

Exploring the uses of mental skills by competitive road running athletes

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ABSTRACT

Research on athletes has shown that mental skills are an important component of being a successful athlete. The importance of these mental skills is seen in the number of athletes who have formally started training using mental skills training programmes (MST) according to the literature. The study of mental skills in South Africa lags behind other countries like USA, UK and Sweden. This particular study explored the use of mental skills by road running athletes. The study was conducted with six competitive marathon athletes. Semi-structured interviews were conducted as part of an elaborate qualitative methodology design. The data collected from these semi-structured interviews was analysed using thematic analysis. The results show that road running athletes use mental skills that include; mental rehearsal, planning, goal setting and self-talk. The athletes in this research showed the importance of mental skills and it is recommended that formal training in these mental skills will be highly beneficial not only to road running athletes but for all South African sports people in general.

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Chapter 1: Introduction

1.1 Context and Rationale of the study

Sport psychology has tried to study how athletes use mental skills to improve their performance (Silva, 2010). The importance of the use of mental skills by athletes is seen by the increasing number of mental skills training programmes (MST) that are coming up (Chiweshe, 2013; Weinberg & Gould, 2010). Mental skills are attributes whereby athletes “learn more about their individual mental life to allow a degree of control in coordinating effective movement through a range of psychological states of performance” (Beckne, 2004). Theodorakis & Goudas, (2006) add that mental skills or psychological skills are learned behaviours that are used by athletes to regulate their athletic performances. Mental skills include goal-setting, imagery, self-talk, arousal control, concentration, cognitive restructuring and relaxation.

Research has shown that athletes who use mental skills systematically are more successful than those who do not (Hamstra-Wright, Coumbe-Lilley, Kim, McFarland, & Huxel-Bliven, 2013). The efficacy of different mental skills has been shown in numerous literature. The use of positive self-statements before a challenging competition has been said to improve physiological preparation due to its facilitation of encouragement and motivation (Hatzigeorgiadis, Zourbanos, Mpoumpakis & Theodorakis, 2009). Literature has also shown that if athletes use positive self-statements and motivational statements they are likely to reduce anxiety, increase effort and enhance self-confidence and positive mood; while instructional statements increase performance by recalling desired actions through focus and strategy execution (Hardy, Hall, & Hardy, 2004; Hatzigeorgiadis, Zourbanos & Theodorakis, 2007).

Hamstra-Wright et al. (2013) showed that marathon runners faces physical challenges like dehydration, fatigue, temperature, or the weather coupled with psychological challenges like feelings of anxiety about the race, limiting distraction and staying focused. These challenges that marathon runners face require the assistance of mental skills to overcome them. In marathon running these mental skills assist the athletes before and during their athletic performance. Hamstra-Wright et al. (2013, p. 2829) have started that “because of the intensity of training for and racing a marathon, mental preparation is a key variable for success and may have a direct influence on injury and performance.” This therefore means that marathon runners need to be utilizing mental skills if they are to be successful. Studies on marathon runners show that mental skills differentiate between elite and sub elite sport performers and that

having a strong mental skills profile is important is a crucial ingredient for success in competitive distance running (Harm-Wright et al., 2013).

Theodorakis and Goudas (2006) have argued that different athletic event requires different mental skills based on the physical, technical, and logistic demands of the event. This then means that a sprinter and a marathon runner would use different skills. Marathon runners like the ones in this study tend to use multiple mental skills that may increase their endurance like goal setting and positive self-statements (Cordel, 2007). In South Africa very little research has focused on mental skills in endurance sport including running athletes (Campen & Roberts, 2001). While the focus of international literature on mental skills is well documented, South Africa lags behind. Of the available research in South few has focused specifically on road running athletes. South African studies on mental skills have tended to look at the development of mental skills training programmes in sports like archery, rugby, netball, hockey and athletics (Chiweshe, 2013; Edwards & Steyn, 2008; Kruger, 2003; Pieterse & Potgieter, 2006; Potgieter, Grobbelaar, & Andrew, 2008). Chiweshe (2013) noted that although this increase in local studies on mental skills training is encouraging there was room for more studies.

Of the research available O'Neil and Stein (2007) showed that South African endurance non-elite athletes used mental skills to cope with their athletic events. These mental skills included focusing on the tasks and not on the body, especially when they feel tired during their competitive event and also using self-talk to reassure oneself. In the same study it was seen that South African non-elite endurance athletes used fewer mental skills in their athletic events than elite endurance elite.

Since it has been shown that elite marathon runners require mental skills this study looks to explore the use of these mental skills in a small sample of five elite marathon South African runner and one non-elite runner. In so doing the research hope to add to the small yet growing literature on mental skills in South Africa. South Africa is home to some of the most famous marathons and ultra-marathons in the world which include the Comrades Marathon and the Two Oceans marathon. Marathon running is organised along clubs for most elite runners but some run as individuals. Three of participants in this study did not belong to a club making it hard for them to have partaken in any formal mental skills training. The other three participants belonged a club. As shown in the rationale of the study few studies exist that has focused on this particular sample as this research.

1.2 Research question and objectives

The overarching research question of this study is

1) How do marathon runners understand the role of mental skills in their preparation for competitions?

The research objectives of the study are as follows;

1) Assess if the marathon runners employ mental skills

2) How do they understand these mental skills

3) Are the mental skills helpful in preparation for competition

1.3 Structure of the dissertation

This dissertation is organized in the following way;

- Chapter 1 consists of the rationale for the study, the context of the study and the research question.
- Chapter 2 consists of the literature review which looks at mental skills in depth, their training and the different mental skills required by marathon runners.
- Chapter 3 consists of the research methodology in particular qualitative research design the sampling procedures used, the research techniques used, data analysis and reliability and validity of the study.
- Chapter 4 consists of the results of the research that is the themes that came out and also a discussion of these results.
- Chapter 5 consists of limitations and recommendations of the study. The chapter ends by providing concluding remarks for the research study.

Chapter 2: Literature review

2.1 Introduction

The chapter reviews literature on mental skills and starts by looking at the definition of mental skills and how difficult it is to define them. The chapter then looks at mental skills training and how they have had an impact on sport and sport psychology. The different mental skills that have been identified are discussed. In discussing these mental skills and the literature on them preference is given to those that have been identified to affect marathon runners and these are mental imagery, meditation, goal setting self-talk, cognitive behavioural therapy. Studies about marathon runners and how they use mental skills are discussed. Anxiety and arousal which have also been seen to be important in marathon runners are conceptualised and discussed. The chapter ends by looking at mental skills training within a South African context.

2.2 Defining mental skills

Researchers have been divided on how to define mental skills or psychological skills¹ and determining on what constitutes mental skills. Boyd and Zenong (1999) define mental skills as the ability of the individual to control mental elements that assist in task performance as well as creating a psychological foundation for confidence and well-being. The definition by Boyd and Zenong (1999) has been challenged by other researchers on the basis of its broadness. Other authors have defined mental skills as ‘mindfulness’, which include awareness, control of thoughts, maintaining focus, having long term goals as a source of motivator, having unshakable self-belief, and pushing the limits (Jones, Hanton, & Connaughton, 2007). Yet still others like Crust (2007) state that they are some important attributes that characterise mental skills which include coping effectively with pressure and adversity, recovering or rebounding from setbacks and failures, persisting or refusing to quit, being insensitive or resilient, and thriving on pressure. The definition by Crust (2007) is closely linked to the understanding of mental skills in relation to the individual’s personality traits and state of mind (Judge, Higgins, Thoresen, & Barrick, 1999).

Despite the different definitions mental skills are a very important part of any sport (Vealey, 2007). Other researchers have gone on further in separating between mental skills and the techniques that are used to achieve these mental skills. For example interchangeably Seiler and Stock (1994) and Vealey (2007) have differentiated between mental skills “as the desired result

¹ Mental skills and psychological skills are used interchangeably. In this research then term mental skills is preferred.

(e.g., increased self-confidence and enhanced attentional focus) and psychological methods or techniques (e.g., imagery and self-talk) as the means to promote the desired outcomes through the systematic application of these techniques” (Birrer & Morgan, 2010, p. 79). Therefore a skill is the learned ability to carry out a specific task (concentration, patience, focus) and a technique is the procedure used to enhance that ability in order to be able to complete this task (imagery, goal-setting, self-talk and physical relaxation techniques). However despite this differentiation mental skills and techniques are used interchangeably in research (Birrer & Morgan, 2010) and it is this conceptualisation that is used in this research.

2.2 Mental skills training (MST)

Weinberg and Gould (2007, p. 250) have defined mental skills training as “the systematic and consistent practice of mental or psychological skills for the purpose of enhancing performance, increasing enjoyment, or achieving greater sport and physical activity self-satisfaction.” This definition then means that MST are supposed to be systematic, goal-oriented, planned, controlled and evaluated (Seiler & Stock, 1994). A broader definition is the one proposed by Bakker and Dudink (1994) who defined mental skills training as a collective noun for all activities aiming at learning mental skills to improve sport performance. Using Bakker and Dudink’s definition allows for the inclusion of those who do not practice mental skills training systematically which might be the case with the participants of this study.

There are many different methods used to develop mental skills which can be separated into cognitive (mental rehearsal, cognitive-behavior therapy mental imagery and visualization) and somatic (visuo-motor behavior rehearsal and biofeedback) with some level of overlap between them (Behncke, 2004). He has concluded that “the initial and continued ability to self-monitor, though enhanced by mental skills training, is fundamentally important for any implementation of cognitive-somatic therapy” (p. 2) and “underlying both systems is the aim and motivation of the individual to attain self-mastery, that is, a desire to control their individual psychological world” (p. 3). Taking from this motivation is therefore important. Balague (2000) argues that although the purpose of mental skills training is to assist athletes in maximising their potential through learning and performance this can only work with the appropriate motivation (Balague, 2000). The right amount of training and motivation makes it possible for mental skills to be improved just in the same way as physical skills (Balague, 2000).

There are an increasing number of coaches and sport performers that understand the importance of incorporating the mental part of training into the physical training. For generations, scientists, coaches and athletes have sought training systems that are effective in the long term, offer an optimal approach to athletic development, and enable the athlete or team to peak their abilities at precisely chosen times (Issurin, 2007). To achieve these objectives there must be development of a training program that will tackle physical, technical, tactical and psychological elements (Smith, 2003).

Mental skills training has also been described as the consistent and systematic practice of psychological skills with the purpose of self-satisfaction, enhancement of performance and enjoyment and to achieve great sport and physical activity (Weinberg & Gould 2007). To develop mental skills requires time, self-knowledge and to have clear and distinct goals. The athlete need to believe and be immersed in the methods employed, and that needs a great level of motivation (Behncke, 2004). Mental skills training take a certain degree of patience and trust in their application. Results may not come immediately, often qualitative and related to physiological performance (Strean & Roberts, 1992). At the beginning of mental skills training an athlete needs to sustain motivation, tolerance and persistence. The initial challenges of developing mental skills training can be alleviated by establishing motivational characteristics that enhance better performance (Behncke, 2004).

Extrinsic rewards and intrinsic motivation have been noted as the motivational factors that athletes uses to improve on performance (Vallerand, 2007). Extrinsic rewards are those motivations that are essentially external to the athlete. These include the more material aspects of competition, such as prizes, trophies, money and security, and also the more immaterial, egocentric aspects of competitive events, such as recognition and respect from peers. Intrinsic motivations are mainly concerned with the desire for self-development and to challenge and improve oneself. Rushall (1992) states that for the athletes to attain specific goals they should be encouraged to use intrinsic motivation more, as opposed to extrinsic reward, so as to improve performance. This is because extrinsic rewards tend to govern the concept of self and event performance; that is the athlete's self-confidence and overall satisfaction with training and performance are influenced and defined by external factors out of the control of the individual. This is summarised in the following quotation by Behncke (2004, p. 3)

If an individual obtains a good result, even though they may have performed below personal expectations, they may find satisfaction in his or her performance.

If the individual obtains a poor result, despite having performed above personal expectations, they may be very self-critical and produce within themselves a depressed state that may affect future performance.

Motivation that comes from the external rewards appears to underlie the phenomenon of learned helplessness in sport, or continued failures of the athlete despite no obvious external cause being identified (Vallerand 2007). This is because those individuals whose definition of self lies with external elements tend to attribute failures to others or outside events and only successes to themselves (Walczak & Tomczak, 2012). If therefore the athlete only ever learns from past successes, as a sign of the appropriate path to follow to increase performance, there will be limited scope for development. In general, there are far more failures in fine tuning performance than there are successes, and learning from failure becomes a success if taken from the perspective of intrinsic motivation in self-mastery.

2.3 Mental skills

Having defined mental skills and MST I now move on to discussing some of the most common mental skills. These include imagery, goal-setting, cognitive behavioural therapy, self-talk and physical relaxation (meditation). This does not mean that these are the only mental skills but they are also others that cannot be discussed here. The ones that have been chosen are the more common ones (Balague, 2000). The mental skills will be discussed one after the other.

2.3.1 Cognitive behavioural therapy

Cognitive behaviour therapy (CBT) is a well-known therapy technique that is aimed at treating psychological disorders through change of cognition and behaviour. Historically, the framework has had a strong impact on sport psychology's development (Smith, 2003). It improves athletes' attitude to the way they approach training and competition by giving them cues they use to adapt to given situations that influence sporting performance (Steinberg, Chaffin & Singer, 1998). CBT "focuses on methods that strengthen positive behavior and weaken negative behavior towards a desired goal" (Behncke, 2004, p. 9). One of the most used CBT techniques is cognitive restructuring which assists an athlete to control and focus thoughts by using positive thinking (Orlick, 1990).

Using CBT principles positive self-talk involves activating mental processes to change existing thought patterns in an attempt to influence the occurrence of desired action or behaviour

(Johnson, Hrycaiko, Johnson & Halas, 2004). In addition to positive self-talk, Luiselli and Reed (2011) suggest the goal setting and imagery are key cognitive-behavioural methods used to enhance athlete performance. Goal setting is another example of a cognitive-behavioural approach that can be used to help athletes with performance. All these techniques are described below and make up the mental skills in sport.

2.3.2 Mental imagery

Morris, Spittle, and Watt (2005) state that imagery is the mental rehearsal of a performance using one's senses. The use of imagery to re-create or create an experience in the mind helps athletes to perform better and increase self-confidence (Rattanakoses, et al., 2009). Mental imagery has received much attention for its role in athletic performance and is often included in the mental skills training package (Chiweshe, 2013; Stuart, 2010). Many athletes have reported using mental imagery in the process of athletic rehearsal and they have judged it as the most valuable preparatory strategy (Morris et al., 2005).

Mental imagery practice should be given similar attention to that the given to the physical practice (Hall, 2001). This is supported by Holmes, & Collins (2001) who highlighted that mental imagery preparation, performance, and execution of autonomous, overt motor performance is all related to the same mental representation system. Neuroscientists have shown that certain brain structures like the prefrontal areas, supplementary motor areas, cerebellum and basal ganglia show a pattern of activity during imagery similar to that seen during actual performance (Decety & Ingvar, 1990). Further evidence suggests that during the mental imagery rehearsal, physical rehearsal and performance, the body experiences similar increased peripheral cardiac and respiratory indices (Holmes, & Collins 2001). Knowing the significance of mental imagery technique over the physical task is not important alone, but also how the mental imagery process is applied.

Imagining the event happening is not enough to elicit the correct imagery process and, like motor skills, if the mental imagery technique is performed inadequately, without sufficient attention to appropriate execution, subsequent gains in motor performance will be substandard (Holmes, & Collins 2001). To understand the process of mental imagery one needs to be familiar with the working of procedural knowledge and declarative knowledge (Annett, 1996). Procedural knowledge is the knowledge of knowing how to do mental imagery based on performance results, like the ability to form the correct image in your mind. While declarative

knowledge is the knowledge of knowing the idea or the concept behind the mental imagery method in order to gain an understanding of the mental imagery process (Behncke, 2004). This process signifies whether individuals know what they are doing compared to how they are doing it. These two forms of knowledge are critical if the individual is to learn the techniques needed to perform mental imagery properly. This is because imagining the skill, and actually performing the skill, needs to be closely executed for effective transfer and reinforcement to neural structures (Behncke, 2004). Thus, mental imagery competency requires a degree of attention and psychological effort to elicit the desired effect.

2.3.3 Relaxation

Relaxation is a mental skill that has been shown to be important in sport (Chiweshe 2013; Pattinson, 2010) and can be used in different situations (induce sleep, pre-competition, post-competition). Relaxation acts as a technique to rid the muscles of disorder tension interfering with performance and help the rest of the body and mind and also promotes confidence in the athletes' ability to lessen or decrease the effect of undesirable thoughts and feelings (Sadeghi, Omar-Fauzee, Jamalis, Ab-Latif, & Cheric, 2010). Two of the most common techniques are progressive muscular relaxation (PMR) which involves the tensing of muscles, focusing on the feeling of each muscle, and releasing the muscle tension and breathing exercises which involves learning to control one's breathing as a way of relaxing. Relaxation can also be accomplished in variety of other ways like listening to quiet music, focusing on something not related to fencing, or finding a quiet place in the competition venue where you can retreat and settle your emotions (Heil & Zealand, 2001).

Most MST programmes include relaxation training as part of the training. Heil and Zealand (2001) stated that relaxation was one of the determinants of a successful performance and included it in their manual for fencing in America. In Malaysia Sadeghi et al. (2010) found that relaxation training was one of the most needed mental skill training in their assessment of soccer players. In a review of mental skills required for high intensity sport relaxation was placed among the most important mental skills (Birrner & Morgan, 2010). All these point to relaxation as being an important mental skill.

2.3.4 Goal setting

Goal setting involves attaining a specific standard of proficiency on a task usually within a specified time limit and increases performance during competition (Vealey, 2007; Williams,

2001). Davis, Nolen-Hoeksem, and Larson (1998) states that creating goals in sports serves as a way to focus attention. Goal setting strategies has been described as the reliable performance change technique in athletes (William, 2001). Findings from research have consistently shown that “specific, difficult, and self-generated goals have more beneficial effects on performance than do easy goals, no goals, or do your best goals” (Mellalieu, Hanton, & O'Brien, 2007, p.257). Self-generated goals have been seen to be more achievable than those set by the coach or researcher. Mellalieu et al. (2007) allowed their participants (five collegiate rugby players) to select their own goals and the targeted behaviors were subsequently found to improve.

Chiweshe (2013) in designing a MST for archery used Blanchard’s (1988) acronym SMART which entails that goals should be:

- 1) Specific- goals need to be specific as vague goals will produce vague results
- 2) Measurable- a goal should also be measurable and observable. Numerical goals for example distance and time are more measurable than subjective goals.
- 3) Achievable- goals should be difficult enough to challenge yet realistic enough to be achievable.
- 4) Relevant- goals should be relevant to the archer’s current ability and future potential.

Timeline- goals should have a timeframe or target date

Chiweshe (2013, p. 51).

2.3.5 Self-talk

Self-talk has been defined as occurring verbalizations or statements about something as well as increase performance and skills in sport (Vealey, 2007). Self-talk has been defined as a multidimensional phenomenon concerned with athletes’ verbalizations that are addressed to themselves (Hardy, Hall, & Hardy, 2005, p. 905). Self-talk has been seen to have a major role or great influence in cognitive control (Zinsser, Bunker, & Williams, 2006). The self-generated statements in a form of self-talk help the athletes to stay focused in the moment and not dwell on mistakes or think too far ahead (Zinsser et al., 2006). Motivational statements are the essential feature in self-talk, this helps to maintain and increase effort and remain focused on goals, both of which are essential prior to and during endurance events. These motivational statements contain task-oriented subsets. A study conducted by Donohue, Barnhart, Covassin, Carpin, and Korb (2001) demonstrated that task-oriented self-talk can enhance focus, enabling the participant to be connected to what he or she is doing in the moment. Wrestlers in the study who had successful performances reported using task-oriented self-talk more frequently during

competition as compared to those athletes who were less successful. Self-talk can be used to help athletes gain and maintain focus.

Self-talk has been found to have a positive effect on performance with a variety of sports including: tennis (McPherson, 2000), figure skating (Ming & Martin, 1996), basketball (Kendall, Hrycaiko, Martin, & Kendall, 1990), golf (Kirschenbaum, Owens, & O'Conner, 1998), hockey (Halliwell, 1990) and endurance running (Weinberg, Smith, Jackson, & Gould, 1984). Rogerson and Hrycaiko (2002) in a study of ice hockey goaltenders utilized self-talk as one of the mental skill and it was successful. Donohue et al. (2001) examined university athletes on the functions of self-talk through the use of open-ended questionnaires. The findings demonstrated that skill-specific self-talk was used to enhance focus on task-relevant cues. The ability to shift cue words throughout a competition may assist an athlete to respond to the changing demands of the event. By shifting cue words, the athlete is able to meet or adapt to the requirements of the competition and that helps the athlete to remain connected to the task (Donohue et al., 2001).

Heil and Zealand (2001) states that self-talk involves four methods which are;

- 1) problem solving which is converting worry into production action;
- 2) thought saving which is taking a break from worry;
- 3) thought review, which is managing expectations;
- 4) thought stopping which is learning to stop bad thoughts and shifting quickly to a positive focus.

2.4 Anxiety and arousal management

In recent times MST programmes have largely been designed to deal with anxiety and arousal as athletes usually report feeling anxious, emotional and other somatic related sensations before or during the performance (Cox, 2007). Anxiety has been defined as a multi-dimensional involving cognitive and somatic factors (Weinberg & Gould, 2007, p. 78) and arousal as “arousal is a general physiological and psychological activation, varying on a continuum from deep sleep to intense excitement”. These feelings of anxiety and emotional change before and during performance have a detrimental effect on the athlete’s self-esteem and self-awareness. MST programmes have been employed successfully in reducing anxiety and arousal (Behncke, 2004). Using progressive muscle relaxation Khasky and Smith (1999) successfully decreased anxiety and made athletes enter into an optimal psychological state of performance.

Different theories have been proposed to show how anxiety and arousal influence performance. These include the drive theory of Hull (1943), the inverted U hypothesis by Yerkes and Dodson (1908), Cue utilisation theory (Easterbrook, 1959), individual zone of optimal performance Hanin (1980), the cusp catastrophe model by Fazez and Hardy (1990) and the multi-dimensional theory by Martens et al., (1990). There is continuing debates around the different theories with some being discredited for being nomothetic including the inverted U hypothesis and the drive theory (Marchant & Morris, 2004). Despite these debates anxiety and arousal have been shown to be important in sport and controlling them helps in performance (Cox, 2007).

2.5 MST programmes in South Africa

In South Africa MST programmes have been generally shown to improve psychological skills and psychological well-being at individual, group and community levels (Edwards & Steyn, 2008). Studies on mental skills training or psychological skills training in South Africa focus on sports like rugby and athletics (Edwards & Steyn, 2008; Kruger, 2003; Pieterser & Potgieter, 2006; Potgieter, Grobbelaar, & Andrew 2008). Potgieter et al. (2008) found that mental skills are important when comparing top ranked and lower ranked rugby players.

Much of the literature regarding mental skills and training has been from the studies conducted overseas. Despite a number of studies in recent years there is still a great lack of information on studies done within the South African context (Edwards, & Steyn, 2008). In a study by Eloff, Monyeki & Grobbelaar (2011) that was aimed at determining student field hockey players' perceived need for mental skills training (MST) and their perceptions regarding their ability to prepare psychologically for matches, the results showed poor values for skills such as goal directedness, activation control, maintaining self-confidence, concentration and imagery among the total group. The results from this study also showed the lack of understanding in the use of mental skills in South Africa.

According to Edwards & Steyn (2008) in situations where mental skills training has been conducted, it has been with specific individuals not groups. He further highlights the importance of conducting mental skills training with groups so that many other South African athletes will be familiar with this kind of training. This will not only help them to increase their sporting performance but also their psychological well-being in general. A lot of the South

African studies have also only focused on student populations either in high school or university (Chiweshe, 2013; Pattinson, 2010)

2.6 Marathon runners and mental skills.

Historically researchers such as Morgan, Connor, and Sparling (1987); Durtschi and Weiss (1986) and Morgan & Pollock, (1977) have been interested in investigating the mental strategies that are used particularly by the marathon runners. All of these authors came with different interpretations of mental strategies used by marathon runners. Morgan et al. (1987) in Stager and Tanner (2008) investigated the psychological characteristics of elite female runners and they discovered that elite female runners use setting the pace or being a front-runner as their mental strategy.

Attentional focus is a concept that has received attention from researchers (Stager & Tanner (2008). It is a mental strategy used in running which is cognitively based on two divergent coping strategies, association and dissociation. The early work of Morgan and Pollock (1977) in Schomer and Connolly (2002) looked at runners who used both association and dissociation. Association appears to be the most successfully used coping strategy by elite runners while dissociation may only be helpful when pushing through a temporary pain during a marathon but when used too much it can negatively influence the runner's performance. The advantages of association come when the runner is able to adjust speed or pace across an entire marathon and so minimise the chances of pain. This enables the runner to be efficient in using energy and to have less discomfort across the marathon.

Heffner (2006) supported the findings that associating during a race is positively related to the number of training miles run during preparation for the race. Moreover runners who have had more training kilometres display much more usage of association in the competition than the amount used in training. This suggests that experience with a task can result in an increased attentional focus during competition. Heffner also mentions how the perception of pain may interfere with the association; however runners who are more experienced in training may be more prepared for pain as they have dealt with it in preparation for the race.

Hogg (1995) in Pribul and Price (2005) proposed five running strategies used by runners. These strategies include performance relevant factors, the use of cue words, thoughts and emotions, self-awareness, and actual performance factors. In unpacking these strategies on performance

relevant factors, the runners assess and familiarise themselves with the prescribed race segments from start to finish. The actual performance factors have to do with the assessment of race splits and positioning, whereas the thoughts and emotions strategy is more about metacognitions where the runners are aware of their thoughts and the affects they display during the race. For example, if they have already established negative ideas or attitudes towards the race that can impact badly on performance. The self-awareness strategy is slightly different from the thoughts and emotions strategy. It differs in that self-awareness even though you monitor yourself it is in relation to a circumstance that lies ahead of the race. This also includes reading your opponents and knowing when to pace up when they are slowing down. Lastly Hogg (1995) highlighted the use of cue words, these are used to help the athlete to stay focused during the race and they act as a good guide for the implementation of the racing plans.

A study was done that examined the usefulness of a mental training package that included imagery, relaxation and self-talk. This study was based on an ultra-distance runner who completed 500 miles within 20 days in a desert of North America. The use of imagery, relaxation, and self-talk was said to have improved the running performance (Bull, 1989). Similar results were confirmed by Patrick & Hrycaiko (1998) when they demonstrated that mental training techniques can be beneficial for runners over a wide range of distances.

An individual runner brings unique elements of mental strategy into the race. Each athlete has a different background history that feeds into his or her current performance like athletic history, level of fitness, number of competitions and level of psychological skills (Pribul & Price, 2005). Taking into consideration the background information of a runner is essential as it also has an influence on the racing plans.

2.7 Summary

The chapter started by defining mental skills and showing how definitions have varied across different researchers. MST programmes were also discussed and the logic behind their designs given. A number of MST programmes were reviewed before some mental skills (mental imagery, relaxation, goal setting, self-talk and CBT) were discussed. The chapter then moved to discuss anxiety and arousal which are two constructs that have been seen to affect sport performance. MST programmes in South Africa were then discussed before finally specific mental skills for marathon runners were reviewed.

Chapter 3: Methodology

3.1 Introduction

This section will discuss the research design which is qualitative research approach. It will then move on to focus on the participants; that is their demographic information and experience in marathon running. The section then moves on to discussing the data collection method which was semi-structured interviews and how these were carried out. Thematic analysis and how it was applied to the data collected is then discussed. Lastly the section will focus on matters of validity and reliability in regards to this study. Before starting it is important to restate the objective of the study which is to explore the uses of mental skills by marathon athletes.

3.2 Research design

A qualitative research approach has been adopted for this study. This qualitative approach differs from traditional research methodology in that it is concerned with meaning and how it informs subjective understanding rather than focusing on the production of objective and reproducible data (Hollway & Jefferson, 2000). A qualitative approach provides a deep insight into “the complex world of lived experience from the point of view of those who live it” (Schwandt, 1994, p. 118). In qualitative research it is assumed that reality is socially constructed and the researcher becomes the vehicle by which this reality is revealed (Cavana, Delahaye, & Sekaran, 2000). This makes the approach consistent with the construction of the social world characterised by interaction between the researcher and the participants (Mingers, 2001) and as such the researcher’s interpretations play a key role in this kind of study bringing “such subjectivity to the fore, backed with quality arguments rather than statistical exactness” (Garcia & Quek, 1997, p. 459). In this research I therefore sought to understand how marathon runners view mental skills, whether they employed them and are they helpful.

3.3 Participants

This study consisted of six competitive road running athletes. The study had no strict restriction to gender. Below are the characteristics of the participants;

Table 1:

Characteristics of participants

Participant	Gender	Age	Language	Level	Affiliation
1	Male	33	isiXhosa	Elite marathon	Club
2	Female	44	isiZulu	Elite marathon	Club
3	Female	29	isiZulu	Non-elite marathon	No club
4	Female	28	isiZulu	Elite marathon	Club
5	Male	36	isiZulu	Elite marathon	No club
6	Male	30	English	Elite marathon	No club

Both male and female athletes took part in the study. Five of the participants were elite marathon runners meaning that they were skilled professional marathon runners. Of these five only three belonged to clubs. In the past five years all participants had taken part in marathons competitively and all engaged in training systematically all year round. One of the participants was non elite and only took part in marathons as more of a hobby. She did not belong to any club. The diversity of participants was preferable in terms of gender, race, and cultural background, as it was useful in understanding how athletes from different backgrounds understand or perceive mental skills. It is very important to note that comparison of these demographics was not the aim of the study.

Purposive sampling was used to select the participants. The sampling procedure involves the researcher actively selecting the most productive sample to answer the research question (Lewis & Sheppard, 2006). In this three elite marathon runners were approached and asked to take part in the research. The first three then pointed the researcher to three other runners as a form of snowballing. The participants were supplied with consent forms so that they knew that their participation was voluntarily. They were assured that their participation would be kept anonymous and confidential. Participants were told about their right to withdraw from participation. Participants were also told about the nature of the study and that information that

was obtained from them would be shared with others for learning purposes, without disclosing their names and whereabouts.

3.4 Data collection

The study employed semi-structured interviews because the researcher wanted to give the participants the time and scope to talk about the phenomenon being researched. Another objective for using semi-structured interviews was to understand the participants' point of view rather than make generalisations. The interview schedule was created to guide the process of the interview by providing the relevant scope and for adhering to the research question. The interview schedule was not meant to try to lead participants into giving particular responses nor to assume that participants were familiar with or were using the phenomenon being researched.

During the interviews a tape recorder was used to record the entire interview. The recorded information from the interviews was transcribed verbatim and those in isiXhosa and isiZulu translated by the help of a translator to English. Back translations were also done by the researcher to maintain reliability. The participants signed the tape recording consent form that informed them that transcriptions were going to be treated with confidentiality and only the researcher and supervisor would listen to them. Before the interviews started participants were informed that the interview would not go beyond one hour. All of the interviews with each participant between 15 to 45 minutes. Interviews were done in Kwazulu/Natal in different secluded restaurants that were chosen by the researcher and particular participant. The participant were provided water, coffee and snacks by the researcher.

Each participant was given an opportunity to say which time they were going to be available for an interview and they had to identify an environment or a place that was distraction free and conducive for an interview. Participants were also given an opportunity to ask questions related to the study or the phenomena being researched, before signing the consent forms to show that they agreed to participate and they understood their involvement in the study. Follow up interviews were done after the data was collected and transcribed to clarify whether what participants meant had been captured.

3.5 Data analysis

Thematic analysis was chosen to analyse the data in this study. Thematic analysis entails ‘identifying, analysing and reporting patterns (themes) within data. It minimally organises and describes your data set in (rich) detail’ but however, “frequently it goes further than this, and interprets various aspects of the research topic” (Braun and Clarke, 2006, p.79). It was chosen for this qualitative study because of its strength to detect and identify factors and variables that influence any issue generated by a participant. Since this study seeks to understand the interpretation or rather perception of mental skills by the competitive running athletes, thematic analysis fits well with the study it is considered the most appropriate for any study that seeks to discover using interpretations. It provides a systematic element to data analysis. It allows the researcher to associate an analysis of the frequency of a theme with one of the whole content (Marks & Yardley, 2004).

The researcher decided to focus on the inductive approach within the thematic analysis. In the inductive approach the great amount of data that has been collected is analysed by starting with the precise content and then broadens to generalisations and finally to theories (Frith, & Gleeson 2004). This ensures that themes are effectively linked to data. This is quite appropriate for this study as the researcher plans to introduce the concept of mental skills and then allow the participants to expand on it. Reflexivity as a researcher is also important when doing an inductive approach as a way of minimizing researcher bias. Finlay (2002, p. 209) has noted that, “the process of engaging in reflexivity is full of muddy ambiguity and multiple trails as researchers negotiate the swamp of interminable deconstructions, self-analysis and self-disclosure.” As a way of reflecting I kept a diary where I wrote all my feelings and progress during the different stages of the research. I also kept in contact with my supervisor as a way of keeping myself grounded. The research process was tiresome and writing up took more time than I anticipated and I had to finish up the thesis far away from academic environment. This meant that I had no internet and no fellow students to interact with whilst I was writing. However through continuing to work I managed to finish the writing up.

The Braun & Clarke (2006) model of thematic analysis was chosen to analyse data. The following phases (Braun & Clarke, 2006, p. 87) were followed in the thematic analysis;

- Familiarizing with the data by transcribing data, reading and re-reading the data and noting down initial ideas.

- Generating initial codes: Coding interesting features of the data in a systematic fashion across the entire data set and collating data relevant to each code.
- Searching for themes: Collating codes into potential themes and gathering all data relevant to each potential theme.
- Reviewing themes: Checking if the themes work in relation to the coded extracts and the entire data set thus generating a thematic ‘map’ of the analysis.
- Defining and naming themes: On-going analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
- Producing the report: This is the final opportunity for analysis. A selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature are used thus producing a scholarly report of the analysis.

Using the Braune and Clarke method the following procedure was followed in analysis the data:

Phase 1

All recorded data was transcribed into written format, translated and then back translations. Once the recorded data was transcribed the researcher listened to the recorded data over and over to verify the consistency of the written data. At this time the researcher had already started to generate initial ideas or thoughts as to how codes would look.

Phase 2

Now the researcher started to formally create interesting codes that seemed to be answering the research question. These codes were created from the text transcribed from the recorded data. Different coloured highlighting pens were used to highlight the codes that seemed to be similar; at that stage the themes had not been created. The researcher made sure that all data had been placed into relevant codes. The ones that did not seem to fit in any of the already established codes were coded together as it was suspected that they might be useful later in the analysis.

Phase 3

In this phase the researcher started by making a list of all created codes and analysing them closer so as to establish the ones that fitted or formed a potential theme. This was done through

a thematic map. The thematic map refers to the involvement of a detailed account of the hierarchical relationship between codes, as well as a description of each (Ryan & Bernard, 2003). By this time the themes had emerged as well as sub-themes. All the codes that did not fit in any of the overarching themes or sub-themes had been grouped together.

Phase 4

This stage involved the reviewing of the themes that had been created. The researcher started by looking at the extracts from the written form where codes were created. This was to check for any errors that might have occurred and to confirm that codes were consistent with the extract. The codes that were used or collated together to form a theme were also reviewed to check if they really formed part of that theme. Basically this was about going through the previous phases and making sure that everything fitted where it was intended to. After going through this stage thoroughly the researcher was able to understand the relationship between themes and the overall story they told about the data.

Phase 5

This phase formed part of an on-going analysis; the researcher refined the themes and analysed them as to what story each theme told. This gave an opportunity to discover what aspect of data each theme captured. Again this was going through data from codes all the way to the formation of themes and making sure nothing was left out. A detailed analysis and interpretation was established of what the theme was about and whether it related to or answered the research question. To minimise the chances of overlapping the researcher looked at each theme and compared it with other themes. Lastly, on this phase after the researcher had established the coherence amongst themes and the story they told in relation to the research question, the themes were given relevant names.

Phase 6

This is the phase where the researcher had fully worked out themes and their names. This phase is mostly about reporting on the results of the data. It also involved showing extracted data that formed codes and how it all linked to the larger story that the data or themes were telling. The results and discussion section would show the validity of data and how it answered the research question.

3.6 Reliability and Validity

Validity relates to the truthfulness of the data and reliability relates to extent to which results are consistent over time and an accurate representation of the total population under study (Stringer, Ernest, & Genat, 2004.). Validity ultimately is concerned with measuring soundness and the effectiveness of measuring instruments or research techniques. To ensure validity the researcher in this study designed the interview guides or schedules and these were then given to the researcher's supervisor for verification. The suggestions and additions were used to review the instruments to ensure that they would collect the necessary data.

To maintain validity the usage of informed consent was an essential requirement when conducting the interviews so as to avoid any coercion or participants being guided during the research process. Great emphasis was placed on the confidentiality and anonymity of participation. A great awareness was on the perspectives and language of the participants rather than on the interpretation and terminology of the researcher. The follow up interviews also ensured that what was captured was what the participants wanted to say. As a way of maintaining elements of trustworthiness the following was done in this research a) disclosure of the researcher's orientation (the researcher disclosed this to the participants at the start of the research) b) intensive and prolonged engagement with the material, c) Trustworthiness was also determined by grounding interpretations by using individual examples in the data to support abstractions, (Kopala & Suzuki, 1999).

3.7 Ethics

This research was approved by the Research Projects and Ethics Review Committee (RPERC) of the Psychology Department at Rhodes University before recruitment or interviewing commenced. Potential participants were supplied with an information letter outlining the details of the research and explaining the purpose of the study as well as a copy of the consent form which summarizes the expectations and rights of a research participant. These potential participants were assured that their inquiry about the study would not oblige them to participate. Ethical issues concerning informed consent that is informing participants, right to withdraw, giving of consent in the research as well as free choice about participation is based on accurate information were looked at in this research. Protection of the identity of all participants and confidentiality of interviews was taken into account as well. Ensuring the confidentiality of participants was enforced as participants were able to check the research findings.

3.7 Summary

This chapter looked at the overall research design which was qualitative inductive method. The characteristics of the participants were then described and the sampling procedures explained. The chapter then moved on to describing the semi structured interviews that were carried out as part of the data collection. The thematic analysis method was then discussed and all the phases the researcher went through in analysis the data was also discussed. The chapter ended by focusing on the reliability and validity of the study.

Chapter 4: Results and Discussion

4.1 Introduction

The purpose of this study was to identify the understanding and the type of mental skills used by competitive marathon runners in the South African context. To thoroughly investigate such phenomenon the research question; how do competitive road running athletes understand the role of mental skills in their running was formulated. To answer this question thematic analysis was used to analysis the data collected from semi structured interviews. This chapter seeks to outline all themes that emerged from the dataset. This chapter will also show the story that each theme tells, how it relates to the existing literature and more especially how all the themes speak to the research question. The unpacking of each theme will include a discussion about the theme itself and quotations of verbatim extracts that will show evidence of the emergent theme. The verbatim extracts are from the intensive interview that the researcher had with six participants.

4.2 Introduction of themes

The following major themes were identified exposure to mental skills and application of mental skills. In answering the research question participants showed that that had previous exposure to mental skills and that they apply these mental skills. The themes and their sub themes are summarised in the table below:

Table 2:

Themes and sub themes

Themes	Sub themes
Exposure to mental skills	Knowledge of mental training Previous exposure Importance of mental skills
Application of mental skills	Use of motivation Mental rehearsal Planning and goal setting Self-talk

The two themes and their subthemes are discussed in the following sections.

4.3 Exposure to mental skills

4.3.1 Previous exposure, knowledge of MST and importance of mental skills

Initially some of the participants struggled to understand mental skills as a concept and how it was influencing their running. It only became clear after this concept was thoroughly explained with several examples. This is something that should not come as a surprise as the concept of mental skills is relatively new in South African societies. Athletes have not been taught about the mental skills, even those who might have heard about them struggle to understand how the concept is applied.

However during the interviews it became clear that the participants were engaging in mental skills although they did not call them mental skills. One participant reported how she uses music as a tool to help her relax and concentrate on training and racing. She reported that when she listened to music she feels very motivated to do the race (Motivation is covered in detail in the next section). She stated that in that moment she feels prepared and less anxious. Psychologically it can be understood that listening to music creates a sense of mental preparedness and takes away the anxiety that is associated with performance.

Say... I'm training for a short distance event I use fast beat music and for long distance event I use slow pace music. Since I like gospel music, I listen to different gospel songs."(Participant 1, p. 1)

One of the participants who is a member of a club has a coach is available to him. Throughout the interview, he was able to showcase the knowledge of mental skills. He reported that through working with different coaches in his career he had come across different running skills or techniques, one of them being visualisation. He reported that as a group during their training session the coach usually instructs them to lie down, close their eyes and create an image or picture themselves running the race. He said that once they have all created the mental image the coach will talk to them telling them what exactly they need to picture and the challenges attached to that race. He reported that this was not an easy task for him to master and it also required concentration. He regarded this strategy as a good preparatory technique for the race.

Yes, that visualisation thing we also do it, I really enjoy it and it prepares you for the race. (Participant 5, p. 3).

4.4 Application of mental skills

4.4.1 Use of motivation

Being motivated is a significant sub theme that emerged from the dataset. This sub theme is regarded as significant because almost all the participants brought up motivation as a factor not only in using mental skills but in training and continuing to run in marathons. The participants saw motivation as a very powerful psychological tool. In running, motivation is understood to be an ability to maintain a high level of energy and excitement for your training, recovery, and ultimately participating in your marathon. This is a technique that enables athletes to have a belief that they can do it. It was noted that participants' motivation to perform was derived from factors within and outside the self. There are two distinct types of motivating factors that enhance athletes to perform better (Weinberg, Smith, Jackson, & Gould, 1984) and these include extrinsic motivation and intrinsic motivation. Extrinsic rewards are those motivations that are essentially external to the athlete. These include the more material aspects of competition, such as prizes, trophies, money and security, and also the more immaterial, egocentric aspects of competitive events, such as recognition and respect from peers.

One of the participants during the reported that she went to a race where she had no money for the return bus ticket. She explained that she knew that the only way she was to get back home was that she had to win the cash prize of the race and she did. She reported that during the race she was pre-occupied with nothing else but winning and that motivated her to keep on going. It was not clear if she left the money on purpose or she simply did not have it. It is very interesting that she was able to push herself to win the cash prize. The fact that mentally she was able push herself by concentrating on the prize to win speaks to the general understanding of mental skills.

Well to me, mm... Like I've said that I run short distances, so to me what matters and what motivates me is the prize. I always make sure that I win something.

(Participant 5, p. 2)

Intrinsic motivations are mainly concerned with the desire for self-development and to challenge and improve oneself. This type of motivation is pretty common to runners who are driven by the need to improve their own performance like making it through the race in a certain time. Another participant stated that he had done several Comrades Marathons and other local marathons throughout his running career, but it had never been his ideal goal to be number one

in the race. However, it always made him happy to finish the race within a certain group of runners or to finish within the allocated race time.

On every Comrades Marathon I do, I always want to improve from my last performance. I guess runners like me are not really concerned about finishing first rather to make it before the closing time. (Participant 2, p. 3).

The motivational support that one receives from significant others is crucial as it has an impact on how we perform. It was reported by one of the participants that she receives a great amount of motivation from her husband and community to continue with competitive running. She reported that since she was in high school she has always been involved in running. During that time she was motivated by her school coach and family to continue with running. She also stated that even younger athletes in her community look up to her. She carries that motivation whenever she trains for a race. To this particular participant running also means she is creating a positive example for others and it keeps her in shape with regard to running and to strive for more success.

The support I get from my family and friends is very huge and it's motivational.
(Participant 6, p. 3)

4.4.2 Mental rehearsal

Mental rehearsal is a known concept in the field of mental skills. This is the type of skill that requires an athlete to mentally rehearse the motor skill or strategy intended for training or for the event. Mental rehearsal is used in the absence of major physical exertion that the individual would experience under traditional physical training regimes (Vealey, 2007). Mental rehearsal has been noted to yield effective results in performance. Studies such as the one by Morris & Summers (2004) reported that athletes find it easy to play an event in their minds before physically engaging in it. In short mental rehearsal can be understood as imagining something before doing it.

Athletes and coaches use mental rehearsal for different purposes; others use this technique for performance enhancement, arousal regulation, affective and cognitive modification and rehabilitation (Jones, & Stuth, 1997). Athletes use different strategies for a specific task in mental rehearsal. For instance in marathon running, some runners need to familiarise

themselves with the racing route so they can easily imagine themselves running that route. This happens especially when they are running a new race or route.

One of the runners during the interview stated that there was a time when he and his friend went to see the marathon route before the racing event. He stated that they had to do it because it was unfamiliar to them. He reported that it really helped him to familiarise himself with that particular route because he was able to know the places where he needed to increase his pace and other technical things of running. He went on to report that it was never his intention to use the imagery technique, however between that time and the race day he could not get route images out of his mind. From then on he started visualising the race in his mind whenever he was training, thinking or imagining himself running the race. He reported that he had never done such an exciting technique with his mind. He started using that technique and it has been successful since then. The information gathered from the participant about this particular skill does not only confirm the usage of mental imagery amongst runners but also a realisation that some of runners are already using mental skills without their awareness.

Another strategy that works well for me, it's during my training period I will visit the entire marathon route just to get to know all the corners and hills. Later this helps me to mentally prepare by imaging myself running those hills and corners.

(Participant 2, p. 3)

In other athletes such as runners, performance enhancement does not mean winning or finishing first but it can simply mean improving on the last performance or achieving race goals that you set for yourself. As it has been highlighted earlier, mental rehearsal may be employed for specific goals such as decreasing anxiety associated with competition (Houghton, 1991). This happens when athletes are anxious about a particular competition; by imaging yourself competing, you also bring anxiety into play. By doing this technique more than once the anxiety associated with performance decreases. This process, known as systematic desensitization is common in the realm of Cognitive Behaviour Therapy.

Another participant stated that he learned from a colleague and a coach that imagining yourself running the race and talking about the race with others helps to deal with the fear or worry of doing the race. He reported that this is something that he does not only when he is at training but even at home before he sleeps. This clearly shows a mental skill like mental rehearsal can be done even at home. Basically you can train for a race while you are relaxing at home. The

participant also explains that he has been taught about reducing anxiety through this technique. One cannot but wonder if he also uses this mental skill outside his sporting life.

Coach teaches us many techniques to deal with anxiety imagining performance is one of them. (Participant 4, p. 3)

It has been established that mental rehearsal is a commonly used strategy in mental skills (Heil & Zealand, 2001). The literature also suggests that it has to be done in the right way, also be coupled with other techniques such as goal setting, and self-talk.

4.4.3 Planning and goal setting

Planning and having clear goals is quite a common technique not only in sport psychology but in organisational behaviour as well. Marathon runners usually have plans as to how they want to train for an event. In this sub theme participants highlighted different racing and training plans. Marathon runners have a particular plan when training for short-distance competition as opposed to events like the Comrades Marathon. According to the Runner's Guide (2013) using speed work as a training technique is necessary for short-distance events or if you want to finish in a good time. It was stated by a participant that his training is not always the same. He said he puts in a lot of planning before starting with training and it all depends on the type of racing event he is training for. When he trains for long-distance events he uses hills-work type of training and for short distance events he uses speed work type of training. Mentally he creates or plans for the type of training that he wants and this also speaks to his abilities of mental skills. The type of training that he does is closely associated with the kind of race that he is training for and this does not only prepare him physically but psychologically as well; psychologically in that he exposes himself to an environment that is similar to that of the racing event and that creates the necessary mental preparedness. The participant said;

My preparation or training is different it depends on whether I am training for short or long distance, for short distance I use speed-work and for a distance longer than 10 kilometres I use hills work." (Participant 1, p. 1)

Another common training plan which helps with mental skills that emerged was training with a partner. There is great literature that suggests the advantages and disadvantages of training with a partner. In this report however we will focus on training with a partner as a positive psychological skill. Runners who train with experienced partners report significant improvement in performance (Orlick & Partington, 1988). According to data supplied by participants this technique of training with a partner does not only translates to a great performance but it builds confidence to non-elite runners and takes away the anxiety of

competing against well-known athletes. It was reported from the interviews, that one of the advantages of having a partner to train with is the consistency towards training sessions. The participant reported that if you have a training partner it is difficult to skip training, because there is already someone waiting for you somewhere to start training.

Another participant who belongs to a running club highlighted that they mostly train as a group. He reports that most of the runners in his club are elite and at the beginning he was bit scared to train with them fearing being outpaced. Since he started training with them he noticed that he is now more confident than before and believes in himself. He further reported that training with the elite running partners has also helped him to improve significantly in races. He has improved because during the race he ensures that he sticks with the group of top known and feared runners. Another participant reported that training with someone of high calibre helps when tracking your performance. Having a partner/s to train with is a great training plan that has positive psychological benefits. It appears that having an opportunity to train with elite runners creates a confident, positive attitude, less anxiety about performance and the belief that you can compete with anyone. We can conclude that training with a partner does have a positive aspect in the running game, and the necessary psychological skills associated with it.

Competing with much more experienced athletes on the race day can be intimidating, so training with someone of that calibre builds confidence.

(Participant 4, p. 4-5)

Training with people who are experienced than me also helps to major myself against them and it builds confident within me. (Participant 3, p. 2)

More often than not we hear motivational speakers, teachers, life coaches, etc., saying as an individual you should have clear goals about your future or life. This also applies to athletes; they need to have goals for competing. The goal setting has been described as the reliable performance change technique in athletes (Behncke, 2004). He suggests that having specific goals and non-specific goals does not really matter; the results are usually the same. For example, having a specific goal like wanting to run and finish the race in a certain time versus someone who just wants to run and do his or her best. In this report we will discuss three different level of goal setting. According to Jones, (2005), the most common levels of goal setting are: process goals, performance goals and outcome goals.

Process goals are best for athletes who are concerned with skills development. Here the great concern is on the task itself rather than winning. For instance, at this stage the golfer will be eager to master how to handle and swing the golf club than worry about defeating opponents. These are easy to master and they improve concentration and self-efficacy. Performance goals refers to improving performance in general, for example running faster if that is what it takes to improve. Lastly, on the outcome goals great emphasis is placed on winning, achieving something at the end like medals, fame, money, etc. Outcome goals can be useful in helping experienced athletes maintain focus and effort once they have mastered skills and they are able to perform these skills with ease.

In this study it appeared that most of the participants were using performance goals, where they are concern about improving on performance. Almost all the participants mentioned the desire to improve their performance using any of the skills that were discussed in this section. Even though improving on performance is the key thing, to others it goes further than that. This is where runners want to gain something from their improved performance. Amongst my participants, there were some who have won outstanding prizes. Those runners are slightly different from the rest in that they want to improve performance and win something. Now this is not saying that other runners are not concerned about winning; however, their immediate goal is to improve and became better runners.

If you have a goal as a runner it means there is something that you are working towards. The participants gave me an idea about the importance of this theme since it also speaks to the motivation of runners. If athletes have no goals for performing surely they will be less motivated since there is nothing they want to achieve from performing. Before training and competing ensues you need to have a clear goal/s as to what it is that you want to gain from participating in competitive running. The point is having no goals can have some detrimental effect on developing mental skills. One interesting response came from another participant who stated that in her annual race calendar she knows which races she will win. She stated that she normally takes races that are less than 20 kilometres and especially those staged for female runners. She explained that she is not employed and winning is everything to her.

"When I started to compete my goal was to finish the race on due time, with more experience now my goals on the race is to win, especially those short-distance competitions." (Participant 3, pp. 2-3).

Goal setting also includes long term goals. Most runners usually keep an annual fixture list of races they want to do. According to the Runner's Guide (2013), it is advisable to have a timetable or a fixture list. Having a fixture list helps to thoroughly prepare for the race ahead and to have clear specific goals for each race. Some other runners have different goals for each race throughout the year. Two of the participants reported that they do have a fixture list of races throughout the year. They said it helps them to prepare mentally for the races they want to do for that year.

4.4.4 Self-talk

Almost every form of literature on mental skills has mentioned something on self-talk as one of the prominent features of mental skills. The emerging of self-talk as a theme in this study was also evidenced. Self-talk can simply be described as what an individual says to themselves in order to stay focused while performing a task. In another study the use of negative and positive self-statements was compared. The findings revealed that athletes using positive self-statements had increased self-awareness, cognitive control, and ability to bounce back from failure (Rogerson & Hrycaiko, 2002). In Rogerson and Hrycaiko's study the findings resonate with some of this study's findings as there are participants who reported similar experiences, especially cognitive control.

It was stated by a participant that she sometimes talks to herself by saying encouraging things that will keep her going. She reported that it started whenever she was doing anything challenging besides running. She stated that talking to herself had been a very useful mental tool. Another participant reported to be using self-reassuring statements whenever things got tough during the race. Both of these above-mentioned participants reported that they were never taught these skills – it was something that they both developed over the years.

Competitive marathon running is an individual sport where you are not playing as a team. So the use of positive self-statements can be very useful. It was stated by a participant that during a race, he concentrates on running and he avoids talking to other runners or engaging in other external distractions. It is situations like these that allows the use of positive self-statements. It is obvious that not every athlete uses this technique but those who do report positive outcomes. It was reported by the participant that when you are talking to yourself during the race you are not easily distracted by some of the things that happen outside the race. For example, sometimes people who are watching the race nearby throw insulting remarks or swear at

runners. According to the participant, the best way to avoid this is to have a conversation with yourself.

Talking to myself during the race keeps me focus and not easily distracted.

(Participant 5, p. 4)

Self-talk also has motivational and task-oriented statements; these are useful in sustaining and increase effort, and remaining focused on your goals before and after the endurance event (Donohue et al., 2001). These motivational statements are acquired through mental skills training or other ways. Some athletes make use of online coaching or sports magazines, for instance some runners read articles from former successful runners. During one of the interviews I had one participant who was fascinated with former Comrades Marathon winner, Bruce Fordyce. He stated that he reads magazine articles and books about this former marathon champion. He reported that some of the running techniques that he uses are from the writings of Bruce Fordyce including motivational self-statements. Self-talk statements give specific reminders on how to perform the desired task in order to achieve task goals (Donohue et al., 2001).

The techniques that I use, I mostly read them from magazine I mean the ones for runners. Ok what I've learned is talking to myself and reassuring myself. It's like having a positive attitude. (Participant 2, p. 1)

4.5 Summary

The chapter presented and discussed the results from the interviews. Although participants did not name the mental skills it was clear that they had been exposed to them. Despite differences in background, gender, race the results from this study yielded that competitive marathon runners within the South African context are using, mental rehearsal, planning and goal setting, and self-talk as mental skills in their athletic events and training. Motivation was seen as important not only in doing mental skills but in the sport in general.

Chapter 5: Recommendations and study conclusion

The following chapter provides the limitations of the study and gives recommendations for future research and interventions. The chapter ends by highlighting the final conclusion of the study.

5.2 Limitations and recommendations

Like any other research endeavour this study has its own limitations and recommendations. Throughout the study the researcher encountered limitations leading to the analysis of the results. Some of the challenges that the researcher came across were dealt with. In this section I will also be discussing the recommendations – how things could have been done differently as a guide for future research studies.

5.2.1 Participants

In the previous section of discussion and results it was highlighted how the themes resonated with the existing literature of mental skills. Even though the themes did not capture all known mental skills. If the study had more participants I believe more themes would have emerged from the dataset or even the discovery of new mental skills. I recommend that future researchers in this field should try to have more participants especially from the South African context where less research about mental skills has been done.

Sometimes as a researcher you set up an interview meeting with a particular potential participant with the idea that they have been informed about what is expected from them especially what is to be discussed. When you meet that potential participant you realise that they have minimal or no input to the phenomenon being researched. That can be costly in terms of time and money spent on travelling. Therefore I recommend that it is better if you first meet with the potential participant and explain to them about the research question and more about the phenomenon being researched before setting up an interview.

5.2.2 Fear of participation

Most of the interviews were done after the 2013 Comrades Marathon. This gave some of the potential participants a worry that the researcher was representing some media house or working for the Comrades Marathon organisers and the researcher was going to ask them for feedback of the event, and then expose them if the feedback was negative. For some participants it took a lot of convincing to gain their trust, while others decided not to participate.

In other instances, the researcher came across runners who felt they had to be paid for their participation. They thought the researcher was representing an organisation that was going to pay him for the 'story' he was doing. As many runners as there are in our societies it can be difficult to track and sit them down for an interview. In such situations the researcher feels it is better to get someone who fully understands who you are and where you are from especially if you are a student. That someone needs to be a person who is well known and trusted by the potential participants.

5.2.3 Language

This study used thematic analysis; this analysis technique endorses the recorded data to be transcribed into written format before thoroughly starting with the analysis. Most of the interviews were done in IsiZulu (language) and they had to be transcribed into English. As a first language IsiZulu speaking person, it was easy to ask questions during the interview; however I struggled a bit in translating and transcribing to English. I can imagine the difficulty for someone who is not a first language IsiZulu speaker using this analysis technique with participants who prefer to speak IsiZulu. A translator was employed and this helped and is encouraged.

5.2.4 Researcher bias

The researcher in this study is a former soccer and cricket player. All the sport codes have their own 'language or jargon', so during the interviews with runners the researcher battled with some of the terms that were used, which he was not familiar with. In more than one instance runners had to explain these terms, which were relatively simple to them. It was not only the terms that were the problem but also familiarity with the rules of the game and other sorts of things. Despite time consuming and longer interviews, this had no negative consequence to the findings of the study. I managed to read more about the sporting code and this helped. The recommendation here is maybe it can be an advantage to learn more about the sport code you are investigating.

5.2.5 Environment

In the methodology section mention was made of the type of environment where the interviews would take place. On that same section it also said that participants hold the right to suggest a time and a venue that they are comfortable with. In one instance the researcher was forced to conduct an interview in an underground parking area because that was the only time and place

that the participant had for the interview. Underground parking is not an ideal area to conduct a recorded interview with cars coming and going. For future researchers I can recommend that it is better if you have an office or venue that you know to be conducive enough for your participants to come to.

5.3 Concluding remarks

This study was done in the interesting field of sport psychology, which is a sub-field of mainstream psychology. Sport psychologists are interested in understanding an athlete's psychological game and how performance can be improved through psychological interventions. This study has also played a role in expanding literature regarding mental skills within sport psychology. The literature section in this study has highlighted the great importance of mental skills in any form of sport performance. Generally, mental skills can be described as practical skills and methods that help athletes compete to the best of their physical, technical and tactical abilities (Orlick, & Partington, 1988). For an athlete to acquire these skills there must be some form of training, which is commonly known as mental skills training (MST); these types of training are usually done by sport psychologists or coaches who possess relevant skills.

Looking into the South African context not so much is known or understood about mental skills. There can be a number of reasons for this occurrence. For instance, some South Africans have a tendency to be stubborn when it comes to accepting sport psychology interventions (Pattison, 2011). Therefore, this is one of the factors amongst many that create a difficulty for sport psychology interventions to be implemented and grow. Another misconception amongst people is that the assistance of a sport psychologist simple means that there is a problem that is psychological in nature. Studies like this one and many other have showed the positive significance of mental skills.

This study comes at a time when other athletes and coaches are slowly beginning to understand the importance of mental skills/training. The aim of this qualitative study was to identify the understanding and the type of mental skills used by competitive marathon runners. To investigate this phenomenon the thematic analysis technique was used. This proved to be a useful tool in answering the research question especially since it fitted well with the research design.

How do competitive road running athletes understand the role of mental skills in their running?
This was the research question that had to be answered. Through the analysis technique used, themes were established.

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Appendix A

**RHODES UNIVERSITY
DEPARTMENT OF PSYCHOLOGY
AGREEMENT BETWEEN STUDENT
RESEARCHER AND RESEARCH
PARTICIPANT**

Exploring the uses of mental skills by competitive road running athletes.

Principal Researcher: Khayelihle. M. Ngobese, K.ngobese@ru.ac.za 073 152 9703

Supervisor: Gary Steele, G.steele@ru.ac.za

This research is the requirement for the completion of my Master's degree in Clinical Psychology. This research project has been approved by the by the relevant ethics committee(s) at the Rhodes University. The purpose of the study is to understand the perception or the experience of mental skills by competitive road running athletes.

As a participant I will be asked to engage in an interview that will take between 15 to 45 minutes to discuss my experiences or perception of mental skills. This interview will be audio-taped and transcribed into written notes. The audio-taped information will be used for research purposes only. The time and place of the interview will take place at my conveniences.

I understand that my identity will remain anonymous and that any data collected within the study will be treated with confidentiality. The only people with access to this information will be the principal researcher and his supervisor. Any written report will not include actual names and identifying details will be omitted to protect identities. All audio-tapes will remain in secured place and will only be used for research purposes. If for any reason at all I do not want to participate in this study, or if I chose to end my involvement at any time, I am assured that there will be no negative consequences.

If I have any questions concerning the study, they will be answered by the principal researcher.

By signing this form, I agree to:

1. Share my personal experiences or perception of mental skills.
2. Participating in approximate 45 minutes of interview.
3. Have interview audio-taped.

Signature of consent to participate in this research project and acknowledgement that I have received a copy of this agreement form.

Participant _____ Date _____

Researcher _____

Appendix B

**USE OF TAPE 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		
<i>(Please initial/tick blocks next to the relevant statements)</i>		
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 tape-recordings to be made of the interviews	audiotape	
	videotape	
3. I agree to take part in and to allow tape-recordings to be made.	audiotape	
	videotape	
4. The tape 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 researcher that the tape recordings will be erased once the study is complete and the report has been written.		
5.2 OR I give permission for the tape 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		Date
Witnessed by researcher		