the participants. The participants were also given a go-to guide containing pointers regarding the practical elements of conducting visualisation. The participants were also given audio clips that they could put on their personal media devices to listen to when doing visualisation. These audio clips had been made by three of the RURC's coxswains for the purpose of this research and focused on the actual race course that the participants compete on every year. The other audio clip was made by the researcher and focused more on the technical aspects of rowing and skill acquisition. The coxswains were also encouraged to do visualisation with the teams as often as possible. These took place mostly during the days leading up to competing while the teams stayed together in the September holiday for their annual Boat Race rowing camp. All of the audio clip exercises and resources used for imagery purposes can be found in the Dropbox folder and the written exercises can be found in Appendix L. An entire breakdown of the session on imagery is provided in the *Figure 6* below, with an example (*Figure 7*) of the imagery

presentation itself (see Appendix K).

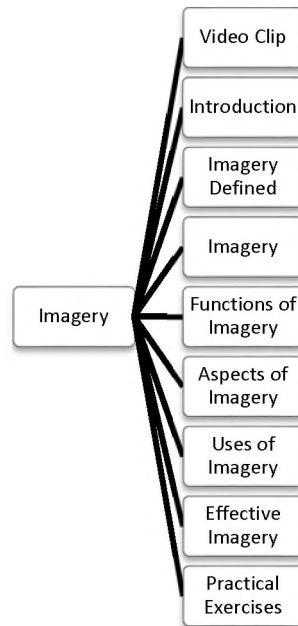


Figure 6. Session 1 (part 2) structure-imagery

The second session centred on goal-setting and it comprised of a presentation on goal-setting followed by the participants going through and filling out a goal-setting sheet for the particular season (Boat Race season) that they were entering into. The participants were also given access to goal-setting sheets for all other parts of the year (off-season, sprint-season and ultimate goals). All of these goal-setting forms contain sections that focus on the technical, lifestyle, mental and physical aspects of goal-setting within the context of rowing. Examples of all of the goal-setting sheets can be found in Appendix N. The format of the goal-setting session is depicted in *Figure 8* below, with an example of the presentation layout in *Figure 9* (see Appendix M).

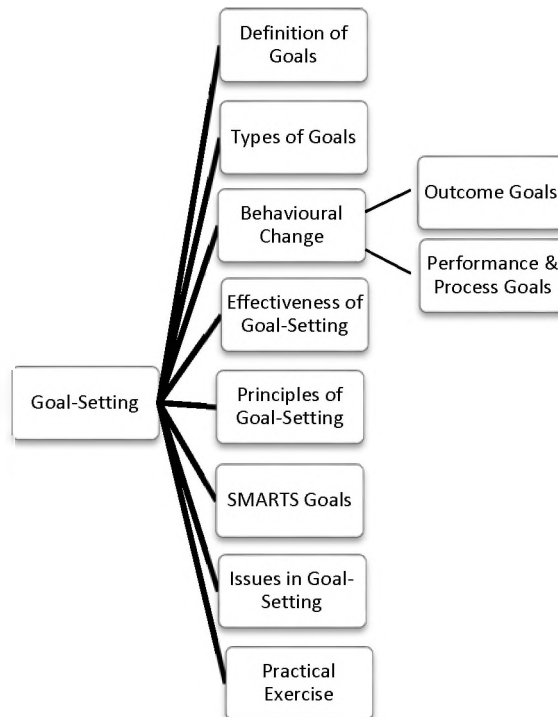


Figure 8. Session 2 structure-goal-setting

The final session was on the topic of arousal regulation. This commenced with a video on the importance of being focused and present when competing as well as the relevance of sport psychology related methods (<https://www.youtube.com/watch?v=dvN1iSxZIC8>). After the video clip was shown, a presentation on arousal regulation was given, followed by practical exercises (see Appendix P) on several cognitive and somatic anxiety reduction techniques. A breakdown of the arousal regulation session is provided in *Figure 10* on the following page, with a graphic representation (*Figure 11*) of the arousal regulation presentation itself (see Appendix O).

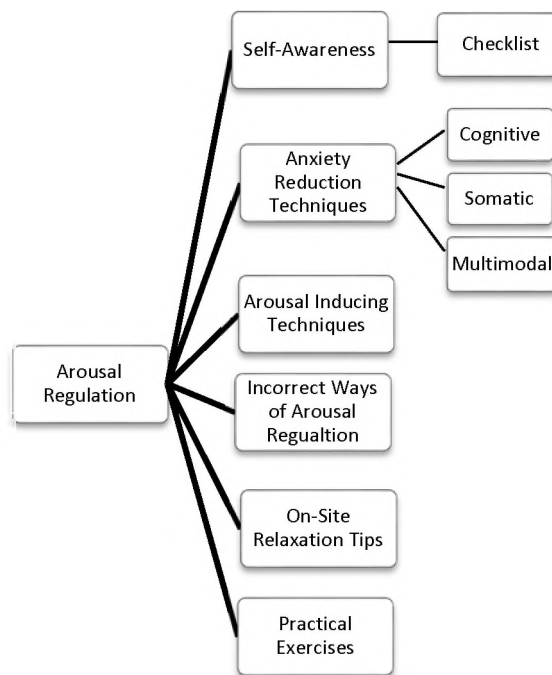


Figure 10. Session 3 structure-arousal regulation

4.4. Evaluation and Reflection

Once the participants had partaken in the mental skills training programme and had completed the entire process they were given time to incorporate the new knowledge and skills that they had learnt into their training programmes and competition. During this period, the researcher had given the participants four different audio clips to listen to for visualisation purposes, with written information on how to practice visualisation effectively and the different ways to do so. The participants had filled out their goal-setting sheets and were instructed to follow the advised goal-setting practices that they had learnt in the goal-setting workshop (e.g. monitor their goals, make them visible etc.). The participants were given a systematic guide on how to practice the arousal regulation methods they had learnt and were encouraged to practice them as often as possible. The participants were told that the more they practice mental skills training, the more beneficial they will be to their performance.

Subsequent to competing in the Universities Boat Race, the participants were subjected to two forms of testing, namely the repetition of the performance profile exercise and individual semi-structured interviews.

The purpose of the post-performance profile assessment was to gauge if there had been any improvements in the specific mental skills that the participants had mentioned in the first performance profile exercise. Individual interviews were conducted with the participants in order to gain insight into their experience of the mental skills training programme that they

had participated in and also to acquire useful information that could be used to implement more effective mental skills training programmes in rowing and sporting environments. The information obtained during the evaluation stage will be discussed in line with the aims of the research and the research question itself.

4.4.1. Post-mental skills training programme findings

The results obtained following the design and implementation of the mental skills training programme are of utmost importance in the process of this study. When evaluating the findings we have the opportunity to establish the impact that this research has had on the participants.

At this point of the research it is also vital to consider these findings in relation to the original aims and question that the research poses. This study explored the manner in which a mental skills training programme could be developed and implemented for Rhodes University rowers as part of their training and preparation programme. This study commenced with the intention of developing and implementing a mental skills training programme that was tailored specifically to the athletes participating in the research. Another goal of the research was to contribute to theory about the development of programmes in sport psychology, particularly within the realm of rowing. This research also aimed to evaluate the perceptions of the participants on their experiences of the mental skills training programme in which they participated.

Most of the information gathered from the individual post-programme interviews will be used to justify the aims of this body of research and will be discussed in-depth as the evaluation chapter progresses. However, considering that the participants completed a performance profile at the beginning stages of the research, it seemed fitting that they should complete another performance profile towards the end of the research process. This information is useful as it provides insight into the nature of the participant group in relation to mental skills usage post-programme.

4.4.1.1. Post-programme performance profile.

Female Group

Focus	80 %
Commitment	83 %
Goal-Setting	76 %
Positivity	86 %
Self-Motivation	83 %
Composure	90 %

Male Group

Focus	83 %
Commitment and Dedication	80 %
Goals	80 %
Passion	76 %
Quality	76 %
Team Player	70 %

Figure 12. Final group averages from the post-programme performance profile assessment

Female Group

Focus	78 %
Commitment	76 %
Goal-Setting	70 %
Positivity	78 %
Self-Motivation	68 %
Composure	72 %

Male Group

Focus	62.5 %
Commitment and Dedication	82.5 %
Goals	75 %
Passion	77.5 %
Quality	67.5 %
Team Player	82.5 %

Figure 13. Final group averages from the pre-programme performance profile assessment

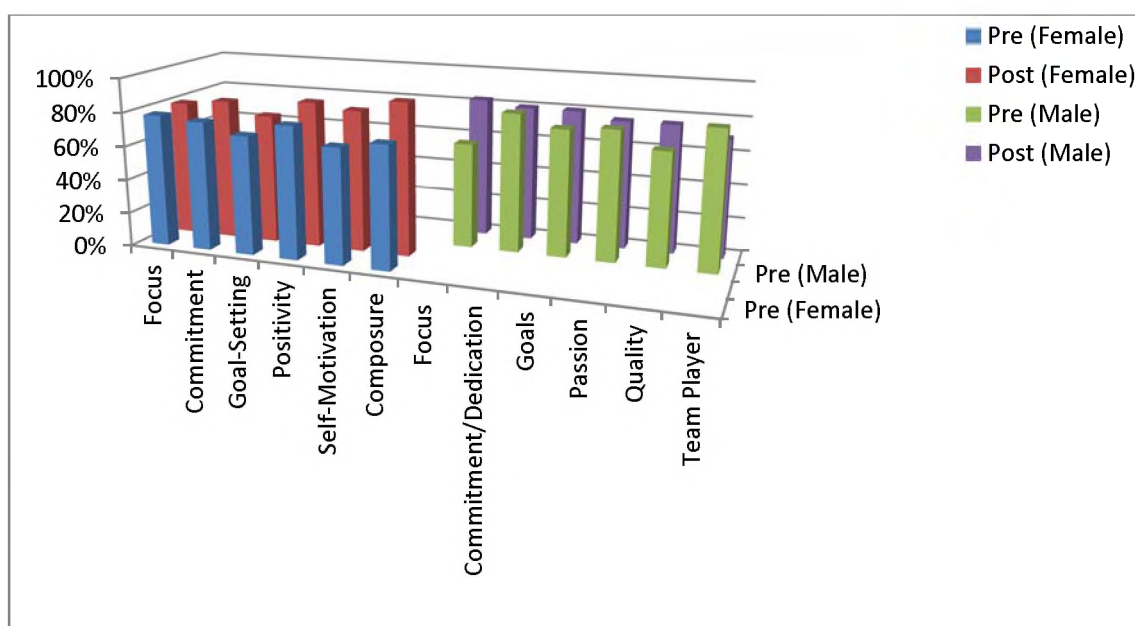


Figure 14. Comparison of the male and female group averages for the pre and post-programme performance profile assessment

It is important to note that when viewing these performance profile results that the number of participants had slightly decreased by the post-programme evaluation stage. In a small study like this that will have a large effect on results and for this reason the findings from the performance profile should be viewed out of interest and not necessarily as an indication of how the programme affected the participants or how they felt about the programme. The aim of the research is to inquire into the participants' experience of the programme and for this reason, in-depth individual interviews were conducted, analysed and explored to gain a deeper understanding of the participants' perception of the process.

4.4.1.2. Post-programme interview. Once the performance profile exercise had taken place with each of the participants, an interview was conducted with each of them individually. This interview was conducted in the form of a semi-structured interview with each of the participants on separate occasions.

Semi-structured interviews include a set of certain themes and topics that the researcher aims to cover as well as suggested questions formulated for the purpose of guiding the interview. Whilst there is a certain element of structure in this type of interview, there is also an opportunity for the researcher to alter both the sequence of the questions as well as their form, depending on the nature of the information provided by the participant (Angrosino et al., 2007).

The characteristics of this data acquisition method are well-suited to this study and this particular phase of the research. By using the semi-structured interview technique the researcher was able to obtain personal accounts of the participants' thoughts on the mental skills training programme, as well as any possible ideas for improvements and amendments that could be made to similar programmes in future.

4.4.1.3. Post-programme interview process. All of the elements and aims of the research question were taken into consideration when conducting the programme evaluation interviews and when choosing the questions that would ultimately guide the interview. These questions were drafted for the purpose of identifying and exploring possible themes that would cater to the purpose of the study (see Appendix Q). The programme evaluation and interviewing process was imperative to this project as it provided the researcher with a realistic, intricate understanding of what the participants experienced when partaking in the mental skills training programme.

For the post-programme evaluation interview, several questions were contemplated, drafted and solidified by the approval of the supervisor of this study. Seventeen questions formed part of the official interview schedule which focused on a number of themes. These

themes included the participants' post-programme general knowledge of mental skills training, the effect and suitability of the programme, the future prospects and existing usage of mental skills by the participants and finally, the recommendations and drawbacks around the content, layout and operation of the programme as a whole. These questions are stated below:

General Questions on Mental Skills Training

1. Do you feel that since participating in the mental skills training programme you have a better understanding of what mental skills involve? If so what have you learnt or realised?
2. Do you think that mental skills training is more, or less, important since participating in the programme? If so why do you think that mental skills training is valuable?

Effects of the Mental Skills Training Programme

3. What part of the mental skills training programme did you enjoy the most and why?
4. Which mental skill that you learnt is the most effective? Why would you say so?
5. Do you think that any aspect of the mental skills training programme has improved your performance? If so in what way has it done so?
6. Is there any part of the mental skills programme that you feel made your rowing experience smoother or easier in any way? If so, how did it do so?

Suitability of the Mental Skills Training Programme

7. Do you feel that the particular mental skills used in the programme were relevant to the sport of rowing and to your specific situation? If not what issues do you think should have been addressed?
8. Do you think that you will incorporate elements of mental skills training in the future? If so, what do you think you will utilise the most?
9. Do you think that the mental skills that were incorporated into this programme are user-friendly? If not how do you think that they could be adjusted to make them easier to use so that they are used more frequently?

Current Nature and Future Prospects of Mental Skills Utilisation

10. Would you say that you are more aware of your mental state when competing and training since being exposed to the mental skills training programme? If so, in what way are you more conscious of your mental state?

11. Would you be interested in learning more mental skills and would you be willing to incorporate more mental skills techniques into your rowing? If so, to what extent would you be willing to do so?

Pitfalls and Suggestions Regarding the Structure, Content and Process of the Mental Skills Training Programme

12. What aspect of the mental skills training programme did you enjoy the least? Please elaborate on your choice?
13. Are there any particular aspects of the mental skills programme that you feel are irrelevant in the context of rowing? Please explain?
14. Are there any parts of the mental skills programme that you feel could have been carried out differently? If so in what suggestions would you make (i.e. should it have been structured differently or have been longer/shorter with more/less sessions or longer/shorter sessions etc.)?
15. Are there any elements of the mental skills training programme that you think you will never use again? If so what are they?
16. Do you feel that there were any parts of the mental skills training programme that were or that could be detrimental to your performance or well-being as an athlete?
17. Lastly do you have any other thoughts, comments or suggestions regarding mental skills training and the particular programme that you participated in?

The interviews were audio recorded and then transcribed by the researcher. The transcribed interviews were then analysed by means of Braun and Clarke's (2006) approach to thematic analysis which was utilised in the earlier, investigative stages of the study. Therefore, in connection with the programme evaluation process, the six stage approach commenced with the researcher becoming familiar with the gathered data by means of personally transcribing the audio clips and subsequently reading and re-reading the manuscripts. After the researcher had become familiar with the material, the text was coded according to prominent elements that were apparent in the accumulated data. These codes were then categorised into possible themes and sub-themes if necessary. These themes were then reviewed and ultimately named and defined. The final stage of this approach to thematic analysis entails the reporting of the themes. This will continue in the next section where the chosen themes will be elaborated upon and explored in relation to relevant statements made by the participants during the evaluation process.

4.4.2. Post-programme evaluation outcomes

As the post-programme evaluation process unfolded, certain themes became more apparent and were deemed more profound because of the emphasis the participants had placed on certain ideas during the interviews. These themes are visually represented in the diagram (*Figure 15*) below. It is of interest to note that the themes in this diagram were listed in order of relevance according to the amount of times they were emphasised by the participants and how significant they were in the research process according to the participants. Whilst all of the themes listed in the diagram were weighted fairly equally by the athletes, certain themes were emphasised slightly more by the participants in the interviews. The themes will be elaborated on and explored in order of relevance, starting with the most noted theme of “goal-setting” down to “a better understanding of the importance of utilising mental skills training”. The theme of “practical application” will be discussed last, not because it was given the least mention by the participants, but because it was a theme that was explored in a vast spectrum of ways and a theme that forms the basis of the entire investigation as a whole. The theme of “practical application” was one that was discussed, referred to, and applied throughout the interview schedule.

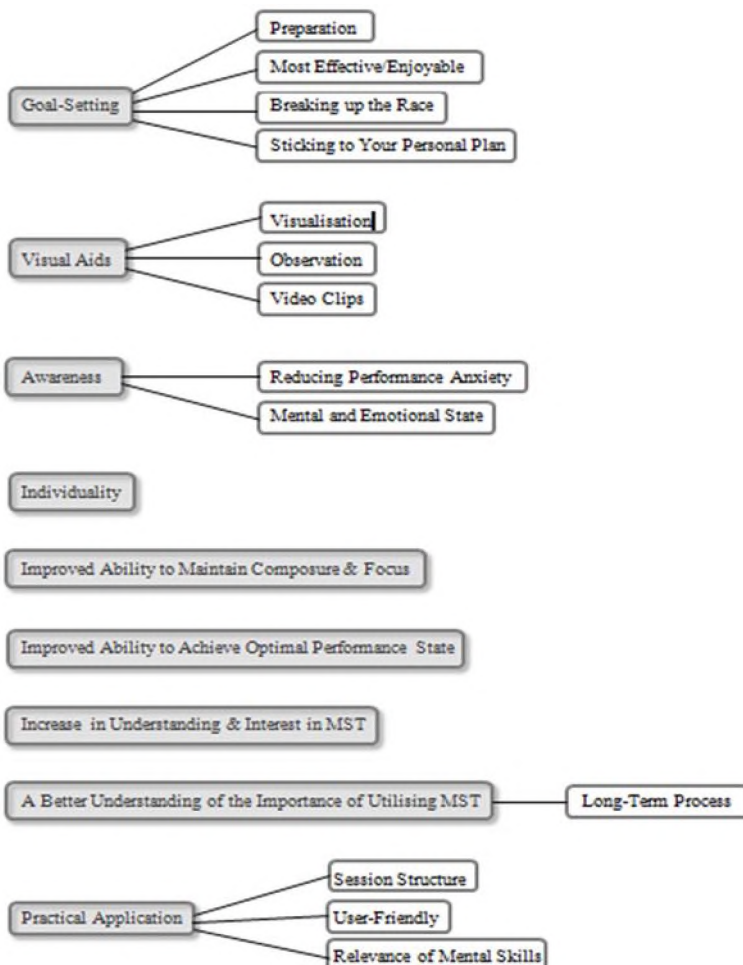


Figure 15. Summary of post-programme evaluation themes and sub-themes

4.4.2.1. Goal-setting. The majority of athletes and coaches have heard of the practice of goal-setting at some point in their careers, with many successful sportspeople and consultants using it as an effective tool to enhance their performance. This acceptance and utilisation of goal-setting for the purpose of increasing productivity and boosting performance has arisen in response to considerable findings in related literature which support of the use of goal-setting for its motivational and performance increasing effects (Butt, Knight, Perritt, & Weinberg, 2001; Lathan & Locke, 1985). In light of this it comes as no surprise that the methods associated with goal-setting were given the most credit by the participants in general and were regularly mentioned as the mental skills technique that they believed to be the most effective and enjoyable. These sentiments are echoed in the two following participant statements, “I think goal-setting I definitely will always have” (*Post-Programme Evaluation Interview Participant 1*, p. 6, line 17). “Like the performance and thinking about it like preparing and the goal-setting, like that’s going to influence your performance” (*Post-Programme Evaluation Interview Participant 2*, p. 2, line 6 to 7).

As demonstrated by the statement prior and as proposed by Kremer and Moran (2008), goal-setting has the ability to work and often does work well. However, it is important to be mindful of the issues associated with this practice and to focus on how best to avoid these by adhering to recommended goal-setting methods. The above mirrors the particular concern originally stated by the researcher in the assessment phase and provides the rationale behind choosing goal-setting as one of the mental skills included in this programme. The concern was that although the participants had previously come into contact with the concept of setting goals, they were not necessarily aware of the principles and pitfalls associated with this practice, neither were they aware of more effective methods of implementation.

The athletes were introduced to the SMARTS guide to effective goal-setting practice. One of the ideals here is the setting of realistic goals which are specifically tailored for an athlete. Here the athlete focuses more on individual progress rather than overly comparing themselves to competitors and others. One of the participants explains how learning more about goal-setting enabled the setting of healthier, achievable, individual standards and the focus on own performance, “I think it also maybe helped me set more realistic goals for myself” (*Post-Programme Evaluation Interview Participant 4*, p. 3, line 30).

During the mental skills training programme the participants were also encouraged to apply goal-setting to various aspects of their rowing. Goal-setting was encouraged when preparing race plans, for the preparation for races and to their rowing careers in general. The

athletes were also encouraged to use goal- setting in ergometer trials where most athletes had expressed difficulty in maintaining a consistent level of optimal performance throughout these trials. It was promising to note that, after participation in the mental skills training programme, one of the athletes from the women's team and one of the rowers from the men's crew, mentioned that preparing for a trial by breaking the process into sections and setting appropriate goals for each block had enabled the delivery of a more satisfactory performance. The account follows:

The one 5k, I was trying to do this whole mental thing cause I was really trying to get on the money with it, and I remember like...just...I went back to think about the goals and like how goal orientated it was and I thought about that. It went through my mind and it ended up being one of the better 5k's I've pulled. So, it really helped me when I knew I needed to hold this split...this is my race plan in order to get this goal (*Post-Programme Evaluation Interview Participant 3*, p. 3, line 20 to 24).

Like the plan for the trials...that's also, like, this is the only week that I've really thought about a couple of days before. Like, what am I going to set, for the 17k? It helped, and the 5k... I felt more positive towards it even though the performance wasn't as great. Ja (researcher). The 2k, okay I didn't plan for that and also it didn't go to well (*Post-Programme Evaluation Interview Participant 2*, p. 1, line 32 to 35; p. 2, line 1 to 2).

It is evident from these excerpts and the interview findings at large, that goal-setting proved to be a valuable tool that the participants were exposed to in the mental skills training programme. It is also of value to discuss the reasons why goal-setting was beneficial to the participants and the particular elements of this practice that they found the most useful and effective. One of the participants explains how the concrete setting of goals on a goal-setting sheet, increased a sense of commitment to achieving goals and improved accountability and responsibility for the steps that had to be taken to achieve desired standards.

I think the goals one is really a good one because it makes you realise what you want to do instead of just talking about it. Know about putting pen to paper...it's kind of like a commitment to myself that I am now going to try and get these goals. So whether they're like, win gold at Boat Race or go to Student Worlds, it helps, about putting pen to paper. You realise what you want to do, make like, a self-commitment to get there (*Post-Programme Evaluation Interview Participant 3*, p. 4, line 25 to 29).

This statement highlights the general trend that all of the participants displayed during the research process, which is that they had all set goals for themselves at some point, but

they had never physically, formally stated them. This tendency is mirrored in research conducted by Butt et al. (2001) in their qualitative study on fourteen National Collegiate Athletic Association team and individual sports coaches in the United States regarding goal-setting practices. Butt et al. (2001) state that writing goals down is a practice that has been encouraged in most goal-setting related literature to improve athlete commitment. However, their findings state that six of the coaches interviewed did not put pen to paper for the setting of both team and individual goals and that even fewer of them (four coaches) systematically wrote their own personal goals down, which is something that goes against the standard procedure of goal-setting. It is proposed that perhaps the reason why this does not take place is due to the fact that many sportspeople are not aware of the beneficial effects of writing down goals or, as stated by Butt et al. (2001), many of their participants believed that, “they just did not have time (or take the time) to write them down” (p. 390).

A possible solution is to involve individuals in programmes like these that teach sportspeople effective goal-setting practice and to have someone support them with their goal-setting. Particularly in the beginning stages, it would be beneficial to get the participants to do a practical written goal-setting exercise as part of a workshop. This was the procedure orchestrated in the mental skills training programme that formed part of this research. If sportspeople are prompted to write their goals down during a mental skills training session, the problem of time constraint becomes less of a concern, and the individual is more likely to reap the benefits of attaining a higher quality performance and to experience an increased level of commitment. This was evident in the previous athlete’s statement.

It is clear from the statements mentioned by the participants and related findings, that recommended goal-setting practice has proven to be an effective means of increasing performance both within and outside of this particular study. One of the participants explains the value of goal-setting and the general consensus that the participants showed when discussing what they perceived to be the most effective technique that they experienced whilst participating in this particular mental skills training programme, “like just, the fact that there was a goal and they had to break it, like it meant so much. That was the...the most effective definitely, definitely” (*Post-Programme Evaluation Interview Participant 6*, p. 2, line 15 to 16).

4.4.2.2. Visual aids. Whilst goal-setting was given credit as being the most effective mental skills training technique taught during the programme, the use of various visual material and related practices were given a similar amount of attention during the interviews.

These seemed to be elements of the programme that were thoroughly enjoyed, “visual aid is quite helpful” (*Post-Programme Evaluation Interview Participant 1*, p. 4, line 15).

Considering the fact that, in the past few decades, society has become increasingly exposed to and reliant on visual stimuli, this comes as no surprise. This trend has carried through into the realm of qualitative research which, according to Phoenix (2010), has experienced a considerable rise in the interest in and utilisation of visual data.

Imagery, or visualisation (as the participants refer to it) was the focus of the first session of the mental skills training programme and although visualisation received a considerable amount of mention by the participants, it was also accompanied by much support for other visually related elements that formed part of the programme. It is for this reason that visualisation, video clips and observation will be discussed in their own right as part of the global theme of visual aid, as this theme was prominent throughout the transcripts.

4.4.2.2.1. Visualisation. Imagery or visualisation is an easily accessible mental tool that is widely perceived to assist in the pursuit of higher performance standards in sport. This is evident and supported in mental practice literature which supplies evidence that visualisation is an effective cognitive process utilised for the purpose of improving motor skill acquisition and performance standards (Cox, 2007).

General conclusion across literature is that even though mental practice is not as effective as physical rehearsal, it is more beneficial than no form of practice entirely. The most benefit is gained by utilising a combination of both physical and mental rehearsal (Cox, 2007). This approach was verified in the particular mental skills training programme that the participants experienced. They, in general, demonstrated a favourable stance on this technique, “the visualisation, of like doing your stroke and stuff, worked really well” (*Post-Programme Evaluation Interview Participant 5*, p. 6, line 14).

The majority of the participants stated that they found the use of imagery most effective when they used it for improving their technique and skill acquisition even though, during the programme, they were shown the many different purposes that visualisation could be used for (motivation, mastery, arousal cognitive etc). This point is illustrated in the following statement, “Well, if you do a sport where you need to correct technique and things like that, visualising stuff, I think, is pretty cool” (*Post-Programme Evaluation Interview Participant 2*, p. 2, line 21 to 22).

One of the other reasons why the participants made use of imagery was for mental preparation purposes, as well as to improve technical aspects of their rowing stroke. The participant explains as follows:

The visualising thing is actually what stuck in my head the most. Like when you said we've got to. Like, on the way to the dam, you don't really have much to do in the car and then you just visualise what you have to do (*Post-Programme Evaluation Interview Participant 2*, p. 1, line 23 to 25).

Another participant even went as far as to say that they use visualisation to imagine the effects of poor form during training, both on and off the water in an attempt to keep themselves focused and less prone to making errors. The participant begins the first part of the statement explaining how mental skills training has assisted in general and then goes on to discuss visualisation.

So it has helped a lot, I think it really does. It's one thing that's on my mind during a session or during a gym session. Once again, I kind of visualise what would happen if I don't do this right? (*Post-Programme Evaluation Interview Participant 3*, p. 4, line 13 to 15).

4.4.2.2. Observation. When the imagery session was carried out during the mental skills training programme, one of the video clips that were shown to the participants described how, when observing an action, our brains mimic and feel the movement as if we were carrying out the movement ourselves. This video clip used rowing as an example and was chosen by the researcher not only to interest the rowers but more importantly, to describe the idea behind how visualisation affects the brain in similar ways to observation. This concept is supported by Jeannerod's (2001) theory on simulation, developed in response to the findings of numerous studies, which states that motor imagery, action observing and the physical execution of an action share a similar profile in terms of the areas of the brain that are activated when carrying out these tasks.

Whilst the main purpose of the researcher showing this video clip was to interest the participants and describe the concept of how visualisation works, some of the participants were inspired to incorporate more visual material and observation methods into their training. This proved to be a beneficial side effect of the programme. It is clear that by merely teaching individuals certain mental skills, there is a higher likelihood that they will be inspired to try related methods and that by simply creating awareness of mental skills training athletes become more open to adopting new forms of mental training. This is clear in the following participant statement, "It made me think about it a bit more and I definitely watched more videos on my own, than I used to watch of rowing" (*Post-Programme Evaluation Interview Participant 4*, p. 3, line 27 to 28).

4.4.2.2.3. *Video clips.* In all but one of the mental skills training sessions and as part of the introduction, several short video clips were played. These video clips covered a range of topics related to the content of the programme and sports psychology type themes.

A considerable number of the participants expressed how they particularly enjoyed the use of these short, documentary style videos throughout the duration of the mental skills training programme.

I think that the video sessions that you did with us were quite helpful um, because it opened my eyes to new things and like, especially, being nervous on the water (*Post-Programme Evaluation Interview Participant 1*, p. 3, line 32 to 33).

It is evident that this statement and the following one demonstrate that watching the video clips helped some of the participants to be aware of how they deal with high pressure situations and competition anxiety. The reason for this seems to be that when athletes are able to relate to other individuals who deal with the same concerns, they are then more able to understand, accept and in-turn, deal with the psychological challenges that they face in sport.

The clips because it, it was an easier way to see how everything works cause its, its, its useful to see all the theory but when you see how it does actually apply to peoples' life and how everyone can, the local person to a superstar how it effects them and how they deal with it, under all the pressure. You realise how you can like take it down to your level or adjust it to your level to help you cope with your challenges (*Post-Programme Evaluation Interview Participant 3*, p. 2, line 8 to 12).

This statement is important as often most athletes at university and school believe that sport psychology and mental skills training are only for elite and professional athletes. They often do not realise that it is for everyone and for this reason it is imperative that they are educated on how these practices can benefit them and that they are exposed to these ideas as soon as possible.

The next participant goes on to explain how watching one of the video clips made them realise that their own form of mental preparation and pre-race ritual can and should be tailored to their own individual taste and the performance state that they are in at that moment in time.

the one clip was quite cool I think it was with a runner or something or it wasn't, it was with a whole bunch of different ones and I enjoyed it like that everyone's got their own little rituals and you're supposed to like embrace those (*Post-Programme Evaluation Interview Participant 5*, p. 1, line 14 to 16).

4.4.2.3. Awareness. Regardless of their experience and natural ability, a considerable amount of top athletes and sportspeople in general have a lack of understanding of what their mind and body is conveying to them before and during the times that they compete, and even less of an understanding when they are anxious (Kremer & Moran, 2008). It is for this reason that it is vital that athletes learn to detect and effectively interpret the physical and mental signs that they are experiencing at that time. By learning to be aware and mindful of these symptoms, athletes are automatically put in a more promising position in terms of making better decisions and in-turn taking the appropriate steps to ensure that they are in a favourable performance state. All of the participants reported a significantly higher level of awareness regarding their mental state after taking part in the mental skills training programme and were more aware of how their thought patterns and their actions play a role in their performance.

Furthermore the theme of awareness was broken down into two sub-themes, namely “reducing performance anxiety” and “mental and emotional state”. These were the two prominent effects that resulted from the participants increased awareness subsequent to participation in the mental skills training programme.

4.4.2.3.1. Reducing performance anxiety. Of all of the mental skills techniques that were taught during the programme, arousal regulation and utilising relaxation techniques to reduce excessive performance-related anxiety were given the least mention in the participant interviews. However, whilst they weren’t mentioned as directly having an effect, the knowledge that the participants gained regarding the performance diminishing effects of being overly stressed before and whilst competing was enough to make them reduce their anxiety levels. Therefore by simply gaining awareness of this phenomena, the participants were able to improve their ability to regulate performance states, this is explained further in the caption below:

knowing like stress isn’t going to help me things like that like I’d actually mentally prepare myself in a different way so I’d be a lot less stressed before actual racing um which would help and then also ja just ja through the actual whole race it would help me I think just be a bit more calm (*Post-Programme Evaluation Interview Participant 4*, p. 6, line 4 to 7).

Another participant further demonstrates how by having an increased understanding and awareness mentally has helped them to deal more effectively with anxiety-provoking situations, “I think on the water it was definitely a mental thing cause sometimes I’d feel the pressure but I wouldn’t know how to deal with it” (*Post-Programme Evaluation Interview Participant 1*, p. 3, line 22 to 23).

4.4.2.3.2. Mental and emotional state. After attending the mental skills training sessions, the vast majority of the participants stated that they are much more aware of their mental state and how it effects their sporting performance as well as how their emotions can play a significant role in that relationship too. This is evident in the following statement, “Ja I, I think I’m more aware of like how I feel...I think I am just more aware” (*Post-Programme Evaluation Interview Participant 5*, p. 4, line 19 and line 24).

A few participants also stated that after the programme had run that their psychological awareness and mental skills usage was now something that was present in the back of their minds even when they were not actively practicing mental skills techniques, a tendency that was not apparent before the attending the programme. “I think unconsciously we still use it” (*Post-Programme Evaluation Interview Participant 1*, p. 10, line 14).

This increased sense of mental and emotional awareness was not limited to the athlete as an individual, as it ended up translating into an increased sense of awareness and understanding of the behaviour and psychological performance states of their teammates too.

I’m more aware now of people in the crew or in the team and their different ways of, of doing things from that and you can like really pick up on that (*Post-Programme Evaluation Interview Participant 5*, p. 2, line 5 to 6).

4.4.2.4. Individuality. When analysing the content of the participant interviews, it became apparent that many of the participants had benefitted from incorporating one or two elements of the mental skills training programme into their training. Many of the participants had taken these methods and tailored them specifically to their personal preferences and traits, a practice which they had on numerous occasions stated to be beneficial to their performance and something that had made their rowing experience slightly more pleasant. Realising that every athlete responds differently to various mental skills training methods and that they need to find an approach and tool that works for them was something that the participants had learned from the programme. This is supported by the following quote, “I think they can all be related towards like your, different people might enjoy different kinds of techniques” (*Post-Programme Evaluation Interview Participant 4*, p. 7, line 17 to 18).

There were certain parts of the mental skills training programme that were mentioned in connection with the participants adopting their own approaches to mental skills training, a practice which they believed to be beneficial. One of these mental skills training techniques was goal-setting. Several participants emphasised that breaking the race or trial into sections, each with distinguishable goals was helpful to them. They also stated that by individualising

their own goals and strategies that they were more focused and more inclined to be unaffected by distracting or detrimental thoughts and occurrences.

Uh this trial week is the first time that I haven't felt overly stressed for the 5k so I think it was just thinking about a plan and then sticking to my own plan and performance and not caring about what other people are going to do and that kind of gets you, the composure thing, ja that helped (*Post-Programme Evaluation Interview Participant 2*, p. 2, line 10 to 13).

As what was mentioned prior in the section on video clips, one of the participants explains how they were useful for several purposes. One of these was that one of the video clips shown to the participants as an introductory medium for the section on mental skills training in general. This video clip discussed how athletes benefit from using pre-performance rituals and mental preparation techniques that are customised to their own preferences and disposition. One of the participants explains how the knowledge gained from this process has befitted them, "I think just the relation to other athletes or whatever that you can watch those and see like everyone has their own little things that they do" (*Post-Programme Evaluation Interview Participant 5*, p. 1, line 22 to 23).

4.4.2.5. Improved ability to maintain composure and focus. Whilst the act of focusing or concentrating is not a difficult concept to understand, it can prove to be a tricky state to reach in competitive sport as the mind of an athlete can easily be distracted by a plethora of situational elements such as the mental tactics of an opponent, the noise of spectators or even weather conditions (Kremer & Moran, 2008). It is for this reason that it is imperative that athletes continually attempt to improve their ability to be composed and be focused, particularly in a sport like rowing where synchronisation of movement is paramount in a boat, and where a momentary lapse in concentration or composure can prove to be disastrous for the individual and the team as a whole.

In the assessment phase of this research the participants emphasised the importance of being composed and unaffected by distracting thoughts and external factors. The ability to do so was also heavily correlated with their ability to be focused. The participants used the term focus, which was conveyed by them as the potentiality to maintain concentration levels and to be present and invested in an activity at that particular moment.

Several of the participants seemed to rely more on their internal locus of control since attending the mental skills sessions and had come to the realisation that they can only do the best that they can do, rather than being pre-occupied with external, uncontrollable factors. By

adopting a different approach to training and competing, the participants reported an improved ability to maintain their composure and focus more effectively.

I think in that way focusing mentally before the race and going up, concentrating on myself (*Post-Programme Evaluation Interview Participant 1*, p. 1, line 23 to 24).

I think you just you do what you can do. I think that's something that I have realised so I think that's how it's helped is that now I can just get up there and just sort of get on with it a bit better (*Post-Programme Evaluation Interview Participant 5*, p. 2, line 19 to 21).

When contemplating statements like these and the quotation to follow, it is evident that although the participants did not specifically mention utilising arousal regulation techniques that were taught in the programme, the knowledge that they had gained from the theoretical section of the presentation had made a significant impact on the way in which they dealt with high pressure, anxiety prone situations like competing. This in turn improved their propensity to be present, focused and as the statement describes below, more able to regain or maintain composure when unexpected situations arise.

Also being able to calm yourself down and focus on the task at hand and like break it down a bit and not having to look at the whole like, not necessarily as a big thing but like breaking it down into smaller bits that makes it like a bit more easier and when something goes wrong being able to go back, like a normal thing you do, think it through and then carry on (*Post-Programme Evaluation Interview Participant 3*, p. 1, line 15 to 19).

When analysing the excerpt above it is possible that some of the principles of the goal-setting mental skills training session have also enabled the participants to be more composed when competing. By breaking up the race into sections and seeing it as a step by step process rather than focusing heavily on the end result, the participants were able to display a greater sense of control and composure. Focusing on the process instead of the outcome or the process as a whole mirror the ideals of effective goal-setting practice.

Another participant goes on to explain how the mental skills training programme has helped them to exercise a better sense of control regarding their ability to concentrate and regulate their emotional state and their focus, "be able to concentrate better, focus, shift my focus as well and mood as well, it does help, the little things then work together to help" (*Post-Programme Evaluation Interview Participant 3*, p. 3, line 8 to 9).

4.4.2.6. Improved ability to achieve optimal performance state. When taking part in competitive sport athletes experience varying degrees of cognitive anxiety, which can not

only result in psychological stress symptoms, but can manifest in somatic symptoms too. Whilst the relationship between cognitive anxiety and performance has been highly contested across research platforms, the general stance taken is that increased levels of cognitive anxiety have a negative effect on performance in sport. This is supported by findings from a meta-analysis conducted by Hardy and Woodman (2003) investigating the relationship between cognitive anxiety and self-confidence and their effect on performance in sport. Out of the 43 studies investigating the relationship between performance and cognitive anxiety, 26 reported a negative relationship, seven produced non-significant results and 10 stated a positive relationship.

This was no different to the findings extracted from the assessment phase of this research endeavour. Many of the participants stated that they regularly felt overwhelming levels of anxiety at some point when competing and that more than often this had proved to be detrimental to their performance. It was for this reason that arousal regulation was chosen as one of the mental skills training techniques in the programme, to improve the athletes' abilities to be at an optimal level of arousal before and during competing.

In the post-programme evaluation process one of the themes that emerged was that the participants had developed more of a propensity to control escalating levels of anxiety and hence were able to achieve a more optimal state of being in competitive settings.

I think a little, maybe a little bit in terms of um just being more calm and relaxed sort of um, I think especially on like start lines and stuff is something that I got a lot better at um just sort of letting it be (*Post-Programme Evaluation Interview Participant 5*, p. 2, line 11 to 13).

This excerpt also demonstrates the manner in which the participants had developed a better ability to manage pre-competition anxiety, which was something that many of them stated during the assessment phase as a major concern before taking part in a rowing regatta.

The following statement showcases how the participant is more able to deal with anxiety at the start of a race by developing a strategy for the task at hand. Once again the act of sectioning the race into and formulating a plan or process enabled them to be more at ease and less reluctant to feeling overwhelmed. This is supported in the quote provided, "okay make sure you just stay calm and just do everything one step at a time instead of trying to do the whole race" (*Post-Programme Evaluation Interview Participant 1*, p. 1, line 28 to 29).

The same participant goes onto explain the possible reasons behind their competition anxiety and discusses the mental skills training programme techniques that they found to be

most effective and enjoyable as well as how their anxiety levels when competing on the water had lessened.

I think it would be goal-setting even though it's like the most obvious, but I think goal-setting for and trying not to be anxious, was my biggest ones. Um, ja self-confidence I think had a lot to do with my anxiety (*Post-Programme Evaluation Interview Participant 1*, p. 3, line 9 to 11).

4.4.2.7. Increase in understanding and interest in mental skills training. As more and more athletes are starting to realise the crucial relationship between their performance and their psychological state, sport psychology practices such as mental skills training have increased in popularity. However the growth rate in terms of athletes utilising sport psychology services and career opportunities in this field is still limited and the same can be said for the knowledge that the majority of sportspeople have on this particular discipline (Danish & Nellen, 1997).

It is through conducting mental skills training programmes like this that knowledge is acquired, awareness is created and in-turn a greater understanding of these concepts is attained. This was one of the prominent effects of the programme and a theme that all of the participants had spoken of as they all stated that they had a broader base of knowledge and understanding regarding this topic.

Before participating in the programme only one of the participants had come into contact with formal mental skills training at an elementary level. The other participants had practiced elements of mental skills type training, but they weren't necessarily aware of it at that time, for example setting one, or possibly two outcome goals for the upcoming season. All of the participants had minimal knowledge on the practice of mental skills training and as a result of attending the programme they developed a more extensive view on the subject.

Okay ja definitely and there's like a lot of different things I didn't realise that there were so many aspects to it, like the visualising and then the goal-setting and all the different things that there were (*Post-Programme Evaluation Interview Participant 2*, p. 1, line 13 to 15).

The participants also felt that they had a richer understanding of the mind and the way in which training it can improve performance as well as the procedures that one can incorporate into their training to do so. One of the participants explains this occurrence below and admits to having a better comprehension of mind in relation to sporting performance and mental training.

Or some, I knew, I knew the power of the mind but I, I didn't know the structures uh or any theory behind it, I could put a name to it. I just knew there was something about it but I didn't know ja, I know more about it now (*Post-Programme Evaluation Interview Participant 6*, p. 1, line 6 to 8).

When asked if they would be interest in learning about and incorporating more mental skills training techniques into their physical training all of the participants stated that they would be interested in doing so. The participants expressed more interest in mental skills training after attending the programme and were also aware that working on their mental training is an on-going process. These ideas are conveyed by the following statements,

“if there was something to learn then I'm keen to learn it” (*Post-Programme Evaluation Interview Participant 6*, p. 7, line 7), “I feel like I still have a lot more to learn” (*Post-Programme Evaluation Interview Participant 1*, p. 7, line 10).

4.4.2.8. A better understanding of the importance of utilising mental skills training.

“Psychological needs are just as fundamental to growth as are physical needs. Unless both are met adequately, growth may be impaired” (Giges, Petitpas, & Vernacchia, 2004, p. 431). This statement emphasises how vital psychological training is to performance and longevity in sport. However many coaches and athletes demonstrate a tendency to overlook the mental side of their training and focus heavily on the physical. This idea is supported by the following participant, “It actually, like it was like coaches forget the mental part, we all about strength and drive and they forget mentally, about the rowing” (*Post-Programme Evaluation Interview Participant 1*, p. 1, line 34 to 35).

Some of the participants stated that before the issue of mental training was brought up that they did not pay an adequate amount of attention to that side of their training. One of the participants re-iterates this point by stating when they started rowing they had very little concept of the psychological underpinnings of the sport and how they completely underestimated the mental component of the sport.

Never, like you know I always just thought that if you knew what you were doing that you knew what you were doing I never thought that like it became a mind game (*Post-Programme Evaluation Interview Participant 1*, p. 2, line 9 to 10).

One of the prominent themes that surfaced from the participant interviews was that since attending the mental skills training, the athletes placed more of an importance on psychological training in conjunction with their physical training programme. When asked about how important mental skills training is to them after the programme, one of the respondents put forth the following view:

I would say that it is important, especially for something like rowing where its largely a very mental game as much as it is physical because you always have to like be switched on, focused, you have to sort of be thinking ahead of how everything's going to help you like how every small thing fits into a bigger picture. So I think obviously with like the mental skills it helps with being able to calm yourself down, prepare yourself mentally and emotionally for um, a challenge at hand and to be able to set your goals so that you know what it is, you break it down for yourself, you think of ways that motivate you, to push yourself through it so it helps you sort of um gain a deeper understanding of how your body works as well (*Post-Programme Evaluation Interview Participant 3*, p. 1, line 30 to 34; p. 2, line 1 to 4).

The participants conveyed a greater sense of appreciation towards the mental side of their training and displayed an increased awareness of the importance of psychological training and the benefits thereof. Two of the participants expand this idea in the statements below, with the second excerpt also highlighting the awareness that the athletes have developed regarding the general tendency to overshadow the mental aspects of performance with the physical, "So I would say that mental training should be done, equally as much as psychical training" (*Post-Programme Evaluation Interview Participant 1*, p. 2, line 23), "it's more important to a greater extent I think it's, it's important to have a level of um preparation not just physical preparation" (*Post-Programme Evaluation Interview Participant 6*, p. 1, line 11 to 12).

4.4.2.8.1. Long-term process. A common misconception about sport psychology and related methods such as mental skills training is that they provide a quick fix to overcoming psychological blocks and that by engaging with such practices, sporting performance will automatically improve (Gilbert & Lewis, n.d.). This is obviously not the case, as is with physical training and any other skill, mental training has to be practiced regularly over time for it to become inherent.

The participants had become more aware of the importance of practicing mental skills training and in-turn had also realised that mental skills training was a pastime that they would have to envelop as a long-term endeavour and as is with their physical training, something that they would have to put effort into in order to yield promising results. This is evident in the following excerpt, "I don't think you can be trained overnight maybe on like some aspects but in the bigger scheme of things I think it's more long-term programme" (*Post-Programme Evaluation Interview Participant 4*, p. 2, line 12 to 13).

One of the other participants sheds light on the notion that psychological training techniques involve several processes and that an athlete needs to invest in these steps in order to reach the outcome that they desire.

I don't think there is any specific one but rather how they work together, like the goal setting, have that in the back of your mind, so then, so now you have that sort of main thing but to get there you have to go through a different processes. Mm (researcher). It's like the visualisation was very useful to kind of show me how by doing these smaller things, like resetting myself I'll be able to get, maybe closer to these big goals, but do you think maybe the big goals was maybe a bit more significant for me because it, it helped me realise how um I have got standards that I want to get, set for myself but I have to be able to get like a process to get there so it's not going to be like one direct line, it's going to be like a few detours or like a few different lines to get there to that one thing (*Post-Programme Evaluation Interview Participant 3*, p. 2, line 17 to 26).

4.4.2.9. Practical application. The topic regarding practical application is of utmost importance as it answers directly to the aims of this research, most specifically to the contribution of theory towards the conduction of mental skills training programmes and the manner in which psychological training can be best aligned with an athlete's physical training.

A mental skills training programme strives to improve psychological skills and performance by assessing existing mental skills competence and then teaching individuals mental skills methods as part of a systematic, organised schedule (Cox, 2007). It is therefore imperative that the structure and organisation of the process is investigated by means of questioning participants on the practical considerations of the programme and in-turn closely analysing their words regarding these aspects of the programme.

In the assessment phase the participants began with a performance profile exercise and considering that this was a practical component of this research process it is deemed relevant to discuss certain aspects of this procedure that were mentioned by one of the participants. As is with goal-setting it seems that by putting pen to paper, the individual is forced to think about specific aspects of their lives and performance that they sometimes gloss over or aren't even aware of. One of the participants explains the relevance of partaking in practical exercises like the performance profile.

I think it's a, it's a good way to put things into perspective so you, you, when you are actually faced with a thing that says how much dedication do, do you have? How

much focus do you have? You can sort of actually think about it and be like hmm uh like how do I quantify this? How do I put it into a figure almost? (*Post-Programme Evaluation Interview Participant 6*, p. 3, line 5 to 8).

When considering the various themes that arose regarding the practical application of the programme there were three prominent sub-themes that the participants discussions seemed to revolve around, namely the structure or flow of the sessions, the relevance of the programme's mental skills to the context, and the practicality or user-friendliness of the mental skills techniques.

4.4.2.9.1. Session structure. Cumming, Hall, and Shambrook (2004) advise that when designing and administering a mental skills training programme for athletes, the programme should be individualised to the athletes with regard to the content and the manner in which it is implemented. This was applicable in the case of this research process as the initial programme and some of the session structures had to be altered to accommodate the needs of the participants in order to implant a successful programme. As stated in the methodology chapter, the education phase and practical phase of each mental skills technique had to be combined due to time constraints caused by the participants training, university and personal schedules. The researcher was concerned that by combining certain sections of the programme, the sessions would become too lengthily and that the participants would lose interest during the course of the workshop, however when prompted about the duration of the sessions all of the participants expressed that they did not feel that the sessions were by any means too long. "I think the time was fine, like I think the longest one was an hour, not even, so it was fine" (*Post-Programme Evaluation Interview Participant 3*, p. 7, line 30).

The participants also indicated that the general format of the content flowed well and that the process of viewing the video clip, playing the theory presentation and then conducting the practical exercises was a workable and logical sense of events. One of the participants elaborates further in the following text.

Ja I think the content was nice because it did seem like it was broken up into different sections which I'm assuming it was so, um it did seem like we would focus on this, and then this, and then this not like a bit of a mix and match so I thought it was quite well set out and structured (*Post-Programme Evaluation Interview Participant 3*, p. 9, line 1 to 4).

4.4.2.9.2. User-friendly. When conducting the interviews all of the participants stated that they did not find the mental skills exercises difficult to carry out and felt that these techniques were incredibly user-friendly and easy concepts to grasp. Whilst the exercises

related to relaxation were conveyed by the participants as simple and user-friendly in principle, there was less mention of relaxation methods in the interviews as it seems that they aren't necessarily practical at the particular moment when they are needed most and that athletes don't always remember to use them when experiencing sudden, heightened levels of anxiety. This is summed up in the next statement, "I don't think any of them weren't okay the relaxation is a bit more tricky but otherwise I think goal setting it's not rocket science" (*Post-Programme Evaluation Interview Participant 1*, p. 6, line 25 to 26).

The next participant explains the user-friendliness of mental skills training and the way in which they have adopted these procedures into their training and competitive environments. A general trend evident in the participants' dialogue is that performance state awareness and mental skills training is possibly not always at the forefront of their thinking at all times, but is now something that they are conscious of whereas before the programme it was not a grave concern.

I think it was always something I wanted to have, in the back of my mind so having mental skills out like this, it was a lot easier to apply it, I wouldn't say that it was hard to do it was just always there in the back of my mind. It did help me a bit when it was coming to race day or coming to a training session it did help quite a bit (*Post-Programme Evaluation Interview Participant 3*, p. 4, line 1 to 4).

4.4.2.9.3. Relevance of mental skills. Another notable theme that was present in the information conveyed from the participants was the relevance of the mental skills utilised in this particular programme to the sport of rowing and the participant's context. An extensive effort was made during the design of the programme to customise the content, practical exercises as well as visual and audio material to the sport of rowing and the athletes' environments. The reasoning behind this was that there would be a greater probability of the participants being able to relate to the programme, maintain interest in the subject matter and incorporate these techniques into their training in future. It is evident that the attempt made to make the programme relatable was successful, as is visible in the following statements.

You focused a lot on rowing stuff, it was all very relevant, I didn't think there was anything that wasn't relevant (*Post-Programme Evaluation Interview Participant 2*, p. 2, line 17 to 18).

I mean I don't think I came back from any of the sessions thinking it's useless or I'm not going to use it (*Post-Programme Evaluation Interview Participant 3*, p. 8, line 13 to 14).

Um I think they could be related to other situations but I do think they were quite specific, like the, the videos and things like that that we watched and the coxing was very relevant to rowing (*Post-Programme Evaluation Interview Participant 4*, p. 4, line 11 to 13).

The statement above also highlights the realisation that mental skills training is a versatile tool that can be applied to other arenas of an individual's life. The next excerpt also demonstrates how the athletes responded positively to mental skills training and the way in which the programme proved to be relevant to them for the reason that it was tailored to the characteristics of the sampled rowers.

I think it was definitely suited to rowing I think mental skills are, should be part of every rowing programme (*Post-Programme Evaluation Interview Participant 6*, p. 4, line 1 to 2).

4.4.3. Summary of the research findings

This research sought to develop and administer a mental skills training programme for athletes part of the Rhodes University Rowing Club (RURC). The programme was designed according to results of the assessment phase that the students were subjected to in the beginning of this research. Once the programme had been implemented the participants were evaluated regarding their perceptions of the training programme. These findings formed the most valuable part of the research as they answered to the main aims of this research endeavour.

The findings relating to the performance profile indicated a general improvement for all mental skills aspects relating to the female participant group, whereas the male group showed many of the same or similar scores. However, the most important findings were gathered in the post-programme interviews which evaluated the programme and responded to the main aims of the research. Certain themes emerged when analysing the participant interviews with many of the participants stating that they found goal-setting to be particularly effective and a mental skills training technique that they responded well to. The participants also felt that the utilisation of visual material in the form of watching related documentaries, observation of rowing videos and using visualisation for preparation and improving their technique was useful to them. Another prominent theme was the realisation that the participants had come to in terms of finding an approach that worked for them and investing time in creating mental preparation strategies and rituals that made them feel more comfortable as opposed to attempting to do things that they thought were "the right way to do

things". The participants showed a marked increase in their awareness of their psychological and emotional state and training prior to and during competition, and by doing so had reduced their anxiety levels. The participants also demonstrated an increase in understanding and interest regarding mental skills training and displayed a greater concern for the role that it plays in their performance. Other improvements included a better ability to maintain composure and focus levels as well as to function at a more optimal mental performance state. Lastly the practical application aspects were mentioned with the participants stating that the flow and duration of the sessions (50 to 60 minutes) was favourable and that the mental skills techniques that were covered in the programme were incredibly user-friendly. The participants also noted that the programme was very relevant to their situation and that a considerable amount of the content was relatable because it was tailored to the sport of rowing specifically.

In a study such as this one it is important to investigate and report on the drawbacks encountered and improvements that could be made when creating a similar programme. By reviewing the concerns and recommendations allocated to this study we have the opportunity to gain more relevant information that speaks directly to the goals of this research, These goals are to advise other individuals on the most effective ways of implementing programmes like this and to state what aspects work and which don't. These cautionary and advisory elements of the research will be elaborated on in the following chapter regarding the conclusions, limitations and the recommendations of this study.

Chapter 5: Limitations, Recommendations and Conclusions

5.1. Limitations and Recommendations

When conducting research it is to be expected that certain concerns particular to the study will arise and these should be discussed. Considering that this research strives to produce information from a group of athletes’ evaluation and perception of a sequence of events, the recommendations and limitations form a vital aspect of the study. Exploring the drawbacks and seeking the advice of the participants, enables the collection of valuable knowledge that has the potential to assist future endeavours of a similar nature. This is important as it caters to one of the main purposes of the study and aids in the pursuit of answering fundamental questions connected to this research. As stated by Weinberg and Williams (2006) it is important that, in the evaluation stage, additional questions about the weaknesses of the programme are asked.

Limitations and recommendations will as far as possible, be linked to each other in the discussion which follows. Where relevant, limitations will be accompanied with recommendations that attempt to respond to and minimise the concerns raised. The recommendations and limitations have been summarised into various points of interest, all of which are tabulated (in *Table 8*) below:

Session Timing
Athlete Attendance
Time Constraints
Integration
Personal Preferences
Follow-Up
Prior Exposure to Mental Skills Training
Difficulty Relating to Content
Forgetting Parts of the Programme
Existing Beliefs Regarding Mental Skills Training
Effect of the Researcher

Table 8. Summary of recommendations and limitations

5.1.1. Session timing

Initially, it was proposed that the mental skills training programme would have a number of shortened sessions, with sessions divided into theory and practical sections. However, once the initial contact had taken place, it was decided that the programme would

consist of three main sessions, so that the participants would have enough time to practise each skill before moving onto the next. It was intended that the sessions would take place every five to seven days, but because the male and female participants often had alternating training schedules, not all of them were able to be present at every session. It is for this reason that catch-up sessions were held for the participants who had missed sessions. This, however, delayed the subsequent sessions and this meant that occurred approximately ten days from each other

When the participants were asked about the timing of the sessions, many of them stated that they would have preferred to have the sessions held closer together. When prompted for recommendations for spacing between sessions, the responses ranged from suggesting a twenty to thirty minute session two to three times a week, having a session once every two weeks to spending fifteen minutes a day on some form of mental training (reading, visualisation, watching videos etc.). However, the general consensus was that a weekly session would be both workable and preferable. These sentiments are clear in the following text:

Workable, I would say. You could at least do like, a...like, one session a week at the end of, end of a cycle. Or you can do like, a goal-setting for the coming week and a reflection at the end of a week. Okay (researcher). So either combine it or have them one, two different sessions. You know, either at the end and beginning of the week or... whether at the end you meet and have a combined session (*Post-Programme Evaluation Interview Participant 6*, p. 7, line 14 to 19).

The next participant echoes this viewpoint, and adds that sessions should occur at this frequency during the training period. Some of the participants also stated similar ideas saying that during peak training periods, mental skills training sessions should take place in order to track progress. This participant also suggested that it would be beneficial to take a few minutes to discuss training in general and to regularly re-evaluate progression.

Like a frequency of you know, like once every two weeks or once a week or whatever. You mean like throughout the year (researcher)? Throughout the training period (*Post-Programme Evaluation Interview Participant 6*, p. 11, line 1 to 3).

Other participants suggested having brief mental skills training sessions before or after the physical indoor training sessions. They believed that this would encourage more people to attend as it this would minimise the time requirements, and enable athletes to fit the programme into their busy daily schedules.

5.1.2. Athlete attendance

When the assessment phase commenced there were ten participants who formed part of the mental skills list generation, focus group assessment and performance profile exercise. Seven of these participants chose to attend the mental skills training programme sessions, with one of the participants attending all but the last workshop. It is worth noting that all seven of the participants who attended the sessions did make an effort to be prompt and attend the sessions. The reason why the researcher had to host make-up sessions was that the participants had many other commitments. An intense physical training load meant that the males and females had alternating training sessions and it was often difficult to find a time that was appropriate for every individual's schedule. One of the participants outlines this and provides some insight into the possible reasoning behind it. This statement also highlights the attitude that many sports people in South Africa have towards mental skills training, which is that mental skills training is only useful to certain groups of athletes.

But the flow was quite like, you could see where the flow was going...like it was logical. So it was easy, very clear, understandable. I just think, like ja, maybe...ja on your side it was all fine. I think on maybe the participants, didn't seem, they didn't seem like as committed to themselves to be here. Ja (researcher). So maybe mental skills is not necessarily serious for everyone, but for some people it is. They will take it more seriously, so they will come (*Post-Programme Evaluation Interview Participant 3*, p. 7, line 16 to 22).

Another participant indicates how they would like to do more in terms of mental skills training but that hosting more mental skills training sessions might not be a viable option as people might not be diligent in terms of their attendance.

I think um, something that could have been done was like, you get like almost like homework in a sense. Something to read on it or something, and then bring that and have more of a discussion around the topic. Um, so more like in-depth talking about something. Um ja, but obviously it's hard to make sessions because people don't pitch. (*Post-Programme Evaluation Interview Participant 4*, p. 7, line 23 to 26).

A possible measure to enhance attendance issues, as suggested prior to this section, is to combine mental training sessions with physical training sessions. In this way athletes might be more inclined to be present during these meetings as they do not have to make arrangements to attend yet another separate training session. Another suggestion which will be discussed under the section on "integration", is to make sure that there is more of a group

commitment and that more athletes from the club as a whole, are involved in this type of training.

5.1.3. Time constraints

As mentioned before, the mental skills training sessions combined by joining the video, theory and practical exercises. This was done due to time restraints and schedule clashes between the different groups of student athletes and their other external commitments. It is unfortunate that there were significant time pressures, as some of the participants did seem genuinely interested and would have preferred to have more time to spend on this sector of their training, particularly in the form of discussing their training and how they felt about their rowing from week to week.

Um, I think you could have done a lot more, like maybe workshop things with them. You could have sat down with each person, but the problem is that a lot of people were like, okay I can come at half past one but I have to be out by. Ja (researcher). So you felt very time pressured. So, a lot of the time I felt you wanted to say more about things but you were just like, okay well we have got to get through all of this (*Post-Programme Evaluation Interview Participant 1*, p. 11, line 2 to 8).

It is statements like these that highlight the need for teams to have sport psychologists available on a full-time basis and for a long period of time. It is also important that both group and individual meetings are held between the athlete and the sport psychologist on a regular and on-going basis.

As previously stated, the participants were offered make-up sessions and were encouraged to stay on after the session if they wanted to discuss aspects of the programme or their training. Some of them used this facility, but it was often difficult for them to do so as university student athletes have many other commitments and demands on their time.

5.1.4. Integration

One of the notable ideas that the participants suggested was that of integrating mental skills training more intricately into the training system and the club in general. One of the participants proposes more extensive club involvement in mental skills training initiatives in the following statement, “so I think it would have been great to have it as like a club thing” (*Post-Programme Evaluation Interview Participant 6*, p. 10, line 7).

Most of the participants felt that by doing this, participatory rates would increase and it would be a more enriching experience as a whole. One of the participants mentioned how the idea of having a greater group commitment would yield more promising results when

conducting mental skills training procedures. The following participant statement mirrors a similar sentiment by stating that it would have been an enjoyable element to the process if more of the club had to be involved.

I think it needs to be sort of like a more buy in, like a group buy in. It's like if, if like a whole team goes for a stretch they'll go for a stretch, but if a coach says stretch in your own time, ninety percent of the team won't do it. So if the coach said you are going to sit now and do like mental skills training for an hour a day and you got together and did it then it would work. But because we say, ah everyone do your own mental training in your own time, nobody will do it. So it needs to be more of like a group buy in from everyone (*Post-Programme Evaluation Interview Participant 5*, p. 4, line 1 to 6).

Whilst the point that this participant made is valid and useful, it is important for the sport psychologist to address a concern which is that the athletes should take responsibility for themselves. In this regard for example, a goal could be for the athlete to stretch in their own time and each individual could then lock in and do a routine, designed specifically for them and, on their own accord, do it very well.

The next participant provides a possible solution to involving the club or the group by stating that mental skills training should be incorporated into the physical training sessions and that these should be compulsory. Whilst the coach was consulted in this research and the coach did allow time for the mental skills training sessions, participation in the research was voluntary. In this research context, it was not possible to make the sessions compulsory. However, for situations where it could be possible to make mental training mandatory for all club members, this could prove to be useful and effective in ensuring that athletes pay attention to the psychological aspects of their training and well-being.

“Make it part of the programme” (*Post-Programme Evaluation Interview Participant 6*, p. 12, line 16). This is the ultimate goal: to make mental skills sessions part of normal training. When this ideal is achieved, the athlete is practising certain exercises that are simultaneously training their physical and psychological skills.

The next participant advises carrying out more interactive exercises in the form of certain team members being paired up with others according to the strengths that they possess that could be beneficial to other members of the club. The participant advises this by stating that, “I just feel that if you could do a lot more interactive work that way” (*Post-Programme Evaluation Interview Participant 1*, p. 12, line 15), and provides the following example to

illustrate this point, “I’ll help you with, let’s just say technique, cause their technique is really bad. So you almost make it that the team works together” (*Post-Programme Evaluation Interview Participant 1*, p. 11, line 24 to 25).

Other examples, such as teammates assisting one another with aspects of both their physical and mental training that they feel comfortable in mentoring, were also mentioned.

5.1.5. Personal preferences

Whilst certain mental skills aspects were regarded by all of the participants as beneficial and positive, others received contrasting reviews. It is important to note that there can be varying perspectives, even amongst a group of individuals who share many similar traits, backgrounds and lifestyles. It is because of this that the variables of perception, individuality and disposition are continually kept in mind when conducting mental skills training practice. Two examples of these alternate takes on the same exercise will be demonstrated, with the first regarding the audio recordings of the coxswains’ visualisation exercises down the Boat Race course. The following participant states their favourable view of this technique in the following statement, “the verbal of the coxes, I sat down and listened to those, um which was quite nice” (*Post-Programme Evaluation Interview Participant 1*, p. 4, line 26), whereas another participant conveys an opposing view below:

Um, I think the, the...the visualisation down the course and stuff. I don’t know if that worked too well for me. Okay (researcher). Um, because I, I don’t know. I feel like it can always change, it’s never really the same no matter what you do. Ja (researcher). So maybe that was the one thing that I wasn’t too sure about, but then in the same breath, the visualisation of like, doing your stroke and stuff, worked really well (*Post-Programme Evaluation Interview Participant 5*, p. 6, line 7 to 14).

It is important to note that, as stated by the previous participant and as discussed in the results and discussion chapter, that many of the participants felt that visualisation is more useful when utilised for skill acquisition purposes and for improving technique.

Another mental skills practice that was discussed in the session on arousal regulation was the ability to re-set one’s mind after an unfavourable event had occurred. This skill was also demonstrated in one of the sport psychology video clips that were shown to the participants. This technique involves the athlete having a focal point that is consistent in every competitive setting and to look at this point to re-set one’s mind when anxiety becomes debilitating and overwhelming. One of the participants, who struggles with pre-competition anxiety, stated that using this method was incredibly helpful. This is supported in the

following statement, “when I thought about it and applied it, it did help, like I said. Like that reset one really did help me like, focus up again” (*Post-Programme Evaluation Interview Participant 3*, p. 3, line 18 to 19). In contrast, one of the other participants explains the complete opposite phenomenon in the text below:

I don't really like the idea of re-setting your mind in the boat of something. Um, I think it's more like... for me, it's more of actually just like, um saying that I'm not going to die. Like cutting myself things like that, instead of re-setting it ja (*Post-Programme Evaluation Interview Participant 4*, p. 7, line 5 to 7).

5.1.6. Follow-up

Weinberg and Williams (2006) mention the importance of implementing a mental skills training programme that emphasises self-regulation. This ideal was promoted throughout the programme and the participants were encouraged to carry out their own mental skills training and were given the appropriate tools to do so. With self-regulation comes the responsibility of athletes to seek out the necessary measures to monitor and evaluate their mental skills training efforts and progression. The participants did convey this idea by mentioning that it would be helpful to have some sort of measure in place that monitors the long-term progression of their psychological training. One of the participants suggested having these meetings or discussions during club/team/coach meetings (which are held fairly regularly) as this would eliminate participants having to make time for an added training session.

The following participant spoke of having follow-up sessions with a focus on monitoring and re-evaluating the goals that they had set in the goal-setting forms they filled out during the mental skills training programme. The following participants makes suggestions regarding the timing and nature of goal evaluation sessions in these statements, “Say Monday morning of every week and then Friday I want you to look at the page again and see if you attained anything” (*Post-Programme Evaluation Interview Participant 1*, p. 8, line 9 to 10) and “you set this goal in the last meeting. Did you achieve it? Or did you gain anything towards the goal you've set?” (*Post-Programme Evaluation Interview Participant 1*, p. 2, line 33 to 34).

Another suggestion made by the participant relating to follow-up exercises was to have extra-curricular activities surrounding the topic of psychological training. This suggestion is put forth in the following statement, “Maybe if you had set tasks for us, um, so that we engaged in it and we didn't just engage with you for that 45 or hour that you did” (*Post-Programme Evaluation Interview Participant 1*, p. 8, line 14 to 15). This is a valuable

suggestion as it includes blended learning, which assumes that it is vital that learning is enveloped into learners' environments, lifestyles, occupations and learning experiences by means of varied mediums, methods and technologies (Jelfs, Nathan, & Barrett, 2004).

Although the participants were given certain exercises (such as the relaxation techniques) to do, they weren't given formal homework tasks. The researcher presumed that they would not be able to complete homework activities as they had struggled to find the time to do the standard psychological skills training sessions. However, some of the participants suggested that having extra duties (in addition to the programme) and doing extra reading could be of benefit to them.

5.1.7. Prior exposure to mental skills training

In Martin's (2005) study on university and high school athletes' attitudes to sport psychology services, those who had been involved in mental skills training or sport psychology related practices had more of an appreciation for these aspects of training and performance. The second finding of this study was that the athletes were less likely to seek assistance in these areas of their training in future. The first finding mentioned is confirmed by this research. However, the same cannot be said for the second finding as the majority of the participants had been exposed to very basic elements of mental skills training briefly within their sporting careers and still chose to attend the entire programme. However, it is important to note that the athletes in this study that had prior exposure to psychological training had done so in a very informal manner. Only one of the participants had partaken in formal mental skills training efforts at a rudimentary level, and as a result of them having prior knowledge of this subject they were able to engage more effectively with the content of the mental skills training programme.

I haven't done mental skills in like a few years, so by having this research going on, part of it made me think like, back to mental skills I had in matric and how that like triggered a memory of it again. So this one and the one in the past, helped me, linked them together and helped me perform a bit better (*Post-Programme Evaluation Interview Participant 3*, p. 3, line 25 to 28).

As is evident in this statement, it seems that the most promising way to get athletes to more regularly engage in mental skills training efforts is to continuously remind them and expose them to new forms of psychological training or to provide them with refresher courses on the matter that they had covered in the past. Another element that seems to play a role in the likelihood of athletes entering into and sustaining their training in the psychological realm, is whether or not they have a personal link to the subject. This sentiment is supported

and expanded by one of the participants in the following statement, “especially because my mother also does. Spoke, did a bit of this at varsity and she spoke about it. So I kind of know where it’s coming from” (*Post-Programme Evaluation Interview Participant 3*, p. 8, line 16 to 17).

How this translates into practice is not entirely clear. However, it could be suggested that the use of real-life cases of mental skills success stories, or examples of athletes whom the participants look up to using mental skills training to aid their performance could be a worthwhile place to start. This was why showing the athletes video clips of other athletes successfully incorporating sport psychology related exercises into their training, was an element of the programme that the participants appreciated and noted in the interviews. By creating awareness and getting more athletes involved in mental skills training programmes, there is a higher chance that individuals around them will be more likely to do the same.

5.1.8. Difficulty relating to content

The participants in general stated that the theory, practical aspects and other procedures of the mental skills training programme were easy to understand, user-friendly and relevant to the sport of rowing and their particular environment. Despite this, there were several concerns stated by the participants regarding these elements of the programme.

When asked what part of the process they had enjoyed the least, one of the participants outlined the difficulty they had experienced when grappling with some of the theory pertaining to the presentations on certain mental skills techniques.

The least? Um, maybe it was something to do with going through all of that theory because it wasn’t stuff that I was good at. It wasn’t stuff that I knew much about...trying to think. So, trying to understand all of it was a bit tough for me, but I understand that it’s something that you have to do and that its um, it has to be said. I’m not saying that it was necessarily boring; it’s that it was kind of tough for me to understand it (*Post-Programme Evaluation Interview Participant 3*, p. 6, line 3 to 7).

When conducting a workshop, presenters should be mindful of the fact that their audience does not always have the same knowledge base that they do and as in this case, different students might have specialised in differing disciplines. Another possible preventive measure for this occurrence is to stop the presentation at various stages and encourage more conversation on the subject matter at hand. In the mental skills training presentations and due to time restraints, discussion and commentary were saved for the end of the session. Ideally, more discussion could have been incorporated into the sessions as this could possibly have prevented misunderstandings from occurring.

When faced with the same question about what part of the programme the participants enjoyed the least, it was apparent that they would prefer not to do as much paperwork. This however is a requirement for research purposes and the participants had to fill in their details and sign various forms of documentation such as a form for the permission to record the interviews and transcribe them etc. Whilst this is a formality required in this type of research, it is good to make note of concerns such as this in order to advise those who are administering other forms of psychological training, to be mindful of how much administrative documentation is involved in the training process. This concern is conveyed by the following participant's statement, "Um I don't know if there's anything... the least, if I had to point something, it would be the, the paperwork" (*Post-Programme Evaluation Interview Participant 6*, p. 8, line 20 to 21).

5.1.9. Forgetting parts of the programme

This section mirrors some of the sentiments that were discussed about the subject of "follow-up", and focuses on a common issue faced not only in mental skills training, but in most spheres where people are required to learn something new. Whilst this wasn't a major problem in the education and acquisition phases, it was brought up by some of the participants. One participant explains how it could be useful to be reminded, or to have long-term structures in place, that ensure that people focus on their mental training instead of only on their physical training, "like, if you don't think about it often enough or like... or... don't know, get it brought up enough. Then you won't really do it" (*Post-Programme Evaluation Interview Participant 4*, p. 2, line 20 to 21).

The next participant also discusses the tendency that one could have to lose some of the information gained from the programme as time passes and suggests having an overall go-to guide which contains all of the main points of the mental skills training programme.

No they weren't too complicated. There was quite a lot of them, so it would be nice to like have a quick thing where you kind of, look at everything and know what everything is. Cause you sort of like, remember a couple of things... stick in your head and the rest, sort of... you forget about (*Post-Programme Evaluation Interview Participant 2*, p. 2, line 30 to 33).

At the end of every mental skills training session, the participants were given a breakdown of the practical exercises of the programme which contained step-by-step instructions on how to carry out these techniques and the most effective ways of doing so. All of the presentations containing the theoretical aspects of the mental skill, as well as all of the

material and media utilised in the programme, were placed into a Dropbox folder where the participants can access the subject matter indefinitely. This folder also contains extra resources that were not used in the programme that may be of interest or benefit to the participants. Even though the participants have access to every part of the mental skills training programme, it would have been a good idea to summarise all of it into a basic, holistic, user-friendly guide as suggested by the participant above. This might be a useful consideration for similar programmes that are conducted in future.

5.1.10. Existing beliefs regarding mental skills training

Whilst most of the participants stated that they believed that psychological training is as important, if not more important, than physical training, it is clear that there are certain belief systems that are difficult to shift even after individuals have learnt more about this subject. This is evident in the following statement, “Well, it’s more important if you can see that there are positive effects or whatever to it, then there is importance to it. Not as important as maybe the physical aspects, but ja, the mental stuff is important” (*Post-Programme Evaluation Interview Participant 2*, p. 1, line 18 to 20).

Although this participant does state that mental training is important, it is valuable to note that certain individuals will have a certain set of belief systems and that often these preconceived ideas can play a significant role in the degree to which they will take to mental skills training. When designing and implementing mental skills training programmes it is important to keep in mind that the potential of each person to be influenced by psychological training can vary from one individual to another and that pre-existing ideas can play a role here. Two other examples that fall onto the opposite end of the spectrum, are the views given by the participants below who demonstrate a more open and positive outlook. One would imagine that their outlooks would play a positive role in the likelihood of them practising psychological skills training in the future. “It should be done on a more regular basis” (*Post-Programme Evaluation Interview Participant 1*, p. 2, line 27), “A lot of coaches and rowers forget to do a lot of mental things, so I just feel that it should be done equally” (*Post-Programme Evaluation Interview Participant 1*, p. 3, line 5 to 6).

5.1.11. Effect of the researcher

When reviewing the research and its limitations, it is worth noting the effect that the researcher had on the process. Reflection is a fundamental aspect of action research and was a technique that the researcher used when evaluating the effect that they had on the research process and findings. Reflection was particularly important in this case as the interviewer was part of the same club as the participants. It is hard to decipher whether this element of the

research hindered the quality of the information received or whether it produced more intricate findings. It is however, worth discussing and is a consideration that should be kept in mind when conducting research, particularly that which includes interviewing. It is also worth considering that the effect of the researcher on the information that the interviewees convey could be highly dependent on the participant and how they perceive the interviewer, as well as their disposition in terms of how explicit and outspoken they are.

When there is a personal connection between a researcher and the participants, there is a risk that the participants will share a more favourable view of events, as they might be wary of offending the researcher if they choose to share their thoughts on the aspects of the programme that they did not enjoy or deem necessary. To combat this occurrence, the participants were reassured, before the interviews commenced, that the purpose of the research was to evaluate the participants' perceptions of the process. They were informed that the research was intended to seek best practice and to advise future practice in sport psychology and mental skills training procedures. By reassuring the participants that their provision of information and their criticisms of the programme were as valuable as any of their other opinions, the participants were enabled to provide a true reflection of the events that had transpired.

Consideration of the impact that the relationship between participants and the researcher had on the research process is important. The researcher was a both rower and a fellow team member and knew the participants before the implementation of the skills programme. This could have resulted in an enhanced quality of participant responses. Due to the fact that the researcher was a competitive rower at the time of research, the researcher could be perceived as being more relatable. It is believed that in this research, this overshadowed the possibility that there might have been negative consequences of the personal link between the parties. The connection produced more in-depth findings, due to automatic rapport and a bond between the two parties, which enabled palpable discussion. Interviewing techniques were used during the programme evaluation stage which encouraged the participants to provide honest communication. Whenever the participants appeared to be hesitant to answer the questions on the less favourable aspects of the programme, the researcher assured them that critical analysis of the programme was extremely important and explained the reasoning for its value.

By probing appropriately and effectively as well as having a personal channel of communication with the participants, it appears that the effect of the researcher was mainly positive. By creating open discussion, an all-rounded analytical process produced findings in

the form of praise and criticism. This is what the research aims to provide, an extensive, critical evaluation of the context.

5.2. Adoption and Separation

The final stages of the Organisation Development Process (ODP) model were firstly, the adoption phase which takes place once the mission of the intervention (Mental Skills Training programme) has been accomplished and the values and sentiments of the intervention have become embedded in the culture of the group. The separation stage is where the consultant (researcher) ensures that once they have concluded the intervention, that they transmit the skills and knowledge that were required and identified in the initial stages of the study, namely the entry and start-up phases (McLean, 2005). As part of this process the participants were told, throughout the research, that mental skills training is a long-term process and that the more time spent engaging with these activities, the greater the reward they will produce.

All of the resources that were used in the programme were uploaded into a Dropbox folder where athletes could access a range of material for every separate training season of the year. Resources such as goal-setting sheets, the coxswains' audio recordings, sport psychology and rowing videos, to name but a few, are available here. The link for this folder was sent to all the coaches involved with the Rhodes Crew, as well as to the direct messaging group that the participants are a part and to the entire club. A Facebook group was opened and all of the participants and all of the members of the RURC were invited to join. The group contains many of the videos that were used in the programme and is a place where the athletes can upload rowing footage to encourage as much observation and visualisation of the sport. Some of the content that was specific to the season that the rowers entered into was posted during the appropriate time periods, for example off-season goal-setting forms before the holidays commenced to assist the athletes to adhere to their off-season physical training programme. Additional material relating to rowing and sport psychology was opened on this page and the club members were encouraged to post added content or use any of the material that would be posted in future. Every time something was posted into this group, the members were notified. This was a good way of ensuring that the participants were reminded to regularly use mental skills training techniques or at least to maintain the awareness that they had gained about the psychological aspects of their training whilst attending the programme.

5.3. Concluding Points

The review of literature and theory behind mental skills training demonstrated the importance of sport psychology and psychological training and provided a detailed account of how this field within sport has developed and grown over time. As mentioned earlier, whilst the field of sport psychology has grown, it is still relatively untapped within the South African context. This was evident within this research as the vast majority of the participants had minimal knowledge or exposure to sport psychology practices. This study highlights the value of exposing athletes to a greater spectrum of training options and increasing their psychological awareness of their performance. As discussed within the literature, the typical view of sport psychology, particularly within South Africa, is that it is a service that is used by elite athletes and by athletes experiencing performance problems. This research demonstrated the promising effects of introducing mental skills training methods to athletes of all levels and using these techniques to improve the performance of athletes who are currently performing well.

As mentioned earlier, an adequate amount of literature is now available on sport psychology and the practices related to this field. However, despite this, substantial bodies of information dedicated to mental skills training are not commonplace, particularly with regards to the practical, implementation of these methods. This research project has provided information that showcases the practical pitfalls of mental skills training and has proposed certain advisory practices and benefits associated with these programmes.

The approaches used in this research as well as their characteristics, were discussed. These approaches included action research and the ODP model. Action research was described as collaborative and reciprocal in nature, characteristics that are evident in the process of this study, as not only did the participants learn from the researcher, but the researcher also gained a significant amount of knowledge from the participants. This was evident particularly in the assessment and feedback phases, when the researcher gained the information that was used to carry out the study successfully. The eight interactive steps of the ODP model were discussed and followed, providing a good framework for this study and enabling the research process to be carried out successfully. As discussed in literature, the ODP model is well-matched to the action research process. This was evident in the process of this research as the two approaches gave the researcher ample opportunity to learn from the participants and to make more suitable changes to the intervention, throughout its progression, in order to better their experience and produce more appropriate findings.

One of the more profound phases of this research was the assessment and feedback stage which, by means of a mental skills list generation, performance profiling and intricate

thematic analysis of focus group processes indicated that the participants would benefit from the implementation of a mental skills training programme consisting of mainly goal-setting, imagery and arousal regulation. These mental skills techniques were not only tailored to the context of the study, they were also mentioned by various authors in the literature and all of them were noted as procedures that are regularly utilised in current mental skills training programmes. The programme was then designed and implemented in a manner that was particular and suited to the participants' environment and the sport of rowing.

Once the participants had attended the mental skills training programme and were given time to incorporate aspects of it into their training, they began the evaluation phase which was orchestrated in the form of a post-programme performance profile and an individual semi-structured interview. The results of the performance profile mostly demonstrated improvements for the participants as a whole, with most of the improvements seen in the female participant group and a few improvements in the male group which generally showed similar pre and post-programme scores.

The findings from the post-programme evaluation interviews found that goal-setting was conveyed as being particularly effective and a mental training technique to which the participants responded well. Another prominent theme was the realisation that the participants had come to in terms of discovering mental preparation and psychological performance strategies that work for them as opposed to always trying to do what others in their team do or what they think is the norm. The participants also stated that the use of visual aid in the form of viewing related documentaries, observation of rowing videos for skills acquisition purposes, and utilising visualisation for improving their technique and for preparation was beneficial. The participants also showed an increase in interest and understanding of mental skills training and had a higher regard for the role that it has in their performance. Since attending the programme the participants have had more of an awareness of their mental and emotional state and the psychological training that they do before and during competition. This increased awareness lead to reports of reduced anxiety levels. Other improvements included a greater ability to maintain composure and focus as well as to perform at a more optimal level due to improved mental states.

Considering that the research aims to investigate the process of the mental skills training programme from all angles, the drawbacks and recommendations were also explored as they provide an all-rounded evaluation, as this is what the study strives to attain. The most prominent sentiments that were deciphered from the information, included that the mental skills training sessions should preferably occur approximately once a week and that some

form of follow-up strategy should be in place to monitor and re-evaluate athletes' mental skills training progress and usage, particularly regarding goal-setting. The participants also suggested that if a mental skills training programme is integrated into their physical training programme involving the entire club that it will be more effective. This was also suggested to solve other issues conveyed by the participants which included athlete absenteeism and time constraints.

The process of this research was sustained by means of ensuring that the participants were well informed of the long-term nature of mental skills training and were equipped with the appropriate tools and knowledge to ensure that this is a reality. Other measures have also been put in place to guarantee that the participants have instant access to all of the resources utilised in the programme as well as perpetual access to existing mental skills training material and any new material that surfaces in future. These electronic channels and forums that have been created will also serve as a reminder to the participants to continue to practise and be aware of the psychological aspects of their training. These resources have also been made available to the coaches and every member of the RURC.

When reviewing the research process it is evident that the aims of the study have been considered and adequately responded to. The research produced some interesting findings and provided some valuable considerations for future research and related intervention strategies in the realm of sport psychology and psychological skills training.

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Appendix A

Permission to Conduct Research – Rhodes University Dean of Students

Dear Dr. Vivian De Klerk

My name is Tara Wentworth and I am currently registered for a Master of Arts degree in Psychology at Rhodes University in Grahamstown, South Africa. As part of my degree I am required to undertake a research project. My research will be reviewing and understanding mental skills training in rowers at Rhodes University. The research will comprise of the design, implementation and the participants' evaluation of the mental skills training programme that they experience. I would hereby like to request permission to be able to conduct my research at Rhodes University.

Mental skills training (MST) or psychological skills training (PST) assists in the development of athletic potential and has long been identified as a crucial element in producing successful results in highly competitive sporting environments. Mental skills training involves the allocation of a set of particular psychological strategies to assist athletes in confronting competition and training, as well as enhancing their performance and well-being. Mental skills training comprises of a spectrum of techniques such as mastery imagery, positive self-talk, association and dissociation. This research project will investigate rowers at Rhodes University in terms of their mental skills development and training. When considering beneficence, the research process and mental skills training programme aims at benefiting and improving the performance of the participants and Rhodes University Rowing Club (RURC) as a whole.

In undertaking this research, I will attempt to understand the viewpoints of rowers who have had experience and training with the RURC. With this research I hope to bring awareness and a greater understanding of mental skills training in rowers. I also hope that this research will better assist those currently in or in the future, that share similar circumstances. I hope to contribute information on this particular topic as there is currently a limited amount of content surrounding this particular sector.

My intention is to conduct semi-structured interviews at the RURC clubhouse at Rhodes University in order to get a qualitative understanding of the participants' experiences by utilising the method of thematic analysis. The participants will consist of any RURC athletes who wish to partake in this study. Their participation will entail a sequence of meetings for a period of time which will be discussed and decided on by the participants in the initial stages of the research. The participants will also be required to take part in mental skills training and

briefing sessions during their rowing training camp in the July holidays. I will record the interviews and take notes whilst conducting the interviews. The recordings and transcriptions will be kept by the researcher in a safe environment and will be made available for possible future research, with the consent of the participants. No details pertaining to identification in any aspect of the research will be disclosed, besides the fact that the participants will be referred to as Rhodes University rowers of which consent will be acquired to state this. Participation in this research is voluntary, confidential and consent will be acquired prior to the conduction of the research and the interviews.

I include herewith my research proposal for further information. My supervisor or I can be reached at the numbers provided below any further questions. Your time and assistance is greatly appreciated, thank you.

Yours sincerely,

Ms Tara Wentworth
Researcher
taevewentworth@icloud.com
+ 27 (084) 010 87 18

Mr Gary Steele
Research Supervisor
g.steele@ru.ac.za
+ 27 (046) 603 85 04

Appendix B

Permission to Conduct Research – Rhodes University Sports Administration

Dear Mr. Mandla Gagayi

My name is Tara Wentworth and I am currently registered for a Master of Arts degree in Psychology at Rhodes University in Grahamstown, South Africa. As part of my degree I am required to undertake a research project. My research will be reviewing and understanding mental skills training in rowers at Rhodes University. The research will comprise of the design, implementation and the participants' evaluation of the mental skills training programme that they experience. I would hereby like to request permission to be able to conduct my research at Rhodes University.

Mental skills training (MST) or psychological skills training (PST) assists in the development of athletic potential and has long been identified as a crucial element in producing successful results in highly competitive sporting environments. Mental skills training involves the allocation of a set of particular psychological strategies to assist athletes in confronting competition and training, as well as enhancing their performance and well-being. Mental skills training comprises of a spectrum of techniques such as mastery imagery, positive self-talk, association and dissociation. This research project will investigate rowers at Rhodes University in terms of their mental skills development and training. When considering beneficence, the research process and mental skills training programme aims at benefiting and improving the performance of the participants and Rhodes University Rowing Club (RURC) as a whole.

In undertaking this research, I will attempt to understand the viewpoints of rowers who have had experience and training with the RURC. With this research I hope to bring awareness and a greater understanding of mental skills training in rowers. I also hope that this research will better assist those currently in or in the future, that share similar circumstances. I hope to contribute information on this particular topic as there is currently a limited amount of content surrounding this particular sector.

My intention is to conduct semi-structured interviews at the RURC clubhouse at Rhodes University in order to get a qualitative understanding of the participants' experiences by utilising the method of thematic analysis. The participants will consist of any RURC athletes who wish to partake in this study. Their participation will entail a sequence of meetings for a period of time which will be discussed and decided on by the participants in the initial stages of the research. The participants will also be required to take part in mental skills training and briefing sessions during their rowing training camp in the July holidays. I will record the

interviews and take notes whilst conducting the interviews. The recordings and transcriptions will be kept by the researcher in a safe environment and will be made available for possible future research, with the consent of the participants. No details pertaining to identification in any aspect of the research will be disclosed, besides the fact that the participants will be referred to as Rhodes University rowers of which consent will be acquired to state this. Participation in this research is voluntary, confidential and consent will be acquired prior to the conduction of the research and the interviews.

I include herewith my research proposal for further information. My supervisor or I can be reached at the numbers provided below any further questions. Your time and assistance is greatly appreciated, thank you.

Yours sincerely,

Ms Tara Wentworth
Researcher
taevewentworth@icloud.com
+ 27 (084) 010 87 18

Mr Gary Steele
Research Supervisor
g.steele@ru.ac.za
+ 27 (046) 603 85 04

Appendix C

Permission to Conduct Research – Rhodes University Rowing Club

Dear Mr. Jedrick Theron

My name is Tara Wentworth and I am currently registered for a Master of Arts degree in Psychology at Rhodes University in Grahamstown, South Africa. As part of my degree I am required to undertake a research project. My research will be reviewing and understanding mental skills training in rowers at Rhodes University. The research will comprise of the design, implementation and the participants' evaluation of the mental skills training programme that they experience. I would hereby like to request permission to be able to conduct my research at Rhodes University.

Mental skills training (MST) or psychological skills training (PST) assists in the development of athletic potential and has long been identified as a crucial element in producing successful results in highly competitive sporting environments. Mental skills training involves the allocation of a set of particular psychological strategies to assist athletes in confronting competition and training, as well as enhancing their performance and well-being. Mental skills training comprises of a spectrum of techniques such as mastery imagery, positive self-talk, association and dissociation. This research project will investigate rowers at Rhodes University in terms of their mental skills development and training. When considering beneficence, the research process and mental skills training programme aims at benefiting and improving the performance of the participants and Rhodes University Rowing Club (RURC) as a whole.

In undertaking this research, I will attempt to understand the viewpoints of rowers who have had experience and training with the RURC. With this research I hope to bring awareness and a greater understanding of mental skills training in rowers. I also hope that this research will better assist those currently in or in the future, that share similar circumstances. I hope to contribute information on this particular topic as there is currently a limited amount of content surrounding this particular sector.

My intention is to conduct semi-structured interviews at the RURC clubhouse at Rhodes University in order to get a qualitative understanding of the participants' experiences by utilising the method of thematic analysis. The participants will consist of any RURC athletes who wish to partake in this study. Their participation will entail a sequence of meetings for a period of time which will be discussed and decided on by the participants in the initial stages of the research. The participants will also be required to take part in mental skills training and briefing sessions during their rowing training camp in the July holidays. I will record the

interviews and take notes whilst conducting the interviews. The recordings and transcriptions will be kept by the researcher in a safe environment and will be made available for possible future research, with the consent of the participants. No details pertaining to identification in any aspect of the research will be disclosed, besides the fact that the participants will be referred to as Rhodes University rowers of which consent will be acquired to state this. Participation in this research is voluntary, confidential and consent will be acquired prior to the conduction of the research and the interviews.

I include herewith my research proposal for further information. My supervisor or I can be reached at the numbers provided below any further questions. Your time and assistance is greatly appreciated, thank you.

Yours sincerely,

Ms Tara Wentworth
Researcher
taevewentworth@icloud.com
+ 27 (084) 010 87 18

Mr Gary Steele
Research Supervisor
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+ 27 (046) 603 85 04

Appendix D

Participants Information Sheet

Dear Sir/Madam

My name is Tara Wentworth and I am currently registered for a Master of Arts degree in Psychology at Rhodes University in Grahamstown, South Africa. As part of my degree I am required to undertake a research project. My research will be reviewing and understanding mental skills training in individuals such as you who have had experience as a rower at Rhodes University. The research will comprise of the design, implementation and the evaluation of your experience of the mental skills training programme.

I would like to invite you to participate in this study, which entails participation in this research. This being in the form of focus group and individual interviews conducted by me, at the Rhodes University Rowing Club (RURC) venue at a time that is convenient for you. These meetings, with your permission will be recorded in order to ensure accuracy. Your participation in this research will also include briefing on mental skills training and the actual implementation of the mental skills training programme during the rowing training camp in the July holidays. Your participation is voluntary; no person will be advantaged or disadvantaged in any way for deciding to participate in this research. Confidentiality is of utmost importance, this applies to all of your responses and to any information that could identify you, none of which will be included in the research report, besides the fact that you are a rower from Rhodes University. The interview material, which includes transcripts and recordings will not be heard or seen by any person in this organisation at any time, and will be processed by myself. You may refuse to answer any questions that you would prefer not to and you may choose to withdraw from the study at any point without any negative consequence to you or the treatment that you receive.

In the event of stress occurring as a result of participation in the study, you will be provided with the appropriate services and assistance. If you choose to participate in the study please fill in your details on the form below and deposit the form in the box provided. You may find this box in the RURC clubhouse. I will empty the box at constant intervals on a regular basis, and will contact you within two weeks in order to discuss participation.

In taking part in this research I hope to bring awareness, a greater understanding as well as a broader scope of knowledge on mental skills training in rowers. With this research I also hope to better assist those dealing with, and those who are part of similar circumstances.

If you have any questions or require any further information, my supervisor or I can be reached via the contacts details listed below. Your time and assistance is greatly appreciated, thank you.

Yours sincerely,

Ms Tara Wentworth
Researcher
taevewentworth@icloud.com
+ 27 (084) 010 87 18

Mr Gary Steele
Research Supervisor
g.steele@ru.ac.za
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Appendix E

Rhodes University
Department of Psychology

Agreement Between Student Researcher and Research Participant

I _____ agree to participate in the research project of Tara Wentworth on mental skills training in rowers.

I understand that:

1. The researcher is a student conducting the research as part of the requirements for a/an (Honours/Master's/PhD) degree at Rhodes University. The researcher may be contacted on + 27 (084) 010 87 18 (cell phone) or taevewentworth@icloud.com (email). The research project has been approved by the relevant ethics committee(s), and is under the supervision of Prof/Dr/Ms/Mr Gary Steele in the Psychology Department at Rhodes University, who may be contacted on + 27 (046) 603 85 04 (office) or g.steele@ru.ac.za (email).
2. The researcher is interested in mental skills training in rowers at Rhodes University.
3. My participation will involve focus group and individual interviews conducted by me, at the Rhodes University Rowing Club (RURC) venue at a time that is convenient for you. Your participation in this research will also include briefing on mental skills training and the actual implementation of the mental skills training programme during the rowing training camp in the July holidays (the length and duration of the mental skills training programme is still to be discussed and decided on by the participants).
4. I may be asked to answer questions of a personal nature, but I can choose not to answer any questions about aspects of my life which I am not willing to disclose.
5. I am invited to voice to the researcher any concerns I have about my participation in the study, or consequences I may experience as a result of my participation, and to have these addressed to my satisfaction.
6. I am free to withdraw from the study at any time – however I commit myself to full participation unless some unusual circumstances occur, or I have concerns about my participation which I did not originally anticipate.

7. The report on the research project may contain information about my personal experiences, attitudes and behaviours, but the report will be designed in such a way that it will not be possible to be identified by the general reader, besides the fact that I will be referred to as a rower from Rhodes University.

8. After the interview I would like:

- A copy of the transcribed transcript
- A copy of the final research project
- I do not need to see any documents

Signed on (Date): _____

Participant: _____ Researcher: _____

Appendix F

Rhodes University
Department of Psychology

Use of Recordings for Research Purposes

Permission and Release Form

Participant name & Contacts (address, phone etc.)	
Name of researcher & level of research (Honours, Masters, PhD)	
Brief title of project	
Supervisor	

Declaration (please tick the blocks next to the relevant statements)

1. The nature of the research and the nature of my participation have been explained to me	Verbally	In Writing
2. I agree to be interviewed and to allow audio recordings to be made of the interviews	Audiotape	Videotape
3. I agree to take part in and to allow audio recordings to be made	Audiotape	Videotape

4. The recordings may be transcribed	Without conditions	Only by the researcher	By one or more nominated third parties:
--------------------------------------	--------------------	------------------------	---

5.1. I have been informed by the research that the recordings will be erased once the study is complete and the report has been written	
5.2. OR I give permission for the recordings to be retained after the study and for them to be utilised for the following purposes and under the following conditions:	

Signatures

Signature of participant	
Witnessed by researcher	
Date	

1. Do you know what Mental Skills Training in sport entails? If so, what is your understanding of this concept?
2. Do you believe that the mind has the ability to affect your performance in competitive settings and in training? If so, to what extent does the mind affect your performance in both of these environments?
3. Have you ever participated in any formal Mental Skills Training or any form of mental preparation exercises as a team? If this is the case, what did these practices involve and how useful were they?
4. Do you utilise any mental skills or mental preparation techniques (individually or as a team) during competitions and training? If so how do they assist you?
5. What are the differences, if any, between the mental skills (e.g. mental preparation, self-talk, pre-performance routines etc.) that you incorporate into your training as opposed to when you compete?
6. What changes would you make in your mental preparation for trials or races?
7. Please could you take me through your routines (as a team and individually) before you partake in a trial or an actual race?
8. What are the obstacles (psychologically) that you encounter most frequently when you are training or competing in a race or a trial?
9. How do you deal with and respond to a poor performance?
10. When you have to partake in a trial or a race, to what extent do you feel in control or overwhelmed? What are the consequences that generally result from the state you are in, and how do you deal with this?
11. When you have a trial or a race that has not gone well, does this affect your confidence and performance in the following trials and races (both individually and as a team)? How do you attempt to stay positive?

12. What do you consider to be a high pressure situation in rowing?
13. When you are in one of these high pressure situations how would you rate your ability to make decisions and to resolve sudden, unexpected problems?
14. I would like you to think back to one of your best and worst performances in a competitive setting in rowing (e.g. a race or a trial). What was it about those two experiences that made them so good or so bad?
15. What psychological aspects of rowing within your particular environment do you feel would be most conducive to mental skills training?
16. Are there any types of mental exercises that you specifically do not want to do or that you feel are irrelevant to your particular environment?

Performance Profile Exercise

Appendix H

Name: _____
Date: _____

Appendix I

Individual Interview Question Schedule (Evaluation Phase)

1. Do you feel that since participating in the mental skills training programme that you have a better understanding of what mental skills involve? If so what have you learnt or realised?
2. Do you think that mental skills training is more or less important since participating in the programme? If so why do you think that mental skills training is valuable?
3. What part of the mental skills training programme did you enjoy the most and why?
4. Which mental skill that you learnt of do you think is the most effective? Why would you say so?
5. Do you think that any aspect of the mental skills training programme has improved your performance? If so in what way has it done so?
6. Is there any part of the mental skills programme that you feel made your rowing experience smoother or easier in any way? If so how did it do so?
7. Do you feel that the particular mental skills used in the programme were relevant to the sport of rowing and to your specific situation? If not what issues do you think should've rather been addressed?
8. Do you think that you will incorporate elements of mental skills training in the future? If so what do you think you will utilise the most?
9. Do you think that the mental skills that were incorporated into this programme are user-friendly? If not how do you think that they could be adjusted to make them easier to use and so that they are used more frequently?
10. Would you say that you are more aware of your mental state when competing and training since being exposed to the mental skills training programme? If so, in what way are you more conscious of your mental state?

11. Would you be interested in learning more mental skills and would you be willing to incorporate more mental skills techniques into your rowing? If so, to what extent would you be willing to do so?
12. What aspect of the mental skills training programme did you enjoy the least? Please elaborate on your choice?
13. Are there any particular aspects of the mental skills programme that you feel are irrelevant in the context of rowing? Please explain?
14. Are there any parts of the mental skills programme that you feel could have been carried out differently? If so in what suggestions would you make (i.e. should it have been structured differently or have been longer/shorter with more/less sessions or longer/shorter sessions etc.)?
15. Are there any elements of the mental skills training programme that you think you will never use again? If so what are they?
16. Do you feel that there were any parts of the mental skills training programme that were or that could be detrimental to your performance or well-being as an athlete?
17. Lastly do you have any other thoughts, comments or suggestions regarding mental skills training and the particular programme that you participated in?

Appendix J

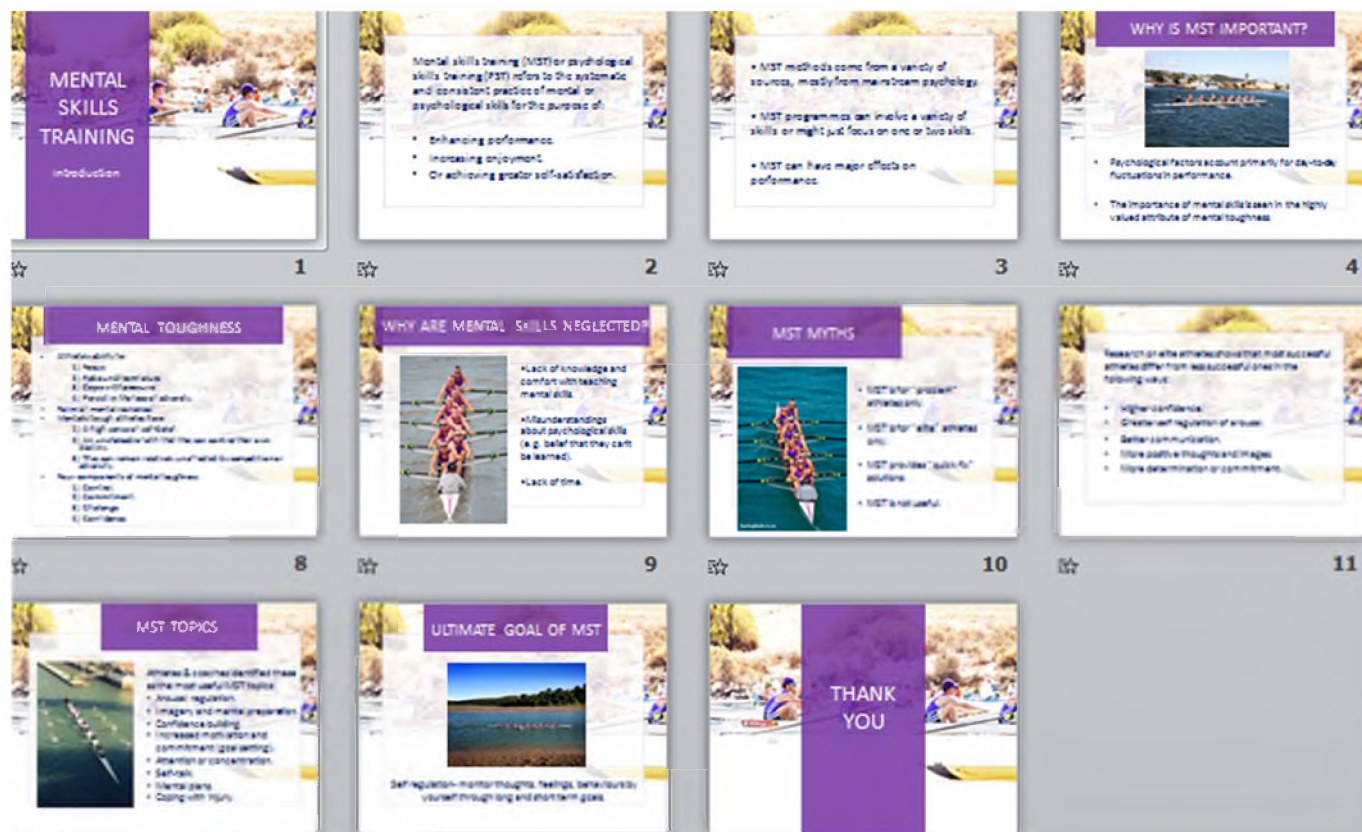


Figure 5: Session 1 (part 1) presentation layout-introduction to mental skills training

Appendix K



Figure 7: Session 1 (part 2) presentation layout-imagery

Imagery Exercises

Functions of Imagery

	Motivational	Cognitive
Specific	<p>Goal- Orientated Responses:</p> <ul style="list-style-type: none"> • Imaging winning an event & receiving a medal. 	<p>Skills:</p> <ul style="list-style-type: none"> • Imaging performing successfully on the balance beam.
General	<p>Arousal:</p> <ul style="list-style-type: none"> • Including relaxation by imaging a quiet place. 	<p>Strategy:</p> <ul style="list-style-type: none"> • Imaging carrying out a strategy to win a competition.

Important Aspects to Remember When Practicing Visualisation

1. Visualise your surroundings- venues, spectators etc. (more realistic).
2. Be mindful of the nature of your visualisations- positive or negative (if it creates anxiety, creates overconfidence or calls attention to irrelevant elements).
3. Type- try to use as many sense as possible, visual, kinaesthetic etc.
4. Perspective- visualise scenarios from different viewpoints e.g. external and internal (produces more electrical activity in muscles).

The figure displays a 3x4 grid of 12 presentation slides. Each slide has a purple header and a background image of rowers on a lake. The slides are numbered 1 through 9, with the final slide being a 'THANK YOU' slide.

- Slide 1: GOAL SETTING**
- Slide 2: DEFINITION OF GOALS**
 - Objective goals:
 - Leading a specific standard of proficiency on a task.
 - Generally within a specified time.
 - Subjective goals:
 - General statements of intent that are not objective or measurable.
- Slide 3: TYPES OF GOALS**
 - Outcome goals: concentrates on a competitive result of an event (winning a race, earning a medal, etc.)
 - Performance goals: focuses on attaining certain standards independently of other competitors.
 - Process goals: focuses on the actions an individual must engage in during performance to execute or perform well.
- Slide 4: BEHAVIOURAL CHANGE**

All outcome, performance and process goals to direct behavioural change as a combination of all three strategies produces significantly better performance.
- Slide 6: BEHAVIOURAL CHANGE-OUTCOME GOALS**
 - Multiple short-term motivation waxes from the competition.
 - However, focusing on outcome goals just before or while competing often increases anxiety.
- Slide 7: BEHAVIOURAL CHANGE-PERFORMANCE AND PROCESS GOALS**
 - Can be easily adjusted.
 - They depend less on your opponent's behaviour.
 - The key is to know when to focus on each kind of goal and not to fall into the trap of placing all one's focus on outcome goals.
- Slide 8: EFFECTIVENESS OF GOAL-SETTING**
 - More than 80% of studies indicate that goalsetting has a significant and consistent effect on behaviour.
 - Very powerful technique for improving performance.
 - Consensus in research that it is simply the most effective performance enhancing technique.
- Slide 9: PRINCIPLES OF GOAL-SETTING**
 1. Set specific goals:
 - Should be very specific and measurable.
 2. Set moderately difficult but realistic goals:
 - Balance between goal challenge and achievability.
 3. Set short and long-term goals:
 - Develop a progression of short-term goals that lead to a long-term objective.
 4. Set goals for training as well as competitions.

Set outcome, process and performance goals:
 - Several performance and process should be set for every outcome.

- Slide 10: SMARTS GOALS**
- S=specific (indicate precisely what is to be done)
- M=measurable (goals should be quantifiable)
- A=attainable (indicate something needing to be done)
- R=relevant (goals should be achievable)
- T=time-bound (achieve in a reasonable time)
- S= self-determined (set by or have input by the participant)
- Slide 11: ISSUES IN GOAL-SETTING**
- Failing to set specific goals.
- Failing to adjust goals not being achieved.
- Not setting performance and process goals.
- "I don't have time" actually it will make you more organized.
- "It will fail and will be disappointing" instead you won't fail if you set process goals, not just result goals.
- "Goals are too abstract" writing and working towards goals doesn't make you a boring, routine person.
- Slide 12: THANK YOU**

Figure 9: Session 2 presentation layout-goal-setting

Appendix N

Goal-Setting Exercises

BOAT RACE-SEASON PERFORMANCE/GENERAL GOALS

***All sections do not need to be filled in if you feel that they are not necessary or applicable to you. However, reading through all of them is advised as it is important that we think about and are aware of all aspects of training and competing. Be sure to keep these goals visible.**

- 1. What is your Boat Race outcome (position, award, medal etc.) goal for rowing?

- 2. What is your Boat Race performance (personal best/objective independent from competitors) goal for rowing?

Physical:

- a. My current situation- Where are you in terms of achieving your goal physically? (E.g. I need to improve my endurance, sprints or strength).

- b. What I need to do- What do you need to do to attain your goal physically?

- 3. **Mental:**

- a. My current situation- Where are you in terms of achieving your goal mentally? (E.g. complete a race without losing focus or composure).

- b. What I need to do- What do you need to do to attain your goal mentally?

- 4. **Technical:**

- a. My current situation- Where are you in terms of achieving your goal technically? (E.g. I need have better stroke coordination).

- b. What I need to do- What do you need to do to attain your goal technically?

BOAT RACE-SEASON PHYSICAL PERFORMANCE STRATEGY

1. **Strength:**

a. What do you need to work on (specific weaknesses)? E.g. shoulders, legs etc.

—

b. How can you improve these weaknesses (activities)? E.g. leg press, lunges etc.

c. How frequently do you need to work on these weaknesses?

—

2. **Ergometer Scores:**

a. What do you need to work on (specific weaknesses)? E.g. improve my 5k trial by 6 seconds.

b. How can you improve these weaknesses (activities)? E.g. push harder in erg training, take up swimming, improve 60 min piece by 1 split every 3 weeks etc.

c. How frequently do you need to work on these weaknesses?

—

3. **Training/Competing on the Water:**

a. What do you need to work on (specific weaknesses)? E.g. be able to keep my stroke rate half way through a race.

b. How can you improve these weaknesses (activities)? E.g. do more rate work, higher rate in rate pieces etc.

c. How frequently do you need to work on these weaknesses?

4. **Flexibility/Injuries:**

a. What do you need to work on (specific weaknesses)? E.g. further my reach.

b. How can you improve these weaknesses (activities)?

c. How frequently do you need to work on these weaknesses?

5. **Nutrition/Lifestyle:**

a. What do you need to work on (specific weaknesses)? E.g. taking vitamins regularly, getting more sleep, reducing stress, eating more healthily etc.

b. How can you improve these weaknesses (activities)?

c. How frequently do you need to work on these weaknesses?

BOAT RACE-SEASON MENTAL PERFORMANCE STRATEGY

1. **Confidence/Self-Belief:**

a. What do you need to work on (specific weaknesses)? E.g. plans prior to a race.

b. How can you improve these weaknesses (activities)? E.g. write out a trial strategy.

c. How frequently do you need to work on these weaknesses?

2. **Level of Arousal:**

a. What do you need to work on (specific weaknesses)? E.g. be more relaxed or be more energised.

b. How can you improve these weaknesses (activities)? E.g. work on breathing, self-talk etc.

c. How frequently do you need to work on these weaknesses?

3. **Self-Talk:**

a. What do you need to work on (specific weaknesses)? E.g. be able to be optimistic throughout a race, training session or trial etc.

b. How can you improve these weaknesses (activities)? E.g. attempt to be conscious of what I am saying to myself when performing.

c. How frequently do you need to work on these weaknesses?

4. **Concentration/Focus:**

a. What do you need to work on (specific weaknesses)? E.g. adhering to the stroke rate more consistently.

b. How can you improve these weaknesses (activities)?

c. How frequently do you need to work on these weaknesses?

5. **Mental Preparation/Imagery:**

a. What do you need to work on (specific weaknesses)? E.g. having the ability to get through a section of a race that you usually struggle in.

b. How can you improve these weaknesses (activities)? E.g. frequently practice visualisation exercises that provide a plan to combat the challenge encountered.

c. How frequently do you need to work on these weaknesses?

BOAT RACE-SEASON TECHNICAL PERFORMANCE STRATEGY

Skill/technique/tactic	What aspect of this needs work (particular weakness)?	How you could improve this weakness?	How often do you need to work on this?
<i>e.g. catch</i>	<i>e.g. JUMPY catch</i>	<i>e.g. improve flexibility in back and shoulders</i>	
<i>e.g. finish</i>	<i>e.g. stronger finish</i>	<i>e.g. focus on lifting outside elbow</i>	
<i>e.g. drive</i>	<i>e.g. driving harder after the catch with the legs first</i>	<i>e.g. concentrating on timing and positioning on the erg and in water training</i>	

DREAM PERFORMANCE/GENERAL GOALS

***All sections do not need to be filled in if you feel that they are not necessary or applicable to you. However, reading through all of them is advised as it is important that we think about and are aware of all aspects of training and competing. Be sure to keep these goals visible.**

1. Long-Term Goals (10 years):

2. Short-Term Goals (5 years):

3. Immediate Goals (within the next year):

4. What is your dream outcome (position, award, medal etc.) goal for rowing?

5. What is your dream performance (personal best/objective independent from competitors) goal for rowing?

5. **Physical:**

- a. My current situation- Where are you in terms of achieving your goal physically? (E.g. I need to improve my endurance, sprints or strength).

- b. What I need to do- What do you need to do to attain your goal physically?

6. **Mental:**

- a. My current situation- Where are you in terms of achieving your goal mentally? (E.g. complete a race without losing focus or composure).

- b. What I need to do- What do you need to do to attain your goal mentally?

7. **Technical:**

- a. My current situation- Where are you in terms of achieving your goal technically? (E.g. I need have better stroke coordination).

- b. What I need to do- What do you need to do to attain your goal technically?

DREAM PHYSICAL PERFORMANCE STRATEGY

6. Strength:

- d. What do you need to work on (specific weaknesses)? E.g. shoulders, legs etc.

- e. How can you improve these weaknesses (activities)? E.g. leg press, lunges etc.

- f. How frequently do you need to work on these weaknesses?

7. Ergometer Scores:

- d. What do you need to work on (specific weaknesses)? E.g. improve my 2k trial by 4 seconds.

- _____
- _____
- e. How can you improve these weaknesses (activities)? E.g. push harder in erg training, take up swimming, improve 60 min piece by 1 split every 3 weeks etc.

- _____
- _____
- f. How frequently do you need to work on these weaknesses?
- _____
-

8. **Training/Competing on the Water:**

- d. What do you need to work on (specific weaknesses)? E.g. be able to keep my stroke rate half way through a race.

- _____
- _____
- e. How can you improve these weaknesses (activities)? E.g. do more rate work, higher rate in rate pieces etc.

- _____
- _____
- f. How frequently do you need to work on these weaknesses?
- _____
-

9. **Flexibility/Injuries:**

- d. What do you need to work on (specific weaknesses)? E.g. further my reach.

- _____
- _____
- e. How can you improve these weaknesses (activities)?

- _____
- _____
- f. How frequently do you need to work on these weaknesses?
- _____
-

10. **Nutrition/Lifestyle:**

d. What do you need to work on (specific weaknesses)? E.g. taking vitamins regularly, getting more sleep, reducing stress, eating more healthily etc.

e. How can you improve these weaknesses (activities)?

f. How frequently do you need to work on these weaknesses?

DREAM MENTAL PERFORMANCE STRATEGY

6. **Confidence/Self-Belief:**

d. What do you need to work on (specific weaknesses)? E.g. plans prior to a race.

e. How can you improve these weaknesses (activities)? E.g. write out a trial strategy.

f. How frequently do you need to work on these weaknesses?

7. **Level of Arousal:**

d. What do you need to work on (specific weaknesses)? E.g. be more relaxed or be more energised.

e. How can you improve these weaknesses (activities)? E.g. work on breathing, self-talk etc.

f. How frequently do you need to work on these weaknesses?

8. **Self-Talk:**

d. What do you need to work on (specific weaknesses)? E.g. be able to be optimistic throughout a race, training session or trial etc.

e. How can you improve these weaknesses (activities)? E.g. attempt to be conscious of what I am saying to myself when performing.

f. How frequently do you need to work on these weaknesses?

9. **Concentration/Focus:**

d. What do you need to work on (specific weaknesses)? E.g. adhering to the stroke rate more consistently.

e. How can you improve these weaknesses (activities)?

f. How frequently do you need to work on these weaknesses?

10. **Mental Preparation/Imagery:**

d. What do you need to work on (specific weaknesses)? E.g. having the ability to get through a section of a race that you usually struggle in.

e. How can you improve these weaknesses (activities)? E.g. frequently practice visualisation exercises that provide a plan to combat the challenge encountered.

f. How frequently do you need to work on these weaknesses?

DREAM TECHNICAL PERFORMANCE STRATEGY

Skill/technique/ tactic.	What aspect of this needs work (particular weakness)?	How you could improve this weakness?	How often do you need to work on this?
<i>e.g. catch</i>	<i>e.g. further reach</i>	<i>e.g. improve flexibility in back and shoulder</i>	
<i>e.g. finish</i>	<i>e.g. stronger finish</i>	<i>e.g. focus on lifting outside elbow</i>	
<i>e.g. drive</i>	<i>e.g. driving harder after the catch with the legs first</i>	<i>e.g. concentrating on timing and positioning on the erg and in water training</i>	

OFF-SEASON PERFORMANCE/GENERAL GOALS

***All sections do not need to be filled in if you feel that they are not necessary or applicable to you. However, reading through all of them is advised as it is important that we think about and are aware of all aspects of training and competing. Be sure to keep these goals visible.**

8. What is your off-season outcome (position, award, medal etc.) goal for rowing? (Might not apply to off-season).

9. What is your off-season performance (personal best/objective independent from competitors) goal for rowing?

Physical:

- a. My current situation- Where are you in terms of achieving your goal physically? (E.g. I need to improve my endurance, sprints or strength).

- b. What I need to do- What do you need to do to attain your goal physically?

10. **Mental:**

- a. My current situation- Where are you in terms of achieving your goal mentally? (E.g. complete a race without losing focus or composure).

- b. What I need to do- What do you need to do to attain your goal mentally?

11. **Technical:**

- a. My current situation- Where are you in terms of achieving your goal technically? (E.g. I need have better stroke coordination).

- b. What I need to do- What do you need to do to attain your goal technically?

OFF-SEASON PHYSICAL PERFORMANCE STRATEGY

11. Strength:

g. What do you need to work on (specific weaknesses)? E.g. shoulders, legs etc.

h. How can you improve these weaknesses (activities)? E.g. leg press, lunges etc.

i. How frequently do you need to work on these weaknesses?

12. Ergometer Scores:

g. What do you need to work on (specific weaknesses)? E.g. improve my 5k trial by 6 seconds.

h. How can you improve these weaknesses (activities)? E.g. push harder in erg training, take up swimming, improve 60 min piece by 1 split every 3 weeks etc.

i. How frequently do you need to work on these weaknesses?

13. Training/Competing on the Water:

g. What do you need to work on (specific weaknesses)? E.g. be able to keep my stroke rate half way through a race.

h. How can you improve these weaknesses (activities)? E.g. do more rate work, higher rate in rate pieces etc.

- _____
- _____
- i. How frequently do you need to work on these weaknesses?
- _____
- _____

14. **Flexibility/Injuries:**

- g. What do you need to work on (specific weaknesses)? E.g. further my reach.
- _____
- _____

- _____
- h. How can you improve these weaknesses (activities)?
- _____
- _____

- _____
- i. How frequently do you need to work on these weaknesses?
- _____
- _____

15. **Nutrition/Lifestyle:**

- g. What do you need to work on (specific weaknesses)? E.g. taking vitamins regularly, getting more sleep, reducing stress, eating more healthily etc.
- _____
- _____

- _____
- h. How can you improve these weaknesses (activities)?
- _____
- _____

- _____
- i. How frequently do you need to work on these weaknesses?
- _____
- _____

OFF-SEASON MENTAL PERFORMANCE STRATEGY

11. Confidence/Self-Belief:

g. What do you need to work on (specific weaknesses)? E.g. plans prior to a race.

h. How can you improve these weaknesses (activities)? E.g. write out a trial strategy.

i. How frequently do you need to work on these weaknesses?

12. Level of Arousal:

g. What do you need to work on (specific weaknesses)? E.g. be more relaxed or be more energised.

h. How can you improve these weaknesses (activities)? E.g. work on breathing, self-talk etc.

- _____
- _____
- i. How frequently do you need to work on these weaknesses?
- _____
- _____

13. **Self-Talk:**

- g. What do you need to work on (specific weaknesses)? E.g. be able to be optimistic throughout a race, training session or trial etc.
- _____
- _____

- h. How can you improve these weaknesses (activities)? E.g. attempt to be conscious of what I am saying to myself when performing.
- _____
- _____

- _____
- i. How frequently do you need to work on these weaknesses?
- _____
- _____

14. **Concentration/Focus:**

- g. What do you need to work on (specific weaknesses)? E.g. adhering to the stroke rate more consistently.
- _____
- _____

- h. How can you improve these weaknesses (activities)?
- _____
- _____

- _____
- i. How frequently do you need to work on these weaknesses?
- _____
- _____

15. **Mental Preparation/Imagery:**

- g. What do you need to work on (specific weaknesses)? E.g. having the ability to get through a section of a race that you usually struggle in.
- _____

h. How can you improve these weaknesses (activities)? E.g. frequently practice visualisation exercises that provide a plan to combat the challenge encountered.

i. How frequently do you need to work on these weaknesses?

OFF-SEASON TECHNICAL PERFORMANCE STRATEGY

Skill/technique/tactic	What aspect of this needs work (particular weakness)?	How you could improve this weakness?	How often do you need to work on this?
<i>e.g. catch</i>	<i>e.g. further reach</i>	<i>e.g. improve flexibility in back and shoulders</i>	
<i>e.g. finish</i>	<i>e.g. stronger finish</i>	<i>e.g. focus on lifting outside elbow</i>	
<i>e.g. drive</i>	<i>e.g. driving harder after the catch with the legs first</i>	<i>e.g. concentrating on timing and positioning on the erg and in water training</i>	

SPRINT-SEASON PERFORMANCE/GENERAL GOALS

***All sections do not need to be filled in if you feel that they are not necessary or applicable to you. However, reading through all of them is advised as it is important that we think about and are aware of all aspects of training and competing. Be sure to keep these goals visible.**

12. What is your sprint-season outcome (position, award, medal etc.) goal for rowing?

13. What is your sprint-season performance (personal best/objective independent from competitors) goal for rowing?

Physical:

- a. My current situation- Where are you in terms of achieving your goal physically? (E.g. I need to improve my endurance, sprints or strength).

- b. What I need to do- What do you need to do to attain your goal physically?

14. **Mental:**

- a. My current situation- Where are you in terms of achieving your goal mentally? (E.g. complete a race without losing focus or composure).

b. What I need to do- What do you need to do to attain your goal mentally?

15. **Technical:**

a. My current situation- Where are you in terms of achieving your goal technically? (E.g. I need have better stroke coordination).

b. What I need to do- What do you need to do to attain your goal technically?

SPRINT-SEASON PHYSICAL PERFORMANCE STRATEGY

16. **Strength:**

j. What do you need to work on (specific weaknesses)? E.g. shoulders, legs etc.

k. How can you improve these weaknesses (activities)? E.g. leg press, lunges etc.

l. How frequently do you need to work on these weaknesses?

17. **Ergometer Scores:**

j. What do you need to work on (specific weaknesses)? E.g. improve my 2k trial by 4 seconds.

- _____
- _____
- k. How can you improve these weaknesses (activities)? E.g. push harder in erg training, take up swimming, improve 60 min piece by 1 split every 3 weeks etc.
- _____
- _____

- _____
- l. How frequently do you need to work on these weaknesses?
- _____
-

18. Training/Competing on the Water:

- j. What do you need to work on (specific weaknesses)? E.g. be able to keep my stroke rate half way through a race.
- _____
- _____

- _____
- k. How can you improve these weaknesses (activities)? E.g. do more rate work, higher rate in rate pieces etc.
- _____
- _____

- _____
- l. How frequently do you need to work on these weaknesses?
- _____
-

19. Flexibility/Injuries:

- j. What do you need to work on (specific weaknesses)? E.g. further my reach.
- _____
- _____

- _____
- k. How can you improve these weaknesses (activities)?
- _____
- _____

- _____
- l. How frequently do you need to work on these weaknesses?
- _____
-

20. **Nutrition/Lifestyle:**

- j. What do you need to work on (specific weaknesses)? E.g. taking vitamins regularly, getting more sleep, reducing stress, eating more healthily etc.

- k. How can you improve these weaknesses (activities)?

- l. How frequently do you need to work on these weaknesses?

SPRINT-SEASON MENTAL PERFORMANCE STRATEGY

16. **Confidence/Self-Belief:**

- j. What do you need to work on (specific weaknesses)? E.g. plans prior to a race.

k. How can you improve these weaknesses (activities)? E.g. write out a trial strategy.

l. How frequently do you need to work on these weaknesses?

17. Level of Arousal:

j. What do you need to work on (specific weaknesses)? E.g. be more relaxed or be more energised.

k. How can you improve these weaknesses (activities)? E.g. work on breathing, self-talk etc.

l. How frequently do you need to work on these weaknesses?

18. Self-Talk:

j. What do you need to work on (specific weaknesses)? E.g. be able to be optimistic throughout a race, training session or trial etc.

k. How can you improve these weaknesses (activities)? E.g. attempt to be conscious of what I am saying to myself when performing.

l. How frequently do you need to work on these weaknesses?

19. **Concentration/Focus:**

j. What do you need to work on (specific weaknesses)? E.g. adhering to the stroke rate more consistently.

k. How can you improve these weaknesses (activities)?

l. How frequently do you need to work on these weaknesses?

20. **Mental Preparation/Imagery:**

j. What do you need to work on (specific weaknesses)? E.g. having the ability to get through a section of a race that you usually struggle in.

k. How can you improve these weaknesses (activities)? E.g. frequently practice visualisation exercises that provide a plan to combat the challenge encountered.

l. How frequently do you need to work on these weaknesses?

SPRINT-SEASON TECHNICAL PERFORMANCE STRATEGY

Skill/technique/tactic	What aspect of this needs work (particular weakness)?	How you could improve this weakness?	How often do you need to work on this?
<i>e.g. catch</i>	<i>e.g. further reach</i>	<i>e.g. improve flexibility in back and shoulders</i>	
<i>e.g. finish</i>	<i>e.g. stronger finish</i>	<i>e.g. focus on lifting outside elbow</i>	
<i>e.g. drive</i>	<i>e.g. driving harder after the catch with the legs first</i>	<i>e.g. concentrating on timing and positioning on the erg and in water training</i>	

Arousal Regulation Exercises**Anxiety Reduction Techniques**Somatic Anxiety Reduction Techniques (Muscle to Mind)

- **1. Breath Control:**

- One of the most effective and easiest methods to reduce anxiety.
- To practice breath control, one should:
 1. Take a deep, complete breath, imagining that the **lungs are divided into three levels.**
 2. Focusing on **filling the lower level** of the lungs with air, first by pushing the **diaphragm down** and forcing the **abdomen out.**
 3. Then fill the **middle portion** of the lungs by expanding the **chest cavity** and raising the **rib cage.**
 4. Finally, one should fill the **upper level** of the lungs by raising the **chest and shoulders slightly.**
 5. One should hold this breath for several seconds and then exhale slowly by pulling the **abdomen in** and **lowering the shoulders and chest.**
 6. By focusing on the **lowering (inhalation)** and **raising (exhalation)** of the **diaphragm**, one will experience an increased sense of stability, centeredness and relaxation.
 7. To help enhance the importance and awareness of the exhalation phase, people can learn to **inhale to a count of four** and **exhale to a count of eight.**
 8. This **1:2 ratio** of inhalation and exhalation helps slow breathing and deepens the relaxation by focusing on the exhalation phase.

- **2. Progressive Muscle Relaxation (PMR):**

- Relaxation of the body through tensing and relaxing different muscle groups (large to small) will decrease muscle tension, in turn, decreasing mental tension.
- Initially starts as an exercise that takes 10 to 30 minutes to complete, after practicing PMR for a while this time should be gradually shortened until the individual can relax almost instantly.
 1. Begin by finding a **comfortable position** either sitting or lying down in a location where you will not be interrupted.
 2. Allow your attention to **focus only on your body.** If you begin to notice your mind wandering, bring it back to the muscle you are working on.
 3. Take a **deep breath** through your abdomen hold for a few seconds and exhale slowly.
 4. Again, as you breathe notice your stomach rising and your lungs filling with air.

5. As you exhale, imagine the tension in your body being released and flowing out of your body.
6. Again inhale... and exhale. Feel your body already relaxing. As you go through each step, remember to keep breathing.
7. Go through **different muscle groups** (generally from large to small). For example:
 - Tighten the muscles in your forehead by raising your eyebrows as high as you can.
 - Hold for about five seconds and abruptly release feeling that tension fall away.
 - Pause for about 10 seconds.
 - Now smile widely, feeling your mouth and cheeks tense.
 - Hold for about 5 seconds and release, appreciating the softness in your face.
 - Pause for about 10 seconds.
 - Next, tighten your eye muscles by squinting your eyelids tightly shut.
 - Hold for about 5 seconds and release.
 - Pause for about 10 seconds.
 - Gently pull your head back as if to look at the ceiling.
 - Hold for about 5 seconds, and release, feeling the tension melting away.
 - Pause for about 10 seconds.
 - Now feel the weight of your relaxed head and neck sink.
 - Breathe in... and out... in... and out...
 - Let go of all the stress.
 - In... and out...
 - Repeat for the next muscle group and so on.

Cognitive Anxiety Reduction Techniques (Mind to Muscle)

- **1. Relaxation Response:**
- The relaxation response teaches the individual to concentrate, quiet the mind and reduce muscle tension.
- Four elements:
 1. **A quiet place-** which assures that distractions and external stimulation are minimized.
 2. **A comfortable position-** e. g. in a chair that can be maintained for a while.
 3. **A mental device-** which is the critical element in the relaxation response that involves focusing one's attention on a single thought or word (personal choice) and repeating it over and over. A word, such as "relax," "calm," or "easy," that does not stimulate one's thoughts, should be repeated while breathing out. This word, image or thought can then be used in pressurised situations to relax and focus instantly.
 4. **A passive attitude-** which is important but can be difficult to achieve. One has to learn to let it happen, allowing that thoughts and images that enter one's mind to move through as they will, making no attempt to attend them. If something comes to mind, one should let it go and refocus on one's word.

Arousal Inducing Techniques

- Utilise positive statements and mood words.
- Act energised.
- Make use of energising imagery.
- Listen to music.
- Increase breathing techniques.
- Carry out a precompetitive workout (4-10 hours prior).
- Importance of the event.
- Use distractions as a source of arousal.
- People (other athletes, parents etc.).
- Setting goals in relation to your own team:
 - Not solely focusing on winning e.g. When an opponent is much weaker, setting a standard of beating them by a certain amount of seconds or keeping them within a certain distance.

