Chapter - I

INTRODUCTION
1.1 INTRODUCTION

Sport psychology is the scientific study of people and their behaviors in sport contexts and the practical application of that knowledge. Sport psychologists identify principles and guidelines that professionals can use to help adults and children participate and benefit from sport and exercise activities in both team and individual environments. Sport psychologists have two objectives in mind: (a) to understand how psychological factors affect an individual’s physical performance and (b) to understand how participation in sport and exercise affects a person’s psychological development, health and well-being. Sport psychology is deals with increasing performance by managing emotions and minimizing the psychological effects of injury and poor performance. Some of the most important skills taught are goal setting, relaxation, visualization, self-talk, awareness and control, concentration, confidence, using rituals, attribution training, and periodization.

Sports psychology was defined by Singer in 1978 as “the science of psychology applied to sport.” Sports psychologists provide two major types of services: performance enhancement as a competitive strategy and counseling for a variety of issues affecting the athlete. Although not all athletes have access to a qualified sport psychologist, much can be learned from the available research. Although still in its infancy, this field already has much to offer. Many research findings have still not been communicated to the player and coach in an easily available format. Much knowledge is just waiting to be tapped. (Singer, 1986)

Understanding of sports psychology is very important to achieve optimum performance and has lots of benefits such as it helps to assess the fit between persons and sports and even positions on a team, helps athletes and coaches value their strengths and become more aware of those areas in which development may be warranted, helps coaches and athletes in a strained relationship, analyze the source of
the conflict and build a strategy to reduce it. It can lead to motivated and committed behavior, useful for the athlete and sports professional in career and life planning, self-management (such as stress/time management) and interpersonal skills areas.

There are several areas involved and services provided by the sport psychologist. Few domains where sport psychology plays an active role and eventually helping sportsmen gain competitive strategies are professional athletes and coaches, national team programs, sport organizations, youth development programs, student athletes and coaches, families of athletes, players coping with injuries and recreational programs.

The contemporary sport psychologist is expected to fill three primary roles the first being research. The primary role of any participant in tertiary education is to further the knowledge in that field. Sport psychologists conduct research in many areas. They may study the arousal levels of athletes before a hockey game, or ask children why they play a certain sport. The findings are then shared with colleagues, allowing others to benefit from this research. The second role is teaching in which sport psychologists are expected to teach in their chosen field, whether it is at a tertiary level or teaching an intern in the field of psychology. This is so the skill is passed on and sport psychology remains strong around the world. Third is consulting which is very important one has to consult with individual athletes or team athletes to derive skills to enhance performance levels. Some sport and exercise psychologists work in the fitness industry to design exercise programs that maximize participation and promote psychological well-being.

Some typical services provided by the sport psychologist are imagery training, arousal management/attention focus, substance abuse management, eating disorders/weight management, relaxation training, motivational strategies, competitive pressure management and programs to cope with retirement from sport. Sports psychology has much to offer athletes and coaches at all levels. If coaches are looking for competitive strategies, or trying to help their players achieve at their maximum level, than they should take help of sport psychology.

Sport psychology may not be appropriate for every athlete. Not every person who plays a sport wants to “improve performance.” Sport psychology is probably not for
recreation athletes who participate for the social component of a sport or do not spend time working on technique or fitness to improve performance. Young athletes whose parents want them to see a sports psychologist are not good candidate either. It is very important that the athlete desires to improve his or her mental game without having the motive to satisfy a parent. Similarly, an athlete who sees a mental game expert only to satisfy a coach is not going to fully benefit from mental training.

Mental game coaching or training is that the segment of sports psychology that concentrates specifically on helping athletes break through the mental barriers that are keeping them from performing up to their peak potential. By focusing on the mental skills needed to be successful in any sporting competition, mental game coaching seeks to achieve the overall goal of performance improvement. There are a few objectives which need to be fulfilled to achieve optimum performance in sports competition to improve focus and deal with distractions, to grow confidence in athletes who have doubts, to develop coping skills to deal with setbacks and errors, to find the right zone of intensity for your sport, to help teams develop communication skills and cohesion, to instill a healthy belief system and identify irrational thoughts, to improve or balance motivation for optimal performance, to develop confidence post-injury and to develop game-specific strategies and game plans.

The first attempt to predict human performance on scientific basis was made by Professor Arthur Kelly of Harvard University in 1906. But not all factors that affect human performance are susceptible to easy measurement. The various factors that affect human performance are anthropometric, biomechanical, physiological, psychological, social-economical, environmental and technical etc. It goes without saying that it is impossible to predict performance that cannot be measured in numbers.

“Sports performance is not simply a product of physiological (for example stress and fitness) and biomechanical (for example technique factors) but psychological factors also play a crucial role in determining performance” .However, every athlete has a certain stress level that is needed to optimize his or her game. That bar depends on factors such as past experiences, coping responses and genetics.
Although psychological preparation is a component that has been often neglected by athletes and coaches alike, studies have shown that mental readiness was felt to be the most significant statistical link with Olympic ranking. Athletes have frequently been quoted to state how the mental aspect is the most important part of one’s performance. Interest in researching sports psychology has skyrocketed over the past few years. A myriad of hypotheses have been developed to attempt to clarify the relationship between stress and performance. In 1943, the drive theory was introduced, claiming that an athlete who is appropriately skilled will perform better if his/her drive to compete is aroused or if they are “psyched up”. In 1962, the inverted-U hypothesis was formed on the notion that there is an optimal amount of arousal that an athlete will perform at. However, “if that level of arousal is passed, then the levels of performance will decrease. The same thing happens when the level of arousal is lower than the optimal level” (Triplett, 1897).

Although the development of sport psychology has been documented for over 90 years beginning with efforts of Triplett (1897), only within the last decade has the emphasis on psychological components of athletics moved from the research laboratory and gained on-the-field support as a major influence on sport performance (Tammen, 1998).

Sport psychology research and practice have been in existence for almost a century, during which time scholars and professionals alike have made ongoing efforts to learn more about the psychosocial variables related to enhanced athletic performance. From internal variables such as personality, achievement motivation, and self-efficacy to external variables such as athletic performance and group cohesion numerous factors have been considered in an effort to better understand the development and maintenance of performance excellence. Although researchers have amassed an extensive body of literature examining both internal and external variables related to sport performance, the efficacy and maintenance of sport psychology interventions remains a notable concern for professional practice (Otten, 2009).

Early research evidence has supported an association between psychological characteristics and sport performance. Results have often been controversial since the level of competitive stress, and the ability of an individual to cope, were found to be directly related to the type of sport, the position played, as well as the physical/mental
ability of the athlete. Further research has quantified differences in psychological response between elite versus non-elite athletes. However, the difficulty of matching psychological variables with physiological response and the subsequent problems in interpreting these findings are well recognized (May, 1985).

During the last few decades, coaches and athletes from a wide variety of sports have begun to realize the importance of the mental side of athletic performance. More specifically, individuals involved with organized sport now understand that for athletes to perform at their peak level of efficiency, they must possess and use a number of psychological skills. This is also true within the world of track and field as coaches and athletes have become interested in enhancing their athletes' psychological skills (Caudil, 1983).

**Flow and Optimal Performance in Sport**

Sport psychology aims at optimizing athletic performance. One mental state that is closely linked to optimal performance in sport is flow. It has been defined as “the state in which people are so involved in an activity that nothing else seems to matter”. Nine fundamentals of the flow experience have been identified. First, the challenge of the situation matches the skills of the athlete. Second, awareness and action merge. Third, the goals are clear. Fourth, the athlete is passively told that his performance is correct by unambiguous feedback. Fifth, the athlete is absolutely concentrated. Sixth, the athlete has a clear sense of being in control over his performance. Seventh, the athlete loses his sense of self-consciousness. Eighth, the athlete experiences a transformation of time. Finally, the athlete feels the flow experience as being automatic going along with the experience being fun, enjoyable and highly motivating (Csikszentmihalyi, 1990).

This flow experience is highly related to outstanding sport performances (Hammermeister & Von Guenthner, 2005). Jackson (1992) found evidence for this in interviews about top performances with international elite level athletes. The athletes described their psychological states in terms that match with the flow experience: being in total control, being confident, being completely absorbed by the activity and perceiving a sense of “I can do no wrong” (Jackson, 1992).
Mental Skills Training and the Flow Experience

Mental skills training are a useful product to reach the flow experience and optimal performance in sport. The author defined mental skills training as a collective noun for all activities aiming at learning mental skills to improve sport performance. A compact overview over mental training is given by Gabler, Jansen &Nitsch (1990). They mention the intention, the subject and the methods of mental training. The intention of mental training is reaching a goal like enhancing sport performance, health or quality of life. Subject of mental training can be an individual or a team. The method of mental training is the development of mental training program to reach formulated goals (Dudnik, 1994).

Although mental training for athletes has been used for a number of years, it is only within the last decade that comprehensive mental training programs have become popular. These programs are commonly referred to as psychological skills training (or PST) programs. PST programs are comprehensive intervention pack-ages designed to educate and train athletes in mental preparation. Because PST programs involve assisting athletes in the improvement of multiple psychological skills, these programs have a distinct advantage over programs designed only to improve an athlete’s ability in one area (Gould, 2003).

It has been suggested that applied sport psychology interventions should be founded on a basis of theory and research. A great deal of research effort has concentrated on attempting to predict performance from psychological variables. Evidence showing relationships between psychological variables could be used to guide sport psychology interventions, and it has been proposed that sport psychologists can enhance performance by enhancing psychological skills (Tammen, 1998).

The Fundamentals Aspects

Every sport is comprised of four fundamental components, namely: the technical, tactical, physiological and psychological. Briefly, the technical components represent the actual skill necessary to play a given sport. Examples include dribbling in soccer, shooting in basketball, passing in football, etc. The tactical aspect refers to the strategies and concepts employed to showcase those techniques in competition. Examples include what system to play in soccer, what offense to run in basketball, or
what offensive schemes to utilize in football. The physiological components refer to
the physical demands of a given sport. Examples include the cardio-respiratory
demands, strength, flexibility, anaerobic needs, etc. The fourth component is the focus
of “Colleen's Psychological Skills,” the psychological dimension. Examples include:
motivation to compete, mental toughness, self-confidence, imagery, goal setting, etc.

Baseball psychology can be a broad term used to cover very different topics. Baseball
Psychology can cover conditions such as superstitions, Obsessions, confidence issues,
baseball lore and mental aptitude while also covering player mentality and decision
making. Of course Baseball Psychology also includes the mental side of hitting and
fielding, scouting, mentality of pitchers, and finally; streaks, slums and momentum.

Some interesting things in baseball psychology are the superstitions of the players.
More than any other sport, baseball is known for some players possessing quirky good
luck charms, routines and even dances. For example, some pitchers and coaches
would step on the foul line when running on and off the field and some players have
this big production after every single pitch. Here's an example of what it would be
like: The batter has swung and misses the pitch, then he steps out of the batter's box,
touches the top of the batting helmet with one hand, then he puts two hands on the bat
and balances it between both knees why re-securing each batting glove.

The game of baseball has been known to be superstitious; Wade Boggs (former Red
Sox and NY Yankee) ate chicken before every single game. Many players have been
very superstitious about the uniform number they wore. Some even goes as far as
paying tens of thousands of dollars to teammates in a “buyout” of a uniform number
from one player to the other. Baseball Psychology could also cover the beliefs,
teachings, programs and practices, such as meditation, yoga and positive thinking. In
the last 10 to 20 years baseball has crept into the mental realm for clues to mental
superiority.

Whether you are an athlete or a coach, mastering the mental game of sport will allow
you to reach greater heights as a competitor than you could otherwise achieve by
focusing exclusively on the physical side of sport. You can use these tips in a variety
of ways including incorporating them completely, sequentially and additively into
your own game plan or selectively choosing from among a variety of techniques -- the ones that most interest you at a particular time.

1.2 PSYCHOLOGICAL VARIABLES

Physical discipline has always been the major focus of training in the exercise and sport world, but more recently, research has turned its eye to the mind as a tool that may facilitate the ability to overcome physical limitations and help performance. Coaches and others both within and outside of the exercise arena have often acknowledged the importance of the mental discipline of imagery or visualization as a major factor in improving performance, whether it is in sport and exercise, business or physical rehabilitation.

IMAGERY

Imagery is a mental discipline tool that is sometimes used to improve performance and technique, facilitate focus and motivation, to alter arousal and anxiety, to rehearse various situations and even to facilitate healing for the injured or infirm. Imagery, visualization, mental rehearsal, etc. refer to “creating or recreating an experience in the mind” (Weinberg & Gould). Some see Imagery as nonsense, but it is widely known that many elite athletes have incorporated its use into their training with the hope that it will help them perform at their best. Perhaps less known, is the fact that imagery is now being adopted in physical therapy practice (Gould, 2007).

Psychological skills have long been considered an integral part of what makes an athlete successful at elite levels. Perhaps one of the most widely researched and popular intervention strategies to date has been the use of mental imagery, which has been defined as a psychological activity that evokes physical characteristics of any object, person, or place that is absent from our perception. White and Hardy (1998) suggest that through imagery “we can be aware of ‘seeing’ an image, feeling movements as an image, or experiencing an image of smell, taste or sounds without experiencing the real thing”. Furthermore, they distinguish imagery from dreaming because “we are awake and conscious when we form an image”. Meta analyses examining the influence of imagery training on performance have found moderate
effect sizes ranging from .48 to .68. These findings have led researchers to conclude that in comparison to no practice at all, imagery usually benefits performance. As a result, Hall (2001) has suggested that imagery can serve as an effective supplement to regular physical practice and as a substitute for some amounts of physical practice when athletes are unable to train (Durand, 1997).

Imagery is a skill, a cognitive process in which you use your mind to create an experience that is not unlike the physical event. The goal is to use your mind to work on all aspects of your performance. For example, recalling your best performance, correcting technical errors and putting yourself in different situations under all sorts of conditions to help take away the element of surprise.

With regard to the use of Imagery in sport, and in particular, evaluating the effectiveness of different types of imagery, the implications of the penalty flick study seem to be significant, since it is widely held that novices experience a smaller improvement with imagery than experienced athletes. If stimulus-only imagery can improve scores by almost 30% and stimulus-response imagery by almost 50% in novices without physical practice, it seems stimulus-response imagery training could be a very effective way to improve performance in athletes during physical rest phases, in between practices or during injury recovery periods. Also worth noting is the use of a personalized script for the more successful group.

**Key Elements to Consider Using Imagery:**

1. **Use all of your senses:** The better and more detailed the image, the better your body can understand what it has to do. You need to make sure you are adding in not only what you see; but also what you hear, smell, taste, and what you feel.

2. **You are in control:** You need to be able to control the images you create in your mind. You control the movements and the outcome. You want to make sure you are only visualizing the positive.

3. **Consistent practice:** Just as with physical training, mental training should be done habitually. It should become a regular part of your practice schedule. You need to make the commitment and take the time to utilize this skill. It’s
your choice to make this a priority or not. Practice is always in season, your mind is your practice field any day, any time, any place — it is always accessible.

4. Real time: If you participate in a sport that is timed (track, swimming, speed skating, skiing, figure skating, etc.), your imagery of a particular race should be equal to the time of the actual event.

5. External vs. internal imagery: You can visualize from either an internal or external perspective. For the most part, it is best to try and be the person actually going through the motions so that you have a keen awareness of how it feels to do things the correct way. External imagery (as if you are a spectator or watching a video of yourself) is good for error correction, this way you can see what it is you are actually doing wrong, as would your coach.

**Mental Imagery**

Mental imagery involves the athletes imagining themselves in a specific environment or performing a specific activity. The images should have the athlete performing these items very well and successfully. They should see themselves enjoying the activity and feeling satisfied with their performance. They should attempt to enter fully into the image with all their senses. Sight, hear, feel, touch, smell and perform, as they would like to perform in real life.

Mental imagery, also called visualization and mental rehearsal, is defined as experience that resembles perceptual experience, but which occurs in the absence of the appropriate stimuli for the relevant perception (plato.stanford.edu/entries/mental-imagery). Whenever we imagine ourselves performing an action in the absence of physical practice, we are said to be using imagery. While most discussions of imagery focus on the visual mode, there exists other mode of experience such as auditory and kinesthetic that is just as important. When an athlete is in a fully relaxed state, he/she is particularly receptive to mental imagery. The next stage is then to learn how to develop and apply mental imagery skills.
Mental Imagery can be used for:

- **To see success.** Many athletes “see” themselves achieving their goals on a regular basis, both performing skills at a high level and seeing the desired performance outcomes.

- **To motivate.** Before or during training sessions, calling up images of your goals for that session, or of a past or future competition or competitor can serve a motivational purpose. It can vividly remind you of your objective, which can result in increased intensity in training.

- **To perfect skills.** Mental imagery is often used to facilitate the learning and refinement of skills or skill sequences. The best athletes “see” and “feel” themselves performing perfect skills, programs, routines, or plays on a very regular basis.

- **To familiarize.** Mental imagery can be effectively used to familiarize yourself with all kinds of things, such as a competition site, a race course, a complex play pattern or routine, a pre-competition plan, an event focus plan, a media interview plan, a refocusing plan, or the strategy you plan to follow.

- **To set the stage for performance.** Mental imagery is often an integral part of the pre-competition plan, which helps set the mental stage for a good performance. Athletes do a complete mental run through of the key elements of their performance. This helps draw out their desired pre-competition feelings and focus. It also helps keep negative thoughts from interfering with a positive pre-game focus.

- **To refocus.** Mental imagery can be useful in helping you to re-focus when the need arises. For example, if a warm-up is feeling sluggish, imagery of a previous best performance or previous best event focus can help get things back on track. You can also use imagery as a means of refocusing within the event, by imagining what you should focus on and feeling that focus.

Mental imagery should not focus on the outcome but on the actions to achieve the desired outcome. Imagery has been shown to be very effective for improving
accuracy in sport. Thomas and Fogarty (1997) found that imagery combined with positive self-talk improved not only putting performance, but psychological factors as well. It was found that positive imagery participants, in comparison to negative imagery training and control group participants, experienced significant increases in putting performance. Moreover, imagery has been shown to positively enhance free-throw shooting among collegiate basketball players. The authors have determined imagery to be to some degree effective for most individuals at enhancing free-throw performance (Forgarty, 1997).

A pitcher may be asked to imagine the ball in hand before a throw, to feel the laces and texture on the palm, maybe even to brush the dirt off, as if the ball was just grabbed from the ground. Bess notes that the image should be as clear and detailed as possible, and his Bess Scale measures the vividness of the visualizations practiced with seven classifications of vagueness and vividness. However, it was found that individuals can vary greatly in their ability to visualize, even when their Bess Scale scores are alike. Moreover, Stoksaal and Ascough (1998) also found that some athletes were very detailed in their imaging, while others were very vague; they concluded that the less vivid images may not be as effective for enhancing performance. Therefore, athletes with lower imagery ability may not reap full performance-enhancement benefits from imagery training. Such findings provide one more reason to investigate the effects of video imagery: Individuals who lack vivid imaging skills may find that a video re-enactment of the task allows them to see the desired performance very clearly, aiding mental preparation for an actual event or task demonstration (Ascough, 1998).

**Mental Imagery and Sports Performance**

After reading through numerous studies, visual mental imagery seems somewhat promising and beneficial. Although it is not as beneficial as physical practice, visual imagery fairs better than no practice at all. Hence, a program with physical practice combined with mental training seems to be the best method. Virtually all of the studies show that mental training improves motor skills. More recently a lot of studies go even further and prove that visual imagery can improve various skills related to sports in actual field contexts. Visual imagery seems to be beneficial to anyone who wants to improve at their sport. Whether you are a recreational athlete or
a professional does not matter. The benefits of mental imagery have proved successful at any level. So if you are a professional looking to break into the top, or a club player who simply wishes to defeat his/her friend, I recommend incorporated mental imagery along with physical practice. Not only can mental imagery improve specific motor skills but it also seems to enhance motivation, mental toughness and confidence, all which will help elevate your level of play. However, even though most of the studies demonstrate that mental imagery results in significant sports improvement, I am skeptical to the extent of the external validity of these experiments. If one can return a serve more precisely in volleyball, does that mean that it will work under real pressure situations? In addition, does this mean that improvements will be made in other areas of the game besides the serve? Will this work in other sports not yet tested such as football? It seems rather naive to generalize these finding to real world, intense pressure situations of all sports. There also lies a shortage of evidence regarding exactly how mental imagery works to enhance performance. More studies need to be done to determine when and why imagery techniques are and are not effective. If this problem can be addressed, then more effective techniques can be created and will in turn further increase the effects of mental imagery. In addition, it might also help solidify the validity of the previous experiments. (Annie Plessinger, 1997).

Imagery has been widely researched as a crucial component for elite athletes. Jowdy, Murphy, & Durtschi (1989) reported that 90% of athletes qualifying for the 1988 Olympics used mental imagery during training and competition. Orlick and Partington (1988) interviewed 235 Olympic athletes and found that 99% of them relied on some form of mental imagery. More recent surveys of athletes have looked to quantify the type of imagery that leads to the best performance.

The Sports Imagery Questionnaire was developed to assess the effectiveness of four Mental Attention or four types of imagery: cognitive general, motivational general, cognitive specific, and motivational specific (Hall, Mack, Paivio, & Hausenblas, 1998). Orlick and Partington (1998) concluded that “attentional focus and the quality and control of performance imagery were the most important statistically significant athlete skills directly related to high level performance at the Olympic Games”. The majority of mental imagery research has focused on cognitive specific imagery, where
a certain task is rehearsed and performed. Research typically follows three standard conditions: a physical practice condition, a mental imagery condition, and a control condition. Subjects perform a base line task, practice the task using one of the three conditions, and are measured on performance of the task following the practice session.

The mental and physical conditions involve the same number of trials of the task, whereas the control conditions either restore perform a distraction task. Most researches have reported that the mental skills significantly better than the control conditions, yet not as effective as physical practice. (Issac, 1992, Singer, Haus & Janelle, 2001). Based on the findings it is generally accepted that imagery facilitates the learning and performance of motor skills. (Singer, et. al., 2001).

ATTENTION

After it was revealed that the concepts of association and dissociation were important factors in endurance sports these concepts quickly were found to be applicable to a broader range of sports. It is obvious that attention plays a crucial role in performing well in sport. Every sport enthusiast will have witnessed an event where a moment of inattention made the difference between winning and losing for an individual or team. The ability to focus and sustain attention determines the success of athletes in their sports (Pollock, 1977).

A broadly applied scale to measure the focus of attention during an endurance run is the Attentional Focus Questionnaire (AFQ: Brewer, Raalte & Linder, 1996). It is a 30-item inventory and contains the three subscales association (11 items), dissociation (12 items) and distress (7 items). On a 7-point Likert scale (1 = not at all, 7 = all the time) respondents indicate in how far they engage in each of the three cognitive activities. Internal reliability coefficients are in the acceptable range with Cronbach’s alpha = .79 and .66 for the association scale, .77 and .66 for the dissociation scale and .85 and .88 for the distress scale (Brewer, 1996).

Attention is the cognitive process of selectively concentrating on one aspect of the environment while ignoring other things. Attention has also been referred to as the allocation of processing resources. Athletes are dependent upon a constant supply of
accurate and reliable information from the environment whilst performing complex movements.

“Everyone knows what attention is states,” William James in his Principles of Psychology (1890). “It is the taking possession by the mind in clear and vivid form, of one out of what seem several simultaneously possible objects or trains of thought...It implies withdrawal from some things in order to deal effectively with others, and is a condition which has a real opposite in the confused, dazed and scatterbrained state” (James, 1890).

Attention Control Theory in Sport Psychology

Psychologists who work in the area of sport and exercise psychology developed the theory of attention control to help understand what psychological factors underlie optimal performance in sports competition.

Optimal performance and Attention

1. Issues- The practical goal of attention control theory is to try to come up with a set of training techniques to support those mental skills that underlie optimal performance.


3. Arousal Control- The Yerkes-Dodson law says that optimal performance is supported by a level of arousal that’s “just right.” Too little or too much arousal negatively affects performance.

4. Concentration and Focus- Often when an athlete fails to performance, or “chokes,” it’s because of a lack of sufficient concentration and focus at a critical moment. Attention control theory is concerned with understanding the attention factors that underlie optimal performance.

5. Psychological Recovery from Injury- When an athlete is injured, especially during a performance season, the injury is not only physical but also
psychological. The negative psychological consequences of injury can be loss of confidence and fear of further injury. Attention control theory is concerned with finding the best way to help an athlete psychologically recover from injury.

**GOAL SETTING**

The first skill goal setting was introduced by Locke in 1968. He presented a model of motivation based on conscious goals and intentions. After that goal setting became one of the most popular motivational techniques for improving performance and productivity. *(Jackson, 1992)*.

According to Locke’s goal setting theory task performance is regulated directly by goals an athlete consciously sets to achieve (Locke & Latham, 1985). Goals can be seen as immediately regulating human action (Weinberg, 1994). Through the goal setting process the athlete can become motivated to focus his behavior and monitor progress or goal attainment. *(Burton, 1992)*.

Difficulty is an aspect in which goals can differ. A difficult goal is defined by Locke (1991) as a goal set at a level at which no more than 10% of participants can achieve. Locke and Latham (1985) found that difficult goals that are unrealistic to achieve should not be set because they could lead to continuous failure, decrease motivation and hence to worse performance. But it seems to push the performance of athletes if they set challenging goals. A study revealed that elite athletes set more challenging, yet realistic goals than their less skilled rivals *(Weinberg, 1993)*.

Another aspect in which goals can differ is the temporal nature (short-term or long-term) of the goals. Short-term goals result in longer-lasting self-regulated behavioral changes and provide the athlete with immediate incentives and feedback about his performances. Long-term goals on the contrary are often aiming too far into the future to maintain effort and attention of an athlete. Research shows that a combination of short and long-term goals yields the greatest performance improvements as compared to long-term goals or short-term goals alone. *(Latham, 1985)*
Another distinction can be made is between outcome and performance goals. Outcome goals are product oriented and characterized by social comparison and object outcome like winning a certain match or competition. Performance goals are progress focused and characterized by the emphasis on a certain execution, movement or achievement of a performance standard (e.g. swimming a certain distance in a certain time). These performance goals have been split into process and performance goals by Kingston and Hardy (1994, 1997). Process goals focus on improving form, technique and strategy (e.g. keeping the elbow high while front crawling) and performance goals focus on improving overall performance (e.g. swimming faster split times). Perceived control and increased self-confidence are the result from setting process and performance goals so that goal setting is a useful tool taught in mental skills training (Hardy, 1997).

Important concepts of goal setting are consequently the difficulty of the goal, the temporal nature of the goal and the distinction between outcome, process and performance goals.

A frequently used tool to assess the goal setting ability of athletes is the Goal Setting in Sport Questionnaire. This tool measures how often athletes set various goals and how effective these goals are for improving the actual performance of the athletes. The GSISQ consists of 57 items. 52 items are answered on a 9-point Likert scale (1 = not often at all, 9 = very often) and relate to goal frequency, goal effectiveness and goal commitment and effort. The remaining five items measure the respondents' goal setting preferences with two ranks ordered and three open-ended questions. A separate factor analyses on the frequency and the effectiveness scales conducted by Burton et al. (1998) revealed quasi identical factors for each scale which were process-related goals, product-related goals and goal implementation strategy (Burton, 1992).

Goal setting is a tremendously powerful tool for sport because Goal setting is a key element in your overall sporting Mental Preparation Program (MPP). Simplistically a Mental Preparation Program has two elements – Competition Day Preparation and a Goal Achievement Program (GAP).
Typically Goal Setting is the platform on which both a Goal Achievement Program and your overall Mental Preparation Program is built. Goal Setting will help you focus on what you really want and it will help you appreciate what you need to do in order to achieve your goal.

The key steps in the goal achievement program are:

- Decide on your goal
- Document your goal

Goal-setting is a powerful technique that appears to work by providing a direction for our efforts, focusing our attention, promoting persistence and increasing our confidence (providing we achieve the goals we set ourselves).

But, while goal-setting is an easy concept to understand, its application needs more thought and planning than most people realize. One of the main problems is that not all coaches are aware of the principles of goal-setting and how to apply them effectively.

A common view of goals is as a tool to be used in the quest for higher levels of motivation. Goal-Setting Theory and subsequent refinements based on research and practice provide a process to create goals that will motivate us to higher levels of performance. Goals, in this sense, provide a motivational focus; a purpose if you like. If you set goals appropriately you will find that you gain access to feelings of satisfaction, confidence and calm. The flip side is that inappropriate goals can be a source of anxiety or stress.

**Role of Goal Setting in Sports:**

Setting goals in sports is important, as it encourages you to continue to improve and gives you a standard measurement of your progress.

**Short-Term**

Short-term goals give athletes a chance to focus on one particular game, or even one particular moment or aspect of a game.
Long-Term

Having a goal for an entire season would be considered a long-term goal. Setting a long-term goal can provide you with a good measure of your progress throughout the season.

Sense of Direction

Goals give you a sense of direction, and provide you with motivation to improve in a number of areas.

Performance Goals

Instead of focusing on the result, performance goals focus on the work that it takes to get to that particular result.

Outcome Goals

Outcome goals are the opposite of performance goals. While the work that it takes to meet a goal is very important, outcome goals focus on the result of the work put in and not the actual work.

Goal Setting and Performance in Team Sport

Sports teams should set a range of goals that are both task- and ego-oriented to help their sports performance. It is beneficial if a sports team does not get caught up purely in wins and losses. External factors such as weather and refereeing can at times impact results, so it is preferable to focus on the overall performance. While including results, it is beneficial to set a range of goals for a season. An example would be an American football team that set goals of winning 10 games in a season. In addition, the team could aim to achieve 20 first downs in a game, concede less than 20 first downs and complete over 50 percent of their passes.

ANXIETY

Anxiety is an emotional state, represented by a feeling of dread, apprehension, or fear. In humans, this can be defined by description using language.
A considerable amount of research in sport psychology has examined the nature of competitive anxiety and how it relates with various motivational and cognitive variables. The aim of that line of inquiry is to provide important information with regard to situations where athletes may experience negative affective states, the antecedents of such situations, and the possible means that will enable sport performers to cope successfully with their negative emotions. Current research in sport (competitive) anxiety has primarily based its analysis on the multidimensional conceptualization and measurement of anxiety symptoms in other areas of psychology. Specifically, it has distinguished between cognitive anxiety (worry) and somatic anxiety (emotionality). They referred to negative expectations and cognitive concerns about oneself and the situation as the elements of cognitive anxiety, while the somatic component of anxiety was considered to reflect perceptions of physiological responses such as nervousness and tension (Morris, 1981).

A significant number of studies in sport psychology have explored competitive anxiety using a multidimensional measurement instrument, the Competitive State Anxiety Inventory-2 (CSAI-2), which measures cognitive and somatic anxiety as well as self-confidence. The results of those studies have provided support for the distinction between cognitive and somatic anxiety components, since they have been shown to have different antecedents, different temporal characteristics, different performance consequences, and also to respond differently to interventions. However, despite these significant advances, quite often the results of various studies have not been very enlightening or encouraging, such as in explaining much of the variance in performance (Jones, 1995).

One significant advance in the understanding of the nature of competitive anxiety was the introduction of the notion of “direction” of anxiety. This refers to how sport performers label the intensity of the cognitive and physiological symptoms they experience on a debilitative-facilitative continuum. Furthermore, in an effort to illustrate mechanisms that may explain how sport performers interpret their anxiety symptoms, anxiety symptoms are perceived as facilitative or debilitative depending on athletes’ perceptions of the control they can exert over both the environment and the self, and also on their belief regarding their ability to cope with the anxiety they experience and to attain their goals (Hardy, 1990).
A number of studies have investigated the relationship between psychological skills and competitive anxiety. For example, Hanton, (2001) examined the intensity and direction of competitive state anxiety in swimmers who differed in their use of psychological skills. Findings showed that performers who reported a greater usage of relaxation strategies experienced lower levels of anxiety and interpreted symptoms as more beneficial to performance than their comparison groups. Maynard and colleagues found similar results when they employed an intervention approach with nonelite soccer players (Maynard et al., 1995a; 1995b). A number of other intervention investigations have also found support for the use of both individual skills and multimodal psychological skill packages in changing interpretations of symptoms in elite and non-elite populations respectively (Hanton, 2001).

The multidimensional conceptualization of competitive anxiety incorporating cognitive and somatic components has provided a clearer understanding of how athletes respond to competitive stressors (Jones, 1995; Woodman and Hardy, 2001). However, scales designed to assess the construct, such as the Competitive State Anxiety Inventory-2 (CSAI-2; Martens et al., 1990) and Sport Anxiety Scale (SAS; Smith et al., 1990), like many other traditional anxiety instruments, measure the “intensity” of cognitive and perceived physiological symptoms that are purported to signify the presence of anxiety. Therefore, they do not consider the interpretation of symptoms in relation to the upcoming sporting event. Indeed, Jones (1991; 1995) proposed that researchers should examine the direction of anxiety, which refers to the extent that individuals’ interpret the intensity of their symptoms associated with pre-competition anxiety as either facilitative or debilitative to performance (Swain, 1992).

The study of anxiety-related performance issues has been an active area of research in the sport psychology literature for several decades. A cognitive-based interactions approach states that anxiety occurs as a result of one’s inability to use or strained usage of their coping resources to meet the demands of a given situation. Competitive anxiety falls under the umbrella of this general definition of anxiety. However, competitive anxiety consists of both state-anxiety and trait-anxiety. Whereas state-anxiety is the transitory feeling of inadequacy or fear, trait-anxiety is an individual’s common behavior to respond anxiously to demands. Spielberg (1972) identified trait-anxiety by how anxious one feels in general and state-anxiety by how anxious one
feels at a particular time in a particular situation. A rich literature has documented the role of state-anxiety as a component of competitive anxiety that effects athletic competition (Smoll, 1990).

This multidimensional theory of anxiety differentiates between cognitive and somatic anxiety. Whereas cognitive anxiety is characterized by negative thoughts about performance, inability to concentrate, and disrupted attention, somatic anxiety is characterized by perceptions of bodily symptoms of autonomic arousal such as butterflies in the stomach, sweating, shakiness, clammy hands, tense muscles, and increased heart rate (Davidson & Schwartz, 1976). The distinction between cognitive and somatic anxiety is considered important because theoretical and empirical evidence demonstrates that each component is related to performance in a different manner. Nevertheless, research findings have consistently indicated that better athletic performance is associated with lower levels of cognitive and somatic anxiety and that athletes competing in individual competitions have higher cognitive and somatic anxiety than athletes competing in team competitions (Schwartz, 1976).

The directionality of an athlete’s perceived anxiety has also been explored as a contributing factor in pre-competitive anxiety. Specifically, the differences in intensity and direction of team competitors’ symptoms of competitive state anxiety were examined. Participants in their study consisted of both high and low level competitors who rated the intensity of perceived anxiety symptoms as either facilitative or debilitative to performances. Results indicated that the highly competitive performers reported their anxiety as more facilitative than the less competitive performers. Jones and Swain concluded that an athlete’s directional perceptions of anxiety contribute to understanding a competitive anxiety response.

**Competitive Anxiety**

Competition can cause athletes to react both physically (somatic) and mentally (cognitive) in a manner which can negatively affect their performance abilities. Stress, arousal and anxiety are terms used to describe this condition. The major problem in competition is letting your mind work against you rather than for you. You must accept anxiety symptoms as part and parcel of the competition experience; only then will anxiety begin to facilitate your performance.
Performance Relationship Theories of Anxiety

**Drive Theory**- According to the Drive Theory if an athlete is appropriately skilled then it will help them to perform well if their drive to compete is aroused — they are “psyched up” (Hull, 1943).

**Inverted-U hypothesis**- An alternative approach to Drive Theory is known as the Inverted-U hypothesis that predicts a relationship between arousal and performance approximates to an inverted U shape. The theory is that as arousal is increased then performance improves but only up to a certain point (top of the inverted U). If the athlete’s arousal is increased beyond this point then performance diminishes.

**Multi-dimensional Anxiety Theory**- Multi-dimensional Anxiety Theory is based on the distinction between cognitive anxiety and somatic anxiety. The theory makes a series of predictions:

- There will be a negative but linear relationship between cognitive anxiety and performance
- There will be an inverted U relationship between somatic anxiety and performance
- Somatic anxiety should decline once performance begins but cognitive anxiety may remain high if confidence is low

**Catastrophe Theory**- Catastrophe Theory suggests that:

- stress and anxiety will influence performance
- each athlete will respond in a unique way to competitive anxiety
- performance will be effected in a unique way which may be difficult to predict using general rules

**Optimum Arousal Theory**- According to the Optimum Arousal Theory each athlete will perform at their best if their level of arousal or competitive anxiety falls within their optimum functioning zone. The challenge for the coach is to determine the
athlete’s zone and identify the techniques that will place the athlete in this zone prior to competition (Hanin, 1997).

The Competitive State Anxiety Inventory or CSAI-2 takes into account the difference between A-state, A-trait and distinguishes between cognitive and somatic anxiety.

**Anxiety and Performance in Team Sport**

The feeling of restlessness and nervousness gradually leading to self-doubt is known as anxiety. It is common in sportspersons, who are required to present themselves and their skills to a large crowd. It is believed that the pressure of attaining excellence as marked by the audience is one of the greatest triggers that cause a sportsperson to choke.

Anxiety can be classified in two ways: trait anxiety and state anxiety. State anxiety is situational stress induced by situations in the game. A sportsperson’s autonomic nervous system is aroused in this state, which is the natural reaction of any individual. On the other hand, trait anxiety can be thought of as a world view that an individual uses when coping with stress.

In sports, individuals who are state anxious and low on the trait anxiety in tough situations, often deliver good performances consistently. On the other hand, athletes who have higher levels of trait anxiety, added with state anxiety, tend to perform below expectations.

**MENTAL-PREPARATION**

An increasing number of athletes and coaches are turning to sport psychologist’s services to learn how to improve performance and cope with competitive pressure. A great deal of research has been addressed to the study of mental training procedures applied to the athletic setting and, as a consequence, considerable scientific and experiential knowledge has been gained, particularly starting from the 1980s. This knowledge was then translated into practical suggestions for competitors, for example teaching them how to control arousal and concentration, cope with competitive stress and, ultimately, achieve peak performance (Feltz, 1989).
The high proficiency of elite athletes in applying psychological skills (i.e. arousal control, self-talk, imagery, focusing) has led sport psychologist consultants to develop mental training programmes aimed at helping less proficient performers to improve those skills. In addition, the idiosyncratic nature of the pre-competition and competition strategies, adopted by athletes of different sports to face performance requirements and competition pressure, urge consultants to adapt and refine mental preparation procedures taking into account the specific needs of the athlete and the particular demands of their sport. Psychological skills training programmes recently implemented in sport have been, among many others, reported for Australian Rules football players, basketball players, golfers, gymnasts and tennis players (Morris, 1997).

Taylor provided a conceptual model that describes some critical aspects in the development of competitive mental preparation strategies. In that model, the importance of gaining full understanding of athlete’s needs as well as sport demands (physical, technical and psychological) is stressed. Comprehensive and specific knowledge can be attained through a qualitative research methodology, such as in-depth interviewing of athletes practicing a particular sport and observing them while performing. As already discussed, it is now well documented in the literature that expert subjects are able to accomplish their competition goals by adopting mental strategies, routines and competition plans, provided they have the physical and technical abilities required to perform. Hence, in the sample of elite archers of this research, similar mental preparation strategies (e.g. arousal regulation, imagery, focusing) were predicted to be employed immediately prior to, and during, performance (Taylor, 1995).

Moreover, idiosyncratic procedures spontaneously developed by archers and automated after many thousand shootings were also expected to emerge. The understanding of the individual’s affects, thoughts and behaviors is necessary to be able to provide effective psychological services.

In the first study from the USOC project focus group interviews were conducted with athletes from four teams that met or exceeded performance expectations and four teams that failed to meet expectations. Results revealed that teams that met or exceeded expectations participated in resident training programs, experienced crowd,
family and friend support, utilized mental preparation, and were highly focused and committed. Teams that failed to meet expectations experienced planning and team cohesion problems, and encountered problems related to focus and commitment. It was concluded that the achievement of peak performance at the Olympic Games is a complex and delicate process (Gould, 2002).

Understanding Mental Preparation Routines

To prepare physically to race, most athletes have a standard warm-up they go through that typically includes stretching, easy swimming, stroke drills, and pace work. Athletes have individualized their warm up to optimally prepare their body to race fast; they do what is best for them and not necessarily what their teammates are doing. A similar approach should be taken regarding mental preparation in that an athlete should have specific thoughts, words, images, and feelings leading up to a race to optimally prepare the mind for fast racing. This mental routine often occurs in conjunction with physical preparation so as the athlete is warming up his body he is also warming up his mind.

Benefits of Developing and Using a Mental Preparation Routine

Now that everyone is convinced of the importance of mental preparation, it is probably critical to identify the benefits of developing and consistently using a mental preparation routine. Doing so will enhance commitment when athletes are asked to change their behavior or to dedicate time to mental preparation.

Benefits of mental preparation include:

**Attain an Ideal State or “Zone”:** The primary benefit or purpose of a mental preparation plan is to get the athlete in a “mental state” that seems to relate to success performance for individual.

**High self-confidence:** Success breeds confidence! When an athlete is able to see and feel past and future successes as part of her mental preparation, confidence is not far behind. Imaging a successful upcoming race is the “dress rehearsal” to the real deal - - visualizing a great performance enhances the athlete’s belief that they can really do it.
Control of Mental Energy: As was discussed in an earlier chapter, it is critical to manage mental energy so the athlete is not too flat or too manic. During preparation, athletes can listen to certain songs on their Walkman to get jazzed about racing or image a relaxing scene to slow their racing thoughts. Such strategies can be a purposeful part of a mental routine to manage mental energy.

Effective Focus: A mental preparation routine can help the swimmer focus on important aspects of her performance. Technical cues (“explode off the blocks” “hold your streamline”) or images (“torpedo”) can be integrated into preparation to direct attention where it needs to be (as opposed to having one’s focus on unproductive or negative things).

Comfort in Structure: A mental routine can be a ‘security blanket’—something to turn to in the stressful moments leading up to the competition. It is a mental routine they can use whether they are swimming in a dual meet or at Olympic Trials; to bring consistency to their preparation and their performance. To a degree, a mental preparation routine can help take the “environment” out of the performance (for athletes who tend to be negatively affected by competitive environments).

Engage the Mind: The mind is a valuable commodity. And, when purposefully recruited and engaged, the athlete has the additional support of positive emotions, feelings, and thoughts. Athletes should make wise use of all the resources at their disposal.

Putting the pieces together: Now, it is the time to put all the pieces together. It’s like a puzzle. We have supplied all the mental tools that the athlete needs to excel. Choose the tools wisely and put them together in the form of a mental preparation plan. Two steps need to be taken by the athlete to complete the puzzle.

First, the athlete needs to figure out the desired results: That is, how does she want to think and feel prior to racing? What “mindset” seems to relate to successful swimming for the athlete? Does she want to be very confident, nervous, relaxed, happy, a little worried, controlled, high energy etc.?

Second, the athlete needs to determine how she is going to get into this mental state: What tools is she going to use to attain the ideal mindset? Following is an
example to bring this to life. As part of an interview, a World Championship Team athlete was asked to describe in detail how she prepares herself for races. She discussed specific things she does, thinks, and says to herself prior to races. Then, she noted that “I need to be nervous before I race” (awareness of an Ideal state/ desired end result of preparation). Great! The next question, of course, was how do you get nervous? “Simple, I stare at my competitors in the ready room” (this is part of the process she uses to attain her desired state). She also identified other mental tools she uses to get herself mentally ready to compete.

Mental Preparation is best covered by a sports psychologist, but may be addressed by a sports coach or performance coach who has specific schooling in this area. Mental preparation strategies can be executed in each performance training session, as well as practices and scrimmage competitions. Mental preparation techniques are used by all of the best athletes in the world.

Youth sports involve the consideration of physical and mental training issues that are absent in adult athletic training. As a youth, by definition, is an adolescent person, typically one who has entered puberty, a young athlete is generally in the midst of the most rapid physical growth cycle that he or she will ever experience, with the exception of infancy. All youth sports training must take into account the fact that as the athlete’s body is growing, the bones and connective tissues are especially vulnerable to injury, particularly those related to overuse of a particular joint, or the forces generated by the repetitive stress of various sports accumulating to cause injury to an immature musculoskeletal structure.

**Mental Preparation and Performance in Team Sport**

Psychological preparation for sport is an essential aspect of successful sports performance at all levels. Elite sports performers make great use of psychological techniques before, during and after sports performance, both consciously and unconsciously. The higher the level of competition, the greater the psychological demands on the performer(s). Indeed many sport psychologists would argue that psychological preparation for sports performance is the most important part of sports performance. To effectively prescribe strategies to improve the performer’s psychological mindset an in-depth understanding of the theories and models
underpinning psychological strategies is essential. Psychological preparation for sport is dependent on a wide range of factors, which differ for each individual sports performer. Therefore, understanding the underlying psychological principles and models will enable strategies to be adapted for a wide range of specific situations. (Bull, 2000).

Achieving peak athletic performance with consistency requires a combination of sports specific training, seasonally-adjusted physical conditioning, injury prevention / rehabilitation, life balance, and mental preparation. The integrated use of a group of basic and complex mental skills that can be learned through repetition produces high achievement in persons with athletic talent regardless of the competitive level or sport. The basic skills are relaxation, positive self-talk, imagery/visualization, focus/attention shifting, and commitment/persistence. The complex skills are goal-setting, self-evaluation, pre-game routine, intensity/emotional regulation, and stress control. Each of these mental preparation skills can link to and enhance general fitness and sports specific training to produce consistent competitive self-confidence. When physical and mental training are integrated, then athletic competition occurs with a quiet mind, relaxed body, raised energy, and narrowed and rapidly shifting attention.

MOTIVATION

The briefest definition of motivation is ‘The activation of goal-oriented behavior’ . . . to create enthusiasm and incentive, and generate the desire for action. Often connected to a goal-oriented outcome, these definitions of motivation can apply to groups, individual or to the self.

Motivation is at the heart of many of sport’s most interesting problems, both as a developmental outcome of social environments such as competition and coaches’ behaviors, and as a developmental influence on behavioral variables such as persistence, learning, and performance. In light of the importance of these consequences for athletes, one can easily understand researchers’ interest in motivation as it pertains to sport settings. Several conceptual perspectives have been proposed to better understand athletes’ motivation. One perspective that has been found to be useful in this area posits that behavior can be intrinsically motivated,
extrinsically motivated, or amotivated. This theoretical approach has generated a considerable amount of research and appears pertinent to the field of sports (Duda, 1989).

Motivation is an internal energy force that determines all aspects of our behavior; it also impacts on how we think, feel and interact with others. In sport, high motivation is widely accepted as an essential prerequisite in getting athletes to fulfill their potential. However, given its inherently abstract nature, it is a force that is often difficult to exploit fully. Some coaches, like Portugal manager Luiz Felipe ‘Big Phil’ Scolari, appear to have a ‘magic touch’, being able to get a great deal more out of a team than the sum of its individual parts; others find motivation to be an elusive concept they are forever struggling to master.

There are numerous approaches to the study of motivation. Some are based on schedules of positive and negative reinforcement while others focus on an individual’s sense of mastery over a set of circumstances. What is it that makes individuals like the 45-year-old sprinter, who competed in her seventh Olympics in Athens 2004, churn out outstanding performances year in, year out? Elite athletes such as author have developed an ability to channel their energies extremely effectively. Indeed, motivation is essentially about the direction of effort over a prolonged period of time (Otten, 2009).

**Different types of Motivation**

One of the most popular and widely tested approaches to motivation in sport and other achievement domains is **self-determination theory**. This theory is based on a number of motives or regulations, which vary in terms of the degree of self-determination they reflect. Self-determination has to do with the degree to which your behaviors are chosen and self-initiated. The behavioral regulations can be placed on a self-determination continuum. From the least to the most self-determined they are motivation, external regulation, interjected regulation, identified regulation, integrated regulation and intrinsic motivation.

Amotivation represents a lack of intention to engage in a behavior. It is accompanied by feelings of incompetence and a lack of connection between one’s behavior and the expected outcome. For example, an amotivated athlete might be heard saying, ‘I can’t
see the point in training any more – it just tires me out’ or ‘I just don’t get any buzz out of competition whatsoever’. Such athletes exhibit a sense of helplessness and often require counseling, as they are highly prone to dropping out.

External and interjected regulations represent non-self-determined or controlling types of extrinsic motivation because athletes do not sense that their behaviour is choiceful and, as a consequence, they experience psychological pressure. Participating in sport to receive prize money, win a trophy or a gold medal typifies external regulation. Participating to avoid punishment or negative evaluation is also external. Introjections are an internal pressure under which athletes might participate out of feelings of guilt or to achieve recognition.

Identified and integrated regulations represent self-determined types of extrinsic motivation because behaviour is initiated out of choice, although it is not necessarily perceived to be enjoyable. These types of regulation account for why some athletes devote hundreds of hours to repeating mundane drills; they realize that such activity will ultimately help them to improve. Identified regulation represents engagement in behaviour because it is highly valued, whereas when behaviour becomes integrated it is in harmony with one’s sense of self and almost entirely self-determined. Completing daily flexibility exercises because you realize they are part of an overarching goal of enhanced performance might be an example of integrated regulation.

Intrinsic motivation comes from within, is fully self-determined and characterized by interest in, and enjoyment derived from, sports participation. There are three types of intrinsic motivation, namely intrinsic motivation to know, intrinsic motivation to accomplish and intrinsic motivation to experience stimulation. Intrinsic motivation is considered to be the healthiest type of motivation and reflects an athlete’s motivation to perform an activity simply for the reward inherent in their participation. 

**Content Theories of Motivation** - Abraham Maslow’s Hierarchy of Needs Theory

When motivation theory is being considered the first theory that is being recalled is Maslow’s hierarchy of needs which he has introduced in his 1943 article named as “A Theory of Human Motivation”. According to this theory, individual strives to seek a higher need when lower needs are fulfilled. Once a lower-level need is satisfied, it no
longer serves as a source of motivation. Needs are motivators only when they are unsatisfied.

- In the first level, physiological needs exist which include the most basic needs for humans to survive, such as air, water and food.

- In the second level, safety needs exist which include personal security, health; well-being and safety against accidents remain.

- In the third level, belonging needs exit. This is where people need to feel a sense of belonging and acceptance. It is about relationships, families and friendship. Organizations fulfill this need for people.

- In the fourth level, self-esteem needs remain. This is where people looks to be respected and to have self-respect. Achievement needs, respect of others are in this level.

- In the top-level, self-actualization needs exist. This level of need pertains to realizing the person’s full potential.

**Alderfer’s ERG Theory**

In 1969, Clayton P. Alderfer simplified Maslow’s theory by categorizing hierarchy of needs into three categories:

- Physiological and Safety needs are merged in Existence Needs,

- Belonging needs is named as Relatedness Needs,

- Self-esteem and Self-actualization needs are merged in Growth Needs

**Herzberg’s Two Factor Theory**

Frederick Herzberg introduced his Two Factor Theory in 1959. He suggested that there are two kinds of factors affect motivation, and they do it in different ways:

**Hygiene factors:** A series of hygiene factors create dissatisfaction if individuals perceive them as inadequate or inequitable, yet individuals will not be significantly motivated if these factors are viewed as adequate or good. Hygiene factors are
extrinsic and include factors such as salary or remuneration, job security and working conditions.

**Motivators:** They are intrinsic factors such as sense of achievement, recognition, responsibility, and personal growth.

The hygiene factors determine dissatisfaction, and motivators determine satisfaction. Herzberg theory conforms to satisfaction theories which assert that “a satisfied employee tends to work in the same organization but this satisfaction does not always result in better performance”. In other words, satisfaction does not correlate with productivity.

**McClelland’s Achievement Need Theory**

In his 1961 book named as “The Achieving Society”, David McClelland identified three basic needs that people develop and acquire from their life experiences.

- **Needs for achievement:** The people who have a high need for achievement seek achievement and try to attain challenging goals. There is a strong need for feedback as to achievement and progress, and a need for a sense of accomplishment. The people who have a high achievement need likes to take personal responsibility.

- **Needs for affiliation:** The people who have a high need for affiliation needs harmonious relationships with people and needs to be accepted by other people. (People-oriented rather than task-oriented).

- **Needs for power:** The people who have a need for power want to direct and command other people. Most managers have a high need for power.

Although these categories of needs are not exclusive, generally individuals develop a dominant bias or emphasis towards one of the three needs. Entrepreneurs usually have high degree of achievement needs.

**Incentive Theory**- Incentive theory suggests that employee will increase her/his effort to obtain a desired reward. This is based on the general principle of reinforcement. The desired outcome is usually “money”. This theory is coherent with
the early economic theories where man is supposed to be rational and forecasts are based on the principle of “economic man”.

TEAM COHESION

Team cohesion is defined as the “total field of forces causing members to remain in the group”, “the resistance of the group to disruptive forces”, and “a dynamic process which is reflected in the tendency for a group to stick together and remain united in the pursuit of its goals and objectives”. Although team cohesion has been defined in many ways, the underlying idea is the same: cohesion is the degree to which the team sticks together as they pursue the team’s purpose (Festinger, 1950).

The term cohesiveness has long been associated with the amount of ‘togetherness’ displayed by a team both on and off the field. Team cohesion is commonly defined as a dynamic process that is reflected in the tendency of a group to remain united in the pursuit of its goals and objectives. A task dimension which reflects a team’s ability to work together to achieve a goal is team cohesion” (Carron, 1982).

Much of the recent research on cohesion is within the framework of the conceptual model proposed by, who define cohesion as “a dynamic process which is reflected in the tendency for a group to stick together and remain united in the pursuit of its instrumental objectives and/or for the satisfaction of member affective needs”. Their conceptual model incorporated and distinguished between ones attraction to the group, and the perception of how well the group was integrated, and also the social and task integration of the group. This framework was the foundation for the Group in Environment Questionnaire or GEQ. (Carron, 1985).

Although there is no existing published research addressing cohesion and its influence on flow state, there is an abundance of research regarding the influence of cohesion on group performance. Carron, Colman, Wheeler, and Stevens’ (2002) meta-analysis summarized research on the performance-cohesion relationship in sport and found from 164 overall effect sizes that there was a significant moderate to large relationship ($ES = .66$, $p < .05$). The mechanisms underlying the impressive effect sizes reported by Carron et al. (2002) supported the idea that positive interactions within groups facilitated increased performance. For example, classic social psychology research showed group norms established for group performance (or
productivity) were highly influential to the outcome. Findings from the study demonstrated that cohesive groups were significantly more affected by positive or negative statements for productivity. Thus, although a group might have high cohesion, it might display lower productivity than a group with low cohesion. To achieve best results, a highly cohesive team should establish positive norms for high productivity. Although athletes and teams do not spend much time in a flow state, can a team set positive norms that are a foundation to facilitate a flow experience? If so, can this be done individually or collectively? Although many such questions arise, it was not the purpose of the current study to establish a causal model of cohesion and flow state, but to identify the strength and direction of any relationship and ascertain supportive interview and subjective assessment of the experience of rowers (Schachter, 1951).

While there is evidence supporting the existence of flow experienced by team sport athletes, very little is known about the influence of team dynamics on the flow experience. Qualitative data has suggested that the interaction among teammates help individuals attain flow although it is uncertain how important this relationship is, it has also been supported that there is a ‘team flow’ experience. Extensive research literature investigating the nature and influence of team cohesion has posited that task cohesion is positively related to performance success with an effect size of .509 and social cohesion and performance of .603 (Cosma, 1999).

Team cohesion and performance have been extensively researched in an attempt to quantify the strength and direction of their relationship. A recent meta-analysis identified Albert Carron and his colleagues to be the most influential researchers within the area of team cohesion conceptual framework remains widely influential. Early studies established the cohesion-performance relationship, though agreement about which factor is driving this relationship (i.e., cohesion affecting performance or vice versa) has not yet been reached. Subsequent studies investigated moderating variables of team cohesion in an effort to devise strategies to help develop team cohesion and thus influence performance. Initially, research focused on exploring moderating variables of the cohesion-performance relationship with athletes, including: sport type (i.e. coactive or interactive), gender of the athletes, the
The topic of teams, teaming, team-building, or leading teams has been a very popular one in recent years. It has been written about in sport psychology text books and management journals alike. Everyone wants to have a good team. Athletes intuitively know that they will not win in a competitive team sport without having a team. But beyond that, teaming is largely a mystery. There is no consensus on whether a team should be well lead by one person or consist of a group of star performers. What is a challenge in many organizational settings is the determination of roles for each team member. One person may want to hold all the power. Or, there may not be a sharing of communication or meeting of the minds. The vast majority of teams are plagued by a lack of trust.

There have been suggested questions, observations, surveys, and assessments designed to explain what techniques improve team cohesion. What seems to be lacking is a measure of the effectiveness of some techniques. Authors have written about trust-building in teams, but there is not really any concrete knowledge of its effect on team cohesion or the resulting performance of that cohesive team.

Group cohesion is a dynamic process where the group tends to remain together and united in the pursuit of its goal for the satisfaction of the affective needs of group members. It is multidimensional, dynamic, instrumental, and affective. Individual and group aspects of cohesion are based on the beliefs and perceptions of individual group members. Group integration concerns the beliefs that individual members hold about the team. Individual attractions to the group relates to the member’s beliefs about what attracted him to the team. These two categories are each subdivided into task and social orientations. These things together create an individual and group sense of team cohesion. A highly cohesive group is more likely to be united and committed to success that a group with low cohesion (Paskevich, 2001).

The cohesion-performance link continues to inspire researchers in exploring variables that may impact team cohesion. Although a majority of literature in this area has focused specifically on the athletes, studies exploring the influence that coaches have on team cohesion have yielded promising results. Studies of the relationship among
perceived coach leadership behaviors and team cohesion have consistently shown that coaches adopting a democratic, supportive style using positive feedback and ample training and instruction are likely to foster a cohesive team environment in football and baseball and softball. Further, found that coaches’ self-rated leadership behaviors were related with team cohesion, though not as strongly as players’ ratings. Additionally, qualitative data revealed several coaching techniques identified by athletes in small group sports that either promoted or deterred team cohesion advanced this line of study by showing that adding coach-athlete relationship variables explained more variance in task and social cohesion than coach leadership factors alone (Maby, 1997).

Martin (2002) defined coaching staff cohesion as “the degree of teamwork among head and assistant coaches that is derived from personal and professional factors and assists in developing a pleasing work environment and fulfillment of the individual”. Grounding their arguments in social learning theory, Author suggested that athletic teams model the behaviors and level of cohesion demonstrated by their coaching staff. Therefore, developing unity among a coaching staff may be critical in building cohesion among members of an athletic team. Although theoretically driven, the suggestion that coaching staff cohesion, team cohesion, and success “may be interrelated and collectively influential,” is empirically unsubstantiated (Martin, 2002).

Characteristics of an Effective Team

1. The team members share a sense of purpose and common goals, and each team member is willing to work to achieve these goals.

2. The team is aware of and interested in its own processes and examines norms operating within the team.

3. The team identifies its own resources and uses them, depending on its needs. The team willingly accepts the influence and leadership of the members whose resources are relevant to the immediate task.

4. The team members continually listen to and clarify what is being said and show interest in others thoughts and feelings.
5. Differences of opinion are encouraged and freely expressed. The team does not demand narrow conformity or adherence to formats that inhibit freedom of movement and expression.

6. The team is willing to identify conflict and focus on it until it is resolved or managed in a way that does not reduce the effectiveness of those involved.

7. The team focuses on problem solving rather than allowing by interpersonal issues or competitive struggles to drain the team’s energy.

8. Roles are balanced and shared to facilitate both the accomplishment of tasks and feelings of team cohesion and morale.

9. To encourage risk taking and creativity, mistakes are treated as sources of learning rather than reasons for punishment.

10. The team is responsive to the changing needs of its members and to the external environment to which it is related.

11. Team members are committed to periodically evaluate the team’s performance.

12. The members identify with the team and consider it a source of both professional and personal growth.

**SELF CONFIDENCE**

Self-confidence can be defined as the belief in one’s abilities to achieve success, and it often has been identified as a most important mental skill for a success in sport by individuals engaging in competitive sports, including athletes and coaches. For example, John McEnroe, the former World number one ranked U.S. tennis player, clearly specified the importance of having self-confidence for an athlete in critical situations, by saying “I think it’s the mark of a great player to be confident in tough situations.” Also, Libby Lenton, Australian swimmer who won five gold medals in 2007 World Championship in Melbourne, noted, “I know I’ve made huge gains in my confidence, and knowing more about my racing and myself as a person. That has made me a better athlete”. Similarly, one of the greatest Track and Field athletes, Carl
Lewis demonstrated his belief about confidence as a crucial factor for his success by stating, “If you don’t have confidence, you’ll always find a way not to win” (Chase, 2008).

Self-confidence can be defined as having a positive, realistic self-image. With self-confidence comes the ability to handle criticism, show affection, and be optimistic and assertiveness. Self-confident people have a positive outlook and think positive thoughts about themselves, believing that their abilities match the tasks that they must take on. Emotional maturity and the ability to pragmatically evaluate capabilities are also markers of confidence.

Marked by quotes, and plenty of other anecdotal evidence, as one of the most influential psychological constructs in sport, self-confidence has been extensively studied in a field of sport psychology. Self-confidence has been found to be related to frequent use of imagery, efficient coping skills, lower cognitive and somatic anxiety, and the anxiety-performance relationship in catastrophe models, adoptive goal orientation, intrinsic motivation and better performance. How self-confidence is related to excellence in sports, what factors affect the level of self-confidence, and how self-confidence can be enhanced have been intriguing questions for researchers for years (Craft, 2003).

There are two main conceptual theoretical approaches in self-confidence research in sports. First is Bandura’s (1997) self-efficacy theory. According to Bandura (1997), self-efficacy is defined as “beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments”. Self-efficacy theory claims that these beliefs are task and situation specific. That is, one’s capabilities include regulating one’s physical performance, cognitive processes, affective states, and behaviors required at the moment of constantly changing environment. Therefore, efficacy beliefs take variable forms (e.g. behavioral self-efficacy, cognitive self-efficacy) and fluctuate over time depending on a situation (e.g. competitive vs. non-competitive situation). A number of researchers have utilized self-efficacy theory as a basis for their studies in self-confidence of athletes (Lewis, 1995).
The other main theoretical conceptual approach in study of confidence in sport is sport-confidence model. The conceptual foundation of sport-confidence was developed from self-efficacy theory based on the need for a conceptualization of confidence specific to competitive sport. Sport-confidence can be defined as the belief or degree of certainty that individuals possess about their ability to be successful in sport. A fair amount of research has been conducted utilizing the sport-confidence model. The model has been revised a few times and the most recent model named the Multidimensional Sport-Confidence Model was developed to supplement the theoretical limitations of the original model. This new model accounts for social cognitive theory, as being more consistent with) and stresses the importance of individual social cognitive thought processes. While the original model contains one type of sport-confidence and considers sport-confidence as a uni-dimensional construct, the revised model views sport-confidence as multidimensional property, therefore includes different types of confidence. Also, instead of taking trait- and state- dichotomous approach, it contends that levels of sport-confidence can fluctuate and be continuously changing. It is consistent with self-efficacy theory in that perceived efficacy is a dynamic fluctuating property and not a static trait (Chase, 2008).

Based on the multidimensional sport-confidence model, examined the following six questions:

- First, how do personality (perfectionism and achievement goal orientation) and social (perceived motivational climate and coaching behavior) factors relate to athletes’ sources of sport-confidence?

- Second, how do sources of sport-confidence relate to athletes’ types of sport-confidence?

- Third, how do sources of sport-confidence relate to changes in athletes’ types of confidence?

- Forth, how do personality (perfectionism and achievement goal orientation) and social (perceived motivational climate and coaching behavior) factors relate to athletes’ types of sport-confidence?
• Fifth, how do personality and social factors relate to changes in athletes’ types of sport-confidence?

• Sixth, how do different types of sport-confidence relate to athletes’ performance?

According to the leading sports psychologist the essence of confidence is playing with your eyes. The eye of the confident athlete focuses on the objective allowing the brain and body to react. The confident athlete lets his or her body and brain run on “auto pilot.”

Self-confidence is essentially an attitude which allows us to have a positive and realistic perception of ourselves and our abilities. It is characterized by personal attributes such as assertiveness, optimism, enthusiasm, affection, pride, independence, trust, the ability to handle criticism and emotional maturity.

Confidence is learned, it is not inherited. If you lack confidence, it probably means that, as a child, you were criticized, undermined, or suffered an inexplicable tragic loss, for which you either blamed yourself or were blamed by others. A lack of confidence isn’t necessarily permanent but it can be if it isn’t addressed. Our religion, the influence of the culture which formed our perspectives, our gender, social class and our parents, in particular, are all factors which influence and contribute to our level of confidence and esteem.

Confident people have deep faith in their future and can accurately assess their capabilities. They also have a general sense of control in their lives and believe that, within reason, they will be able to do what they desire, plan and expect, no matter what the foreseeable obstacle. But this faith is guided by more realistic expectations so that, even when some of their goals are not met, those with confidence continue to be positive, to believe in themselves and to accept their current limitations with renewed energy. However, having high self-confidence does not mean they will be able to do everything they want. That view is unrealistic, one for the perfectionists. A desire to be good at everything we do in order to impress others stems from a competitive instinct and lack of personal reinforcement. Any truly successful life has both rewards and the ability to learn from any setbacks, which increase our resilience, self-belief and determination. Real confidence requires that we face the possibility of
failure constantly and deal with it. However, if we consistently lose out on both achievement and validation, even our identity is called into question.

According to the leading sports psychologist the essence of confidence is playing with your eyes. The eye of the confident athlete focuses on the objective allowing the brain and body to react. The confident athlete lets his or her body and brain run on “autopilot.”

One way to start building self-confidence is to improve physical skill. Physical skill typically improves through practice. There are two general types of practice that can be used, blocked practice and random practice. With blocked practice, the athlete practices the skills over and over. It is a great technique used for beginners to help build self-confidence. The other type of practice is referred to as random practice, and tends to be used with more skilled athletes. This is where the athlete practices different skills. For example, one would practice long shots in golf and then go to the practice green and practice putting and then move to the fringe and practice chipping. With this technique the athlete may not see immediate improvement, but it will become apparent in competition or actual play.

Another way to improve self-confidence is through goal setting. When setting goals be sure that the athletes set team and individual goals. Individual goals play an important part in developing self-confidence. If the athlete sets realistic and attainable weekly goals, improvement in self-confidence becomes more apparent.

**Self Confidence and Performance in Team Sport**

The term self-confidence refers to one’s belief that he or she can successfully execute a desired behavior; the exact relationships of Self-confidence and performance in sport have not been scientifically clarified in a satisfactory manner. Self-confidence (SC) is one of the most cited factors thought to affect athletic performance. Self-Confidence is said to play a critical role in athletes’ success; in contrast, lack of Self-Confidence seems to be closely associated with athletic failure. Thus, confidence is an important factor that distinguishes successful athletes from unsuccessful ones in terms of both their mental states as well as their performances.
Researchers found that athletes with high levels of psychological skills performed more consistently than athletes with low levels of psychological skills (Nideffer et al., 2001). This could be explained by the fact that higher levels of psychological skills have been shown to have a positive correlation with better execution of general motor and cognitive tasks (Hird, Landers, Thomas & Horan, 1991), especially when athletes are fatigued and under physical stress (Booras, 2001). In accordance with these findings, research by Feltz and Landers (1983), as well as Greenspan and Feltz (1989), has confirmed that subjecting athletes to the approaches inherent in various thought processes has a beneficial impact on motor skill performance.

The question arises whether a specific selection of psychological skills exists that would facilitate exceptional sports performance when developed optimally. One factor that should be taken into account is that the type of sport that athletes compete in will determine the specific psychological skills that they will need in their quest for better performance (Martens, 1987). Hale and Collins (2002) stated that, for rugby players to play to their full potential, they must be physically, technically, nutritionally and psychologically prepared. They further added that the best rugby players in the world often reach their full potential by incorporating psychological training into their daily training and pre-match routines. It thus appears that a key difference between a good and average performance in elite rugby could be the level of psychological skills, rather than just good physical abilities (Hale & Collins, 2002; Hodge & McKenzie, 1999). However, it is still unclear whether the overall psychological skills level, or rather the eminence in certain specific psychological skills, would differentiate between good and exceptional rugby players. This latter statement is one of the questions that we, as sports psychologists, constantly try to shed more light on.

Research in this regard is complicated since the effect that psychological skills will have on a specific player might be influenced by a number of other factors. Environmental influences, crises and life transitions, the cognitive appraisals and coping strategies that players employ as well as the state of their general health and well-being may influence the impact of psychological skills (Mahoney, Gabriel & Perkins, 1987; Moos & Shaefer, 1993; Shaw, 2001; Smith & Christensen, 1995;
Smith et al., 1995). All these factors should be kept in mind by the sports psychologist when working with elite rugby players. (Kruger, 2008).

1.3 STATEMENT OF THE PROBLEM

Elite athletes have mastered physical and mental skills over many years of diligent practice and their physiological and psychological capabilities are likely to exceed the levels of amateur, novice and recreational athletes. They are deserving of attention in sport psychology research. Elite athletes have been shown to operate at relatively high intensity levels and typically adopt associative strategies in their training and competitive efforts. The purpose of the present study was developed and validates the psychological assessment scale of the Baseball players and study of related literature, the problem was design. As suggested in review of the literature and expert opinion the psychology playing a crucial role sports performance, so it essential to measure the psychological aspect of the player for formulating the proper training plan and participate in competitive sports successfully. In the light of the above, investigator has made a humble effort to identify major psychological skills in Baseball and select the most important ones for constructing and standardizing the psychological skills scale to serve as an objective measure in a player’s psychological assessment. Formally, the problem was stated as- Development and Validation of Psychological Skills Assessment Scale (PSAS) for Baseball Players.

1.4 OBJECTIVES OF THE STUDY

The scientific authentication of Psychological Skills Assessment Scale was accomplished by computing Reliability, Validity, and Developing of the Norms for the specific sub-scale of psychological skills for which the following objectives were formed:

1. To develop statements for measuring Anxiety of Baseball players.

2. To develop statements for measuring Attention of Baseball players.
3. To develop statements for measuring Goal Setting of Baseball players.

4. To develop statements for measuring Imagery of Baseball players.

5. To develop statements for measuring Mental Preparation of Baseball players.

6. To develop statements for measuring Motivation of Baseball players.

7. To develop statements for measuring Self-Confidence of Baseball players.

8. To develop statements for measuring Team Cohesion of Baseball players.

9. To establish reliability of psychological skills assessment scale and its sub scales.

10. To establish factorial validity of psychological skills assessment scale and its sub scales.

11. To establish validity through index of reliability of psychological skills assessment scale and its sub scales.

12. To develop norms for psychological skills assessment scale and its sub scales.

1.5 DELIMITATIONS

The present study was delimited as per the objectives and purpose of the study which are mentioned below:

1. The study was delimited to two hundred fifty-five Baseball players from different parts of the country.

2. The age of the subjects selected for the study was 18 years and above.

3. The study was further confined to the Baseball players who have participated in at least inter-collegiate or state level / competitions.

4. The study was further confined to male Baseball players only.
1.6 LIMITATIONS

For the purpose of the present study certain limitations which were beyond the control of the scholar have been mentioned below:-

1. Questionnaire research has its own limitation as such biasness that might have crept into the subjects while responding on this account was considered as limitation of the study.

2. The questionnaire study has its own limitations. The mood state of the subject and the depth of knowledge pertaining to the research problem that shall help in an appropriate selection of response for each item in the questionnaire were considered as limitation of the study.

1.7 DEFINITION AND EXPLANATION OF THE TERMS

Many terms have been used to describe the notion of psychological skills aspects of sports performance, including psychological skills, anxiety, attention, imagery, confidence, motivation etc. These terms, however, deserve distinctions for better understanding and hence have been discussed independently.

PSYCHOLOGICAL SKILLS

Sports performance and interventions or psychological skills focusing on the ability to reach optimal performance states (i.e. zone), management of arousal & anxiety, self-talk, imagery, goal setting, self-confidence, motivation and modeling have been found to contribute positively to sports performance. (Edward, 2004)

The use of psychological skills training, having high levels of confidence, work with a sport psychology consultant, ignoring or blocking out distractions, being highly committed to excellence, using relaxation, focusing on performance not outcome, having team meetings to discuss strategy and mental skills, and using a loss year prior as motivation.
ANXIETY

Anxiety is a negative emotional state characterized by nervousness, worry, and apprehension and associated with activation or arousal of the body. (Gould, 2007).

Anxiety is a natural reaction to threats in the environment and part of the preparation for the ‘fight or flight’ response. This is our body’s primitive and automatic response that prepares it to ‘fight’ or ‘flee’ from perceived harm or attack. It is a ‘hardwired’ response that ensures survival of the human species. Sporting competition promotes similar psychological and bodily responses because there is often a threat posed towards the ego; your sense of self-esteem. Essentially, when the demands of training or competition exceed one’s perceived ability, anxiety is the inevitable outcome.

ATTENTION

Attention is the taking possession of the mind, in clear and vivid form, of one out of what may seem several simultaneously possible objects or trains of thoughts. It implies withdrawal from some things in order to deal effectively with others. (James, W. 1990)

Attentional processes e.g., ability to concentrate effectively are crucial for success in sport. Research has shown that adopting a focus of attention can increase performance in a motor based task. Specifically, an external focus involving the effects of an outcome can produce better results than internally focusing on the action itself.

Attention is the process that selects certain sensory inputs for inclusion in the focus of experience. At a time, though we are overloaded with so many external and internal sensory inputs, we respond to one stimulus. This process of selection is conducted by the process known as attention, so attention is a critical part of perception.

The selective attention is the mental process of selecting only certain stimuli to be responded to.

GOAL SETTING

Goal setting in broad terms is the process of deciding on something you want, planning how to get it, and then working towards the objective. There is a natural
assumption that improved performance includes physical performance, and therefore effective goal setting would enhance physical performance.

Goal setting is the art and science of setting targets for achievement (Reese, 1998). Goal specificity studies indicate that goal setting is more effective when there are clear, concise goals (specific) as opposed to broad general goals, or do best goals (Locke, 1991). Edwin Locke (1968) is credited with conceptualizing goal setting theory; he hypothesized two core components for goal setting theory:

1. There is a linear relationship between the difficulty of attainable goals and performance, and
2. The specific and difficult goals lead to better performance than vague, easy, or “do-your-best” goals (Locke, 1990).

Overall, it is agreed that goal setting is an important component of any mental skills training package. The few inconsistent findings in goal setting research deal with specific methods of goal setting.

IMAGERY

Imagery is actually a form of simulation. It is similar to a real sensory experience. (Gould, 2007).

Imagery Training refer to all the best athletes have very well-developed mental imagery skills and use them on a daily basis. They use imagery to prepare themselves to get what they want out of training, to perfect skills within the training sessions, and to “see” themselves being successful.

The refined imagery they have developed for running through skills and performances in their mind, is one which takes an "inside" view, as if actually doing the skill, and one which involves feeling the action and excitement, as if actually being there. Most of these athletes call up these inside images or perfect feelings before every attempt at executing a skill. (Terry, 1986).
MENTAL PREPARATION

Mental procedures, acquired by systematic mental training, which can be used on certain predetermined occasion (e.g. prior to competition) to achieve an ideal performance state. Indeed many sport psychologists would argue that psychological preparation for sports performance is the most important part of sports performance. To effectively prescribe strategies to improve the performer’s psychological mindset an in-depth understanding of the theories and models underpinning psychological strategies is essential. Psychological preparation for sport is dependent on a wide range of factors, which differ for each individual sports performer. Therefore, understanding the underlying psychological principles and models will enable strategies to be adapted for a wide range of specific situations. (Bull, 2000).

Mental preparation and readiness refers to a positive state you carry into learning and performance situations. It is dependent upon the other mental skills on the Wheel of Excellence. To have a realistic chance of excelling you must become highly proficient at mentally readying yourself to learn essential mental, physical and technical skills, practice essential skills to perfection, and effectively perform those skills under competitive conditions.

The quality of effort in training, the simulation training, the imagery training and clear daily goals have moved these athletes along the path of excellence. But in addition to this quality training, the best athletes have developed very sound procedures for drawing upon their strengths in important competitions.

MOTIVATION

Motivation is a process that starts with a physiological or psychological need that activates a behavior or a drive that is aimed at a goal. Motivation refers to those factors that activate behaviour and give it some direction to do something. Motivation can be defined simply as the direction and intensity of one’s effort. (Sage, 1977).

Crow & Crow define; motivation is concerned with the arousal of interest in learning and to that extent, is basic to learning.
**Motivation** is a latent relatively stable personality character which causes a person to be either attracted or repulsed by the consequences of particular causes of action, it is a tendency within a person that directing his thoughts, feelings towards the goal/function. (Alderman, 1974).

**SELF CONFIDENCE**

Self-confidence is a general term referring to the beliefs an individual has about his or her ability to be successful. Several studies have examined this relationship reporting that the use of different types of imagery will produce increases in one’s level of self-confidence.

Sport psychologists define self-confidence as the belief that you can successfully perform a desired behavior. (Gould, 2007).

Self-confidence is defined as an individual’s personal belief in his or her own ability to succeed within his or her sport (Vealey, 1986). Self-confidence is conceptualized as both state and trait characteristics. In the sport context, state-confidence refers to the belief an athlete has in their ability to perform a specific task or skill successfully, whereas trait confidence refers to an athlete’s overall belief in their ability to be successful within their sport. A construct conceptually similar to state confidence is self-efficacy. (Vealey, 1986)

**TEAM COHESION**

“The way a team plays as a whole determines its success. You may have the greatest bunch of individual stars in the world, but if they don’t play together, the club won’t be worth a dime.” (Babe Ruth).

The group cohesiveness is the force that causes members to remain in the group. The cause may be – common goal, liking for other members, increase one’s status by belonging to a high status group, similarly in attitudes, beliefs and thoughts. (Murphy, 2005)
VALIDITY

The degree to which the interpretation of test score is to lead for the correct conclusions. (Baumgartner, 2003).

The term validity refers to the “soundness” and legitimacy of a test to accurately measure what it is supposed to measure and to be predictive of what the test is supposed to be used for. Validity also is a term to describe the process by which an agency goes through to define a test standard.

Content validation

The test measures the actual job-task and the program teaches that task. Physical fitness or ability tests cannot be validated with this approach. Only job task simulation tests can be validated with this method.

Construct validation

The test measures an underlying fitness factor for performing job-task(s) and the program trains that factor. Fitness tests can be validated with this approach but not fitness standards

Criterion validation

The test measures a predictive fitness factor for performing job-tasks and the program trains that factor. This is the preferred method for validating fitness tests and standards

Construct Validity

Construct Validity of a test or a measurement tool is established by demonstrating its ability to identify or measure the variables or constructs that it proposes to identify or measure. The judgment is based on the accumulation of correlations from numerous studies using the instrument being evaluated.
RELIABILITY

The degree to which a measure is consistent, unchanged over a period of time. (Baumgartner, 2003).

The methods of determining reliability coefficients include Pearson Product-Moment Correlations employing the test-retest method or the split half method stepped up by the Spearman-Brown Prophecy Formula (14). Analysis of variance and simple regression may also be utilized in determining reliability and similar correlations are employed in determining objectivity.

- Cronbach’s Alpha Method of Reliability
- Test-Re-Test Method
- Split Half Reliability

Test Retest Method

The procedure used to correlate the scores of a test administered on each of two days or more used to establish stability and reliability (Baumgartner, 2003).

1.8 SIGNIFICANCE OF THE STUDY

It is extremely important that when a player has to perform at any level he must be trained in all aspects that are physical, physiological and psychological. Elite athletes repeatedly have to perform under high pressure, and it is therefore not surprising that psychological characteristics often distinguish those successful at the highest standard from their less successful counterparts. Early research evidence already supports an association between psychological characteristics and sports performance.

Thus, the results of the study shall be immense significance in the following ways:

- It shall be helpful for physical educators and coaches in identifying the appropriate psychological skills required for a baseball player.
• It shall assist in imparting appropriate training in the psychological skills required for optimum performance.

• The study shall help in selecting talented players for the game of baseball with respect to the playing position based on their psychological skills.

• The developed scale for evaluating psychological skills of baseball players shall be helpful in bringing about the desirable improvement in the performance of the Baseball players.

• The developed questionnaire was of great importance in outlining the psychological skills essential for baseball players. Further, the questionnaire shall be helpful in selecting the talent in baseball.

• The developed questionnaire was of immense importance in identifying the standard of various psychological skills and accordingly the trainer or the coaches can take appropriate steps in developing the same through training.

• This questionnaire is developed considering the baseball players belong to India and hence will be an extremely useful psychological instrument.

• Since there is no such psychological instrument that could assess the psychological skills of baseball players of our country, this validated instrument shall fulfill the research gap and will be a new entity in the field of psychological instrument and psychological evaluation.