

# **THE APPLICATION OF SPORT PSYCHOLOGY PRINCIPLES IN THE WORK PLACE**

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## **DECLARATION**

I, the undersigned, hereby declare that the work contained in this thesis is my own original work and that I have not previously in its entirety or part submitted it at any university for a degree.

Signature  
2006

Date: 31 October

# **SUMMARY**

Sport analogies are constantly used in business settings, perhaps due to some of the surface similarities between sport teams that strive to win competitive leagues and business teams striving to be successful in a competitive environment.

The similarities between the sports and business worlds are highlighted by various authors who share “winning strategies” with managers and team leaders. However, the psychology of sports performance may be very different from the psychology of the business world. The main purpose of this investigation was to determine if the principles of sport psychology are indeed applicable to the environment of the workplace.

Due to the emphasis on performance output in the corporate environment, which to a large extent is similar to the challenges encountered by elite sport persons, it is proposed that sport psychology rather than clinical psychology could be utilised as a way to assist employees to cope with the demands of the workplace.

It is believed that by adopting the principles of sport psychology, employees can learn how to use mental skills, not only to enhance their performance in the work place, but also to deal with daily life stressors.

The main focus of the study was to develop a mental skills programme based on sport psychology principles and to determine its effectiveness in the corporate world.

The study involved three major stages namely:

1. Reviewing sport psychology literature in order to identify recurring themes or psychological skills.
2. Developing an intervention programme (study material and work sessions) to integrate the above.
3. Assessing the success of the programme in terms of the extent to which the employees applied the psychological skills in the work place.

The following themes were mentioned most regularly in the reviewed sport psychology literature:

Goal setting

Concentration

Imagery

Relaxation

Motivation

The above-mentioned five mental skills were incorporated into a series of workshops for employees in a corporate setting.

Three post-intervention evaluations were carried out: immediately after the workshops, six months and a year later. The findings suggest that the mental skills used in the world of sport have positive potential for application in the corporate world.

**Key words:** Personnel training, sport psychology, mental skills.

# OPSOMMING

Sportverwante analogieë word konstant in die korporatiewe wêreld gebruik. Dit kan moontlik toegeskryf word aan die ooreenkomste tussen sportspanne wat streef na sukses in mededingende sportligas, en besigheidspanne wat streef na uitmuntendheid in die mededingende korporatiewe omgewing.

Die ooreenkomste in die sport- en besigheidswêreld word beklemtoon deur verskeie outeurs wat skryf oor “wen-strategieë” vir besigheidsbestuurders en spanleiers. Die sielkunde van sportprestasie mag egter heeltemal verskil van die sielkunde in die korporatiewe omgewing. Die hoofdoel van hierdie studie was om vas te stel of die beginsels van sportsielkunde inderdaad toepaslik is in die korporatiewe werksplek.

As gevolg van die ooreenkomste in die beklemtoning van prestasie in die korporatiewe wêreld sowel die sportwêreld word daar voorgestel dat sportsielkunde, eerder as kliniese sielkunde, benut moet word met die ondersteuning van die werknemers en hantering van die eise van die werksomgewing.

Daar word aanvaar dat die benutting van selektiewe beginsels uit sportsielkunde, werknemers kan bemagtig om sekere sielkundige vaardighede te gebruik om nie net hul funksionering in die werksomgewing te bevorder nie, maar ook hoe om die stressors van hul alledaagse lewe te hanteer.

Die hooffokus van hierdie studie was om ‘n sielkundige vaardigheidsprogram, gebaseer op sportsielkunde beginsels, te ontwerp asook die effektiwiteit daarvan in die werksomgewing te ondersoek.

Die studie het drie hoofases behels, naamlik:

1. 'n Omvattende oorsig van sportsielkundeliteratuur ten einde prominente temas te identifiseer.
2. Die ontwikkeling van 'n intervensieprogram (studiemateriaal en werksessies) om bogenoemde te integreer.
3. Assessering van die sukses van die program in terme van die toepassing van die vaardighede deur die werknemers.

Die volgende temas het die meeste voorgekom in die oorsig van sportsielkundeliteratuur:

Doelwitstelling  
Konsentrasie  
Beelding  
Ontspanning  
Motivering

Die bogenoemde vyf sielkundige vaardighede is ingesluit in 'n reeks werksessies vir werknemers in 'n korporatiewe omgewing.

Drie na-intervensie evalueringe is gedoen: onmiddellik na afloop van die werksessies, ses maande en een jaar later. Die bevindinge dui daarop dat die sielkundige vaardighede wat in die sportwêreld gebruik word, oor die potensiaal beskik om suksesvol in die korporatiewe wêreld toegepas te kan word.

**Sleutelwoorde:** Personeelopleiding, sportsielkunde, sielkundige vaardighede.

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The same mental skills that a champion athlete uses are similar to the skills that a mother of two requires to cope with getting the children to school on time, the award-winning chef preparing his menu for the evening or a sales person pitching for a significant piece of business. The critical processes are essentially the same.

Renzie Hanham & Ceri Evans (cited in Grout, J. & Perrin, S. (2004). *Mind games*. Chichester: Capstone, p. x)

# **CHAPTER ONE**

## **STATEMENT OF THE PROBLEM**

### **INTRODUCTION**

Sport analogies are constantly used in business settings. A possible reason for this is perhaps due to the apparent similarities between sport teams that strive to win competitive leagues, and business teams striving to be successful in a competitive environment (Murphy, 2005).

The similarities between the sports and business worlds are advocated by various books by sport coaches designed to share “winning strategies” with managers and team leaders (Murphy, 1997).

Due to the emphasis on performance output in the corporate environment, which to a large extent is similar to the challenges encountered by elite athletes, it is proposed that sport psychology rather than clinical psychology could be utilised to assist employees with the actualities they encounter in the workplace.

Transformation and change seem to take place at an increasing rate in the workplace. This often leaves employees insecure about their future, their work performance and the effect it will have on their personal and family lives. This could lead to increased pressure to perform at a high level in order to maintain their position in their companies. This pressure may give rise to other problems in the work place regarding aspects such as commitment to the organisation, relationships with peers, managers, etc.

## **RATIONALE**

By adopting the principles of sport psychology, employees can learn how to use mental skills, not only to enhance their performance in the work place, but also deal with their daily life stressors (Murphy, 2005).

It is believed that sport psychology principles can help employees to change more easily and more comfortably from personal to professional priorities and vice versa.

By implementing sport psychology principles in the workplace, it is believed that employees can maximise their mental and emotional forces much better. This can be attained by offering workshops to help employees to perform to their best ability no matter how difficult their challenges were.

By implementing this process will assist employees' path a mental way, by providing them with tools necessary to achieve peak performance on a more consistent basis.

By applying these principles, employees can...

- use it as a tool to help them function optimally.
- be assisted in focusing on commitment to overcome obstacles to excellence.
- enhance their confidence levels to perform to their best abilities regardless of how difficult the challenges confronting them.
- be enabled to analyse and re-channel their mental resources in a positive way to reach their full potential.



## **THE PROBLEM**

The main focus of the study was to develop a mental skills programme based on sport psychology principles and determine its effectiveness in the corporate world.

## **METHODOLOGY**

The study involved three major stages namely:

1. Reviewing sport psychology literature in order to identify recurring themes or psychological skills.
2. Developing an intervention programme (study material and work sessions) to integrate the above.
3. Assessing the success of the program in terms of the extent to which the employees applied the psychological skills in the work place.

## **DELIMITATION**

The study was confined to employees of three ESKOM power stations in the Western Cape.

## **CHAPTER TWO**

# **MENTAL SKILLS TRAINING IN SPORT**

### **THE NATURE OF MENTAL SKILLS TRAINING**

Mental skills training refer to procedures that enhance an athlete's ability to use his or her mind effectively in the execution of sport-related goals. It involves developing those psychological factors that are found to enhance athletic performance. It can also be used to help develop important personal characteristics in athletes such as self-esteem and moral values (Gould & Damarjian, 1999).

### **THE IMPORTANCE OF MENTAL SKILLS**

How important are mental skills in determining athletic performance? Are there distinctions between more and less successful athletes with regard to psychological skills and attributes? What are the psychological characteristics of peak performance? These are just some of the questions sport psychologists have studied in their quest to better understand the role that mental factors play in athletic performance.

In a review of the psychology of superior performance literature, Williams and Krane (1993) concluded that certain mental skills and psychological attributes have been repeatedly found to be associated with superior performance in athletes. These include:

- Goal setting
- Strong self-confidence
- Effective concentration
- Use of visualisation and imagery
- Regulation of arousal

- Well-developed coping skills for dealing with unforeseen events and distractions
- Mental preparation plans
- Well-developed competitive routines and plans as well as high levels of motivation and commitment

They also indicated that while the research from which these conclusions are derived is not without some limitations (e.g., the inability to show causation in most cases). Its consistency and intuitive appeal have led many researchers and practitioners to conclude that some optimal emotional climate (combination of mental states) is associated with superior performance and that effective performers have developed mental skills, which help them, attain these states.

The achievement of these optimal states and emotional patterns was also found to be associated with the systematic use of mental preparation strategies that included preparation routines, tactical strategy focus, and some motivational strategies (Gould, 1993).

## **THE NEED FOR MENTAL SKILLS TRAINING**

The initial evaluation of research shows that mental skills training can enhance an athletes' performance. However, more better designed and controlled investigations are needed. Mental skills training programmes have not been found to always be effective. Those involved in the development and use of such programmes must constantly evaluate their utility. Automatically assuming they will be effective is a grave mistake. On the other hand it is also a mistake of being afraid to utilize mental skills training because a complete database is not yet developed.

A common mistake made in mental skills training is to focus sole attention on peak performance strategies. This is problematic because athletes must also learn to deal with adversity. Therefore, to achieve and maintain athletic excellence, athletes not only need psychological skills for peak performance, but also coping strategies which can be used to effectively help them deal with adversity (Gould & Damarjian, 1999).

## **DURATION OF A MENTAL SKILLS TRAINING PROGRAMME**

Mental skills are similar to physical skills. To develop and maintain them requires commitment (Martens, 1987). Ideally, mental skills training should become an integral part of daily practice. This does not suggest that mental skills take precedence over physical skills. Both are important components of performance success. However, it is not always necessary to isolate mental and physical skill training (Gould & Damajian, 1999).

## **MOST PROMINENT MENTAL SKILLS**

The following 5 mental skills were most prominent in the reviewed literature:

- Goal setting
- Imagery
- Concentration
- Motivation
- Relaxation

(The above-mentioned mental skills will be discussed in more detail in the chapters to follow)

## **STEPS TO CONSIDER WHEN DESIGNING A MENTAL SKILLS TRAINING PROGRAMME**

First, it has to be decided what objective one hopes to accomplish. Consideration should be given to when the programme will be implemented and how much time athletes and coaches are willing to devote to mental skills training (Weinberg & Williams, 1993).

After determining several realistic objectives, the sport psychologist must then determine how best to achieve these objectives.

After deciding which strategies to use, it is important to determine a mental skills training schedule. Questions to consider include how many meetings will be necessary to introduce the selected topics, how long these meetings should last, and where they should take place.

Generally, it is better to hold more frequent meetings of shorter duration than a few protracted meeting at the beginning of the season. It is also better not to hold these meetings when athletes are tired and hungry after a long day of practice. Athletes will begin to resent mental training as an “additional” nuisance after practice (Gould & Damarjian, 1999).

Training schedules should include both an educational and a practical phase (Martens, 1987). They must convince athletes about the importance of mental skills for performance success. Once athletes appreciate the value of mental skills training, it should be incorporated into daily practice sessions. Mental skills require the same effort and commitment that physical skills require.

The final step in any successful mental training programme involves evaluating whether or not the programme is meeting the established objectives (Weinberg & Williams, 1993). If the programme is meeting the objectives, one can continue with confidence that what one is

doing is effective. However, if the programme is not meeting its objectives, one needs to examine the situation to determine what obstacles prevent the programme from reaching its goals and how these obstacles can be overcome. One of the most common problems encountered is a lack of time.

## **CONCLUSION**

Practising and mastering the above-mentioned five sport psychology skills could provide the potential for employees to become more balanced and productive in the work place. This could also assist them to adjust to the daily demands of the work environment and enhance employee well-being. It could also help employees to be able to understand, manage and maximise their mental and emotional abilities optimally.

## **CHAPTER THREE**

# **GOAL SETTING**

### **INTRODUCTION**

Extensive psychological research has been conducted on the topic of goal setting. Typically, this research involves a comparison of the performance of subjects that set goals or certain types of goals (e.g., specific-explicit goals) with the performance of subjects who are simply told to do their best or are given no goals. Studies sometimes manipulate other factors such as subject characteristics (e.g., race, educational level, personality) or situational variables (e.g., the presence or absence of feedback) (Harris & Harris, 1994).

Psychological research on goal setting is impressive in that it has been conducted in a variety of laboratory and field settings and used in a wide variety of tasks ranging from truck loading to brainstorming sessions. It has also employed diverse samples ranging from children, uneducated labourers to managers and scientists. In addition, a clear pattern of results has emerged with ready applications for sport psychology specialists (Andersen, 2000).

The results generated from this line of research are that goal setting clearly and consistently facilitates performance. In their review of well over one hundred studies on goal setting, for example, Locke, Shaw, Saari and Latham (1981) concluded that the beneficial effect of goal setting on task performance is one of the most robust and replicable findings in the psychological literature. Ninety percent of the studies showed positive or partially positive effects. Furthermore, these effects are found just as reliable in the field setting, as in the laboratory. Thus, a review of the psychological research clearly shows that goal setting is a powerful technique for enhancing performance.

In summary, the results of the psychological and sport psychological research literature provide strong support for using goal setting procedures to facilitate athletic performance. Moreover, these findings are further strengthened by the fact that they have been demonstrated in the studies using varied tasks and largely different subject populations in both laboratory and field settings.

## **DEFINING GOALS**

Although any number of definitions could be offered for the term “goal”, Locke et al. (1981) has generated the most widely accepted definition. For these investigators, a goal is defined as attaining a specific standard of proficiency on a task, usually within a specified time limit. From a practical perspective, then, goals focus on achieving some standard, whether it is increasing one’s batting average by five percentage points, lowering one’s time in the 800 metres or losing five kilograms in body weight. This definition also implies that such performance standards will be achieved within a specified unit of time (Gould & Damarjian, 1999).

Even though the definition by Locke and his associates (1981) provides good general description of a goal, sport psychologists have at times found it useful to make specific distinctions between types of goals.

## **TYPES OF GOALS**

Recent research, for instance, differentiates between subjective goals (e.g., having fun, getting fit or trying one’s best), general objective goals (e.g., winning a championship or making a team) and specific objective goals (e.g., increasing the number of goals to be scored in a basketball game). Similarly, Martens (1987) and Burton (1992) have



made distinctions between outcome goals which represent standards of performance that focus on the results of a contest between opponents or teams (e.g., beating someone), and performance goals, which focus on the improvements relative to one's own past performance (e.g., improving your knowledge on the requirements of working away from home). These distinctions are important because evidence suggests that specific objective goals, as well as performance goals, are most useful when attempting to change behaviour.

A distinction can be made between subjective and objective goals.

### **Subjective goals**

This type of goal refers to a general state of intent, e.g., 'I want to do well', 'I want to have fun'.

### **Objective goals**

This type of goal focuses on attaining a specific standard of proficiency on a task, usually within a specific time (Locke et al., 1981). To complete my financial project in three months' time is an example of an objective goal. Objective goals can further be categorised in outcome, performance and process goals (Gould, 1996; Martens, 1987).

### **Outcome goals**

Outcome goals typically focus on a competitive result, such as to win an event, to qualify for a medal or to score more points than the opponent. Thus achieving these goals does not only depend on your own efforts, but also on the performance of the opponent. A middle-distance athlete can for example reach his personal best time, but fail to reach his outcome goal, e.g., to win the race.

### **Performance goals**

Performance goals focus on achieving standards or performance objectives independently of the opponent. Athletes have to set a standard of achievement, usually making comparisons with their own previous performance, use performance goals. The focus is more on the quality of performance and not primarily about winning or losing as in the case of outcome goals.

A rugby fly half can, for example, set his performance goals to increase his successful kicks at goal during a game from 70% to 80%. An 800m-athlete can set his performance goal for the next meeting between a time 2:23,5 and 2.24.0 after his time for a previous meeting was 2.24.7.

Success can then be determined in terms of internal standards and will help the employee to compare current performances with previous performances. By constantly revising performance goals, and having successfully achieved it once, it will promote continuous improvement in an athlete/employee's performance (Anshel, 1994; Gould, 1993; Weinberg, 1994; Weinberg & Gould, 1999).

### **Process goals**

An example of a process goal for a squash player would be to 'keep my eyes on the ball', a long-distance runner to 'keep even' or 'to relax my shoulders' during the race.

Process goals help to focus the attention on task-related aspects during training. Recent research has shown that process goals are particularly effective in enhancing self-efficacy, confidence and reducing anxiety (Alderman, 1974).

In practice, performance goals can be part of long-term outcome goals, for example, to win a prestigious competition at the end of the season. Performance goals can also be used as short-term goals (day-to-day

goals), which will help to reach outcome goals. Placing too much focus on short-term outcome goals (just before a competition) could lead to an increase in anxiety, which in turn will influence performance (Anshel, 1994).

## **THE VALUE OF GOAL SETTING**

Setting appropriate and applicable goals will lead to the following benefits:

### **Goals provide motivation**

A typical example of a goal which provides motivation is that which most football teams have at the beginning of the season, namely to win the league. According to Locke and Latham's (1990) basic theory of goal setting, goals that are both difficult and specific lead to an increase in motivation and performance.

### **Goals give direction**

Just as a 'things-to-do-list' helps one to focus on a task and use time more productively, so do sporting goals help the athlete to eliminate potential distractions and to focus on what is important. A common example is the talented young athlete who must choose between sports in which, he/she is equally proficient, (e.g., netball and volleyball). On reflection, the athlete may determine that his/her goal is to represent his/her country at the Olympic Games and therefore, the athlete chooses to focus on volleyball, because it is an Olympic sport.

### **Goals produce better results**

Research has consistently shown that performance can be enhanced through the effective use of goal setting (Locke & Latham, 1990). Goals can increase athletes' feelings of control, raise self-esteem and help them to focus on key elements of the task (Morris & Summers, 1995).

### **Goals focus on the task at hand**

A goal for a tennis player to improve on his/her serve will help him/her to focus and to follow through with an action plan instead of just improving his/her game.

### **Goals prepare the athlete as to what is expected from him/her**

A goal setting plan generates energy for a task. It mobilises an athlete to strive for success and to train or work harder.

### **Goals increase perseverance**

Having something to work for strengthens resolve, determination and perseverance.

### **Goals enhance the ability to adopt new techniques and strategies**

Because of the motivational value of goal setting athletes and workers are encouraged to use the most effective means of achieving their aims. This often leads to adopting better techniques and strategies.

### **Goals lead to satisfaction when achieved**

Achieving a goal generally leads to feelings of competence and satisfaction.

## **GOAL-SETTING GUIDELINES**

Research clearly shows that goal setting facilitates performance, however it is misleading to think, that all types of goals are equally effective in enhancing performance. Research conducted indicates that this is not always the case. Their work has produced specific guidelines concerning the most effective types of goals to use.

Despite the failure of researchers to unequivocally demonstrate the efficacy of goal setting strategy in sport, there are a number of

principles that have received strong support from the industrial, organisational, academic and sport settings.

### **Set goals that one can identify with**

Think about what you want to achieve in your sporting career and then decide on goals, which are important to you. These goals should motivate you to strive for outstanding performances (Harris & Harris, 1984; Weinberg & Gould, 1999).

### **Set specific, measurable goals**

A measurable goal is a goal that can be quantified. Goals such as “I will try my best” are too vague and cannot be measured. It is difficult for an athlete to recognise whether or not progress towards a goal has been accomplished unless the goal is relatively specific. In addition, specific goals generally result in greater improvement than general goals. Setting a goal to get 90 percent of your volleyball serves inside the court is a better goal than simply to become a more accurate server.

An athlete’s goal to improve his speed in the 100m from 12,0 seconds to 11,0 seconds in 4 weeks is an example of a specific, measurable goal. However it is not always possible to set measurable goals (Cox, 1985; Weinberg & Gould, 1999).

### **Set moderately difficult, realistic goals**

Effective goals are difficult enough to challenge an athlete, yet realistic enough to achieve. Locke and Latham (1990) came to the conclusion that moderately difficult goals lead to better performances, compared to having none, easy or vague goals such as “do your best”. They suggested that there is a linear relationship between the difficulty of goals and achievement.

That is, the more difficult the goal, the better the performance. It must be remembered that goals should not exceed the employee or athlete's ability. Unrealistic goals that exceed the ability of an individual only lead to frustration and failure. Thus, it is recommended that goals be set so that they are difficult enough to challenge employees or athletes, but realistic enough to achieve. Goals that are too difficult to achieve lead to frustration reduced confidence and eventually poor performance.

However, if there is any uncertainty, it is best to go with easy goals, rather than difficult ones. The reason is that it is easier to shift to difficult goals if you have achieved previous goals than to drop your standards. Reaching easy goals helps to build confidence (Anshel, 1994; Cox, 1985).

### **Formulate goals positively**

Goals can be stated in either positive (e.g., increase the percentage of good first serves in tennis) or negative terms (e.g., decrease the percentage of bad serves in tennis). Although it is sometimes necessary for athletes to set goals in negative terms, it has been suggested, whenever possible, goals should be stated positively. That is, identify behaviour to be exhibited as opposed to behaviour that should be avoided. Instead of having goalkeepers in soccer strive to decrease the number of unblocked shots, have them set goals of increasing the number of saves they can make. This positive goal setting procedure helps athletes focus on success instead of failure.

### **Set time frames to complete goals**

Set target dates to achieve short-term goals in order to help reach long-term goals. Target dates serve as a feedback mechanism, to evaluate one and see whether any progress has been made. This will motivate one to be determined to achieve one's goals and serves as a

reminder of the urgency of accomplishing objectives in realistic lengths of time (Cox, 1988; Gould, 1993; Harris & Harris, 1984).

Target dates for achieving goals should be flexible, so that one can adapt it according to circumstances, such as an injury, weather or academic priorities (Gould, 1993; Harris & Harris, 1984; Weinberg & Gould, 1999).

### **Set long-term and short-term goals**

Most athletes identify long-term objectives such as winning a particular championship, breaking a record, or making a particular team, when asked to describe their goals. However, a number of sport psychologists (Gould, 1993; Harris & Harris, 1984) have emphasized the need to set short-term goals, because they allow employees and athletes to see immediate improvements in performance and in so doing enhance motivation. Without short-term goals, employees often lose sight of their long-term goals and the progression of skills needed to obtain them.

### **Prioritise goals**

It could be a problem when an individual sets too many goals. It is impossible to reach all your goals simultaneously. Place your goals in a hierarchy of importance and start with the one or two most important short-term goals, which can be evaluated regularly (Harris & Harris, 1984).

### **Record goals**

The old saying “out of sight, out of mind” has its use for goal setting procedures. Several sport psychologists (Harris & Harris, 1984) have recommended that once goals are set, they should be recorded and placed where they can easily be seen. Unfortunately, few individuals write goals down in any systematic fashion (Weinberg & Williams, 1993). For example, writing down goals on a card and posting the card

on the bedroom mirror is more effective and time efficient than an in-depth, behavioural contract that is signed and placed in drawer never to be looked at again (Harris, 1984; Weinberg & Gould, 1999).

### **Provide feedback and evaluation of goals**

After goals have been set, one needs to keep track with the progression of achieving them. Feedback about performance progress is absolutely essential if goals are going to effectively change performance and behaviour.

Yet too often coaches/managers/supervisors fail to provide evaluation and feedback about strategies that should be initiated at the start of the goal setting program and continuous implementation. Based on their review of research, Locke and his associates (1981) concluded that evaluative feedback is absolutely necessary if goals are to enhance performance. Therefore, athletes must receive feedback about how present performance is related to both short- and long-term goals.

## **MECHANICS OF GOAL ACHIEVEMENT**

An important characteristic of effective goal setting is to outline a specific strategy or plan for achieving the goal. Many goals are not reached simply because no systematic plan for achieving them has been outlined. For example, exactly how does one achieve the goal of becoming an 85 percent free-throw shooter? If left to chance, it will most likely never happen. The coach and athlete may have to stay after practice every day and shoot an extra 100 baskets. Other strategies such as increasing wrist and arm strength may also be considered.

Finally, a good goal setting programme requires constant monitoring and evaluation by player and coach. A day should not go by without the athlete considering goals and evaluating progress. It may be that a



particular goal cannot be achieved. In this case, the athlete should redefine the goal in a more realistic manner (Weinberg & McDermott, 2002).

However, in most cases the regular evaluation of progress will help athletes see improvements that will provide them with additional motivation to achieve their goals.

## **CONCLUSION**

Research and practical experience have demonstrated that goal setting is a powerful technique for influencing the behaviour of athletes at training, in competition and in their daily lives. Goal setting is generally most effective when goals are selected in a way, which ensures that they are specific, measurable, meaningful and challenging for the athlete. Also of importance is the critical role of the coach in providing feedback on goals and building the athlete's goals into the total training and competition plan (Morris & Summers, 1995).

Psychologists (especially industrial psychologists) have studied goal setting as a motivational technique, focusing on whether setting specific, difficult goals improve performance more than setting no goals or setting a more general goal of simply doing your best. These reviewers have concluded that goal setting works well (Locke et al., 1981; Locke & Latham, 1990).

Goals are effective because they influence psychological states such as self-confidence, direct attention to important aspects of the task, mobilize effort, increase persistence and foster the development of new learning strategies. Like other psychological skills, goal setting is not a magic formula, but combined with hard work and discipline it can help coaches, sport psychologists, employees and athletes reap the fruits of personal growth and peak performance.

## **CHAPTER FOUR**

# **IMAGERY**

### **INTRODUCTION**

Imagery is a powerful mental skill and one that can be used very effectively in sport, especially with practice and persistence, as well as enhancing sporting performances (Morris & Summers, 1995). Imagery comprises of various mental pictures that can exert a strong influence on thoughts, feelings and behaviours.

Imagery can be defined as a skill that utilizes all the senses to create or recreate an experience in the mind. The image is gradually enhanced with the development of certain qualities. One cannot mentally rehearse a performance until one is able to conjure up an image of what it is one aims to accomplish (Gould & Damarjian, 1999).

### **NATURE OF MENTAL IMAGERY**

Great visionaries, such as Mandela and Yeltsi have transformed their countries by following a vision or image of change. Imagery is an effective step in converting thoughts into reality. It is during the imagery phase that mental pictures are formed and some rational sequences of events are ordered within the brain. To do anything, one needs to first imagine doing it successfully.

The popularity of imagery probably has a number of origins. It is certainly intuitively appealing as many individuals daydream and mentally prepare for future action. For example, giving someone bad news, driving the best route to a particular location or playing a tune on the piano. It is readily accepted that greater success is likely if one

rehearses an activity mentally before having to perform it (Morris & Summers, 1995).

Research has shown that imagery is the language of the brain. In a real sense, the brain cannot tell the difference between an actual physical event and the vivid visualization of the same event. For this reason, the brain provides repetitions, intensification and preservation of important skills that can be used during imagery.

### **MENTAL PRACTICE AS A FORM OF IMAGERY**

Defining mental imagery remains a contentious issue in sport psychology. Mental imagery is the process of producing a mental picture of something not actually present. It allows one to rehearse or review performances in one's imagination. Research defines mental practice as the repetition of a task, without observable movement, with the specific intent of learning. An immediate problem with this definition is its all-encompassing nature. It excludes anything, which involves actual movement, but still leaves a wide range of mental processes. This includes verbal repetition of a movement sequence, thinking one's way through a movement, mental problem solving and singing a song in one's head.

Referring to previous definitions of mental practice, Suinn (1980) notes that this broad definition considers the term as a generic one, covering a diverse set of activities.

In contrast, Suinn (1980) considers imagery rehearsal to be a covert activity where a person experiences sensory-motor sensations that reintegrate reality experiences, and which include neuromuscular, physiological, and emotional involvement. Suinn proposes that the rich multimodal (involving all the sense-modalities) imagery rehearsal

process can closely replicate the original experience, even arousing similar emotions to those associated with victory and defeat, success and failure (Morris & Summers, 1995).

Research considers the term mental imagery to apply to all those quasi-sensory and quasi-perceptual experiences of which we are self-consciously aware and which exist for us in the absence of those stimulus conditions that are known to produce genuine sensory or perceptual counter parts.

Murphy and Jowdy (1992) argue that the element of conscious awareness in a definition does not distinguish mental imagery from dreaming and daydreaming, but daydreams are typically experienced in a fully conscious state. A more pertinent imagery distinction might be that imagery is under voluntary control, that is, the imager tends to generate the experience. It is this conscious control that appears to allow the individual to rehearse the needed movement skills.

Reviews generally conclude that mental practice, as a cognitive strategy is more effective than no practice but less effective than physical practice. Mental practice used in a complimentary fashion with physical practice usually yields the best results.

Recent research reveals that mental practice is effective in enhancing figure skating performance and trampoline performance. More recently, research demonstrated that experienced trampolinists benefit more from imagery than those who had workouts on the beam.

Mental practice is more effective with tasks having a large cognitive component (e.g. activities that requires some thought), and that the ratio of physical practice to mental practice is important.

For example, a ratio of 75 percent physical practice and 25 percent mental practice is more effective in facilitating pegboard- performance as compared to the ratio of 25 percent physical practice and 75 percent mental practice (Ryan & Simons, 1981).

A study by Kohl and Roenker (1983) demonstrates that learning (retention) as well as performance is influenced by mental practice. In this investigation, mental practice was shown to be as effective as physical practice in learning a novel pursuit-rotar task. A combination of mental practice and actual practice results in a greater level of learning and retention.

Research has shown that skilled archers use imagery to a greater extent than lesser skilled archers. The higher the competitive level, the more athletes report using imagery in practice, in competition, and before an event.

Field-based research has yielded a number of findings that are supportive of the use of imagery to enhance athletic performance. The effectiveness of imagery training is enhanced through relaxation training.

Cognitive intervention programmes that utilize imagery invariably preface the imagery training with relaxation training. Mental imagery combined with arousal adjustment (relaxation training) is an effective way to improve free-throw shooting performance in basketball. Mental imagery and relaxation by themselves, however, were less effective in terms of performance enhancement.

## **QUALITY OF IMAGERY**

The first quality of imagery is the vividness of image. A quality image is clear, colourful, detailed and makes use of all the appropriate senses: sight, sound, smell, taste, touch and especially the kinaesthetic feel of one's body. Vivid images can be drawn from previous experiences. Vividness also includes the emotions or feelings associated with performance. Images can be either positive, highlighting the fun, enjoyment and the upliftment of successful performance or negative, focusing on the unsuccessful aspects. Negative pictures tend to capture the mind because the accompanying emotions are usually very strong.

The second quality of imagery is the controllability of the image. Control over one's images means that one can change from negative to positive images or from a failing performance to a successful performance. Control allows one to perform one's images either as a series of snapshots, depicting desired results or as a continuous movie (Gould & Damarjian, 1999).

## **MEASURING AND EXPLAINING IMAGERY**

Research involving imagery is difficult. The primary difficulty involves the inability of the experimenter to control the kinds of images that a subject experiences. One way to gain some control is to utilize an objective imagery questionnaire. Research has shown that it is best to utilize two different imagery questionnaires to categorise athletes as being high or low imagers. A number of questionnaires have been developed to measure imaging ability. These include *Vividness of Visual Imagery Questionnaire*, *Movement Imagery Questionnaire*, and *Vividness of the Imagery Use Questionnaire*.

### **Psycho-neuromuscular theory**

This theory defines that imagery results in subliminal neuromuscular patterns that are identical to the patterns used during actual movement. Even though the imagined event does not result in an overt movement of musculature, subliminal afferent commands are sent from the brain to the muscles. In a sense the neuromuscular system is given the opportunity to 'practice' a movement pattern.

A previous study confirms that increased electrical activity in the muscles is associated with imagery, regardless of the type of imagery used (kinaesthetic or visual). Imagery assists the brain in developing a motor schema for executing a particular motor pattern. The psycho-neuromuscular theory is the most plausible explanation for why imagery facilitates physical performance and learning.

### **Symbolic-learning theory**

This theory differs from psycho-neuromuscular theory in that subliminal electrical activity in the musculature is not required. Imagery works because the individual literally plans their actions in advance. Motor sequences, task goals and alternative solutions are considered cognitively before a physical response is required.

### **Attention and arousal set theory**

This theory combines the cognitive aspects of symbolic learning theory with the physiological aspects of psycho neuromuscular theory. Imagery serves to improve performance in two ways. From a physiological perspective, imagery may help the athlete to adjust their arousal level for optimal performance. From a cognitive perspective imagery may help the athlete to selectively attend to the task at hand. If the athlete is attending to a task-relevant image, they are less likely to be distracted by irrelevant stimuli.

## **IMAGERY ORIENTATION**

Another parameter of imagery, which has received increased attention, is that of its 'orientation'. A distinction has been made between what has been termed 'internal' imagery and 'external' imagery.

External imagery can be defined as accruing when a person views themselves from the perspective of an external observer. External imagery is viewing your performance as if you were watching yourself on videotape. It is an out of the body experience.

Internal imagery requires an approximation of the real life experience such that the person actually feels those sensations, which might occur while participating in the real situation. In addition, internal imagery involves seeing or feeling something from a performer's own perspective. It is when one experiences the picture from one's own eyes. The content of the image is limited to what one senses when performing. It is as if one had a camera on one's head and is viewing one's actions from inside one's body. This type of imagery is similar to what has been called 'kinaesthetic' imagery, in that the kinaesthetic sense plays a major role.

Some athletes have found that internal imagery provides them with the feeling of desired performance, whereas external imagery conjures up the detailed picture of the desired performance.

The idea that internal and external imagery are physiologically distinct was first supported by Jacobson (1932) who found that greater muscular activity occurs during internal imagery. More recent evidence for this distinction comes from work on the muscular and ocular components of internal and external imagery, demonstrated that subjects trained in 'response propositions' (similar to internal



imagery) exhibit higher levels of physiological arousal during imaging than subjects instructed to respond perceptually.

Furthermore, it was found that subjects who engaged in kinaesthetic imagery displayed greater somatic arousal and less visual activity than subjects who employed external imagery (Morris & Summers, 1995).

It is suggested that elite athletes favour internal imagery over external imagery. Research has shown that where one's perspective is more beneficial than the other, it will generally depend on the nature of the task and the previous experience of the athlete. Again, if one is a developing athlete, the skill of imagery may be difficult for one since it takes time and quality practice to master it and expectation towards this skill.

There are four actions that need to be carried out:

- Discipline one's creative imagination so that one's image is precise.
- Increase the quality of image through the use of as many senses possible (especially the visual, auditory, and kinaesthetic) and their sub modalities (external and internal).
- Ensure strong emotional feelings that are the key to recreating successful performance.
- Imprint the best programme for success in one's mind's eye.

## **USES OF IMAGERY**

Probably one of the most appealing aspects of imagery rehearsal is that it is an extremely versatile technique that can be used in a wide range of situations. Although it is by no means comprehensive, the limits of using imagery depend on the limits of the imaginations of athletes, coaches and sport psychologists.

### **Skills learning**

With regard to mental practice, it is not surprising that one use of imagery rehearsal is the learning of skills. For example, a tennis player who is shown a new serving technique, could speed up the process of integrating it into his game by doing a ten minute imagery rehearsal of the service every evening, as well as using the action to physically serve 50 balls in training each morning. In the imagery session, attention should be paid to the difference between this service action and those already in the player's repertoire. Imagery immediately after the physical practice or even interwoven with it might also be very effective.

### **Skills practice**

At the elite level, learning new skills is not often needed. However, there are many occasions when practising mastered skills is valuable in keeping them well tuned. One example of this is during long overseas trips, when many hours are spent on a plane and where no opportunity exists for physical action. Another example would be when a performer is injured and cannot practise physically.

### **Strategy learning**

Teams develop new strategies to deal with particular aspects of the play of specific opposition or just keep opponents guessing. To familiarise themselves with the roles of all their team mates, as well as to fit in with these, both temporally and spatially, the members of a basketball team might each use imagery to enhance their performance of a new offensive strategy.

### **Strategy practice**

A common situation in team games is that alternative strategies must be adopted against each opposing team, because they all play with different styles. Often in football for instance, the B team is drafted to play like next week's opposition, but their speed and competence cannot match the real thing. Imagery strategy implementation against the actual players who will be confronting the team, playing up to form and at full speed can help players sharpen up that strategy during the week before the match.

### **Mental warm up**

All top-level athletes know that it is important to be physically warmed up when the match starts, not only to avoid soft-tissue injuries, which are more likely to affect cold, tight muscles, but also to ensure they are physically ready to give maximum effort in the vital first few minutes of the match.

### **Preview**

Mental warm-up is a technique most applicable to open-skill sports, where the player does not know exactly what the opponent will do within the parameters of the game. In closed skills such as gymnastics or figure skating, the performer knows exactly what the performance involves. Imagery the whole routine can help to automatise the sequence, so that during performance focus can be on precision of movement. These include difficult transitions or even, in a task-like gymnastics exercises, investing the performance with the 'personality', which will win-over judges and the audience. This type of imagery can be done at anytime, but when a final run-through of the routine is carried out using imagery just a few minutes before performance is called a preview.

## **Review**

After performance, imagery can be used to 'replay' the whole performance or a part of it. With practise it is possible to 'fast forward' through uninteresting phases, and then to examine the critical parts in 'slow motion' as if watching a video of the event. Review using imagery should emphasize positive aspects of performance, but should not neglect the negative. Detecting weaknesses and errors, which are then replaced by the correct response, should help future performance. Because positive and negative emotions are often aroused by performance and outcome, it is usually recommended that review be left until a few hours after the event, when a more objective assessment can be made. In long events with substantial breaks, such as cricket batting, tennis or golf, players often review each shot and immediately image corrections to it. This can involve physical correction, but imagery is often used here as well.

## **Problem solving**

Just as it is possible to use imagery to review performance, picking highs and lows, imagery can also be used to examine a routine or skill to detect a problem and then to correct it in readiness for the next physical practice session or competitive performance.

## **Stress management**

Imaging a relaxed scene can generate feelings of relaxation. When self-doubts about performance exist, imaging a scenario where the person is coping with the performance situation effectively might help reduce the anxiety.

### **Developing psychological skills**

Where imagery above was utilised to directly cope with somatic or cognitive anxiety, it is possible to use imagery to develop psychological skills. An example here might be a cricket batsman who finds it difficult to maintain a narrow external focus of attention, being prone to distraction during the bowler's run-up.

### **Building confidence**

Imagery has been widely canvassed as a means of enhancing self-confidence. Care should be taken that imagery for confidence building is realistic. Imagery (as self-talk) can be negative leading to an undesirable performance or it can be positive setting you up for success.

### **Recovering from injury or heavy training**

Imagery can be utilised to facilitate physical recovery from injury, especially to soft-tissues. The same process can be applied to the soreness associated with heavy training. Physically, greater blood-flow to an injured area as well as warmth in the locality of damaged tissues promotes recovery. It has been shown that imagery of increased blood-flow and warmth can lead to measurable increases in an area as specific as a finger.

## **WHEN AND WHERE TO PRACTISE IMAGERY**

Imagery is a skill that can be utilised at any time and in any place for a wide variety of reasons.

For beginners it is common to start imaging well-known objects, such as the house they grew up in, a family pet, or a favourite location, like the beach. These are recollections that are fairly easy for most people

and, with practise, can be manipulated to enhance controllability of images.

Once the athlete shows proficiency in these skills, the focus is moved to more sport-specific examples. They should be guided to use as many senses as possible when recreating themselves. The images can be restricted to actions that have taken place to tap into the memory portion of their minds. As they gain confidence in these skills, more self-directed imaging of possible changes to the mental pictures can be introduced.

Depending on the physical and imagery ability level of the athlete, different types of imagery, timing and locations are prescribed.

## **CONCLUSION**

There can be little doubt about the value of imagery as a resource in the practice of applied sport psychology. Imagery techniques have been used systematically in psychological skills training since the early peak performance research of Mahoney and Avenier (1977), Ravizza (1977) and other practically- oriented texts, including those of Suinn (1980). The magnitude of use and the range of applications of imagery have grown and continue to grow. Similarly, there appears to be little waning interest in the study of imagery in order to provide knowledge that will optimise its use in sports psychology. To date, there has been more anecdotal and empirical evidence that imagery works, particularly in terms of enhancing performance, than there has been clarification of the underlying mechanisms that account for its efficacy, the components that affect its action, or the ancillary techniques that aids in its operation.

Because imagery will clearly remain as a means of enhancing performance, solving problems, reviewing skills, building confidence, coping with stress, focusing attention, easing pain, facilitating recovery from injury or heavy exercise, and helping in other ways yet to be discovered, many of the questions raised by research and practice still urgently await answers. It is intended that the underlying theory and research reviewed here and the guidance on the use of imagery should reflect the current best practice.

## **CHAPTER FIVE**

# **CONCENTRATION AND ATTENTION CONTROL**

### **INTRODUCTION**

Concentration is the ability to control thought processes, to focus on a task at hand (e.g., to “keep your eye on the ball”). Effective concentration is almost universally recognised as the most important key to effective performance in sport. It is the ability to maintain focus on relevant environmental cues. When the environment changes, attentional focus must change accordingly. Thinking of the past or the future creates irrelevant cues that often lead to performance errors (Gallwey, 1979).

Effective concentration is a state of being, which all sportspeople recognise as a prerequisite to good performance. It is an unwavering awareness of a specific subject to the momentary exclusion of other subjects. It is the ability to focus all your attention on what you are doing and may vary in intensity (Jennings, 1993).

Concentration is a relaxed state of being alert, differing from anything held through will power in the sense that it can change its focus instantly to stay with the flow of competition. No relevant factors are shut out but the span of relevant factors at any given moment may narrow.

Concentration or selective attention refers to being able to attend to what is going on, the degree to which you can attend and how long you can continue to attend to what is going on around you. Selective attention refers to being able to choose to attend to specific things



going on or to ignore others, or the ability to put the mind on one thing at a time or on all the things that relate to what is going on at that time (Harris & Harris, 1984).

## **AN OPERATIONAL DEFINITION OF CONCENTRATION**

To define concentration operationally, one must define what it is or conditions that affect the ability to concentrate. The conditions that affect concentration need to be described and a prediction must be made of the behavioural effects (e.g., what specifically will happen to the ability to concentrate to one's behaviour or performance as a consequence) (Nideffer, 1976).

How many times does one hear someone say, 'concentrate' or 'don't choke' and wondered just what that person was telling you to do or not to do? Very often it isn't just the athlete who is confused; many coaches cannot even explain what they mean. If they are asked for a definition of concentration they sometimes get defensive. The thought of explicitly and behaviourally defining just what one should attend to does not seem to occur (Nideffer & Sharpe 1978).

Most coaches simply assume that an athlete is concentrating effectively on the task at hand. Likewise, they assume that concentration is ineffective if performance is below their expectations. It's small wonder that it takes most people a long time to develop good concentration skill and consistent performance under pressure. By focusing on constraints can often distract performers and employees.

In order for employees to concentrate optimally, it is important to identify all aspects of performance demands regardless of them being actual or perceived. The next step is to identify all supports and constraints (with the possibility of a support also being a constraint). The final step will be to identify and implement an action plan to

maximise supports and minimise constraints. This framework is particularly helpful for employees who have lost their concentration on how to move their performance forward or who are concentrating exclusively on the obstacles and perceived lack of control (Nideffer, 1992).

## **ATTENTION CONTROL TRAINING (ACT)**

Attentional control training (ACT) is a set of training procedures that are based on “operational” constructs. Considerable research still needs to be conducted, to evaluate and refine the attentional constructs and training procedures (Woodman & Hardy, 2001).

The principles that underline attention control training are outlined below and elaborated upon in the subsections that follow:

- Athletes need to be able to engage in at least four different types of attention.
- Different sporting situations will make different attentional demands on an athlete. Accordingly, it is up to the athlete to be able to shift to different types of concentration to match changing attentional demands.
- Under optimal conditions, the average person can meet the attentional demands of most sport situations.
- There are individual differences in attentional abilities. Some of the differences are learned, some are biological, and some are genetic. Different athletes have different attentional strengths and weaknesses.
- As physiological arousal increases beyond an athlete’s own optimal level, there is an initial tendency for the athlete to rely too heavily on the most highly developed attentional ability.

- Alterations in physiological arousal affect concentration. Thus, the systematic manipulation of physiological arousal is one way of gaining some control over concentration.
- Alterations in the focus of attention will affect physiological arousal. Thus, systematic manipulation of concentration is one way to gain some control over arousal (e.g., muscle tension levels, heart rate and respiration rate).

## **TYPES OF FOCUS**

When a coach tells an athlete to concentrate, the athlete is more likely to respond to the instruction if the coach specifically defines the type of concentration that he would like the athlete to engage in. To do this it is necessary to think of attention as requiring at least two different types of focus (Nideffer & Sharpe, 1978).

- First, the athlete will need to control the *width* of his/her attentional focus. Certain sport situations require a fairly broad focus of attention because the athlete must be sensitive to several different cues. Other sport situations require a narrow type of concentration. Hitting a baseball, for example, require a narrow type of concentration.
- The second type of focus needs to be controlled relates to the *direction* of the athlete's attention. In some situations, attention must be directed internally towards the athlete's own feeling or thoughts. At other times, attention must be focused externally, on the opponent, the ball etc.

A more in depth explanation of the types of focus is illustrated in table 5.1. This will help the athletes and employees distinguish the type of focus they will need for different activities.

Table 5.1: TYPES OF CONCENTRATION

<p><b>Broad External</b></p> <p>Scanning and accessing a larger number of external stimuli.</p> <p><i>Assess &amp; Reset</i></p>	<p><b>Narrow External</b></p> <p>Executing a specific task with limited external stimuli.</p> <p><i>Perform</i></p>
<p><b>Broad Internal</b></p> <p>Analysing a situation and making a decision.</p> <p><i>Analyse &amp; Plan</i></p>	<p><b>Broad Internal</b></p> <p>Reducing attention to a single thought, mood, feeling, and image.</p> <p><i>Prepare &amp; Rehearse</i></p>

Three main types of attentional approaches can be distinguished, namely, narrowers, broadeners and analysers:

**Narrowers**

This refers to those athletes who naturally narrow their focus to one or two internal or external stimuli or cues whenever they are in a situation that calls for complete concentration. This narrowing of focus on a single object, thought or feeling tends to lead to a blocking out of any other information or noise.

Athletes who habitually narrow their attentional focus tend to be characteristically intense, dedicated, persistent and single minded in the pursuit of their goals (Nideffer, 1993).

Problems may occur for these athletes when they try to be more aware of themselves and what is going on around them one will need to be sure that one read all the signals correctly.

**Broadeners**

This refers to those athletes who tend to naturally and readily focus on a large number of stimuli in their external environments. This broadening of attentional focus tends to help them be much more aware of what is going on around them compared to narrowers. They can readily scan and assess large amount of external information. They tend to react quickly to any sudden or unexpected changes in the external environment (Nideffer & Sharpe, 1978).

They are more attuned and sensitive to the needs or capabilities of other people as well as to what they are thinking, feeling and doing. This attentional style is often referred to as a “street sense”.

Problems may occur when they have too broad a focus or are unable to narrow down their focus to what is important or dissociate from all distractions whether internal or external.

**Analysers**

This refers to those athletes with a broad-internal attentional style who spend a lot of time in their heads analysing, planning and organizing the important events in their lives. They can handle large amounts of internal information, integrate it quickly and make good decisions as a result. They are ordered in their thinking, to absorb one thing at a time and are generally efficient in dealing with highly complex tasks (Porter, 2003).

Young athletes who are dominant in this style generally are more organized and methodical, good at time management and are confident in what they are doing.

Problems may occur when these athletes are busy analyzing themselves. They may become unaware of what is really happening around them and consequently focus on the wrong cues or fail to react quickly to rapidly changing events (Nideffer, 1992).

## **WHAT IT MEANS TO FOCUS ATTENTION**

Focusing on the components of well-learned behaviour disrupts the performance. At the same time, focusing on the elements of a poorly learned activity or one that is just being learned is facilitative or even essential to the performance.

Focusing on the components of the performance slows the behaviour down in such a manner that smoothness, the coordination of the whole, or the flow of act, is disrupted. As an example, if a typist or a pianist focuses on what the fingers are doing, she cannot execute the performance as smoothly or as effectively as when her focus is on a level of performance that is super-ordinate to the action of her fingers.

Performance becomes disjointed when one focuses on component parts. One has to focus on what is about to happen, then just let it happen. On the other hand, focus on the elements or component parts of a skill are facilitative, even necessary for some, to the learning of the overall organisation of the act.

This type of attentional focus produces a more careful selection of appropriate component acts and a more thorough monitoring of the execution of them than otherwise would occur. This approach allows for adjusting and smoothing as it develops and organizes the sequence of acts to a coordinated whole (Harris & Harris, 1984).

Research has shown in order to direct attention optimally there needs to be a person-environment approach to stress (Cox, 1978), which

involves appraisal of a stressor as either a threat or opportunity and leading to a multidimensional response in cognitive, physiological and behavioural terms. Coping strategies then can take three different forms, dealing with the mental, physical or behavioural symptoms (e.g., emotion-focused coping); or eliminate or minimize the stress source (e.g., problem-focused coping).

## **ATTENTIONAL MAXIMIZING PERFORMANCE**

When athletes enjoy what they are doing, they report specific changes in their attentional processing. They report that they narrow their attention so that it is focused exclusively on the task at hand.

Peak performance occurs when one voluntarily concentrates on the cues in the environment and perceives them as requiring an action that is within one's ability to execute. Attention is the means by which one picks up and exchange information from the environment. When this process is under one's control one feels able to direct the flow or reciprocal information that unites one with the environment and what is going on within the game. One chooses to interact with a system of continuous stimuli, which one can modify and from which one can get meaningful feedback (Harris & Harris, 1984).

Maximal performance is based on acquiring the skills and discipline to execute the behaviours that are required within the situation. Developing these abilities requires extensive commitment of attention to learn and to practise so they can be applied when demanded. Total involvement or total concentration in terms of how the attention is directed, where it is directed, and who is in control of the process, must be your responsibility (Harris & Harris, 1984).

## **CONCLUSION**

Several different type of attention or concentration is required in athletic situations. One of the roles of coaches and sport psychologists is to teach athletes how to control concentration and arousal. As you develop systematic training programs, you can improve the athletes' level of concentration and consistency of performance. Although most athletes are capable of developing the different types of concentration required by sport situations, individual differences do exist. There may be a few attentional strengths and weaknesses. By learning what their own strengths and weaknesses are, athletes can be encouraged to develop programs to overcome their weaknesses or to compensate for them (Gould & Damarjian, 1999).



# **CHAPTER SIX**

## **MOTIVATION**

### **INTRODUCTION**

The concept of motivation is usually broken down into basic components that can be more easily defined and measured. Perhaps the greatest difficulty with 'motivation' as a psychological construct is that it is not very consistent from one situation to another. A person might be highly motivated when it comes to cricket, but not interested at all in academics, computers or fishing (Griffiths, 1999).

Research has shown that there are eight basic management attributes that keep employees motivated:

- A bias for action
- Staying close to the employee
- Engagement in autonomy
- Treating employees with respect and dignity
- A hands-on approach from upper management
- Staying close to what they know best
- A lean staff and having centralised
- Decentralised aspects

This shows that managers or leaders, who have the ability to empathize with employees, interact with a variety of people, using effective listening skills and trusting other people's abilities, will strengthen self-confidence amongst employees (Sage, 1977).

### **THE NATURE OF MOTIVATION**

Motivation can be defined in terms of the direction and intensity of one's effort (Sage, 1977). Sport and exercise psychologists view

motivation from several vantages, including achievement motivation, motivation with regard to competitive stress, intrinsic and extrinsic motivation. These varied forms of motivation are all part of the more general definition of motivation. Hence, one can understand the specifics of motivation through this broader, holistic context. But what exactly do these components of motivation, direction and intensity of effort, involve?

### **Direction of effort**

The direction of effort refers to whether an individual seeks out, approaches, or is attracted to certain situations. For example, a high-school student may be motivated to try out for the tennis team, a coach decides to attend a coaching clinic, a businesswoman joins an aerobics class, or an injured athlete seeks medical treatment.

### **Intensity of effort**

Intensity of effort refers to how much effort a person puts forth in a particular situation. For instance, a student may attend a physical education class (approach a situation) but not put forth much effort during the lesson. On the other hand, a golfer may want to sink a winning putt so badly that he becomes overly activated, tightens up, and performs poorly. Finally, a weightlifter may train 4 days a week like her friends, yet differ from them in terms of the amount of effort she puts into each workout.

## **PROBLEMS WITH VAGUELY DEFINING MOTIVATION**

Despite defining motivation using Sage's (1977) terms of direction and intensity, the term motivation is used in more varied ways daily. It is often vaguely defined or not defined at all.

Motivation is discussed loosely in any of the following ways:

- As an internal personality characteristic (e.g., “She’s a highly motivated individual; a real go-getter”.)
- As an external influence (e.g., “I need something to motivate me; to get me going on my running programme”.)
- As a consequence or explanation for behaviour (e.g., “I just wanted it too much and was overly motivated”.)

Vague definitions of motivation and using the term in so many different ways have two disadvantages. First, if coaches and teachers tell students or athletes that they need more motivation without telling them what they specifically mean by the term, the student or athlete will have to interpret the meaning. This can easily lead to misunderstandings and conflict. Second, when practitioners develop specific strategies or techniques for motivating individuals, they may not recognise how these various strategies interact.

## **VIEWS OF MOTIVATION**

Individuals develop a personal view of how motivation works; a theory on what motivates people. One is likely to do this by learning what motivates oneself and observing how other people are motivated. For instance, if someone has a physical education teacher she likes and feels is successful, she will probably try to use or emulate many of the same motivational strategies that the teacher uses. Moreover, people often act out their personal views of motivation, both consciously and subconsciously. Although there are a myriad of individual views, most people fit motivation into one of three general orientations that parallel the approaches to personality.

## **ACHIEVEMENT MOTIVATION**

Achievement motivation can be defined as the athlete's predisposition to approach or avoid a competitive situation. However, in a broader sense achievement motivation includes the concept of desire to excel (Cox, 1985). It also refers to a person's efforts to master a task, achieve excellence, overcome obstacles, perform better than others and take pride in exercising talent. It is a person's orientation to strive for task success, persist in the face of failure and experience pride in accomplishments.

Not surprisingly, coaches, exercise leaders and teachers have an interest in achievement motivation. These are the precise characteristics that allow athletes to achieve excellence, exercisers to gain high levels of fitness and students to maximise learning. Like the general views on motivation and personality, views of achievement motivation in particular have progressed from a trait-orientated view of person's "need" for achievement to an interactional view that emphasizes more changeable achievement goals and how these affect and are affected by the situation.

Achievement motivation purports to explain behaviour intensity, persistence, choice of action possibilities and performance outcomes. An individual's motivation is inferred from assessing intensity, persistence choice and performance.

From the mid 1950s through the mid 1970s, a theory of achievement motivation that received the most attention in the psychological literature was the McClelland-Atkinson theory. During that time, two other basic theories competed with the McClelland-Atkinson model for general research appeal. Research showed that these two were classified as the test-anxiety approach and the Crandall approach.

Simply stated, the test-anxiety approach hypothesized that fear of test taking or fear of failure (test anxiety) was the critical factor in determining whether or not an individual would approach or avoid an achievement situation.

The “not” word for motivation is the word motive, which is literally the desire to fulfil a need. If performance outcomes overshadow affiliation needs, motivation for these athletes is also likely to decrease. Many athletes lose motivation when their coaches mistakenly assume that they all participate for the same reasons.

### **THE MCCLELLAND-ATKINSON MODEL (NEEDS ACHIEVEMENT THEORY)**

The needs achievement theory is an interactional view that considers both personal and situational factors as important indicators of behaviour. Five components make up this theory, including personality factors or motives, situational factors, resultant tendencies, emotional reactions and achievement-related behaviours.

Insight into behaviour comes from the work of behaviourists who demonstrated that animals would go to extraordinary lengths to reduce an internal drive such as hunger, thirst, or sexual gratification. Drive theory as proposed by other behaviourists, is a theory of motivation based upon drive reduction. Drive theory states that motivation is related to a desire to reduce or satisfy an internal drive.

The simplest form, the McClelland-Atkinson model of achievement is based upon two psychological constructs. These two concepts are:

- The motive to achieve success
- Fear of failure

The motive to achieve success is believed to represent an athlete’s intrinsic motivation to engage in an interesting and exciting activity.

This can also be defined as the capacity to experience pride or satisfaction in accomplishments. Intrinsic motives are said to be primarily determined by the inherent desires and curiosity of embracing optimal skill challenges in sport settings.

Fear of failure is a psychological concept associated with cognitive state anxiety. The motive to avoid failure is the “capacity to experience shame or humiliation as a consequence of failure”.

In its simplest form, the model is represented by the following equation:

$$\text{ACHIEVEMENT MOTIVATION} = \text{INTRINSIC MOTIVATION} - \text{COGNITIVE STATE ANXIETY}$$

As illustrated in the achievement motivation equation individuals' intrinsic motivation (approach) and their fear of failure (avoidance) depend on the individuals' strength of desire. Individuals who score high on the achievement motivation concept do not always perform better on motor tasks than subjects who score low on the concept.

### **Personal factors**

The theory contends that behaviour is influenced by a balance of the motives, namely the motive to achieve success and the motive to avoid failure. High achievers demonstrate high motivation to achieve success and low motivation to avoid failure. They enjoy evaluating their abilities and are not preoccupied with thoughts of failure. In contrast, low achievers demonstrate low motivation to achieve success and high motivation to avoid failure. They worry and are preoccupied with thoughts of failure. The theory makes no clear predictions for those with moderate or other levels of each motive (Deci & Ryan, 1985).

### **Situational factors**

In terms of situational factors, there are two primary considerations one should recognise in the need achievement theory:

- The probability of success in the situation
- The incentive value of success.

Basically, the probability of success depends on whom you compete against and the difficulty of the task. The value you place on success, however, would be greater, as it is more satisfying to beat a skilled opponent than it is to beat a beginner. Settings that have a 50-50 chance of success (e.g., a difficult but attainable challenge) provide high achievers the most incentive for engaging in achievement behaviour. However, low achievers do not see it this way, because to them losing to an evenly-matched opponent might maximize their feelings of shame or failure (Singer, Murphey & Tennant, 1993).

### **Resultant tendencies**

This component is derived by considering an individual's achievement motive levels in relation to situational factors (e.g., probability of success or incentive value of success). The theory is best at predicting situations where there is a 50-50 chance of success. That is, high achievers seek out challenges in this situation because they enjoy competing against others of equal ability or performing tasks that are not too easy or too difficult (Deci & Ryan, 1985) .

Low achievers, on the other hand, avoid such challenges, instead opting either for easy tasks, where success is guaranteed, or for unrealistically hard tasks where failure is almost certain. Low achievers sometimes prefer very difficult tasks because no one expects them to win. Low achievers do not fear failure; they fear the negative

evaluation associated with failure. A 50-50 probability of success causes maximum uncertainty and worry and thus it increases the possibility of demonstrating low ability or competence. If low achievers cannot avoid such a situation, they become preoccupied and distraught because of their high need to avoid failure.

### **Emotional factors**

The fourth component of the need achievement theory is the individual's emotional reaction, specifically how much pride and shames he/she experiences. Both high and low achievers want to experience pride and minimize shame, but their personality characteristics interact differently with the situation to cause them to focus more on either pride or shame. High achievers focus more on pride, whereas low achievers focus more on shame and worry (Sage, 1977).

### **Achievement behaviour**

The fifth component of the need achievement theory indicates how the four previous components interact to influence behaviour. High achievers select more challenging tasks, prefer intermediate risks and perform better in evaluative situations. Low achievers avoid intermediate risk, perform worse in evaluative situations and avoid challenging tasks by selecting tasks so difficult that they are certain to fail or tasks so easy that they are guaranteed success.

### **Extrinsic motivation**

This concept is primarily determined by external sources, such as adult or peer approval, material rewards, and a competitive emphasis on winning. Atkinson (1964) conceded that extrinsic motivation might make the difference. Extrinsic motivation comes in many forms, usually in terms of praise, money, awards or trophies. By including



extrinsic motivation into achievement motivation model, Atkinson acknowledged that factors external to the individual might influence an individual's overall motivation. External rewards may in some cases be detrimental to intrinsic motivation (Cox, 1984).

## **ATTRIBUTION THEORY**

Attribution theory focuses on how people explain their successes and failures. This view holds a great deal of possible explanations for success and failure and can be classified into a few categories. These basic attribution categories are stability (being either fairly permanent or unstable), locus of causality (whether the cause of one's behaviour is external or internal to him/herself) and locus of control (a factor that is or is not under one's control).

### **Attributions as causes of success and failure**

A performer's success or failure can be attributed to a variety of possible explanations (attributions). For example, a person may win a swimming race and attribute his success to:

- A stable factor (e.g., talent or good ability) or an unstable factor (e.g., good luck)
- An internal cause (e.g., tremendous effort over the last 50 meters) or an external cause (e.g., an easy field of competitors)
- A factor you can control (e.g., your race plan) or a factor out of your control (e.g., your opponents' physical conditioning)

Or one may drop out of an exercise program and attribute one's failure to:

- A stable factor (e.g., a lack of talent) or an unstable factor (e.g., a poor instructor)
- An internal cause (e.g., a bad back) or an external cause (e.g., the exercise facility's being too far from home)
- A factor one can control (e.g., lack of effort) or a factor out of your control (e.g., the cost of the program)

## **COMPETENCE MOTIVATION THEORY**

A final theory that has been used to explain differences in achievement behaviour, especially amongst children, is the competence motivation theory (Weiss & Chaumeton, 1992). Based on the work of developmental psychologists, this theory holds that people are motivated to feel worthy or competent. Such feelings are the primary determinants of motivation. However, these feelings do not influence motivation directly. Rather, they affect emotional states (such as enjoyment, anxiety, pride and shame) that in turn influence motivation.

Considerable research has demonstrated the link between competence and motivation (Weiss, 1993). Feedback and reinforcement from others and various motivational orientations influence feelings of self-esteem, competence and control.

## **HARTER'S COMPETENCE MOTIVATION THEORY**

Patterned after White's (1959) theory of affectance motivation, Harter (1978) proposed a theory of achievement motivation that is based on an athlete's feeling of personal competence. According to Harter, individuals are innately motivated to be competent in all areas of

human achievement. To satisfy the urge to be competent in an achievement area, such as sport, the person attempts mastery. An individual's self-perception of success at these mastery attempts develops feelings of positive or negative affect.

As illustrated in Figure 6.1, successful attempts at mastery promote self-efficacy and feelings of personal competence. As competence increases, the athlete is motivated to make further mastery attempts.

Conversely if a young athlete's attempt at mastery results in perceived rejection and failure, then low competence motivation and negative affect will be the product. It is hypothesized that low competence motivation will result in a youth sport drop out.

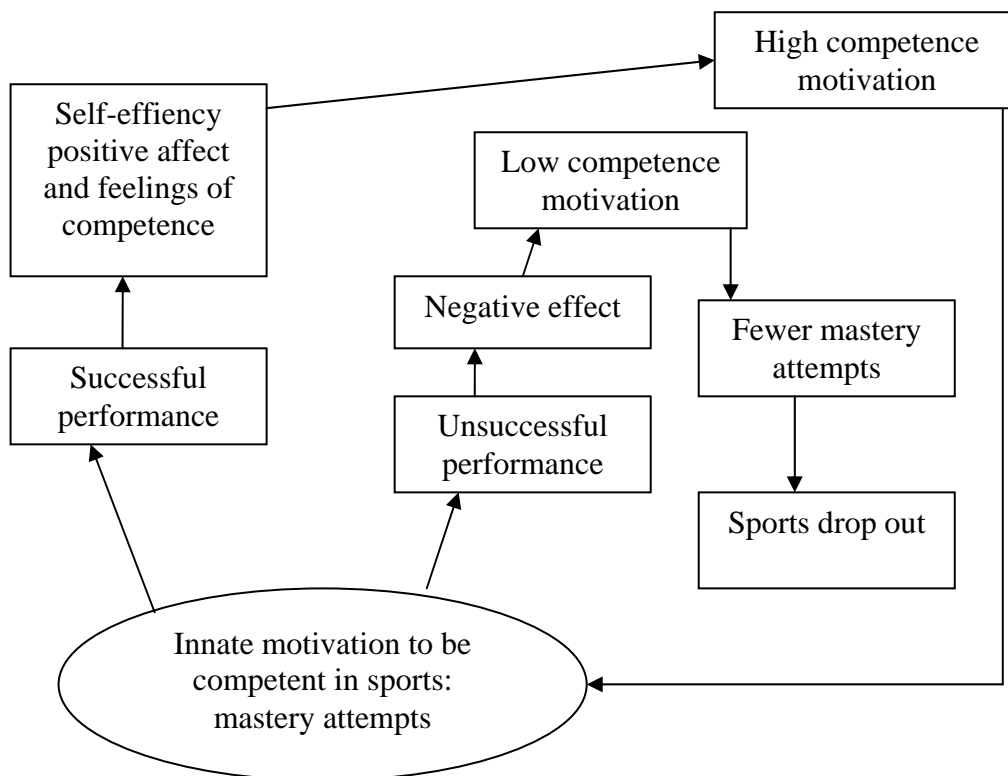


Figure. 6.1: COMPETENCE MOTIVATION MODEL

## **DEVELOPING ACHIEVEMENT MOTIVATION AND COMPETITIVENESS**

Does one learn achievement motivation? At what age do children develop achievement tendencies? Can sport and exercise professionals influence and motivate children or employees towards certain kinds of achievement? Achievement motivation and competitiveness are believed to develop in three stages. These stages are sequential - that is a person must move through one stage before progressing to the next. Not everyone makes it to the final stage, and the age at which each stage is reached varies considerably. These are the three stages:

- *Autonomous competence stage.* In this stage, which is thought to occur before the age of 4 years, a child focuses on mastering his/her environment by means of self-testing.
- *Social comparison stage.* In this stage, which begins at about the age of 5 years, a child focuses on directly comparing his/her performance to others, unlike the autonomous stage with its self-referenced standards. This is the “who is faster, bigger, smarter and stronger stage?” as children seem preoccupied with comparing themselves to others.
- *Integrated stage.* This stage involves both social comparison and autonomous achievement strategies. The person who fully masters this integration knows when it is appropriate to compete and compare him/her to others and when it is appropriate to adopt self-referenced standards. This is the stage, which integrates components from the previous two stages. It is the most desirable. There is no typical age for entering this stage.

## **INFLUENCING STAGES OF ACHIEVEMENT MOTIVATION**

The social environment in which a person functions has important implications for achievement motivation and competitiveness. Significant others can play an important role in creating a positive or negative climate. They define tasks and games as competitive or cooperative, group children or employees in certain ways and differentially emphasize task outcome goals.

## **CONCLUSION**

Motivation determines the direction and intensity of effort. The best way to understand motivation is to consider both the person and the situation and how they interact. To enhance motivation one must analyze and respond not only to an individual's personality but also to the interaction of personal and situational characteristics. Remember motivation may change over time. One should continue to monitor athletes' or employees' motives for participation.

To further enhance motivation, structured teaching and coaching environments must meet the needs of all participants. Leaders need to recognise that an individual is critical to the motivational environment and must recognise that they influence motivation both directly and indirectly. They must use behavioural techniques to change undesirable motives and strengthen weak motivation (Rinke, 1992).

## **CHAPTER SEVEN**

# **RELAXATION**

### **INTRODUCTION**

Every athlete experiences the stress of preparing for a successful performance. Stress can be defined as a state in which some demand is placed on the individual, who is then required to react in some way in order to cope with the situation. It is how one perceives these pressures that either facilitates efforts to be successful, or debilitates performance to be a disaster (Woodman & Hardy, 2001).

In an organisation there is always stress. Organisational stress has been defined as “work-related social psychological stress”. Organisational stress is conceptualised as an interaction between the employee and the work environment to which he/she is exposed.

In line with the conceptualization of stress, organisational stress resides neither in the work environment nor in the individual. It is the individual’s cognitive appraisal of the situation within the work environment that is central to this organisational stress process.

Sources of organisational stress include factors such as: work load, job qualifications, work design, performance evaluation, organisation structure, responsibilities and authority ambiguities.

Organisational stress will likely be more prominent in a setting where directors, managers, administrators, coaches and athletes or employees do not form a cohesive group than in a setting where such group dynamics are better (Jones, 2002).

Performers often fail to achieve their best when they are too tight, anxious, and tense or stressed out. The problem is usually a consequence of losing perspective, task focus or mental control. Personal bests often occur when mind and muscle combine in free-flowing harmony. Experiencing high levels of tension and performing in a relaxed, flowing way rarely occurs at the same moment. Developing one's ability to relax one's body and calm the mind is important because it allows one to control one's intensity and channel focus. This will enhance performance (Orlick, 2000).

The ability to relax is a significant skill for two reasons: First, the mind, especially when it is over-anxious, can affect one's physical condition, causing the body to release chemicals that tend to disrupt body balance. One may experience these physical responses through increased heart and respiratory rates, rises in blood pressure and increase in sweating. This imbalance may cause stress and tension that in turn directly affects performance. Secondly it may also cause one to narrow or broaden concentration to such an extent that one focuses on incorrect cues or fall into the trap of over thinking. Excessive states of tension or apprehension can be controlled by a variety of relaxation techniques.

## **THE NATURE OF RELAXATION**

Physically, emotionally and mentally, relaxation is characterised by an absence of activity and tension. It is characterised by stillness when one let go of all sense of need (Syer & Connolly, 1984). Relaxation means letting go and doing absolutely nothing with one's muscles. Although the muscles cannot be switched off completely, they can be brought down nicely to an "idling speed". This occurs when one drops off to sleep in the process of gradually letting one's muscles slip into "neutral" gear.

Complete relaxation is a kind of semi-hypnotic state and while it does not add to the body's ability to do something, it certainly helps remove all the various obstacles one experiences.

Relaxation is marked by a reduction or complete absence of muscular activity in the voluntary muscles. This is accompanied by a reduction in the involuntary muscles as well. Relaxation is a neuromuscular accomplishment, which results in a reduction of tension in the skeletal musculature. Relaxation therefore means no muscular activity at all or getting as near to zero activity as possible.

During relaxation one develops a greater sensitivity to one's bodily feelings and responses (Kauss, 2001).

## **PRINCIPLES OF RELAXATION**

The degree of relaxation appropriate for an athlete will vary from individual to individual and from occasion to occasion. However, there are some basic principles for optimal relaxation. They are the following:

- Learn to relax and withdraw completely
- Acquire a point of reference, recognition of one's own 'zero arousal level'
- Increase awareness of one's own physical, mental and emotional resources and how best to use them
- Recognise one's patterns of behaviour and change those that inhibit performance
- Gain a detached impression of one's environment
- Simply experience a positive, pleasurable and beneficial state of being that allows regeneration of the body, mind and emotions (Jennings, 1993)



## **TYPES OF RELAXATION**

True relaxation gives a sense of distance from where you can watch your sensations, feelings and thoughts dispassionately as they arise and eventually learn from them.

There are a number of relaxation methods used, many of which have been derived from Eastern yoga and other meditation techniques. Two of the better known is autogenic training developed by the German, Dr. Schultz and progressive relaxation developed by the American, Dr. Jacobson.

### **Autogenic training**

This type of training consists of a series of exercises designed to produce two physical sensations, namely warmth and heaviness. Basically it is a technique of autohypnosis. It has been used to help patients with heart disease, high blood pressure, migraine headaches and other physical illnesses. A sequence of commands to the autonomic nervous system gradually teaches the patient to become aware of, and then gain control over his breathing, body temperature and other hither-to uncontrolled parts of that system. Using this method, one can learn to raise and lower arousal level at will.

### **Progressive relaxation**

This involves tensing and relaxing each major muscle group in turn, so that each group and the sense of tension in each group may be identified and released. As one expands awareness of the difference between tension and release, you are increasingly able to release all your tension (Syer & Connolly, 1984).

## **Mental relaxation**

This specifically to the relaxation of what is generally called “the objective mind” sometimes referred to as the “conscious” or “intellectual mind”. This is the thinking, analyzing, criticizing, reasoning, classifying mind that we all know. When relaxed, this portion of the mind slows down. The more one relaxes the objective, intellectual mind, the easier it is to introduce thoughts and ideas to the subconscious mind, where they in turn work with in their own creative way to achieve the desired results.

Mental relaxation can be used for the following purposes:

- *Creating a climate conducive to effective subconscious programming.* When the inner self, wishes to program or reprogram ideas, data or thoughts into your subconscious mind, it is important to create a mental condition that enables data to pass through or around the thinking, critical, objective mind.
- *Maintenance and repair.* Often, one exhausts oneself during the day. One may not be physically tired, but mentally one may be extremely busy and our mind grows tired just as the physical body does. It may be a day in which one makes many decisions, deal with many problems and worry about things. One may be over-analyzing, overloading and overworking the intellectual mind. Instead of relaxing and allowing things to flow along easily and letting the subconscious mind direct one, one tends to work the thinking mind too hard. As a result one tends to become mentally fatigued. By taking a five-minute relaxation breaks two or three times a day, through lying back in a chair and

relaxing - stilling the mind - one can get the equivalent benefit of one to three hours of sleep.

- *Creative thinking and problem solving through the subconscious mind*

### **Physical relaxation**

The use of physical relaxation is also a means of maintaining and repairing the body, just as in mental maintenance and repair. The mind can interrupt or otherwise affect any of the systems of the body. Every system in one's body can be touched and be affected by the mind. Relaxation is a pre-requisite to using the mind for these purposes, with maximum effectiveness (Bennett & Pravitz, 1982).

### **FACTORS RELATED TO RELAXATION TRAINING**

Exercise alone will not generate all the potential effects, which can be achieved with relaxation procedures. The thoughts that accompany the exercises are as important as the exercises themselves. In fact, the relaxation procedures, which rely solely on thought content to produce relaxed states, eventually to produce, reduce in tension.

Another factor that will affect how athletes learn to relax is their motivation. Those who want to learn to relax will learn faster and achieve control much more easily than those who do not want to participate in the program, or who question the value of the process.

A final factor conducive for learning to relax is the atmosphere and environment where the training takes place. Quiet, dimly lit rooms that are free from interruptions are best. The environment should be

one that will minimize distractions thereby enabling the athlete to focus his/her attention totally on the task at hand (Rushall, 1979).

## **CONCLUSION**

Relaxation requires practice because it is a skill. Consequently, the athlete and coach will have to experiment with the procedures and individual variation to produce the best process for the athlete. The development of this skill is highly individual. Some will attain it almost immediately. Others will take as many as a dozen sessions. The basis of mastering relaxation procedures is that of control. The athlete has to be able to focus his/her attention on the task at hand and its associated sensations. Usually, when this is achieved the process is mastered (Rushall, 1979).

## **CHAPTER EIGHT**

# **METHODOLOGY**

### **PURPOSE OF THE INVESTIGATION**

1. To develop a program for corporate personnel based on sport psychology practices
2. To study the usefulness of a corporate programme based on sport psychology principles

### **RESEARCH PROTOCOL**

The study involved three major stages namely:

1. Reviewing sport psychology literature in order to identify recurring themes or psychological skills.
2. Developing and administering a mental skills intervention programme in a corporate setting.
3. Assessing the success of the program in terms of the extent to which the employees applied the psychological skills in the work place.

### **REVIEW OF SPORT PSYCHOLOGY LITERATURE**

A comprehensive review of sport psychology literature was undertaken to identify recurring themes. The purpose of this exercise was to ascertain which mental skills should be included in an intervention programme.

The following books were reviewed:

Alder, H. & Morris, K. (1996). *Masterstroke: Use the power of your mind to improve your golf*. London: Judy Piatkus.

Alderman, R. B. (1974). *Psychological behaviour in sport*. London: W.B. Saunders.

Andersen, M. (2000). *Doing sport psychology*. Champaign, IL: Human Kinetics.

Andrisani, J. (2002). *Think like Tiger*. New York: The Berkley Publishing Group.

Anshel, M.H. (1994). *Sport psychology: From theory to practice*. Scottsdale, AZ: Gorsuch Scarisbrick.

Bennett, J. & Pravitz, J. (1982). *The miracle of sports psychology*. Englewood Cliffs, NJ: Prentice-Hall.

Bull, S, Albinson, J.G. & Shambrook, C.J. (1996). *The mental game plan: Getting psyched for sport*. Brighton, UK: Sports Dynamics.

Cox, R. (1985). *Sport psychology: Concepts and applications*. Madison, WI: Brown & Benchmark.

Cratty, B.J. (1973). *Psychology in contemporary sport*. Englewood Cliffs, NJ: Prentice-Hall.

Gallwey, W. T. (1979). *The inner game of golf*. London: Jonathan Cape.

Gilson, C., Pratt, M., Roberts, K. & Weymes, E.D. (2000). *Peak performance*. London: Harper Collins.

Griffiths, R. (1999). *Modern psychology for cricket and other Australian sports*. Harbord, NSW: Odlum & Garner.

Harris, D. & Harris, B. (1984). *The athlete's guide to sport psychology: Mental skills for physical people*. New York: Leisure Press.

Heathcote, F. (1996). *Peak performance. Zen and the sporting zone*. Dublin: Wolfhound Press.

Jennings, K.E. (1993). *Mind in sport. Directing energy flow into success*. Kenwyn: Juta.

Kauss, D. (2001). *Mastering your inner game*. Champaign, IL: Human Kinetics.

Kirschenbaum, D. (1997). *Mind matters*. Carmel, IN: Cooper.

Kubistant, T. (1988). *The psychology of body building*. Champaign, IL: Leisure Press.

Liebetrau, C. (1982). *Psychological training for competitive sport*. Pretoria: Haum.

Morris, J. (1995). *Sport psychology. Theory, applications and issues*. Brisbane: John Wiley & Sons.

Nideffer, R. (1992). *Psyched to win. How to master mental skills to improve physical performance*. Champaign, IL: Leisure Press.

Nideffer, R.M. & Sharpe, R. C. (1978). *Attention control training*. New York: Wideview Books.

O'Connor, J. (2001). *NLP and sports: How to achieve your own peak performance*. London: Thorsons.

Orlick, T. (2000). *In pursuit of excellence. How to win in sport and life through mental training*. Champaign, IL: Human Kinetics.

Porter, K. (2003). *The mental athlete*. Champaign, IL: Human Kinetics.

Porter, K. & Foster, J. (1986). *The mental athlete*. New York: Ballantine Books.

Porter, K. & Foster, J. (1990). *Visual athletics. Visualisation for peak sport performance*. Dubuque, IA: Wm. C. Brown.

Rushall, B. (1979). *Psyching in sport*. London: Pelham Books.

Singer, R.N., Murphey, & Tennant, L.K. (1993). *Handbook of research on sport psychology*. New York: MacMillan.

Suinn, R.M. (1980). *Psychology in sports*. Minneapolis, MN: Burgess.

Syer, J. & Connolly, C. (1984). *Sporting body, sporting mind: An athlete's guide to mental training*. Cambridge: University Press.

Ungerleider, S. (1996). *Mental training for peak performance*. Emmaus, PN: Rodale Press.

Weinberg, R.S. & Gould, D. (1999). *Foundations of sport and exercise psychology*. Champaign, IL: Human Kinetics.

Williams, J.M. (1986). *Applied sport psychology: Personal growth to peak performance*. Palo Alto, CA: Mayfield.



## **DEVELOPMENT AND ADMINISTRATION OF A MENTAL SKILLS PROGRAMME IN A CORPORATE SETTING**

The five most prominent mental skills in sport psychological literature were adapted for the corporate setting and incorporated in hand-outs used in 5 workshops.

### **Duration of intervention programme**

The intervention programme consisted of 5 workshops conducted over a period of five weeks.

### **Sequence of workshops**

The sequence of the workshops was as follows:

Workshop 1: Goal setting (2 hours)

Workshop 2: Imagery (2 hours)

Workshop 3: Concentration (2 hours)

Workshop 4: Motivation (2 hours)

Workshop 5: Relaxation (2 hours)

### **Participants**

Ten Eskom employees volunteered to participate in this intervention programme. The group consisted of six female and four male employees. Their ages varied between 24 and 44 ( $M = 33$ ).

### **Assessment of intervention**

A questionnaire related to five mental skills often used in sport psychology (goal setting, imagery, concentration, motivation and relaxation), was devised and administered,

- Immediately after the completion of the last workshop
- Six months later
- One year later

Participants had to indicate on a scale ranging from 1 (*Almost Never*) to 7 (*Almost Always*) to what extent they applied the 5 mental skills dealt with in the workshops. Below is a copy of the questionnaire. The items relevant to the 5 separate skills are listed in Appendix B.

# Mental Skills Questionnaire

Name:

Please circle how each statement relates to you on a scale ranging from 1 (*Never*) to 7 (*Always*).

**1. I set challenging goals for myself.**

*Almost Never 1 2 3 4 5 6 7 Almost Always*

**2. I'm able to relax before important projects.**

*Almost Never 1 2 3 4 5 6 7 Almost Always*

**3. I can see my performance in my mind's eye.**

*Almost Never 1 2 3 4 5 6 7 Almost Always*

**4. During projects I find myself focusing on irrelevant cues.**

*Almost Never 1 2 3 4 5 6 7 Almost Always*

**5. I'm enthusiastic when preparing for important projects.**

*Almost Never 1 2 3 4 5 6 7 Almost Always*

**6. I set specific goals for myself.**

*Almost Never 1 2 3 4 5 6 7 Almost Always*

**7. I become too tense before important projects.**

*Almost Never 1 2 3 4 5 6 7 Almost Always*

**8. I can rehearse my skills in my mind before I use them.**

*Almost Never 1 2 3 4 5 6 7 Almost Always*

**9. Unexpected distractions put me off.**

*Almost Never 1 2 3 4 5 6 7 Almost Always*

**10. I enjoy challenging projects.**

*Almost Never 1 2 3 4 5 6 7 Almost Always*

**11. I set goals that I can achieve.**

*Almost Never 1 2 3 4 5 6 7 Almost Always*

**12. Being able to calm down is one of my strong points.**

*Almost Never 1 2 3 4 5 6 7 Almost Always*

**13. It is difficult for me to form mental pictures.**

*Almost Never 1 2 3 4 5 6 7 Almost Always*

**14. Being easily distracted is a problem for me.**

*Almost Never 1 2 3 4 5 6 7 Almost Always*

**15. I'm good at motivating myself to execute a task well.**

*Almost Never 1 2 3 4 5 6 7 Almost Always*

**16. I reset my goals when things don't turn out the way I intended.**

*Almost Never 1 2 3 4 5 6 7 Almost Always*

**17. I know how to relax in difficult circumstances.**

*Almost Never 1 2 3 4 5 6 7 Almost Always*

**18. I can easily imagine how a movement feels.**

*Almost Never 1 2 3 4 5 6 7 Almost Always*

**19. When I'm distracted, I'm able to refocus on the task at hand.**

*Almost Never 1 2 3 4 5 6 7 Almost Always*

**20. After a project I feel that I have given my best.**

*Almost Never 1 2 3 4 5 6 7 Almost Always*

**Thank You**

## **CHAPTER NINE**

# **RESULTS**

### **INTRODUCTION**

The findings of the study will be reported under the following headings:

1. Mental skills recurring most prominently in sport psychology literature.
2. A proposed intervention programme of sport psychological mental skills for employees in a corporate setting.
3. The effectiveness of the use of the proposed programme
  - Individual case studies
  - The relative effectiveness of selected aspects of the programme

### **MENTAL SKILLS RECURRING MOST PROMINENTLY IN SPORT PSYCHOLOGY LITERATURE**

The following mental skills were most prominent in the review of sport psychology literature:

#### **Goal setting**

Simply defined, goals are what an individual consciously tries to do (Weinberg, 1994). Goal setting has been shown to enhance performance as well as create positive changes in anxiety, confidence and motivation (Gould, 1993). However, when goal setting is used improperly, it can also become a major source of anxiety, difference and performance impairment.

To avoid potential problems associated with the misuse of goals, it is important to understand how and why goal setting influences performance.

Specifically, goals...

- Direct the performer's attention and action to important aspects of a given task.
- Mobilises effort.
- Increases persistence.
- Increases the likelihood that the performer will develop new learning strategies.

The impact goals have on performance will depend on a number of mediating factors including ability, feedback, task complexity, commitment as well as situational factors.

In summary, goal setting can be important for helping athletes increase self-confidence, satisfaction, motivation and persistence, decrease anxiety, focus attention, mobilise effort and aid in the development of achievement strategies.

The following sources included sections on goal setting:

Alder & Morris (1996), pp. 40-49; 52-56

Alderman (1974), pp. 216-221; 229; 24

Andersen (2000), pp. 93-103; 209-210; 212; 219

Bennett & Pravitz (1982), pp. 37 – 51

Bull, Albinson & Shambrook (1996), pp. 19-31; 36-38; 132; 146

Cox (1985), pp. 190-196; 165; 206

Cratty (1973), pp. 265

Griffiths (1999), pp. 13-16

Gould (1993), pp. 158-169

Gould & Damarjian (1999), pp. 82-85

Harris & Harris (1984), pp.133-147

Jennings (1993), pp. 84-85; 144; 196; 198

Kauss (2001), pp. 202-206

Kirschenbaum (1997), pp. 33-44; 53-55

Kubistant (1988), pp. 20; 35-41; 51-52; 113

Morris & Summers (1995), pp. 259-270; 321-322

O'Connor (2001), pp. 24; 27-28; 34-40

Orlick (2000), pp. 47-50; 59-68

Porter & Foster (1986), pp. 19-26

Porter & Foster (1990), pp.141

Porter (2003), pp. 28-40; 190-202

Rushall (1979), pp. 67-71

Singer, Murphey & Tennant (1993), pp. 421-436; 467-491

Suinn (1980), pp. 269-280

Syer & Connolly (1984), pp. 73 – 76

Weinberg (1994), pp. 496-477

Weinberg & Gould (1995), pp. 305-322

Williams (1986), pp. 43; 82; 86; 133-147; 151; 249-250; 295-296; 313

## **Imagery**

Imagery can be defined as a process by which sensory experiences are stored in memory and internally recalled and performed in the absence of external stimuli.

The level of vividness defines imagery ability and the controllability athletes have over their imagery. Vividness refers to the clarity and reality in the athlete's imagery. Controllability refers to the athlete's ability to influence the content of the image.

Imagery can also be divided into internal and external imagery. Internal imagery may serve to enhance skill learning through kinaesthetic feedback, while external imagery on the other hand deals with overall execution of a skill viewed from a neutral, outside perspective.

Although imagery is often associated with visualisation, it is important to note that imagery involves all of the senses, not only the visual sense.

Imagery strategies have been used for a variety of purposes in sport. These include technique enhancement, error analysis, error correction, preparation for competition conditions, and confidence enhancement.

In addition, with an appropriate training program, imagery skills can increase self-awareness, facilitate skill acquisition and maintenance, build self-confidence, control emotions, relieve pain, regulate arousal, and enhance preparation strategies (Murphy & Jowdy, 1992).



Imagery rehearsal is not a homogeneous distinct intervention. Imagery for one athlete may be very different from imagery of another athlete.

The following sources included sections on imagery:

Alder & Morris (1996), pp. 60-61; 108-109

Andersen (2000), pp. 17; 37; 77-83; 89-92; 198-199; 210; 242-243; 263; 267-269

Andrisani (2002), pp. 24-25; 101-103

Bennett & Pravitz (1982), pp. 79-89

Bull, Albinson & Shambrook (1996), pp. 27; 59-60; 65-84; 116; 136

Cox (1985), pp. 163; 174-189; 206

Gould & Damarjian (1999), 90-91

Harris & Harris (1984), pp. 95-115

Kauss (2001), pp.176-194

Kirschenbaum (1997), pp. 99-104

Kubistant (1998), pp. 85-88

Liebetau (1982), pp. 38-62

Nideffer (1992), pp. 72-76

O'Connor (2001), pp. 29; 32; 57-59; 61-63; 77-78; 165

Orlick (2000), pp. 107-121

Porter & Foster (2003), pp. 155-160, 163-164

Porter (1986), pp. 65-81

Rushall (1979), pp. 103-112

Singer, Murphey & Tennant (1996), pp. 49-77; 492-510

Suinn (1980), pp. 316-320

Suinn (1993), pp. 492-510

Ungerleider (1996), pp. 41-5

Weinberg & Gould (1995), pp. 265-281

Williams (1986), pp. 209-229

## **Concentration**

Concentration or attention can be defined as the thought process that directs and maintains awareness of sensory experiences. Concentration involves:

- The selection of the right stimuli to focus on.
- The ability to shift attention as the environment changes.
- The ability to sustain attention or concentration.

The first skill involves the ability to select the right things from the environment to focus on. Different tasks require different types of attentional focus. Nideffer (1976, 1993) has identified two dimensions of attention: width and direction. Width refers to the degree to which attention has either a broad or a narrow focus. The other dimension of attention involves direction, either internal or external.

Internal attentional focus refers to attention that is directed inward. For example, a runner monitoring her physiological responses (heart rate, temperature) during a marathon has an internal focus of attention. In contrast, a fullback scanning the rugby field to determine where to kick the ball has an external focus of attention. It is important that athletes are able to select the attentional focus (broad vs. narrow, internal vs. external) that best fits the nature of their task.

The second basic skill involves the ability to shift attention as the task or situation changes. For example, a golfer may approach a shot with a broad-external focus to determine what type of shot is best for the given situation. This may require focusing on various things such as the lie of the ball, the direction of the wind, or the location of a potential hazard. After making a decision regarding what type of shot to hit, attention may shift from a broad-external to a narrow-external focus.

The final basic attentional skill involves the ability “to sustain attention on a selected stimulus for a period of time” (Martens, 1987:146). Whether the focus is internal/external or broad/narrow, concentration refers to the intensity and sustainability of attentional focus.

As with any mental skill, developing concentration and attentional skills requires a systematic training programme. First, it is important to educate athletes about the influence that selecting and shifting attention and concentration skills may have on their performance. If a weakness is identified or if they are interested in further enhancing already strong attentional skills, there are ways to help individuals develop these skills.

The following sources included sections on concentration:

Andersen (2000), pp.17; 30; 34; 39; 231-232

Bull, Albinson & Shambrook (1996), pp. 27; 85-104

Cox (1985), pp. 68; 83

Gallwey (1979), pp. 75-100

Gould & Damarjian (1999), 93-96

Griffiths (1999), pp. 70-80

Harris & Harris (1984), pp. 77-95

Jennings (1993), pp. 10; 12; 19; 52-53; 61; 63; 66; 146; 146; 146; 148; 150; 156

Kubistant (1988), pp. 18; 25; 28

Martens (1987), p. 146

Morris & Summers (1995), pp. 386-415

Murphy (1996), pp. 141-167

Nideffer & Sharpe (1978), pp. 3-15; 23-35; 58-82

Nideffer (1992), pp. 14; 61-67

O'Connor (2001), pp. 10; 19; 29; 32; 40; 89; 103

Porter (2003), pp.105-108; 118; 172; 187

Singer, Murphey & Tennant (1993), pp. 542-561

Suinn (1980), pp. 281-290

Syer & Connolly (1984), pp. 39-42

Weinberg & Gould (1995), pp. 325-346

Williams (1986), pp. 214; 257- 269; 271-284; 276; 278; 280

## **Motivation**

Motivation can be defined as the direction and intensity of effort (Sage, 1977). Direction, involves whether or not an athlete is motivated to approach or avoid challenging activities. Intensity involves the magnitude of motivation.

Motivation is dependent on an individual's goal orientation. People who are 'task-involved' are motivated by the desire to continually learn

and improve their skill regardless of whether they win or lose. In contrast, people who are 'ego-involved' are motivated to demonstrate competence relative to others.

Motivation has also been studied from the theoretical perspective of intrinsic versus extrinsic motivational orientations. For example, the *cognitive evaluation theory* (Deci & Ryan, 1985) suggests that people behave on the basis of intrinsic motivation, extrinsic motivation or amotivation.

Intrinsically-motivated behaviours are based in the inherent pleasure and satisfaction within the activity itself. Extrinsically-motivated behaviours are attributed to a reason outside the activity, such as social recognition or awards. Amotivated behaviour occurs when an individual perceives a lack of contingency between his/her behaviour and the outcome.

An important component of the *cognitive evaluation theory* is the interaction between intrinsic motivation and extrinsic rewards. Deci and Ryan (1985) suggested that extrinsic rewards often decrease intrinsic motivation because they undermine people's need to feel competent and self-determined. For example, negative feedback information that implies rewards can also decrease intrinsic motivation by making the activity dependent on the extrinsic reward, leading to a shift in the perceived locus of causality from internal to external.

Because extrinsic reward can lose its "motivating value" more quickly and easily than intrinsic rewards, it is important that coaches enhance the intrinsic motivation of their athletes. This can be

accomplished by creating an environment that provides athletes with a sense of competence, control and choice.

If performance outcomes overshadow affiliation needs, motivation for these athletes is also likely to decrease. Many athletes lose motivation when their coaches mistakenly assume that they all participate for the same reasons.

The following sources included sections on motivation:

Alderman (1974), pp.203-206; 208-212; 22-224

Andersen (2000), pp. 111-112; 114; 204-205; 224; 239-240

Bull, Albinson & Shambrook (1996), pp. 19-40; 53

Cox (1985), pp. 210-243

Cratty (1973), pp. 123-140

Deci & Ryan (1985) pp. 237-288

Griffiths (1999), pp. 27-36

Jennings (1993), pp. 29-30; 50; 110; 134-135; 137; 143; 167; 202

Kubistant (1988), pp. 59-66

Morris & Summers (1995), pp. 91-94; 312-356

O'Connor (2001), pp. 11; 20; 22

Orlick (2000), pp.45

Porter (2003), pp. 113-116; 185-187

Singer, Murphey & Tennant (1993), pp. 405-420

Suinn (1980), pp. 40-56, 63-78

Syer & Connolly (1984), pp. 142-148

Ungerleider (1996), pp. 16-22

Weinberg & Gould (1995), pp. 47-68; 285-299

Williams (1986), pp. 102; 235-253; 327

## **Relaxation**

In addition to environmental engineering and stress management techniques, Martens (1987) identified physical stress management techniques. These techniques include imagery relaxation, progressive relaxation, self-directed relaxation and biofeedback. Imagery relaxation involves an athlete learning how to imagine him or herself in a relaxing environment (e.g., sitting on a sunny beach listening to the waves). With practice, the athlete will be able to imagine this calming environment during a stressful situation and thus promote relaxation.

Edmund Jacobson developed progressive relaxation training in the 1930s. It has been used in sport settings to help athletes identify and decrease excess muscle tension. Progressive relaxation training involves systematically tensing and relaxing muscle groups throughout the body. During training the athlete focuses on what tension and relaxation feel like.

Through practice an athlete begins to develop an awareness of when and where tension develops. The athlete is then able to use the strategies learned in progressive relaxation training to quickly relax specific muscle groups during a stressful event.

Self-directed relaxation is an abbreviated form of progressive relaxation. This type of stress management involves an athlete relaxing various muscle groups throughout the body by focusing on

breathing. For example, a softball player may experience tension in her shoulders before she steps up to bat. To decrease this tension, she focuses her thoughts on her shoulders as she inhales. As she exhales she imagines that all the tension in her shoulders leaves her body, so she is relaxed and ready to bat.

Biofeedback is also sometimes used to enhance relaxation. It has been defined as “the use of instrumentation to detect and amplify internal physiological processes in order to make this ordinarily unavailable information available to the individual in a form that is meaningful, rapid, precise and consistent”.

The following sources included sections on relaxation:

Alder & Morris (1996), pp. 110-112; 131; 139-140

Andersen (2000), pp. 17; 48-59; 144; 210

Bennett & Pravitz (1982), pp. 25-37

Bull, Albinson & Shambrook (1996), pp. 27; 116-118

Cox (1985), pp. 143-155

Cratty (1965), pp. 171; 173

Gould & Damarjian (1999), p. 87

Harris & Harris (1984), pp. 49-77

Heathcote (1996), pp. 113-118

Jennings (1993), pp. 41-43; 50; 52; 89; 93; 95-96; 110; 114; 141-142; 144; 153-154; 159-165; 167; 170; 175; 201

Kauss (2001), pp. 170-176

Kirschenbaum (1997), pp. 140-142

Kubistant (1988), pp. 76-77; 86; 92; 115; 124; 142; 145-146; 174

Liebetrau (1982), pp. 26-35



Morris & Summers (1995), pp. 375  
Murphy (1996), pp. 107-141  
Nideffer (1992), pp. 64; 96-97; 102-103  
O'Connor (2001), pp. 60  
Orlick (2000), pp. 121-133; 218  
Porter & Foster (1986), pp. 47-607  
Porter (2003), pp. 49-60; 107-108  
Rushall (1979), pp. 113-135  
Suinn (1980), pp. 313-314  
Syer & Connolly (1984), pp. 33-42  
Ungerleider (1996), pp. 35-41  
Williams (1986), pp. 185-206

### **Other mental skills**

The above-mentioned 5 mental skills were most prominent in the reviewed literature. Other mental skills that were also frequently mentioned were self-talk and routines. For the purpose of this study these two skills were included under concentration skills. Building self-confidence was also mentioned regularly, but in the context of this study it was not considered a skill as such, but rather an outcome of other skills, such as goal setting, imagery, etc.

## **PROPOSED MENTAL SKILLS PROGRAMME FOR CORPORATE EMPLOYEES**

A mental skills programme for corporate employees based on the most common practices in sport psychology is proposed. The following sequence and duration of workshops are recommended:

Workshop 1: Goal setting (2 hours)

Workshop 2: Motivation (2 hours)

Workshop 3: Relaxation (2 hours)

Workshop 4: Imagery (2 hours)

Workshop 5: Concentration (2 hours)

The proposed content of the workshops is contained on the hand-outs contained in Appendix A.

## **THE EFFECTIVENESS OF THE PROPOSED PROGRAMME**

### **Individual Case Studies**

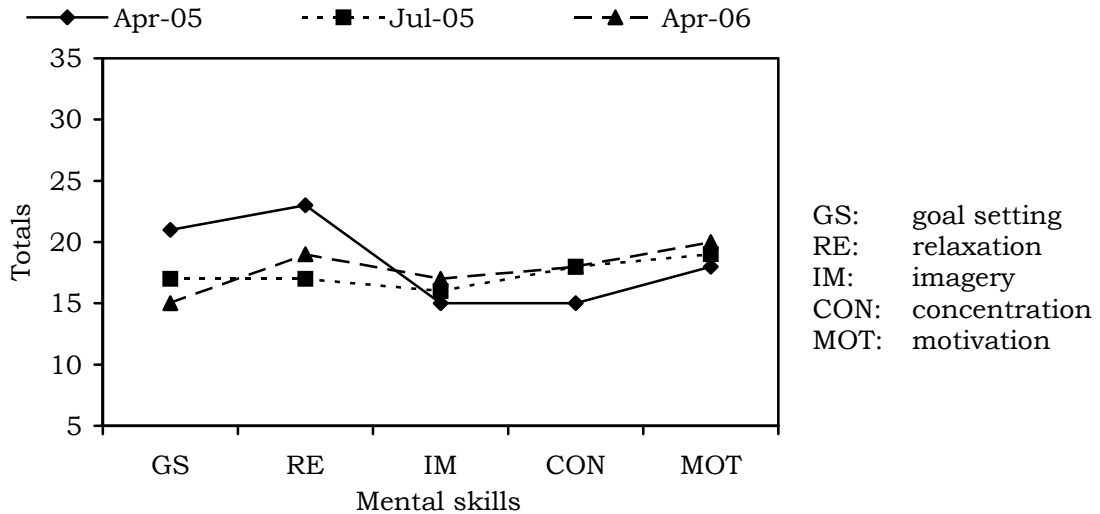
#### **Participant A**

Female  
30 Years

This participant's strongest skill at the completion of the workshops was *relaxation*. She obtained a score of 23 out of a possible 28 (82%). The effectiveness of this skill declined after a period of 6 months. She was also strong with regard to *goal setting* (75%) immediately after the completion of the workshops. However, this declined quite drastically to 61% after six months and 53% after a year.

She did not have much confidence in her *imagery* skills (53%) and *concentration* skills (53%) at the completion of the intervention period. These stayed more or less constant after 6 months and a year later.

Her *motivation* also stayed constant in the vicinity of 68% over the one-year period.



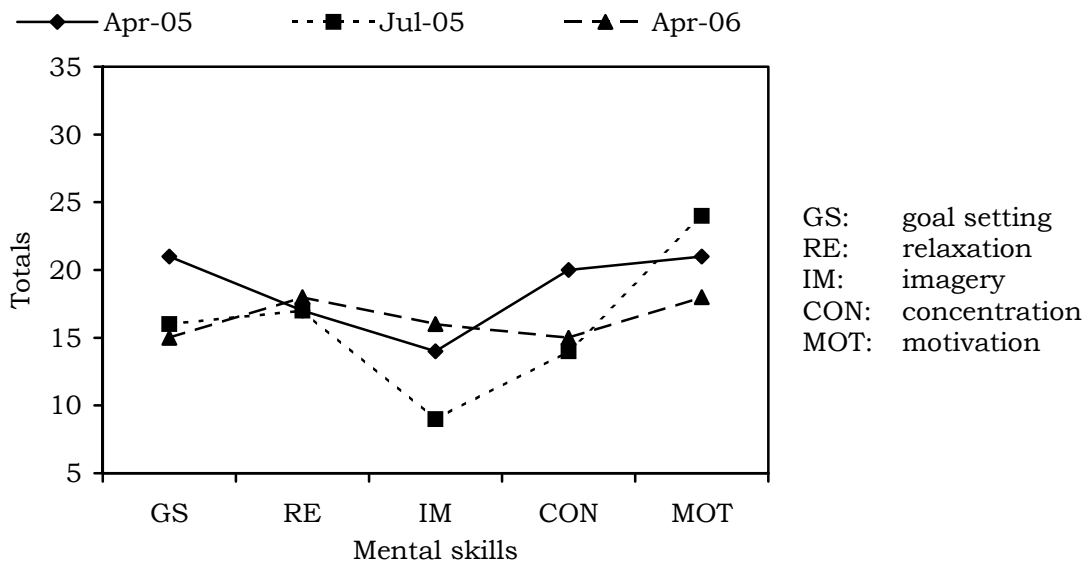
**Figure 9.1. Mental skills: Subject A**  
**Participant B**  
 Male  
 48 Years

The strongest skill displayed by this participant was *motivation*. He obtained a score of 24 out of a possible 28 (86%). The average for the group for *motivation* was 22.2, which showed that this participant was above the average for this group. The effectiveness of this skill declined after a year to 64%.

He was also strong with regards to two other skills, *goal setting and concentration* (71%) immediately after the completion of the workshops. However, this declined to 57% and 50% after six months and 54% respectively after a year.

*Imagery* seems to be a difficult skill to master for this participant, as he could only manage to obtain 32%. This placed him below the group's average. He showed an increase to 57% after a year in *imagery* skills.

His *relaxation* skills stayed the same in the vicinity of 61% after completion of the workshops, six months and over a year.



**Figure 9.2. Mental skills: Subject B**

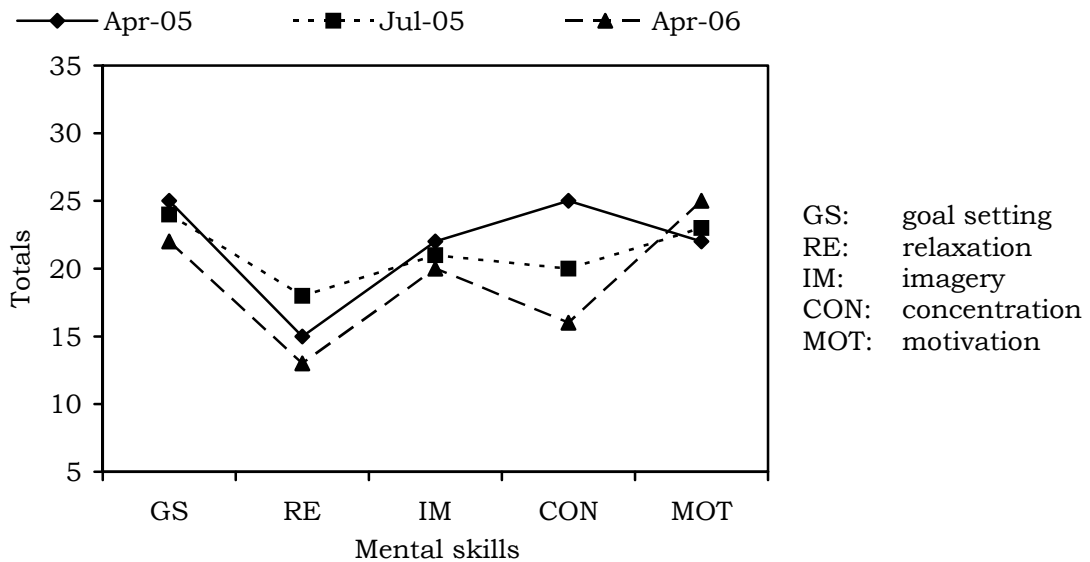
### Participant C

Male  
42 Years

*Goal setting* and *concentration* were the strongest skills displayed by the participant. He obtained a score of 25 out of a possible 28 (89%) for both skills. The group's average for *goal setting* was 19.9 and *concentration* was 19.3, which showed that this participant was well above the average for the group. The effectiveness of *goal setting* and *concentration* declined after a year period to 79% and 57% respectively.

He seems to be strong with regards to his *imagery* skills with a score of (79%) immediately after the completion of the workshops. The score was consistent with a 75% after six months and 72% after a year.

He did not have much confidence in his *relaxation skills*. He obtained 54% after completion of the workshops. The group's average was 17.7 and he was on 15. He showed an increase to 64% after six months and then a decline of 46% after a year.



**Figure 9.3. Mental skills: Subject C**

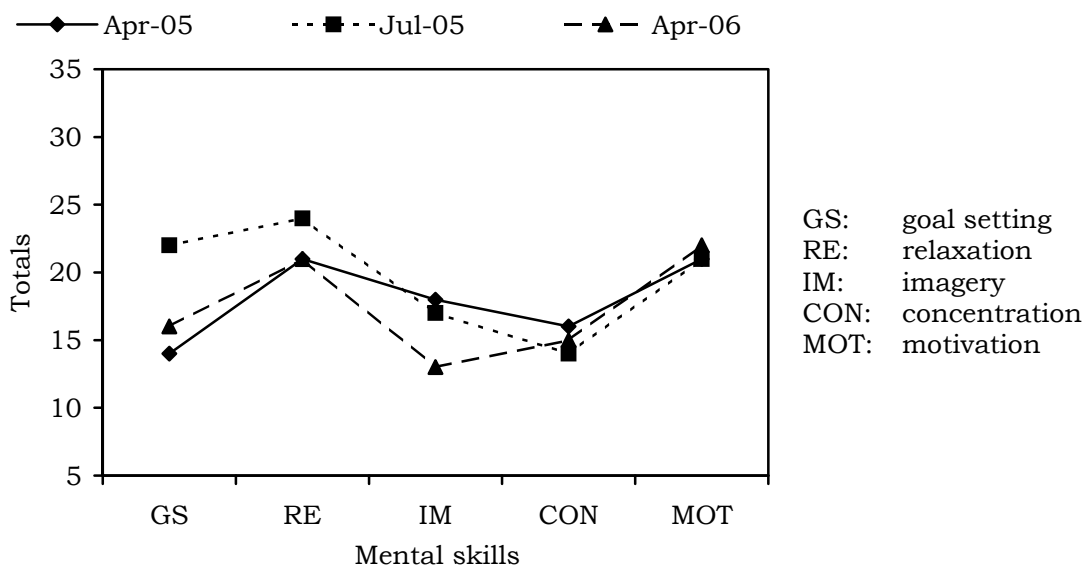
**Participant D**  
 Female  
 26 Years

This participant showed that *relaxation* and *motivation* were her two strongest skills. She obtained a score of 21 for both, out of a possible 28 (75%). The group's average was 17.7 for *relaxation* and 20.3 for *motivation*, which showed that this participant was well above the average for the group. The effectiveness of both skills was constant after three months and a year with a percentage of 75.

She was also strong with regards to *concentration and imagery* after completion of the workshops. The respective percentages were 64% and 57% respectively and stayed constant in the vicinity of 60% after three months and a year.

She seemed to be competent with regards to *imagery* skills. She obtained 64% immediately after the completion of the workshops. However, this declined to 46% after a year.

*Goal setting* seemed to have been a difficult skill to master for this participant. She could only manage to obtain 50% immediately after completion of the workshop. There was an increase to 79% after three months, and a score of 57% after a year.



**Figure 9.4. Mental skills: Subject D**

**Participant E**  
Male  
35 Years

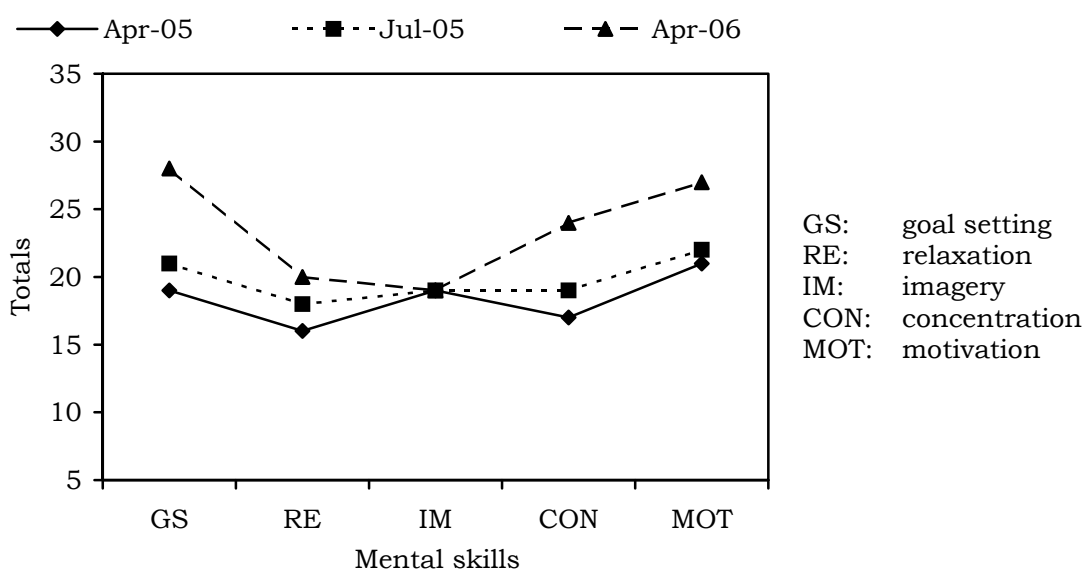
This participant's strongest skill at the completion of the workshops was *motivation*. He obtained a score of 21 out of a possible 28 (75%). The average for the group was 20.3. This participant obtained an average of 21 which placed him above the group's average. The effectiveness of this skill increased to 79% after three months and 96% after a year.

He was also very strong in *goal setting* and *imagery* skills with a score of 19 out of 28 (68%). *Goal setting* increased dramatically to 75% after three months and 100% after a year.

*Imagery* on the other hand, remained constant at 68% after three months and one year.

He did not have much confidence in *concentration* skills with a score of 17 out of 28 (61%) after completion of the workshops. There was an increase to 68% after three months and 86% after one year.

*Relaxation* took a plunge with 57% after completion of the workshops. There was however an increase to 64% after three months and 71% after a year.



**Figure 9.5. Mental skills: Subject E**

## **Participant F**

Male

35 Years

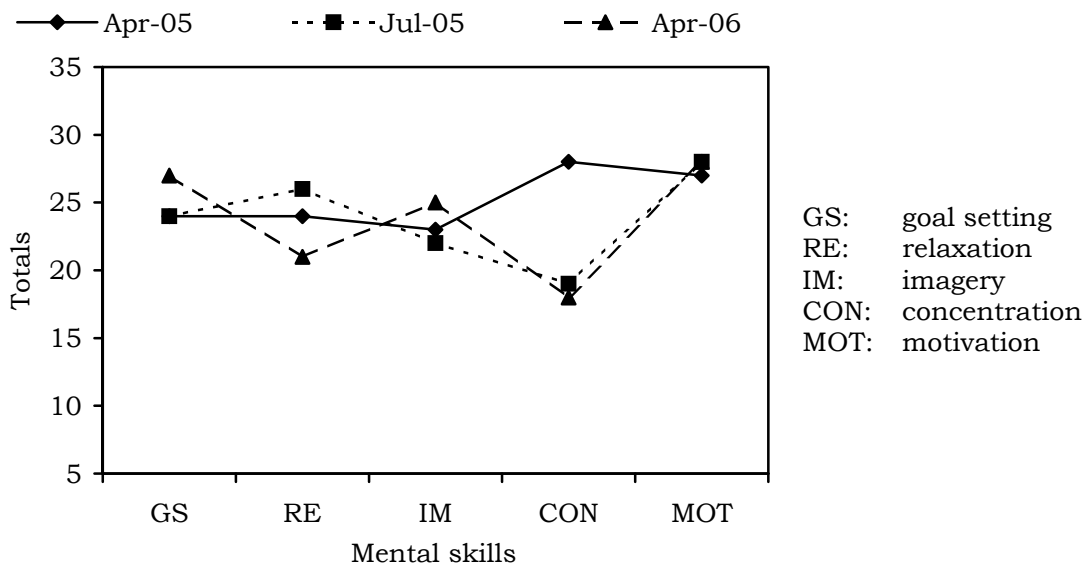
The two strongest skills that was displayed by this participant, with a perfect score of 28 (100%) was *concentration* and *motivation*, immediately after completion of the workshops. He was well above the group's average of 19.3 and 20.3 respectively. *Motivation* obtained a 100% score after three months and a 96% score after a year. The effectiveness of *concentration* declined to 68% after three months and to 64% after one year.

He was also very strong with regards to *goal setting* and *relaxation* obtaining scores of 24 out of 28 (86%) immediately after completion of the workshops. There was an increase to 93% after three months and 96% after one year.

*Imagery* provided a score of 23 out of 28 (82%) after completion of the workshops, it has placed the participant well above the group's average.

It seemed as if this participant had adapted well to new skills and his ability to maintain an average of 86% for all his skills after three months and a year.





**Figure 9.6. Mental skills: Subject F**

### **Participant G**

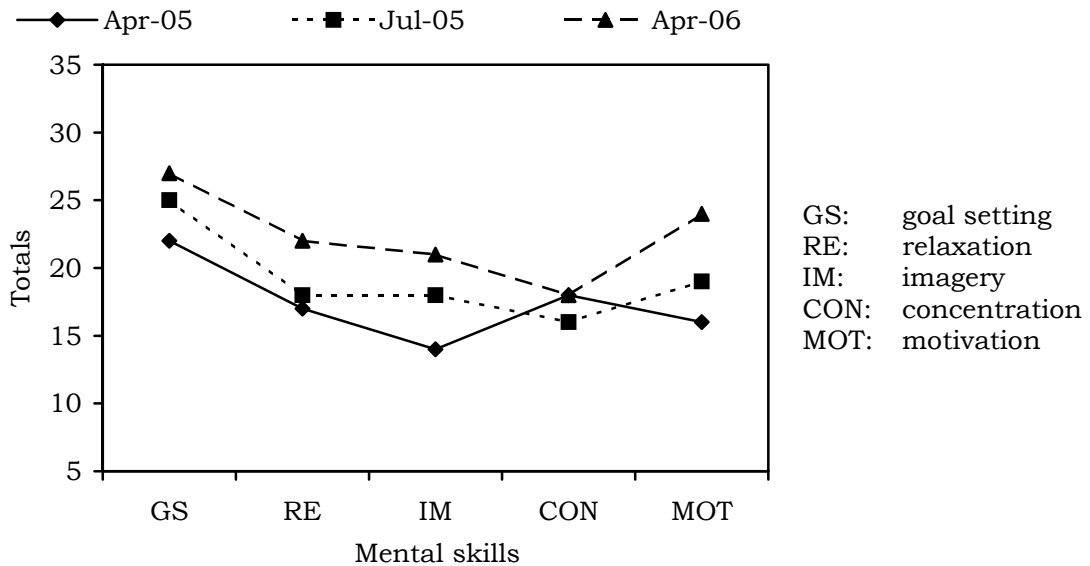
Female  
33 Years

This participant's strongest skill at the competition of the workshops was *goal setting*. She obtained a score of 22 out of a possible 28 (79%). The average of the group for *goal setting* was 19.9, which showed that this participant was above average for the group. The effectiveness of this skill increased to 89% after three months and 96% after one year.

She was also strong with regards to *concentration* 64% immediately after completion of the workshops. However, there was a slight decline to 57% after three months and it stabilized to 64% after a year.

She did not have much confidence in her *imagery* skills, obtaining 50% after completing the workshop. There was an increase to 64% after three months and a 75% after a year.

*Motivation and relaxation* also stayed constant in the vicinity of 86% over the one year period.



**Figure 9.7. Mental skills: Subject G**

### Participant H

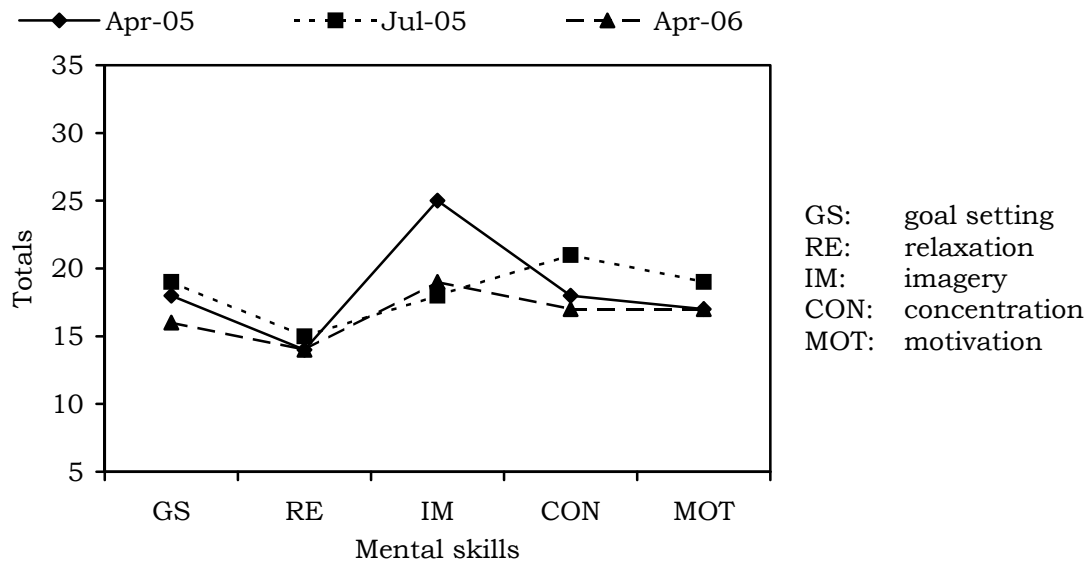
Male  
29 Years

The strongest skill displayed by this participant was *imagery*. He obtained a score of 20 out of 28 (71%). The average of the group for *imagery* was 16.5 which showed that this participant was above the average for this group. The effectiveness of this skill declined after a year to 69%.

He was also very strong with regards to *goal setting* and *concentration*, 64% immediately after the workshops. A consistency was showed in a percentage of 61 after a year.

A moderate score was reflected through his *motivation* skills by obtaining a score of 17 out of a possible 28 (61%) after completing the workshops.

He did not have much confidence in his *relaxation* skills, 50% after completing the workshop and was constant on 50% a year later.



**Figure 9.8. Mental skills: Subject H**

### Participant I

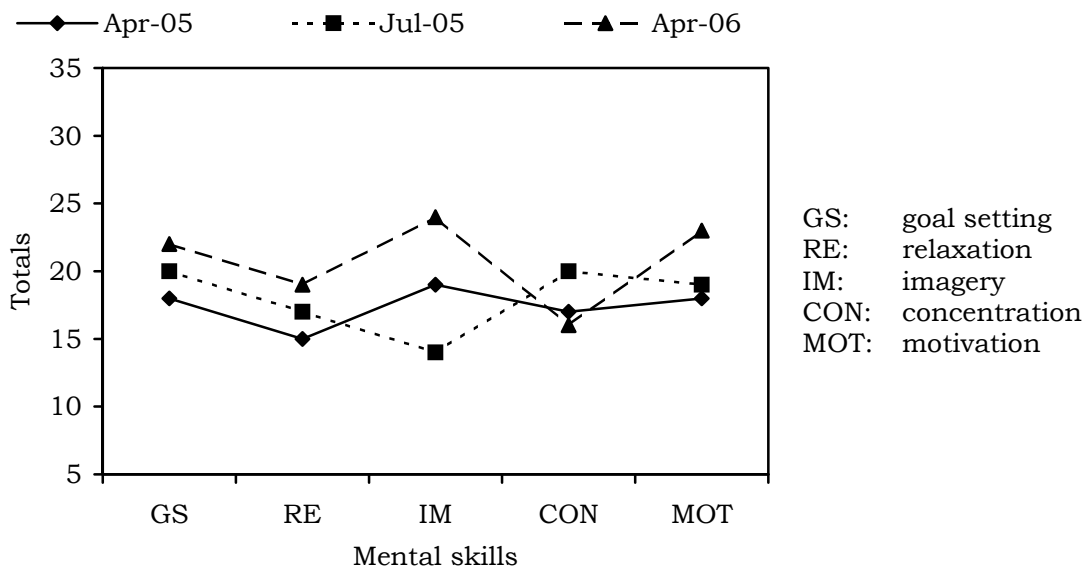
Female  
27 Years

The two strongest skills displayed by this participant were *imagery* and *motivation*. She obtained a score of 19 out of a possible 28 (68%) immediately after completing the workshops. The effectiveness of these skills increased to 86% after a year.

She was also strong with regards to *goal setting* (64%) immediately after completing the workshop. This skill increased to 71% after three months and 79% after a year.

*Relaxation* seem to be a difficult skill as the participant could only obtained a score of 15 (54%) after completion of the workshops. There was however an improvement to 69% after one year.

Her *concentration* stayed constant in the vicinity of 61% over a one year period.



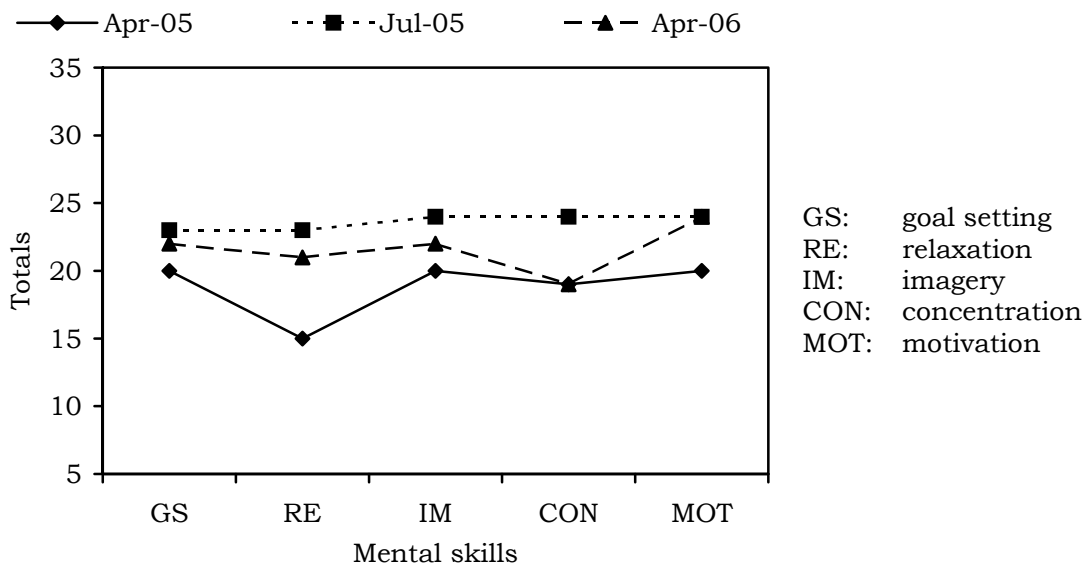
**Figure 9.9. Mental skills: Subject I**

**Participant J**  
Male  
43 Years

This participant showed excellent competence in three skills, *motivation, goal setting and imagery*. He obtained a score of 20 out of a possible 28 (71%) immediately after the workshop. The average for the group was 19.9, 20.3 and 16.5 which showed that the participant was above the average for the group. The effectiveness of these skills increased to 86% after three months and a year respectively.

He was also strong with regards to *concentration* (68%) immediately after completion of the workshops. There was an increase to 86% after three months and then a decrease to 68% after a year.

He did not have much confidence after the workshop with regards to *relaxation*, obtaining 54%. However there was an increase to 82% after three months and 75% increase after a year.



**Figure 9.10. Mental skills: Subject J**

## **RELATIVE EFFECTIVENESS OF SELECTED ASPECTS OF THE PROGRAMME**

**Table 11.1:** Statement scores immediately after the completion of the workshops

- 5.3 I'm good at motivating myself to execute a task well.
- 5.2 When I'm distracted, I'm able to refocus on the task at hand.
- 5.2 I set goals that I can achieve.
- 5.2 I reset my goals my things don't turn out the way I intended.
- 5.2 I enjoy challenging projects.
- 5.1 After a project, I feel that I have given my best.
- 4.9 I'm enthusiastic when preparing for important projects.
- 4.9 I set challenging goals for myself.
- 4.9 I can rehearse my skills in my mind before I use them.
- 4.9 I can easily imagine how a movement feels.
- 4.8 I set specific goals for myself.
- 4.8 Being able to calm down is one of my strong points.
- 4.7 Unexpected distractions put me off.
- 4.7 During projects I find myself focusing on irrelevant cues.
- 4.7 Being easily distracted is a problem for me.
- 4.5 I'm able to relax before important projects.
- 4.4 I can see my performance in my mind's eye.
- 4.3 I know how to relax in difficult circumstances.
- 4.2 It is difficult for me to form mental pictures.
- 4.1 I become too tense before important projects.

Immediately after completion of the workshops, goal setting was the top ranked skill that the participants displayed. This showed that they were able to adapt to the skill and made it part of their lives. The highest rating was 5.3 on a 7 point scale.

The skill that needed a bit more practising was relaxation as the highest rating for this was 4.3 on a 7 point scale. The participants realised that they need to make relaxation part of their lives to optimally benefit from it. Some of them did not even know where to start and what to do to relax them.

**Table 11.2:** Statement scores six months after the completion of the workshops

- 5.8 I'm good at motivating myself to execute a task well.
- 5.7 After a project, I feel that I have given my best.
- 5.4 I set challenging goals for myself.
- 5.4 I enjoy challenging projects.
- 5.3 I'm enthusiastic when preparing for important projects.
- 5.3 I set specific goals for myself.
- 5.3 I set goals that I can achieve.
- 5.1 I reset my goals my things don't turn out the way I intended.
- 5.1 Being able to calm down is one of my strong points.
- 5.0 During projects I find myself focusing on irrelevant cues.
- 4.9 I can see my performance in my mind's eye.
- 4.9 I can rehearse my skills in my mind before I use them.
- 4.8 I'm able to relax before important projects.
- 4.7 When I'm distracted, I'm able to refocus on the task at hand.
- 4.7 I know how to relax in difficult circumstances.
- 4.7 I can easily imagine how a movement feels.
- 4.7 I become too tense before important projects.
- 4.5 Being easily distracted is a problem for me.
- 4.3 Unexpected distractions put me off.
- 3.3 It is difficult for me to form mental pictures.

Goal setting was again the skill that stayed top of the log after six months. The participants increased their scores to 5.8 on a 7 point

scale. They grew in confidence with this skill. Feedback from the participants was that they set daily goals for themselves and rewarded them once they've achieved it.

Concentration was the skill that surfaced to be a problem after six months. It showed a score of 4.5 on a 7 point scale. They realised the importance of training their brain to focus on the task at hand.

**Table 11.3:** Statement scores one year after the completion of the workshops

- 6.1 I enjoy challenging projects.
- 5.8 After a project, I feel that I have given my best.
- 5.6 I'm enthusiastic when preparing for important projects.
- 5.5 I set challenging goals for myself.
- 5.4 I set specific goals for myself.
- 5.3 I'm good at motivating myself to execute a task well.
- 5.1 I'm able to relax before important projects.
- 5.0 I know how to relax in difficult circumstances.
- 5.0 I can rehearse my skills in my mind before I use them.
- 5.0 I can easily imagine how a movement feels.
- 4.9 When I'm distracted, I'm able to refocus on the task at hand.
- 4.9 I reset my goals my things don't turn out the way I intended.
- 4.9 I can see my performance in my mind's eye.
- 4.7 It is difficult for me to form mental pictures.
- 4.6 Being able to calm down is one of my strong points.
- 4.5 I set goals that I can achieve.
- 4.5 During projects I find myself focusing on irrelevant cues.
- 4.3 Being easily distracted is a problem for me.
- 4.0 Unexpected distractions put me off.
- 3.9 I become too tense before important projects.



After a year goal setting was still the dominant skill that the participants could relate to. It has showed an increase to 6.1 on a 7 point scale.

Concentration was one of the weaker skills after a year. More interventions need to be put in place to help the participants to increase their confidence in concentration. Although this was the weaker skill the score remained constant after a year.

**Table 11.4:** Mean statement scores of 3 assessments

- 5.6 I enjoy challenging projects.
- 5.5 I'm good at motivating myself to execute a task well.
- 5.5 After a project, I feel that I have given my best.
- 5.3 I'm enthusiastic when preparing for important projects.
- 5.3 I set challenging goals for myself.
- 5.2 I set specific goals for myself.
- 5.1 I reset my goals my things don't turn out the way I intended.
- 5.0 I set goals that I can achieve.
- 4.9 When I'm distracted, I'm able to refocus on the task at hand.
- 4.9 I can rehearse my skills in my mind before I use them.
- 4.9 I can easily imagine how a movement feels.
- 4.8 I'm able to relax before important projects.
- 4.8 Being able to calm down is one of my strong points.
- 4.7 I know how to relax in difficult circumstances.
- 4.7 I can see my performance in my mind's eye.
- 4.7 During projects I find myself focusing on irrelevant cues.
- 4.5 Being easily distracted is a problem for me.
- 4.3 Unexpected distractions put me off.
- 4.2 I become too tense before important projects.
- 4.1 It is difficult for me to form mental pictures.

Goal setting results were the best after the three assessments with concentration as the weaker skill.

## **CHAPTER TEN**

# **DISCUSSION AND RECOMMENDATIONS**

### **INTRODUCTION**

The results of this study could be a stepping stone for numerous potential projects in the workplace. The topic of the application of sport psychology principles in the workplace is a new and exciting area for exploration.

Overall, the findings of the study suggest that performance of certain mental skills is rated more important than others. Goal setting and motivation are two mental skills that were consistently utilised most successfully.

Perhaps older or younger employees with less or more skills have different mental training needs or the programme in which they are involved have differing goals.

Regardless, with various ages, skills, gender and culture, it is important to consider the needs of the particular target group when designing mental skills training programmes.

Sensitivity to the special issues faced by workers in highly competitive business environments is recognised and differences between working with athletes and working with individuals in business are acknowledged. These include differences in company/employee relationships, the notion that there can be multiple “winners” in business “competitions”, and differing expectations between sports and business (Murphy, 2005).

## **LIMITATIONS OF THE STUDY**

An obvious limitation of this study was the small sample group that was used. Although findings from a larger sample would make generalisation if results more acceptable, there were factors that made this impractical. Firstly, it is believed that the workshops would have lost their impact if the group was larger. It would have implied that workshops would have to be duplicated. This would not only have been too time consuming, but it would also have been difficult to recruit more volunteers for such a venture.

A second possible shortcoming of the study was the absence of a control group. However, the same problems encountered with the small sample, also apply to this shortcoming.

A third possible weakness of the study is that there was no pre-evaluation done of the use of the mental skills before the commencement of the workshops. The researcher was aware of this but reasoned that it would be futile to test participants on mental skills that they did not possess at all before being introduced to them in the workshops.

On hindsight, the fact that the evaluation was done by the researcher herself could have led to the phenomenon of social desirability. The responses of the participants could have been influenced by their eagerness to please the researcher. A neutral evaluator would have been more desirable.

## **STRENGTHS OF THE STUDY**

The study was done during working hours at Eskom premises, so the participants did not have to move outside the building. The participants could contact the researcher freely if there was anything

that was unclear to them. They were free to contact the researcher if they have any problems with any of the mental skills.

Another strength of the study was that the researcher was a professional working in the corporate world, while also competing in sport at an elite level. She therefore had a hands-on experience of both the corporate and sport environments.

Another spin-off of the study was that the skills that participants mastered in the workshops were not only applicable to their behaviour in the workplace, but there is a fair possibility that they also extended further into their day-to-day lives. It is believed that the mastering of mental skills did not only lead to higher productivity and efficiency in the workplace, but also contributed positively to the well-being of the participants.

## **FUTURE DIRECTIONS**

This type of program can in future be tested throughout Eskom in different sections (e.g., Transmission, Distribution and Generation). After this it could be applied to other types of corporate settings outside Eskom (e.g., marketing, sales, and management).

In order to prevent the repetition of the shortcomings of the current research (e.g., small sample and lack of a control group), facilitators should be trained to assist with the presentation of the workshops. This would not be such a formidable task because the basis of the programme has already been laid by the current study.

## REFERENCES

- Alder, H. & Morris, K. (1996). *Masterstroke: Use the power of your mind to improve your golf*. London: Judy Piatkus.
- Alderman, R.B. (1974). *Psychological behaviour in sport*. London: W.B. Saunders Company.
- Andersen, M. (2000). *Doing sport psychology*. Champaign, IL: Human Kinetics.
- Andrisani, J. (2002). *Think like a tiger*. New York: The Berkley Publishing group.
- Anshel, M.H. (1994). *From theory to practice. Sport psychology*. Scottsdale, AZ: Gorsuch Scarisbrick.
- Bennett, J. & Pravitz, J. (1982). *The miracle of sport psychology*. Englewood Cliffs, NJ.: Prentice-Hall.
- Bull, S., Albinson, J.G., & Shambrook, C.J. (1996). *The mental game plan: Getting psyched for sport*. Brighton, UK: Foto Sports Dynamics.
- Butt, S. (1990). *Behaviour, motivation, personality and performance of athletes*. New York: Van Nostrand Reinhold.
- Burton, D. (1992). The Jekyll and Hyde nature of goals: Reconceptualizing goal setting in sport. In T. Horn (Ed). *Advances in sport psychology* (pp. 267-297). Champaign, IL: Human Kinetics.

- Burton, D. (1993). Goal setting in sport. In R.N. Singer, M. Murphey & L.K. Tennant (Eds.), *Handbook of research on sport psychology*. (pp.467-491). New York: MacMillan.
- Covey, S.R. (1992). *The seven habits of highly effective people*. London, GB: Simon & Schuster.
- Cox, R. (1985). *Sport psychology: Concepts and applications*. Madison, WI: Brown & Benchmark.
- Cratty, B.J. (1973). *Psychology in contemporary sport*. Englewood Cliffs, NJ: Prentice-Hall.
- Deci, E. & Ryan, R. (1985). *Intrinsic motivation and self-determination in human behaviour*. New York: Plenum.
- Feltz, D.L. & Landers, D.M. (1983). The effects of mental training on motor skills learning and performance: A meta-analysis. *Journal of Sport Psychology*, 5, 25-57.
- Gallwey, W.T. (1979). *The inner game of golf*. London: Jonathan Cape.
- Gilson, C., Pratt, M., Roberts, K., & Weymes, E.D (2000). *Peak performance*. London: Harper Collins.
- Gould, D. (1993). *Goal setting for peak performance*. Mountain View, CA: Mayfield.
- Gould, D. & Damarjian, N. (1999). Mental skills training in sport. In B. Elliot (Ed.). *Training in sport. Applying sport science* (pp. 70-117). Chichester, GB: John Wiley & Sons.

- Griffiths, R. (1999). *Modern psychology for cricket and other Australian sports*. Harbord, NSW: Odlum & Garner.
- Harris, D. & Harris, B. (1984). *The athletes's guide to sport psychology: Mental skills for physical people*. New York: Leisure Press.
- Heathcote, F. (1996). *Peak performance. Zen and the sporting zone*. Dublin: Wolfhound Press.
- Horn, T.S. (1992). *Advances in sport psychology*. Champaign, IL: Human Kinetics.
- Jackson, S. & Csikszentmihalyi, M. (1999). *Flow in sport*. Champaign, IL: Human Kinetics.
- Jacobson, E. (1932). Electrophysiology of mental activities. *American Journal of Psychology*, 44, 677-694.
- Jennings, K.E. (1993). *Mind in sport. Directing energy flow into success*. Kenwyn: Juta.
- Jones, G. (2002). Performance Excellence: A personal perspective on the link between sport and business. *Journal of Applied Sport Psychology*, 14: 268-281.
- Kauss, D. (2001). *Mastering your inner game*. Champaign, IL: Human Kinetics.
- Kirschenbaum, D. (1997). *Mind matters*. Carmel, IN: Cooper.
- Kohl, R.M. & Roenker, D.L. (1983). Mechanisms involvement during skill imagery. *Journal of Motor Behavior*, 15, 179-190.



- Kubistant, T. (1988). *Mind pump. The psychology of body building*. Champaign, IL: Leisure Press.
- Lang, P.J. (1977). Imagery in therapy. An information processing analysis of fear. *Behavior Therapy*, 8, 862-886.
- Liebetrau, C. (1982). *Psychological training for competitive sport*. Pretoria: Haum.
- Locke, E.A., & Latham, G.P. (1990). *A theory of goal setting and task performance*. Englewood Cliffs, NJ: Prentice-Hall.
- Locke, A.E., Shaw, K.N., Saari, L.M. & Latham, G.P. (1981). Goal setting and task performance: 1969-1980. *Psychological Bulletin*, 90, 125-152.
- Mahony, M.J. & Avener, M. (1977). Psychology of the elite athlete: An exploratory study. *Cognitive Therapy and Research*, 3, 361-366.
- Martens, R. (1987). *Coaches' guide to sport psychology*. Champaign, IL: Human Kinetics.
- Morris, T. & Summers, J. (1995). *Sport psychology. Theory, applications and issues*. Brisbane: John Wiley & Sons.
- Murphy, S. (1994). *Imagery and mental rehearsal in Sport , Medicine and Science in sport and exercise*, 26, 486-494.
- Murphy, S. (1997). *The achievement zone: An 8 step guide to peak performance in all areas of life*. New York: Berkley Books.

- Murphy, S. (2005). *Applying sport psychology in business settings*. Paper presented at the ISSP 11<sup>th</sup> Congress of Sport Psychology 15-19 August 2005. Sydney, Australia.
- Murphy, S. & Jowdy, D. (1992). *Imagery and mental rehearsal*. In *Advances in Sport Psychology* (Ed. T. Horn), pp. 221-250. Human Kinetics, Champaign, IL.
- Nideffer, R. (1976). *The inner athlete. Mind plus muscle for winning*. New York: Crowell.
- Nideffer, R. (1985). *Athlete's guide to mental training*. Champaign, IL: Leisure Press..
- Nideffer, R. (1992). *Psyched to win. How to master mental skills to improve your mental physical performance*. Champaign, IL: Leisure Press.
- Nideffer, R. (1993). Attentional control training. In R.N. Singer, M. Murphey & L.K. Tennant (Eds.). *Handbook of research on sport psychology* (pp. 542-556). York: McMillan.
- Nideffer, R.M., & Sharpe, R.C. (1978). *Attention control training*. New York: Wideview Books.
- O'Connor, J. (2001). *NLP & Sports. How to achieve your own peak performance*. London: Thorsons.
- Orlick, T. (2000). *In pursuit of excellence. How to win in sport and life through mental training*. Champaign, IL: Human Kinetics.

- Orlick, T. (1992). The psychology of personal excellence. *Contemporary thought on performance enhancement*, 1, 109-122. The wheel of excellence. Champaign, IL: Human Kinetics.
- Petitpas, A., Champagne, D., Chartrand, J., Danish, S., & Murphy, S. (1995). *Athletes guide to career planning*. Champaign, IL: Human Kinetics.
- Porter, K. (2003). *The mental athlete*. Champaign, IL: Human Kinetics.
- Porter, K., & Foster, J. (1990). *Visual athletics. Visualizations for peak sport performance*. Dubuque, IA: Wm. C. Brown.
- Ravizza, K. (1977). *Gaining entry with athletic personnel for season-long consulting*. *The Sport Psychologist*, 2, 243-254.
- Rinke, W.J. (1992). *The 6 success strategies for winning at life, love and business*. Dearfield Beach, FL: Health Communications.
- Rushall, B. (1979). *Psyching in sport*. London: Pelham Books. (Eds.).
- Ryan, E.D. & Simons, J. (1981). Cognitive demand imagery and frequency of mental practice as factors influencing the acquisition of mental skills. *Journal of Sport Psychology*, 4, 35-45.
- Sage, G.H. (1977). *Introduction to motor behaviour. A neuropsychological approach*. Reading, MA: Addison-Wesley.
- Singer, R.N., Murphey, M. & Tennant, L.K. (1993). *Handbook of research on sport psychology*. New York: MacMillan.
- Suinn, R.M (1980). *Psychology on sports*. Minneapolis, MN: Burgess.

- Suinn, R.M. (1993). Imagery. In R.N. Singer, M. Murpey, & L.K. Tennant (Eds.). *Handbook of research on sport psychology* (pp. 492-510). New York: Macmillan.
- Syer, J., & Connolly, C. (1984). *Sporting body, sporting mind: An athlete's guide to training*. Cambridge: Cambridge University Press.
- Ungerleider, S. (1996). *Mental training for peak performance*. Emmaus, PN: Rodale Press.
- Weinberg, R.S. (1994). Goal setting and performance in sport and exercise settings: Synthesis and critique. *Medicine and Science in Sport and Exercise*, 26, 469-477.
- Weinberg, R., & McDermott, M. (2002). A comparative analysis of sport and business organisations: Factors perceived critical for organisational success. *Journal of Applied Sport Psychology*, 14: 282-298.
- Weinberg, R.S., & Gould, D. (1999). *Foundations of sport psychology*. Champaign, IL: Human Kinetics.
- Weinberg, R.S. & Williams, J.M. (1993). Integrating and implementing a psychological skills training programme. In J.M. Williams (Ed.). *Applied sport psychology. Personal growth to peak performance* (pp. 247-289). Mountain View, CA: Mayfield.
- Williams, J.M. (1986). *Applied sport psychology: Personal growth to peak performance*. Palo Alto, CA: Mayfield.

- Williams, J.M. & Krane, V. (1993). Psychological characteristics of peak performance. In J.M. Williams (Ed.). *Applied sport psychology. Personal growth to peak performance* (pp. 137-147). Mountain View, CA: Mayfield.
- Weiss, M. & Chaumeton, N. (1992). Motivational orientations in sport. In T. Horn (Ed.). *Advances in sport psychology* (pp. 61-69). Champaign, IL: Human Kinetics.
- Woodman, T., & Hardy, L. (2001). A case study of organizational stress in elite sport. *Journal Applied Sport Psychology, 13*: 207-238.
- Zaichkowsky, L.D. & Fuchs, C.Z. (1988). *Biofeedback applications in exercise and athletic performance*. Exercise and athletic performance. *Exercise and Sport Science Review, 16*, 381-442.

**APPENDIX A**

**PROPOSED MENTAL SKILLS PROGRAMME**

# **The Mind Game**

**Mental Skills  
for  
Eskom Employees**

**Dianthea Bruintjies**

**I will approach the business world the way  
I run, with the same order and passion.**

**I will set goals and make plans, work with  
discipline, and embrace pressure**

**I also think I'll probably succeed.**

Michael Johnson  
(Olympic 200m Champion)



# GOAL SETTING

The master skill for success

## What you can expect from this workshop

- Definition of goal setting
- Why you should set goals
- Different types of goals
- Steps for enhancing performance
- Considerations for goal setting
- Practical exercises

*I am mentally tough because  
I have my own goals.*

## Introduction

Sit back, relax and experience this session as a shopping spree. Walking through the shelves, you can choose what you like. Take what you think is applicable to you. Take my advice – put more of the knowledge into your trolley than leaving it on the shelf.

*The effect of goal setting performance is one of the most robust  
and replicable findings in psychological literature.*

Dan Gould (Renowned Sport Psychologist)

## Can anybody define a goal?

## **Definition of goals**

A goal is defined as attaining a specific standard of proficiency on a task, usually accomplished within a specified time limit.

*It is a lot easier to be mentally tough  
when you've got your goals straight.*  
John McEnroe (Wimbledon Tennis Champion)

## **Why you need to set goals**

Research has shown that goal setting is about getting and staying motivated on a daily basis. Your goals will stop you from drifting and wandering aimlessly and will make you accountable to yourself. They will help you persist, gauge your efforts, and provide you with meaningful feedback along the road to success. Your chosen goals on the one hand will guide you in a meaningful and challenging way but should not restrict or cause you additional stress. Goals should be demanding to keep us motivated. This will lead to meaningfully setting goals effectively.

So you need to be fully aware of your motives, of why you want to be the best. Your goals will not always guarantee you success. However, your development as an employee does not exclude your ability to accept and learn from failure at critical times and to use this experience in a positive way. To enhance goal setting effectiveness it is important for you to constantly monitor and evaluate the progress and to refine your goals as necessary. Try to develop a deep sense of commitment for your goals and always seek out alternative ways of overcoming any barriers to accomplishing your goals.

## **Practical Exercise**

### **Interview**

To be sure of where you want to go, I want you to talk to the person next to you and provide responses to the following 5 questions:

1. What is my potential as an employee?
2. What do I have to do *now* to reach that potential?
3. Am I really prepared to take a risk or two?
4. What is stopping me from pursuing my dream *now*?
5. Above all else, I would like to be..... and accomplish.....

**Who found it difficult to answer the questions?**

**Why was it so difficult to describe yourself?**

**What do you think was the purpose of this exercise?**

### **What is a mission statement?**

In order to define a mission or goal statement you need to determine what the long-term aspirations are and the short-term action steps you need to take in order for you to reach your mission. You need to...

- Identify any barriers or obstacles that might stop or hinder you in the pursuit of your dream and how you might overcome them.
- Decide on the types of goals and how many you want to focus on.
- Give preference to those goals that will specifically drive you towards your ultimate destination.
- Decide what changes you need to focus on to enhance your goal statement.

- Create your own motivational tool or goal setting sheet.
- Spend time setting personal, work, weekly goals and carefully commit them to paper to help you remember precisely what you decided on.

## **What types of goals are available?**

### **Long-term dream goals**

These goals require that you look deep inside yourself and ask the question “what do I need as a top engineer or project leader to commit myself to the utmost of my ability” (and even a little beyond). Dream a little bit here!

*It is not the end of the world if one does  
not reach one's goals.  
What is tragic is when one has no goals.*

### **Long-term goals**

These goals ask you to challenge yourself but at the same time to be realistic about your expectations. They are based on your present ability as well as your level of desire or motivation to become a better competitor.

*Everything is in the mind. That is where it all starts.  
Knowing what you want is the first step toward getting it.*  
Mae West (Famous actress)

### **Short-term goals**

These goals will answer the question “what do I have to do today as a top engineer or project leader to meet my long term goals?” These sub-goals will help to keep your long term goals in perspective.

### **Performance goals**

You will always be looking to improve your performance. Set goals around performance process and not just around the outcome. If you concentrate fully on the quality of the process, the performance outcome (success) may take care of itself!

### **Skill goals**

These goals involve technical aspects of your performance.

### **Attitude goals**

These goals involve developing the right mental habits and are inclusive of following up with the appropriate action.

### **Behavioural goals**

These goals will help you control your actions in response to your commitment to both positive and negative experiences inherent in your work environment.

### **Strategy goals**

These goals will provide you with a tactical approach to your project. It involves planning on your part and determines your wish to strategically approach your project. Be sure to be realistic and base your strategy upon your strengths and weaknesses. If you know that it will be impossible for you to complete your project on a certain time, acknowledge it, other wise you may set yourself up for failure.

### **Calculated-risk goals**

These goals tie in with the technical or strategy plans you need to incorporate in your planning. For them to make a difference they will

need to be carefully thought through.

### **Self-acceptance goals**

This goal may be more important than all the others combined because it commits you to accept yourself as being worthwhile no matter what happens to the goals that you set for yourself.

### **Preparation goals**

Short-term goals are best incorporated as part of your preparation for a project. Determine with your manager or supervisor the major objectives of the project. Set daily goals that integrate both the mental and the physical aspects of your preparation. These goals will help you keep yourself firmly on track. Goals reflect your beliefs and predispose you to behave in accordance with your beliefs.

It is true to say that a goal is not a goal until it is written down. Before it is written as a well thought, clear and accurate statement, it can only be considered a dream or fantasy. You are the best person to set your goals. At first, you may need some help and encouragement from your manager or some other significant person in executing the goal. It is better to assume this responsibility for yourself, rather than have others impose goals upon you.

## Practical exercise

### GOAL PYRAMID

MISSION STATEMENT:

.....  
 .....  
 .....  
 .....

Identify your long-term goal statement: Identify the steps you must take to reach the long-term goal

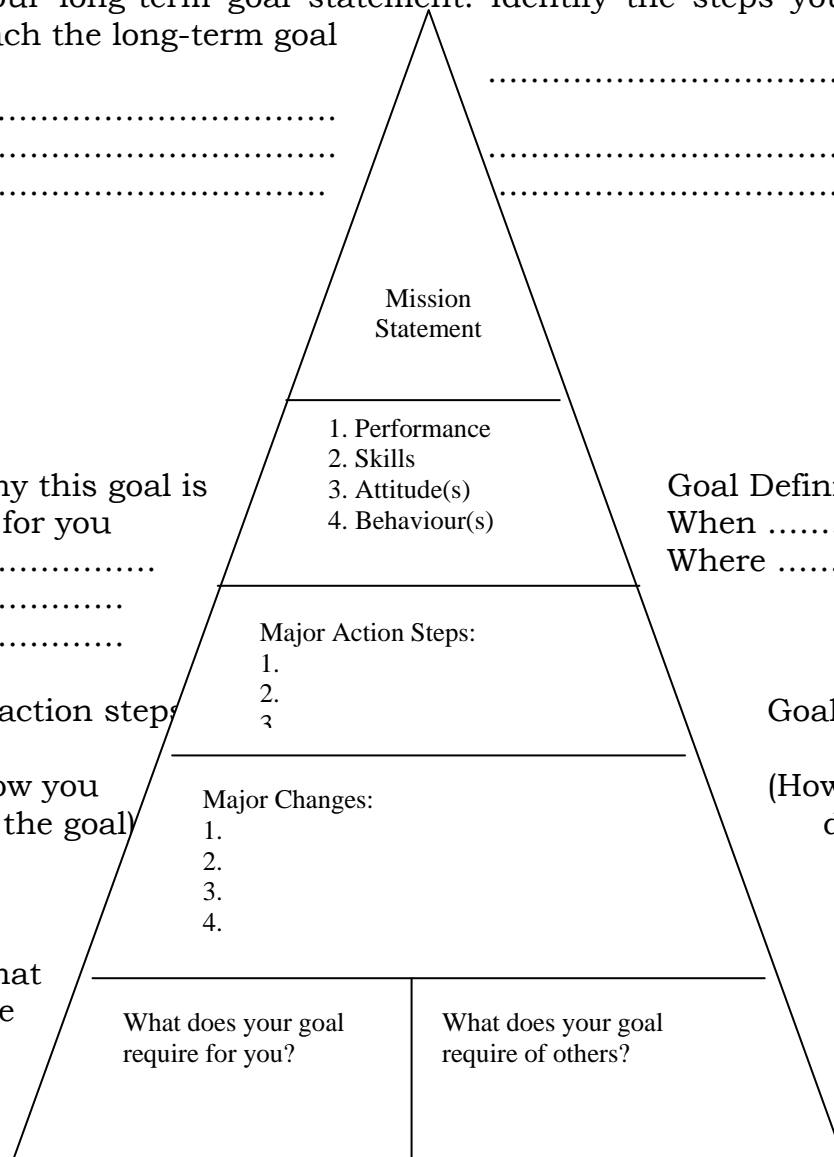
.....  
 .....  
 .....

Identify why this goal is important for you

.....  
 .....  
 .....

Plan your action steps  
 debriefing  
 (Specify how you will attain the goal)

Identify what needs to be changed



Goal Definition:  
 When .....  
 Where .....

Goal  
 (How am I doing?)

### **Are your goals...**

Realistic?

Yes  No

Challenging?

Yes  No

Difficult?

Yes  No

### **Common difficulties in attaining goals**

There are several hurdles that need to be cleared before goal attainment can be successful.

- Lack of necessary skills can prevent you from reaching your goal.
- Lack of information required to achieve the goal.

*All things are difficult before they are easy.  
Keep your mind focused on your goals  
and you will achieve them.*



## Goal setting hints

- **Set goals that you can identify with**

*Seek your destiny and you will achieve your goals.*

- **Write goals down**

*If it's not in writing, it's not a goal.  
An unwritten want is a wish,  
a dream, a never-happen.  
The day you put your goal in writing is the  
day it becomes a commitment.  
Tom Hopkins (Motivational consultant)*

- **Set specific, measurable goals**

*Goals without numbers are mere slogans.*

- **Set moderately difficult but realistic goals**

- **Formulate goals positively**

- **Set timeframes to complete goals**

- **Set process as well as outcome goals**

- **Set long- and short-term goals**

- **Set challenging goals**

*If you don't believe that you can  
achieve a goal, you won't pay the price for it.  
Doug Edwards*

- **Prioritise goals**

- **Seek feedback and evaluate goal progress**

- **Be committed**

*Choosing a goal and sticking to it changes everything.  
Scott Reed*

## **Conclusion**

It is unavoidable: goal setting is part of our daily lives. There is, however, a few considerations that you need to take into account.

### **A last world: final considerations**

- Goal setting is a self-motivating process that you can truly control to help you prepare and execute your desired performance while at the same time providing you with direction.
- Learn the skill of goal setting and use it not only to help you in training and competition, but also as a significant life skill.
- Think carefully of what you might accomplish as an employee and set your goals clearly in advance and then be prepared to follow them.
- Make a habit of setting one small goal with every project. Monitor it and evaluate as to whether you accomplish it or not.
- Goals do not have to be only performance outcome orientated. Try to focus on physical and mental skills, for example, to think about a point of technique, especially when you are tired or in pain; to indulge in more positive self-statements while performing; to commit to new strategies; to take a calculated or well rehearsed risk.
- Goal setting can also help solve any realistic problems that may be experienced as negative obstacles. Turn the obstacle around and express it as a positive goal statement - "I shall be more relaxed before my competition".
- Avoid second guessing yourself. Verbalize your intent first and then take the time to write down your goals in very precise terms.
- Always identify your goals in terms of specific activities that you can observe, monitor, and measure and evaluate objectively. "I want to be the best!" is too vague and needs to be expressed in more concrete and precise terms. Be sure your goals are well-

defined.

- Goals should be directed at changing *your* behaviour. Only focus on yourself and what you can control. It's unlikely that you can control others, so don't misplace your energies in the wrong direction.
- When goals seem elusive then aim to adjust them to ensure steady progress.
- Goal commitment is vital. If you are sufficiently committed to attaining your goals, you will be less likely to put in the required effort to reach them.
- Endeavour to be self-aware and know your strengths. Plan to systematically eradicate any obstacles in the goal path, one at a time, so you can eventually reach your vision.
- Set your goals in of order or priority. These steps may help you achieve your *mission statement* by progressing up the ladder of manageable tasks.
- Be aware of the effective pressure your *goals* might have on you, especially as you come nearer to the start of outage or your project.
- Finally, goal setting requires practice. Just like any other skill, it takes time to master and you will need to be patient.

The doubts about goal setting are now put to rest.

You have the facts.

Do something about it.

# **RELAXATION**

The basis for optimal performance

## **What you can expect from this workshop**

- An overview of relaxation
- Progressive relaxation
- Practical exercise

## **Introduction**

To perform optimally you need to make time to relax. Through this workshop I want you to explore different ways to relax.

If you think about your work, your family, your financial position, your health and other aspects - how much time do you spend to relax?

## **Assignment**

In pairs, I would like you to discuss the following:

*Your definition of relaxation*

## **The nature of relaxation**

Relaxation implies a perfectly natural occurrence of lengthening the muscle fibre-contractions, movements are absent and neuro-muscular electrical activity is subdued. The method devised by Jacobson demonstrated that relaxation is a natural process. It also teaches individuals how to recognise tense or contracted muscle fibres by tensing muscle groups all over the body and then relaxing them. After practising this contraction and relaxation technique for some time, muscular relaxation becomes automatic, like any other task of muscular coordination.

*When we come down to the final holes some  
people find it very hard to breathe.*

Jack Nicklaus

## **Take a deep breath**

*Before you start the exercise I would like to ask everyone to participate in order to avoid negative energy in the room.*

*Firstly, I'd like you to close your eyes and get as comfortable as possible. Put one of your hands flat on your chest and one on your abdomen between your navel and your breastbone. Take a deep breath particularly noticing the movement of the hands as you inhale and exhale.*

*This time I'd like you to breathe in slowly and deeply through your nose, breathing all the way down into your belly. Do this until your belly pushes up against your hands while still feeling comfortable. Your chest should move only slightly and only as your belly rises. Continue the slow breathing into your nose and down into your belly, then gently let your breath go out again at a pace that's comfortable for you.*

(Pause for a while allowing everyone to find a comfortable rhythm. If anyone seems to have trouble, repeat the last paragraph once or twice before moving on.)

*Now I'd like you to smile slightly, relaxing your face muscles, while keeping up your rhythm of breathing. On the next breath would you please inhale deeply through your nose as before and this time exhale through your mouth, making a soft and gentle "whooshing" sound, like wind in the pines or the ocean surf, as you blow out.*

*Let your mouth, tongue, jaw and throat relax as you continue to take long slow breaths in through your nose, deep into your belly and let them out through your mouth with a soft "whooshing" sound.*

*Focus on the sound and feeling of your breathing as your belly rises and lowers as you become more relaxed.*

(Pause here for 2-3 minutes. If necessary, repeat the last 2 phrases once or twice during that time to keep the group inhaling deeply and exhaling noisily.)

**What did you experience?**

**Did you enjoy the exercise?**

**How does the tension that you feel now differ from the tension you felt at the beginning of the exercise?**

*When in trouble, slow down. Frantic equals fast  
which equals Fatal, so stay calm.  
Chi Chi Rodriquez (Famous golfer)*

## **Does anyone know what Progressive Relaxation is?**

### **Progressive relaxation: Let's put it to the test**

Progressive relaxation involves the tensing of each muscle group in turn, so that each muscle group and the sense of tension in each group may be identified and released. As you expand your awareness of the difference between tension and release, you are increasingly able to release all your tension.

### **Instructions for Progressive Relaxation**

For best results, have someone read the instructions to you. If this is not possible, make a tape for yourself. When reading the instructions, maintain a normal voice pattern, pacing the instructions by doing the exercises as you read. In so doing, you will establish a suitable pace. Make sure you hold the tension long enough to feel and identify it, then relaxes. Pause between instructions so that relaxation continues for brief periods without being interrupted by the next instruction. Tense large muscle groups longer than small muscle groups.

Remember, the production of tension is for learning the relaxation technique. Once you have learned to identify any level of tension in the muscle, you can relax from any point without producing additional tension. Faithful practice beyond the instruction is essential to learning this skill. Practice whenever you can, especially when you are trying to rest and when going to sleep. Practice differential relaxation at all times.

If you feel restless and uncomfortable, it is an indication of excessive body tension. Try to find a comfortable position without any joints being flexed or ankles crossed. You can find yourself a mat or soft

surface to support your body completely. If you feel that you cannot tolerate thirty minutes of doing “nothing”, you need to focus on your breathing and try to let go of tension in muscle groups. Impatience, irritability, restlessness and squirming are signs of excessive tension.

*Breath in relaxation,  
breathe out stress.*

When you are relaxed your breathing becomes slow and regular, pulse rate decreases and you may not hear the instructions after a while. Most instructors will usually ask to signal in some manner such as raising a forefinger when you have relaxed a particular muscle group. Do not worry about missing some of the instructions. That is a normal response as you begin to enjoy this state without having it disrupted. You have no desire to leave this blissful state.

You will be without a facial track of time and not know whether ten minutes or half an hour has passed. You will also move into relaxed states where you are not aware of any thought processing. That is the desired state of relaxation that you are trying to reach. Repetition is the key to learning; continue to practice the same procedure for muscle groups until you can relax very quickly without producing additional tension.

Some individuals become anxious about relaxing because they think they are losing control. Do not worry about this. When you learn to relax you acquire control rather than losing it. You are out of control when you cannot eliminate tension when you wish to. Do not try to hold any body part still. That takes effort and tension. Let the mat or chair do the supporting and holding. Be patient when you have a practice session where you feel that you are not accomplishing anything. Think about how many times you have practiced a sports



skill before it just happens naturally. Relaxation is learned the same way.

End each relaxation session by taking five deep breaths at your own rate of speed. With each breath feel the energy flowing into your muscles, activating your system and prepare you for your activity after relaxation. Use whatever works best for you.

## **PROGRESSIVE RELAXATION**

### **Right hand and arm**

Clench your right hand, making a fist, and then bend your elbow. Clench your hand and wrist, at the same time tensing the forearm and upper arm, while bringing the clenched hand up to the shoulder. As you do this you should feel an increased sensation of tightness in all of the muscles of the arm. Be aware of the tense sensation of your muscles for ten seconds.

Slowly let your arm down, unclench your fist, straighten your elbow and relax your hand. Now be conscious of the relaxed feeling in your arm. Let the sensation of tension drain away and concentrate on the relief of experiencing this feeling of deep relaxation. Now do the same with the left hand and arm.

### **Both hands and arms**

Clench both fists, bend and fully tighten both arms together this time. Feel the tension in the fingers and lower and upper arms. Now gently let the tension go.

### **Relaxed diaphragmatic breathing**

Breathe from the diaphragm in and out through the nose. Imagine a

tiny feather on the end of your nose as you exhale, breathe so gently and gradually that you do not dislodge the feather. The exhalation should be a little longer than the inhalation. Breathe deeply but not in a strained way for three or four breaths.

Concentrate only on the feather.

### **Shoulders and neck**

Put your hands on your shoulders and tense the muscles across the upper back by elevating the shoulders and making slow circular movements with the elbows, tensing as you lift and relaxing as you lower. Feel the tension in this area of your shoulders and upper arms. Gently let the tension go and experience the feeling of relaxation.

Lift your chin, stretch your neck as much as possible, maintaining a comfortable feeling and feel the tension at the back of your neck. Lower your head to relaxed position and push your chin onto your chest, experiencing the tension under your chin. Raise your head again to a relaxed position.

Turn your head to the right, feel the tension at the right side of your neck. Relax in the central position, experience the relaxed received feeling, and turn your head to the left. Experience the tension on the left side of the neck and gently relax in the centre.

Again inhale from the diaphragm, breathing through your nose for three or four breaths, concentrating on the imaginary feather at the end of your nose. Now imagine you are on your own, lying or sitting in some location which you find relaxing – by the sea, by a stream or in the country. As you relax in your special place the sun is shining and gently warming your skin.

If you feel your mind getting distracted, return to the breathing and

concentrate on the image of the feather. Practice this sequence for one or two weeks if possible, once a day, especially when you need to feel refreshed. If you wish to practise at night it is a good way of helping you slide into a relaxed state of sleep.

### **Feet and legs**

Point your feet away from yourself; be aware of the sensation of the tension in your calves. Now relax your feet, feel the relief as the tension drains away. Pull your toes towards you, again experiencing the tense muscles in your feet and calves. Relax the toes and feel the relaxation as your feet gently flops outwards.

Lift your right leg slightly off the stool and extend it away from you, pointing your toes and stretching as far as possible-experience the tension in your thigh muscles. Gently let the leg down and notice the feeling of relaxation. Repeat the exercise with your right leg.

Breathe deeply in and out through your nose. The exhalation should be a little longer than the inhalation. Breathe out so gently that you do not dislodge the imaginary feather on the end of your nose. Breathe three or four times and concentrate on the feather.

### **Buttocks and abdomen**

Tense the buttocks and pull them in under you. Notice the tension in your hips and thighs – let the muscles go and experience the feeling of relaxed muscles. Pull in your stomach muscles – feel the sensation of the tense muscles and then let them sag. Now try to tighten the stomach and buttocks muscles simultaneously, and then relax both muscle groups. Inhale through your nose from the diaphragm. Gently and gradually exhale without dislodging the imagery feather at the end of your nose. Breathe three or four times.

### **Face**

The facial muscles are amongst the most difficult to relax and are very

important at times, as they can instantly betray your emotional state and tension level.

Tense up the forehead area - aware of this feeling of tension and then imagine a pair of hands gently smoothing away the wrinkles. Concentrate on the relaxed feeling.

Tense your eye area by frowning – concentrate on this sensation and then relax. Be aware of the heavy eyelids closing tightly. The most relaxed position for your eyelids is drooping heavily yet gently – like stage curtains falling down, lightly closed, not tightly clamped shut.

Concentrate on your mouth. Purse out your lips – be aware of the tension around your mouth. Now let go and concentrate on the feeling of relaxation. Clench your teeth, feel increased tension in your jaw area, then unclenched your teeth and feel the relaxed feeling in your jaw.

Open and widen your mouth to the side – be conscious of the tension again as you contract different muscles – and now let the tension go. Be aware of your tongue sitting comfortably in your mouth and your lips gently closed with a small gap between the centres.

This is the most relaxed position for the mouth. Breathe deeply in and out from the diaphragm – so gently and gradually that you do not dislodge the tiny feather perched on the end of your nose. Breathe three or four times.

### **Practical exercise**

Now imagine yourself sitting or lying on your own in a relaxing location, beside the sea or a quiet stream in the country side. You are feeling totally relaxed and the sun is gently warming your skin. Again,

return to the breathing and concentrate on the feather if you begin to think distracting thoughts.

**What did you experience?**

**How did it differ from the previous exercise?**

**When and where will you be able to apply this exercise?**

## **Conclusion**

Do not despair; make relaxation part of your life today. Those of you with clenched fists will never be able to shake hands. You will only be able to energise yourself simply by the way you view things. Remember you have only one body so it's your responsibility to take care of it.

Relaxation is not magic. It is a skill that must be learned and practiced to be effective. Once learned, your body is sensitive to varying levels of tension.

You begin to automatically adjust levels downward when sensing too much tension is occurring. Theoretically, you should never have a 'nervous breakdown' once you are trained in relaxation, as you would never reach that point of overload.

# IMAGERY

What you see is what you get

## What you can expect from this workshop

- Definition of imagery
- Uses of imagery
- Hints for imagery
- Practical exercises

## Introduction

This workshop is developed to enrich your life as a person and to make you realise how important imagery is.

Golfing legend, Jack Niklaus, in his book *Golf My Way*, says:

*I never hit a shot, even in practice, without having a very sharp in-focus picture of it in my head. It's like a colour movie. First I "see" the ball where I want it to finish, nice and white and sitting up high on bright green grass. Then the scene quickly changes and I "see" the ball going there: its path, trajectory and shape, even its behaviour on landing. Then there's a sort of a fade out and the next scene shows me making the kind of swing that will run the previous images into reality.*

**Any comments on the above-mentioned quote?**

## **Can anybody define imagery?**

### **Definition of imagery**

Imagery comprises of various mental pictures that can exert a strong influence on your thoughts, feelings and behaviour. It is a creative ability to turn your thoughts into pictures and to see yourself. Mental imagery is the skill that allows us to rehearse and review our performances in our imagination.

### **Practical Exercise**

- Sit comfortably and create an image in your mind of a relaxing place.
- Absorb all the sights and sounds of the place.
- Close your eyes and take a few deep breaths.
- Now see Bernie Bulldog standing about 10 metres away looking friendly.
- Notice his face and short legs, his ears and tail.
- Add some detail to Bernie Bulldog's image.
- Now see Bernie Bulldog wag his tail as he moves forward to you.
- Bernie Bulldog has been exercising and smells.
- Then see him sit immediately in front of you.
- Hear him let out a loud "woof!"
- He is within stroking distance.
- Reach out and pat him on the head.
- Feel how coarse his hair is.
- Now see Bernie Bulldog get up and make his way into the distance.

**How did you experience this exercise?**

**Which words can you associate with your senses?**

**What did you learn from this exercise?**

### **Guidelines for effective imagery**

Always begin with a brief relaxation exercise. Sit comfortably, but alert, confining the imagery exercise to about 3-5 minutes before progressing up to about 15 minutes. Start with visualising a simple skill, setting or situation and gradually add as many senses to the picture as necessary. Use sub modalities to give more reality to your imagery, e.g., size, colour, etc. Believe that your imagery is effective.

Jack Niklaus says:

*Just make sure that your movies show a perfect shot. We don't want any horror films of shots flying in sand or water or out of bounds.*

### **What do you think will be the uses for imagery?**

- Use your imagination to reach your goals.
- Use your imagination to be successful.
- Use your creative imagination to change things for the better.
- Use your imagination to solve your problems.

### **Practical Exercise**

- Pick a friend/colleague or someone that you are around quite often.
- In your mind's eye have him/her sit in a chair in front of you.
- Try to get a sharp image of that person.
- Visualise the detail of that person such as facial features, body



build, mannerisms, and clothes.

- Now imagine that person talking. Still focusing on the face, try to hear his/her voice.
- Imagine all the facial expressions as he/she talks.
- See this person walk up to you and begin talking to you.
- Try seeing this person from inside your body – from behind your own eyes.
- Think about how you feel about the person.
- Try to recreate the emotions you feel towards that person, whether it be warm friendship, deep love or admiration and respect.

*Almost all the world class athletes and other peak performers are visualisers. They see it, they feel it, they do it, and they experience it, before they actually do it. They begin with the end in mind.*

Stephen Covey

### **More imagery hints**

- See the process of performance – how to perform a skill rather than only seeing yourself doing it.
- See yourself in control of those things you can control – no wishful visions.
- See all the performance details and particularly your responses or reactions to all the situations you might encounter.

*A picture is worth a thousand words*

### **How good is your imagination?**

Read the following descriptions of four general work place situations.

For each one, imagine the situation and provide as much detail from your imagination as possible (using all the senses-seeing, hearing, feeling, tasting and smelling) to make the image as real as you can. Think of a specific example of the situation (e.g., the project the people involved, the place, the time). Now close your eyes and take a few deep breaths to become as relaxed as you can. Put aside all thoughts. Keep your eyes closed for about one minute as you try to imagine the situation as vividly as you can. Your accurate appraisal of your images will help you determine which actions you will want to emphasize in the completion of the tasks or project.

After you have completed imagining the situation, rate the four dimensions of imagery by circling the number that best describes the image you had.

**1 = No image present**

**2 = Not a clear or vivid, but a recognizable image**

**3 = Moderately clear and vivid image**

**4 = Clear and vivid image**

**5 = Extremely clear and vivid image**

For each situation, pick the number that answers each of the following four questions:

1. How vividly did you **see** yourself doing this project?

[1]      [2]      [3]      [4]      [5]

2. How clearly did you **hear** sounds of the machines whilst doing the project?

[1]      [2]      [3]      [4]      [5]

3. How well did you **feel** making certain decisions regarding the project?

[1] [2] [3] [4] [5]

4. How clearly were you aware of your **moods**?

[1] [2] [3] [4] [5]

### **Imaging being alone**

Select a specific challenge your project or task, such as working for 12 hours when you are working away from home. Now imagine yourself performing this skill at the place where you normally work without (in the machine) anyone else present. Close your eyes for about 1 minute and try to see yourself at this place, hear the sounds, feel your body perform the movement, and be aware of your state of mind or mood.

a. \_\_\_\_\_

c. \_\_\_\_\_

b. \_\_\_\_\_

d. \_\_\_\_\_

### **Imaging with other co-workers**

You are doing the same activity but now you are practicing the skill with your supervisor, project leader or manager and your team mates present. This time, however, you make a mistake that everyone notices.

a. \_\_\_\_\_

c. \_\_\_\_\_

b. \_\_\_\_\_

d. \_\_\_\_\_

### **Imaging observing a co-worker**

Think of a team member performing a specific skill unsuccessfully

during the outage, such as putting the nuts in wrong places.

a. \_\_\_\_\_ c. \_\_\_\_\_

b. \_\_\_\_\_ d. \_\_\_\_\_

### **Imaging being evaluated**

Imagine yourself performing against time. You are performing very skilfully, and the supervisor, project leader, manager and team members are showing their appreciation.

a. \_\_\_\_\_ c. \_\_\_\_\_

b. \_\_\_\_\_ d. \_\_\_\_\_

### **Scoring**

Now determine your imagery scores and see what they mean. First, add the ratings for your four answers to part (a) in each section, your four answers to part (b) in each section, and so on, recording them below.

#### **Total Dimension Score**

**Visual**                    \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_

**Auditory**                    \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_

**Kinesthetic**                    \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_

**Mood**                    \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_

For each dimension, your top possible score is 20 and your lowest

possible score is 4. The closer you came to 20 on each dimension, the more skilled you are in that particular area. Lower scores mean you need to work on those aspects of your imagery.

(Adapted from Martens, 1982b)

## **Conclusion**

Here is something to think about:

### ***DID THE EARTH MOVE FOR YOU?***

Eleven year old Angela was stricken with a debilitating disease involving her nervous system. She was unable to walk and her movement was restricted in other ways as well. The doctors did not hold out much hope of her ever recovering from this illness. They predicted she'd spend the rest of her life in a wheelchair. They said that few, if any, were able to come back to normal after contracting this disease. The little girl was undaunted. There, lying in her hospital bed, she would vow to anyone who'd listen that she was definitely going to be walking again someday.

She was transferred to a specialised rehabilitation hospital in the San Francisco Bay area. What ever therapies could be applied to her case was used. The therapist was charmed by her undefeatable spirit. They taught her about imaging-about seeing herself walking. If it would do nothing else, it would at least give her hope and something positive to do in the long waking hours in her bed. Angela would work as hard as possible in physical therapy, in whirlpools and in exercise sessions. But she worked just as hard lying there faithfully doing her imaging, visualising herself moving, moving, moving!

One day, as she was straining with all her might to imagine her legs moving again, it seemed as though a miracle happened. The bed moved! It began to move around the room! She screamed out, “Look what I’m doing! Look! Look! I can do it! I moved, I moved!”

Of course, at this very moment everyone else in the hospital was screaming, too, and running for cover. People were screaming, equipment was falling and glass was breaking. You see, it was the recent San Francisco earthquake. But don’t tell that to Angela. She’s convinced that she did it. And now only a few years later, she’s back in school. On her own two legs. No crutches, no wheelchair. You see anyone who can shake the earth between San Francisco and Oakland can conquer a piddling little disease, can’t they? –Hanock McCarty

# CONCENTRATION

The freedom to perform without over thinking

## **What you can expect from this workshop**

- General information on concentration
- Practical exercises

## **Introduction**

This workshop is developed to enrich your life as a person and to make you realise how important concentration is.

Sit back, relax and experience it as a shopping spree: walking through the shelves, you can choose what you like. Take what you think is applicable for you.

## **What is concentration?**

Before we start this workshop, I would like you to turn to the person on your right hand side and do the following:

- Introduce yourself
- Give your colleague your definition of concentration

## **The nature of concentration**

Concentration is the ability to select and maintain an appropriate attentional focus. It is characterised by being able to focus on one thing at a time, by focusing on the present or the here and now and discriminately attending to important cues.

Concentration is a relaxed state of being alert, differing from anything held through will-power in the sense that it can change its focus instantly to stay with the flow of your environment.

### **Exercise 1**

Before we start the exercise I want you to put emphasis on the fact that everyone must participate in order to avoid negative energy in the room. When doing this exercise we need to be calm and relaxed to give ourselves enough time to experience the powerful effect of concentration.

Firstly, I would like you to close your eyes and get as comfortable as possible.

- Sit in an upright chair, with both feet on the ground and arms uncrossed.
- Take a deep breath and let it out slowly as you begin to relax from forehead downward.
- Once you are relaxed, notice your breathing and without changing its rhythm, begin to count silently so that one breathe (in and out) counts as one, next in and out breathe counts as two, etc.
- When you reach ten, go back to one and re-start.
- If you lose count or find yourself counting beyond ten, stop and trace your wandering thoughts back as far as you can before you re-start at one.
- How did you experience the exercise?
- How many of you found it difficult to keep your counts?
- Were you distracted?



- What will you tell your partner to do if he or she finds it difficult to complete the exercise?

In order to concentrate optimally, it is important to identify all aspects of performance demands whether they are real or perceived.

The next step is to identify all supports and constraints (with the possibility of a support, also being a constraint). The endpoint will be to identify and implement an action plan to maximise support and minimise constraints. This will help those who had difficulties to concentrate during the exercise.

## **Exercise 2**

With this exercise I want you to improve, or implement an action plan to improve your concentration. Think a bit about the feedback that we have discussed earlier and try to implement it.

Sit in an upright chair and place some object related to your work in front of you. Relax as before, but keep your eyes open. Spend five minutes without moving, noticing as many qualities of the object as you can.

- How did you experience the exercise?
- Was it any different than the first one?
- Was there an improvement in terms of concentration?

Focusing on the components of well-learned skills and behaviour disrupts performance. At the same time, focusing on the elements of a poorly learned activity or one that is just being learned is facilitative or even essential to your performance. Focusing on the components of performance slows the behaviour down in such a manner that smoothness, the coordination as a whole, or the flow of act, is disrupted. Performance becomes disjointed when you focus on component parts. You have to focus on what is about to happen, then just let it happen.

### **Exercise 3**

- Sit with a pencil and paper; write down the name of an object from your career in the centre of the page.
- Enclose the word in a circle and then, using the circle like the hub of a wheel, draw out a 'spoke' with a word at its end, denoting an object or quality that you connect for a moment with the circled word.
- Then go back to the circled word and let another connection come, drawing out another 'spoke' of the wheel with the new word at its end.
- Repeat this process until you have completed the 'wheel' of words surrounding the original one.

Any feedback?

Was it difficult?

With this exercise we demonstrated the difference between attention and attentional control.

Can you tell the difference?

Attention is the window of consciousness. You are aware of the internal and external stimuli that are recognised by your senses. These are either detected in a controlled way or automatically, in your career. Remember any thing can compete for your attention at the same time. What you attend to is a matter for your choice.

Attentional control on the other hand, is your ability to effectively manage those stimuli that impact upon performance. You must decide which cues or triggers are relevant and which are irrelevant. Decide where to shift or maintain your proper focus, and how you will deal with any distractions. Attentional control is really about concentrating on those things that are important in your career.

#### **Exercise 4**

As part of our conclusion, we are going to do the last exercise. Place your index finger of your left hand on your forehead at a point just above and between your eyebrows, your thumb closing the left nostril, close your eyes, breathe in through the right nostril, holding your breath and say something positive to yourself silently. Then take your thumb away and breathe out of the left nostril, hold and repeat your positive word, release the right nostril and breathe out through the right nostril to the count of four. Repeat this sequence five times.

**Any feedback?**

## **Conclusion**

It is unavoidable – concentration is part of our lives. If we don't act, we will only be able to react. Therefore we must pro-actively strive to enhance our concentration levels.

Let's look at how some other people approached focus/concentration:

*The real voyage of discovery consists not in  
seeking new landscapes, but in having new eyes*

Marcel Proust

*A great pleasure in life is doing what other  
people say you cannot do*

Kay Lyons

If we develop and manage our concentration effectively, not only will we be able to have an improved quality of life, but will also be able to keep the equilibrium between the body, mind and soul, thereby experience total wellness.

# MOTIVATION

The tool that every employee needs

## What you can expect from this workshop

- Definition of motivation
- How to improve self-confidence and stay motivated
- Things that boost self-confidence amongst employees
- Confidence inventory
- Principles underlying motivation
- Characteristics of motivation
- Practical exercise

Sit back, relax and listen carefully to the following:

### Don't Quit

When things go wrong, as they sometimes will,  
When the road you're trudging seems all uphill,  
When the funds are low and the debts are high,  
And you want to smile, but you have to sigh,  
When care is pressing you down a bit -  
Rest if you must, **but don't you quit**

Life is queer with its twists and turns,  
As every one of us sometimes learns,  
And many a person turns about,

When they might have won had stuck it out.

Don't give up though the pace seems slow -

You may succeed with another blow.

Often the struggler has given up

When he might have captured the victor's cup;

And he learned too late

How close he was to the golden crown.

Success is failure turned inside out -

So stick to the fight when you're hardest hit, -

It's when things seem worst that you mustn't quit.

Author unknown

### **Can anybody define motivation?**

#### **Definition of motivation**

It is the direction and intensity of one's effort.

### **What do you do about your confidence?**

Please complete the short questionnaire on the following page.

## CONFIDENCE INVENTORY 1

**Do you boost your self-confidence before you go on outage or start a new project?**

Never

Sometimes

Always

[ ]

[ ]

[ ]

**Do you boost your self-confidence during the project or outage?**

Never

Sometimes

Always

[ ]

[ ]

[ ]

**Do you boost your self-confidence following an outage or project?**

Never

Sometimes

Always

[ ]

[ ]

[ ]

**Was it difficult to answer these questions?**

**What made it so difficult?**

## **Characteristics of motivation**

Achievement motivation and competitiveness deal not just with the final outcome or pursuit of excellence - they also deal with the psychological journey getting there.

If you understand why motivation differences occur in people, you can intervene positively. Thus, you are interested in how a person's competitiveness and achievement motivation influence a wide variety of behaviours, thoughts and feelings which include the following:

- Choice of activity (e.g., seeking out opponents of equal ability to compete against or looking for players of greater or lesser ability to play with)
- Effort to pursue goals (e.g., how often you practice)
- Intensity of effort in the pursuit of goals (e.g., how hard you consistently try during a work-out)
- Persistence in the face of failure and adversity (e.g., when the going gets tough, do you work harder or slow down?)



## CONFIDENCE INVENTORY 2

This questionnaire will help you to improve your self-confidence  
and to stay motivated.

### **Do you revisit and review you goals?**

Never	Sometimes	Always
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### **Does your posture reflect self-confidence?**

Never	Sometimes	Always
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### **Do you consciously refrain from making negative self-statements?**

Never	Sometimes	Always
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### **Are you really making the necessary sacrifices?**

Never	Sometimes	Always
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### **Do you experience temporary loss of desire and motivation?**

Never	Sometimes	Always
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### **How often do you relax and visualize yourself back to self-confidence?**

Never	Sometimes	Always
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### **Do you use positive affirmations?**

Never	Sometimes	Always
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## **Principles underlying motivation**

- Situations and traits motivate people
- People have multiple motives for involvement
- People have competing motives for involvement
- People have both shared and unique motives
- Motives change over time
- Leaders influence motivation

## **Guidelines for building motivation**

- Change the environment to enhance motivation
- Provide multiple opportunities
- Adjust to individuals if working within a group
- Use behaviour modification to change undesirable participant motives

### CONFIDENCE INVENTORY 3

Read each question carefully and think about your confidence with regard to each item as you evaluated yourself with last year's performance. For each item indicate by what percentage of time you feel you have had too little, too much, or just the right degree of confidence. Below is an example to give you some confidence in filling out the inventory correctly.

#### How confident are you each time you get a new project?

Under Confident	Confident	Over Confident
<b>70</b>	<b>10</b>	<b>20</b>

The three answers should always add up to 100%. You may distribute this 100% in any way you think is appropriate. You may assign all 100% to one category, split it between two categories, or, as in the example, divide it amongst all three categories.

#### How confident are you with respect to:

##### Your ability to execute the skills of your field?

Under Confident	Confident	Over Confident
[ ]	[ ]	[ ]

##### Your ability to make critical decisions during the project or outage?

Under Confident	Confident	Over Confident
[ ]	[ ]	[ ]

##### Your ability to concentrate?

Under Confident	Confident	Over Confident
[ ]	[ ]	[ ]

##### Your ability to perform under pressure?

Under Confident	Confident	Over Confident
[ ]	[ ]	[ ]

**Your ability to execute successful strategy?**

Under Confident	Confident	Over Confident
[ ]	[ ]	[ ]

**Your ability to put forth the effort needed to succeed?**

Under Confident	Confident	Over Confident
[ ]	[ ]	[ ]

**Your ability to control your emotions during a project or outage?**

Under Confident	Confident	Over Confident
[ ]	[ ]	[ ]

**Your physical conditioning during an outage or project?**

Under Confident	Confident	Over Confident
[ ]	[ ]	[ ]

**Your ability to relate successfully to your supervisor/manager/project leader?**

Under Confident	Confident	Over Confident
[ ]	[ ]	[ ]

**Your ability to catch up when you are running a bit behind schedule?**

Under Confident	Confident	Over Confident
[ ]	[ ]	[ ]

**How many of you found it difficult to rate yourself?**

**Why did you find it difficult?**

**Conclusion**

Do not despair – the first step is to WANT TO CHANGE.

This takes self-responsibility.

*Everything matters, absolutely nothing is neutral.*

*It either helps or hinders one. Be aware.*

Author unknown

*You can climb up on your adversities as much as  
your successes. Use the lesson that you learn.*

Author unknown

*There are those who HOPE things will happen,  
there are those who EXPECT things to happen,  
there are those who WATCH things happen  
and there are those who MAKE things happen.*

Author unknown

I want you to think carefully about the following that's  
going to be read to you.

### **I'M SPECIAL**

I'm special. In the entire world there's nobody like me.

Since the beginning of time, there has never been another person like me. Nobody has my smile. Nobody has my eyes, my nose, my hair, my voice, I'm special.

No one can be found who has my handwriting.

Nobody anywhere has my tastes- for food, music or art. No one sees things just as I do.

In all of time there's been no one who laughs like me, no one who cries like me. And what makes me laugh and cry will never provoke identical laughter and tears from anybody else, ever.

No one reacts to any situation just I would react. I'm special.

I'm the only one in all of creation who has my set of abilities. Oh, there

will always be somebody who is better at one of the things I'm good at, but no one in the universe can reach the quality of my combination of talents, ideas, abilities and feelings. Like a room full of musical instruments, some may excel alone, but none can match the symphony sound when all are played together. I'm a symphony.

Through all of eternity no one will ever look, talk, walk, think or do like me. I'm special. I'm rare.

And in rarity there is great value.

Because of my great rare value, I need not attempt to imitate others. I will accept- yes, celebrate-my differences.

I'm special. And I'm beginning to realize it's no accident that I'm special. I'm beginning to see that God made me special for a very special purpose. He must have a job for me that no one else can do as well as I. Out of the billions of applicants only one is qualified, only one has the combination of what it takes.

That one is me. Because ... I'm special.

Source unknown

## **APPENDIX B**

### **Contents of the Mental Skills Questionnaire**

# Mental Skills Questionnaire

## Goal setting

1. I set challenging goals for myself.
6. I set specific goals for myself.
11. I set goals that I can achieve.
16. I reset my goals when things don't turn out the way I intended.

## Relaxation

2. I'm able to relax before important projects.
7. I become too tense before an important project.
12. Being able to calm down is one of my strong points.
17. I know how to relax in difficult circumstances.

## Imagery

3. I can see my performance in my mind's eye.
8. I can rehearse my skills in my mind before I use them.
13. It is difficult for me to form mental pictures.
18. I can easily imagine how a movement feels.

## Concentration

4. During projects I find myself focusing on irrelevant cues.
9. Unexpected distractions put me off.
14. Being easily distracted is a problem for me.
19. When I'm distracted, I'm able to refocus on the task at hand.

## Motivation

5. I'm enthusiastic when preparing for important projects.
10. I enjoy challenging projects.
15. I'm good at motivating myself to execute the task well.
20. After a project I feel that I have given my best.