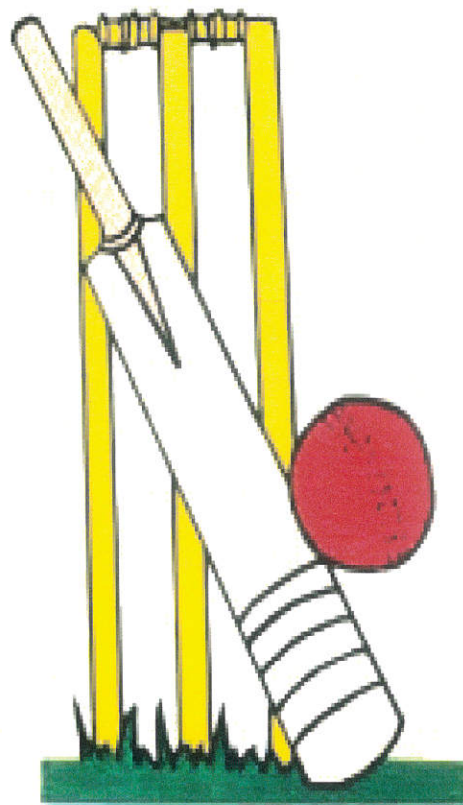


CHAPTER – I



INTRODUCTION

CHAPTER-I

INTRODUCTION

Cricket is one of the most popular and exciting outdoor games. Few get the opportunity to play first class Cricket, but there are millions who enjoy seeing it being played. It gives us moments of pleasure and fills us with a competitive spirit. It is popular in India, Pakistan, West Indies, Srilanka, Australia, England and few more selected countries, and is slowly expanding its reach to other countries.

Cricket is played in more than 105 countries. The other aspect about Cricket is that it is probably one of the fastest evolving sports in the world, constantly adapting itself to the 'demands' of a changing global audience. Though Cricket is played in many forms such as Test, One day limited over, Twenty 20, First class, super six, eight a side, Indoor Cricket, double wicket and Single wicket, today Twenty 20 and One day limited over are popular due to its thrilling nature. However, the introduction of the 20-20 format has resulted in many more countries participating in the sport at international level.

Cricket, also known as the gentlemen's game, was first played in the 16th century in England. Cricket was first played in southern England in the 16th century. By the end of the 18th century, it had developed into the national sport of England. It was mainly played for the purpose of resolving boredom and to sweat in the cold English conditions during the winter. The expansion of the British Empire led to Cricket being played overseas and by the mid-19th century the first international match was held. Slowly, as days went by, the popularity of Cricket grew by; Greats like Sir Don Bradman and Mansur Ali Khan Pataudi have done a world of good to the popularity of the game by showing its spectators few breathtaking performances.

Nowadays, the face of Cricket has changed from the world's second most popular game to a religion. Millions of people follow the game with utmost sincerity. In India, it is clearly visible that this game is played even in the streets. Around 200 to 300 players will participate for each age group selections in every state. Inter - school, inter- college, inter-state and national level tournaments are the stepping stones for a player to represent his country. Players are selected based on their performances in the respective tournaments.

1.1 CRICKET

Cricket is basically a bat and ball game played between two teams of eleven players. It is one of the oldest sports in the world and has its origin in 16th century in England. The expansion of the British Empire spread this once colonial recreational sport into a spirited game to all corners. Today cricket seems to be a virtual lifeline of many commonwealth nations. Cricket is a game in which each team has to bowl and bat according to certain rules and regulations. A team which scores greater number of runs will be the winner. In olden days, the game was played in different names in different countries. The game of Cricket is developed from a simple game of hitting an object with a piece of wood. Basically it is the battle between bat and the ball, but the approach has changed from time to time. Cricket is played in many forms such as Test, One day International, First class Twenty 20, Super Six, Eight-a-side, Indoor Cricket Max Cricket, Double wicket and Single wicket. Cricket is played in more than 105 countries around the globe.

Cricket is defined as "a bat and ball, team game played during the summer in the British Isles and in several countries influenced by the British, such as Australia, New Zealand, India, Pakistan, South Africa, and West Indian nations". Cricket is

played between two teams of 11 players on a grassy field, in the center of which are two wickets - the equivalent of baseball's 'bases'. When a team is 'in', the other team attempts to get each of them 'out'. Then the team that was 'in' is 'all out', and takes its place in the 'out field'. The team that was in the outfield in turn goes 'in' until they too are 'all out'. This process (an innings) may be repeated once more (a match can last one day or take as many as five). The team with the highest number of 'runs' (points scored primarily by running between wickets after hitting the ball) wins the match.

According to the speed and movement of a ball, the batsman has various options. He may drive it along the ground, lift it into air, or flick it to the side or behind himself. Alternatively, he may use the safety pads on his legs (or arms) to stop or deflect the ball. This is risky because it will invariably prompt the bowler and his team to shout 'Howwizzzahhtt!'. This means something like 'How that look does to you Umpire - is he out?' and is usually ignored by the umpire (referee) unless he judges that the ball would have continued on to hit the wicket. Then the batsman is given 'out' and the bowler's teammates smugly feel that their banshee scream was justified. If the batsman is out without having scored a run, this is a 'duck' and his embarrassment is compounded. On the edge of the field is the boundary. If a batsman hits the ball to this boundary he is awarded four runs. If it does not bounce before doing so it is six runs (and stands a good chance of hitting a spectator).

The field itself is divided into two halves, the on side and the off side. 'On' is synonymous with 'Leg', and represents the side of the field to the left of the batsman as he faces the bowler or opposite wicket. Presuming of course he is right handed; if not, everything I've just said is reversed. Fielders are placed at strategic positions (in order to both stop runs and to catch a batsman out if possible) and these positions

have distinct names. For example, the long off position is near the boundary, far away from the batsman to his front and right, while silly mid-on represents a position of extreme danger, as the name might suggest, being as it is immediately to a batsman's left. A square leg says more about where one umpire stands rather than how he is standing, while backward point or deep fine leg says nothing about any mental or physical ability at all. Indeed. It has been said that the amount you know about cricket is inversely proportional to a greater understanding of how to play. Worry not about the rules, teams or results but instead treat the whole experience as a strange and fascinating ceremonial ritual (Khurram, 2012).

1.1.1 TEST CRICKET

Test cricket is the longest form of the sport of cricket. Test matches are played between national representative teams with "Test status", as determined by the International Cricket Council (ICC), with four innings played between two teams of 11 players over a period of up to a maximum five days. It is generally considered the ultimate test of playing ability and endurance in the sport.

The first officially recognized Test match commenced on 15 March 1877, contested by England and Australia at the Melbourne Cricket Ground (MCG), where Australia won by 45 runs. England won the second ever match (also at the MCG) by four wickets, thus drawing the series 1–1. This was not the first ever international cricket match however, which was played between Canada and the United States, on 24 and 25 of September 1844. A Test match to celebrate 100 years of Test cricket was held in Melbourne from 12 to 17 March 1977. Australia won this match by 45 runs, the same margin as the first Test match in 1877, which the 1977 match was commemorating (Saniysahu, 2012).

include the runs a batsman scores or the number of wickets a bowler scores or catches by a fielder and they depend on a combination of factors, such as the quality of the pitch, atmospheric conditions, the abilities of the bowler, the match situation and the role of the player (Totterdell, 1999). Cricketers can also make incomplete and multiple-performance contributions (batting, bowling and fielding) during sessions of play. This implies that, for a measure of performance for a session of play by a team, a number of match scores would have to be combined and transformed in some way. For this reason the next part of this chapter will discuss the different skills involved in a cricket match and their measures of performance.

1.2.1 BATTING

A batsman's main purpose is to hit the ball and score runs while at the same time protecting his wicket. In a conversation on 12th September 2009 E Laubscher confirmed that not all strokes are aimed with the purpose of scoring runs; some strokes are more 'defensive' to protect the batsman's wicket, especially if a good ball is bowled, In defensive strokes the batsman only blocks the ball and there is no need for the batsmen to change sides or score runs. A batsman gets to bat until he is out. If a hit ball is caught on the fly, the batsman is out. Besides being caught out or being bowled out (his wicket is struck by the bowler), he can be run out (his wicket is struck by the ball while he is out of his crease), stumped out (he steps out of the crease while trying to strike the ball and the wicketkeeper or fielder breaks the wicket with the ball), bowled leg before wicket - also known as LBW (part of his body stops a delivery from hitting the stumps), and hits the wicket (he dislodges the bails himself). A batsman can also be called out for obstructing the field, for handling the ball or for hitting the ball twice (Gibbs, 2004). A batsman can be timed out if he does not step

onto the field of play within two minutes of the previous dismissal. What must also be mentioned with regard to the above and the dismissal of a batsman is that, even when the batsman is cleanly bowled out (his wickets are broken by a bowling delivery), the umpire will not give that batsman out until one of the opposite team members appeals (a cricket term, like the shouting of the phrase "How's that?") the 'out'. In other words, someone on the fielding team has to ask an umpire "Is he out?" before the umpire lifts his finger signaling the dismissal of the batsman (**ICCPlayingHandbook, 2009/2010**).

Batting requires motor and psychological skills to select the most accurate shot from a selection of strokes against bowlers who manipulate the bowling deliveries into fast, spin, seam and swinging actions (**Stretch, Bartlett & Davids, 2000**). Customarily a batsman's ability is measured and indicated by means of his average. A batting average is calculated as the sum of all scores divided by the number of times the batsman was out. Initially there can be large fluctuations but these tend to stabilise to a more constant value as the number of batting innings increases. **Lemmer (2004)** maintains that to assess the batsman's overall performance the average alone does not reflect performance well enough and skills like consistency (variation of scores) and strike rate (average number of runs scored per hundred balls faced) also need to be incorporated into the measure of performance, especially into limited-overs cricket because of the time dimension imposed on it. The advent and growing importance of limited-overs (ODI) cricket has placed a unique emphasis on measuring batting performance. Instead of just crediting the batter on runs scored, runs scored per ball faced have become the essential measure of success in shorter versions of cricket such as one-day cricket (**Barr & Kantor, 2004**).

1.2.2 BOWLING

Bowlers are not allowed to throw the ball. This means the bowling action requires a straight elbow throughout the movement, creating a wide circular arc with the arm. Bowlers are only allowed to bowl over arm, which means that the arm is not allowed below the horizontal. When bowling, it is allowed, even preferred for the ball to bounce off the ground before it reaches the batsman. Bowlers usually take a running start before releasing the ball. A fast bowler's run-up consists of a longer length and a flat-out sprint, whereas a spin bowler's run-up entails a few short strides. The bowler aims at the stumps behind the batsman. A wicketkeeper waits for the ball to pass behind the stumps, while nine other fielders are strategically placed around the cricket ground. The main goal of the bowler is to bowl the ball in such a way as to try to hit the batsman's wicket or cause the batsman to play the ball directly into the hands of one of the fielders. Six deliveries from one end to the other end constitute an over. After each over a different bowler starts another over, bowling from the opposite side of the pitch. Whoever bowls is usually strategically selected by the captain (Lemmer, 2004).

A bowler can bowl a no ball if the arm action, flight or bounce of the ball, or foot landing is illegal. A wide ball is called by the umpire if he feels the bowler's ball is bowled too wide for the batsman to play a reachable shot. In cases of these illegal balls, the batting team is rewarded one run, and the illegal ball is not counted as part of the over. The penalty runs awarded for illegal balls are not tallied next to the name of the batsman who faces them but rather tallied on a separate column on the scoring sheet and called extras. A bye in cricket is awarded to the batting team if the bowler bowls the ball past the striker, past the wickets and past the wicketkeeper without the

technical and tactical aspects of cricketers that performance in cricket relies on the proper functioning of the sum of all the different roles at any one time in a cricket match. Consequently, many players are selected as specialist batsmen, bowlers, wicketkeepers or fielders. Although some players are selected on the basis of their all round abilities, a healthy balance between these roles is still recommended to ensure team success (Woolmer et al., 2008).

With the emergence of limited-over cricket, the need for excellence from every player prompted even the fast bowlers to begin improving their ground fielding and catching. The likes of Mark Waugh, Herschelle Gibbs, Roger Harper and Mark Taylor will be remembered for being gifted fielders who could deceptively surprise the batsmen and change a game around in seconds. Jonty Rhodes became an international star with his diving run-out of Inzamam-ul-Haq from Pakistan in the 1992 World Cup. South Africa set the bar for a new fielding revolution with the likes of Jonty Rhodes who demonstrated great athleticism, intensity and a staggering level of anticipation in the field (Woolmer et al., 2008).

1.3 CRICKET – A MIND GAME

The proper use of the mind separates champions from good players. To handle pressure, you must think clearly and sensibly. The top players know how to think, how to concentrate and what to do in tough situations. Psychologist Rudi Webster quotes Garry Sobers as saying in his book, *Winning Ways*: At the highest level, sportspersons are faced with many pressures on their journey to peak of glory. Generally, the ones who are mentally tough navigate through the slumps better than those who are weak in their minds. They are the ones who scale the peaks, while the fragile minded fall by the wayside. In other words, players with the requisite ‘mental

toughness', are more likely to be successful in their sport. Sports is laced with many such examples, where players are at their peak of their careers one moment and then falling into depths of unfathomable lows. Lack of mental help has left many potential great athletes bite the dust of mediocrity. This is where the role of sports psychology has garnered importance in modern times. Sports psychologists help sportsmen to enhance their skills, cope with competitive pressures, fine-tune the level of awareness needed for optimal performance, and stay focused amid many distractions.

Sports psychology has had a long association with the game of cricket. Recently, Indian Premier League (IPL) franchise, Kolkata Knight Riders appointed Dr Rudi Webster as the mental skills coach ahead of the fifth season of the cash-rich league. The West Indian influenced the careers of many great players like Viv Richards, Greg Chappell, Brian Lara and also have helped Team India during their tour of West Indies in 2007. The 72-year-old transformed the Clive Lloyd-led West Indies team that was thrashed 1-5 Down Under in 1975-76 into battle-hardened warriors and within two years helped the side register a series win in Australia for the first time. Webster was also instrumental in lifting Viv Richards from the dumps and converting him into one of the most explosive batsman in the history of the game. Greg Chappell had a nightmarish run against the West Indies registering seven ducks in the summer of 1980. The Australian became so despondent and depressed that he considered quitting the game. A timely advice from Webster saw a major reversal in the fortunes of the former Australian skipper. Immediately after the West Indies tour, Australia went to New Zealand and Greg scored three centuries in four matches. In the current scenario, sports psychologists play an important part in the careers of sportspersons. They help players manage their stress, clear doubts, instill self-belief, overcome anxiety, manage expectations and handle pressure. Sports-psychologists

help sportsmen recognize destructive emotions like fear, impatience and disappointment, and provide solutions as how to prevent them and deal with them when they are present. In a way, sports psychologist's help players understand themselves better and make them see things more clearly which helps them stay protected from cracking under pressure **(Cricket country staff, 2012)**.

Sports performance is the product of many ingredients which include physical fitness, technical and tactical efficiency done with psychological qualities. Cricket players need to possess mental toughness as a psychological quality to face challenging situations in competitions. Anxiety is a state of 'fear of failure' which any player experiences prior to and during to the game and that is a felt need as sports psychologists feel that performance is enhanced through anxiety. Dream big and aspire to succeed at the highest levels, be patient, work hard and perseveres. There is nothing except yourself stopping you from achieving your goals in cricket **(Canaway, 2013)**.

Watching cricket on television, it can appear to be quite an easy and simple sport, but under the helmet of the batter, there is a whole different game going on inside the batters mind in an attempt to banish any possible distractions, and focus every bit of mental energy on the ball as it is released from the bowlers hand, this is the psychological side to batting. As a batter, the aim is to score runs, stay in and help the team reach a certain particular target. To achieve this, one needs to be in the correct mental state. To help reach this state of fierce concentration there are several things that one must do. Firstly, one needs to be clear in mind of any possible distractions. Distractions can come in many forms; these may be concerns about the pitch, fielder's comments, being scared of the ball, fear of getting out etc. These

matters need to be cleared out of the head prior to the start of the bowlers run up to allow for the stages of concentration that will soon follow. This is vital, if there are distractions floating around the mind, you one must be not focusing to optimum level and is more likely to make a mistake.

Every ball requires one to concentrate at the highest possible levels, and in doing so one should have a strategy to help concentrate. Firstly, after clearing all distractions from the mind, as the bowler starts to run up, he should enter a state of fine focus. In this state, the mind should have no negative thoughts and be concentrating on the top half of the bowler; the vision should be like a television, only focused in on the top half of the bowler as he approaches. In this period, one should have constructive positive thoughts, for example to say to himself over and over "Focus, watch the ball, focus, watch the ball" etc... By doing this and saying positive statements, it stops negative thoughts entering the mind and also stops any possible distractions drifting into the thoughts.

As the bowler enters his final steps his focus level should increase to what is commonly known as a state of fierce focus. In this stage all mental powers should be focusing on the ball and the ball only, his mental screen should now just be the size of the ball. This allows the brain to compute and work out the line, length and flight of the ball and so gives him the maximum amount of time to help him get his feet and body into position as early as possible and best possible chances of making a good decision and playing a good shot. This should be applied to nets as well as matches as this will get one well trained.

specialization within the brain psychology and kinesiology that seeks to understand psychological/mental factors that affect performance in sports, physical activity, and exercise and apply these to enhance individual and team performance. It 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.

Sport psychology involves preparing the mind of an athlete, just as thoroughly as one prepares the body. Sport psychology is an emerging field in the worlds of psychology and athletics. For many elite-level, professional, recreational, and even youth athletes, successful performances, cannot simply be reduced to superior physical performance. Instead, performance in any endeavor is largely contingent upon mental preparation and psychological strength. Just as you prepared for competition by practicing physical skill as well as increasing your strength and endurance, you must also prepare yourself mentally. This includes setting clear, short-term goals, entertaining positive thoughts, using self affirmations, imagery, negative thought stopping etcetera.

Thanks to the extensive coverage of athletic events now-a-days, the sports enthusiast can understand the need for and benefits of sport psychology. Examples of mental training surround us - for instance skiers, divers, and gymnasts imaging their routines or tricks before they perform; Nancy Kerrigan's successful use of sport psych principles after she was maliciously attacked so close to the 1994 Olympics; golfers and biathletes using relaxation techniques to slow their heart rates and breathing thereby allowing for better accuracy in their shots; and basketball players using a

combination of goal setting and imagery to improve their free throw percentages. Morgan defines sports psychology is the study of psychological foundations of physical activity. Robert N. Singer defines sports psychology is the applied psychology, the science of psychology applied to athlete and athletic situations. It further improves individuals of all ages both and with varying degree of skill. Alderman defines sport psychology studies the effect of sports itself on human behavior. Principles of sport psychology are helping athletes succeed in many ways **(Gangopadhyay, 2008)**.

Sports psychology has long been acknowledged that psychological skills are critical for athletes at the elite level. Athletes with the requisite “mental toughness” are more likely to be successful. In the past, it was assumed that these skills were genetically based, or acquired early in life. Now, it is commonly accepted that athletes and coaches are capable of learning a broad range of psychological skills that can play a critical role in learning and in performance. The specialized field of sports psychology has developed rapidly in recent years. The importance of a sports psychologist as an integral member of the coaching and health care teams is widely recognized. Sports psychologists can teach skills to help athletes enhance their learning process and motor skills, cope with competitive pressures, fine-tune the level of awareness needed for optimal performance, and stay focused amid the many distractions of team travel and in the competitive environment. Psychological training should be an integral part of an athlete’s holistic training process, carried out in conjunction with other training elements. This is best accomplished by a collaborative effort among the coach, the sport psychologist, and the athlete; however, a knowledgeable and interested coach can learn basic psychological skills and impart them to the athlete, especially during actual practice.

The increased stress of competitions can cause athletes to react both physically and mentally in a manner that can negatively affect their performance abilities. They may become tense, their heart rates race, they break into a cold sweat, they worry about the outcome of the competition, they find it hard to concentrate on the task in hand. This has led coaches to take an increasing interest in the field of sport psychology and in particular in the area of competitive anxiety. That interest has focused on techniques that athletes can use in the competitive situation to maintain control and optimize their performance. Once learned, these techniques allow the athlete to relax and to focus his/her attention in a positive manner on the task of preparing for and participating in competition. Psychology is another weapon in the athlete's armoury in gaining the winning edge. Sports psychology is the study of how psychology influences sports, athletic performance, exercise and physical activity. Some sports psychologists work with professional athletes and coaches to improve performance and increase motivation. Sport psychology is an interdisciplinary science that draws on knowledge from the fields of Kinesiology and Psychology. It involves the study of how psychological factors affect performance and how participation in sport and exercise affect psychological and physical factors **(Weinberg and Gould, 2010)**.

1.6 HISTORY OF SPORT PSYCHOLOGY

Sport psychology has existed in some form for almost as long as psychology itself. The first recorded study in sport psychology took place at the close of the nineteenth century. Triplett (1898) performed what is often cited as the first experiment in social psychology as well as the first in sport psychology. Triplett investigated the phenomenon of social facilitation. He demonstrated that cyclists

tended to cycle faster when racing against another cyclist than they could alone. Triplett did not pursue further sport-related research however and it was not until the 1920s that the discipline of sport psychology was formally established.

In 1925, Coleman Griffith set up the Athletic Research Laboratory at the University of Illinois. Griffith, who also put sport psychology on the map by establishing a university course, publishing two major textbooks and acting as consultant to professional sports teams, is often called the 'father of sport psychology'. The early path of sport psychology did not run smoothly however, and the Athletic Research Laboratory closed in 1932 due to lack of funds. Between the 1930s and the 1960s (at least in the Western world) there was little activity in the field of sport psychology. In the Soviet Union, sport psychology emerged as a discipline shortly after the Second World War. It is of course difficult to obtain accurate information about the practice of Soviet psychology during the Cold War, but it is commonly believed that, during the 1960 Melbourne Olympics, Eastern European teams employed sport psychologists. Certainly we know that, by the early 1970s, East German and Russian teams were routinely employing sport psychologists to enhance athletic performance in international events.

Sport psychology reappeared in the USA in the 1960s, and was taken up in Britain and the rest of Europe a few years later. The area has since expanded worldwide to become one of the fastest growing new academic disciplines. Interestingly, until very recently the study of sport psychology was firmly located in the domain of sport sciences as opposed to within psychology. This may be changing however: in 1986 the American Psychological Association officially recognized sport

psychology as a branch of psychology and in 1993 the British Psychological Society formed a Sport and Exercise Psychology Section (**Jarvis, 2006**).

1.7 ANXIETY

The ability to deal with anxiety is an integral part of sports training. People, who are able to overcome their anxiety, perform much better than some of the strongest contenders of the games and sports. Sports bring out the best qualities in every individual.

Anxiety is a multidimensional construct which includes both somatic and cognitive components; cognitive anxiety has an inverse relation with performance such that an increase in irrational thoughts related to anxiety will decrease performance where as somatic anxiety has an inverted 'U' relationship with performance such that an optimal level of anxiety improves performance. Whereas too much anxiety with decrease performance (**Terry et al. 1995**).

Anxiety is a state of intense apprehension, agitation, tension, and dread arising from a real or perceived threat of imminent danger. It affects both mind and body with a host of symptoms that can negatively impact mental and physical health. Though it is an experience unique to each person, anxiety has general characteristics that include increased heart rate, muscle tension, shallow breathing, trembling, sweating, and worry or feelings of unease (**Adams, 2012**).

Anxiety is a state of arousal caused by threat to well being. Here the state refers to the condition involving the entire organism and 'Arousal' refers to a condition of tension, current or uneasiness or readiness to act in response by where threat refers to anticipation of pain or, danger or serious interference with goal seeking activities. Psychologically, anxiety is a very important phenomenon. Anxiety is as something

felt, an unpleasant effect of state or condition. The state is characterized by all that covered by the word nervous apprehension or anxious expectation and off event discharge phenomena. Anxiety is the greatest problem disturbing most human beings. All their definitions lead to the conceptualization of 'Anxiety' as "a combination of apprehension, uncertainty and fear". Anxiety is a normal human emotion that everyone experiences at times. Many people feel anxious, or nervous, when faced with a problem at work, before taking a test, or making an important decision. Anxiety disorders, however, are different. They can cause such distress that it interferes with a person's ability to lead a normal life.

Anxiety is the tense, unsettling anticipation of a threatening but vague event; a feeling of uneasy suspense. It is a negative affect so closely related to fear that in many circumstances the two terms are used interchangeably; like anxiety, fear also is a combination of tension and unpleasant anticipation. But distinctions can be made between the causes, duration, and maintenance of fear and of anxiety. Strictly, the term "fear" is used to describe an emotional reaction to a specific, perceived danger, to a threat that is identifiable, such as a poisonous snake. Most fear reactions are intense and have the quality of an emergency (**Rachman, 2004**).

Anxiety may help someone to deal with a difficult situation by prompting them to cope with it. When anxiety becomes excessive, it may fall under the classification of an anxiety disorder. Anxiety is a generalized mood condition that can often occur without an identifiable triggering stimulus. As such, it is distinguished from fear, which is an emotional response to a perceived threat. Additionally, fear is related to the specific behaviors of escape and avoidance, whereas anxiety is related to situations perceived as uncontrollable or unavoidable. Physical effects of anxiety may

include heart palpitations, muscle weakness and tension, fatigue, nausea, chest pain, shortness of breath, stomach aches, or headaches. The body prepares to deal with a threat: blood pressure and heart rate are increased, sweating is increased, blood flow to the major muscle groups is increased, & immune and digestive system functions are inhibited (the fight or flight response). External signs of anxiety may include pale skin, sweating, trembling, and papillary dilation. Someone who has anxiety might also experience it as a sense of dread or panic. Although panic attacks are not experienced by every person who has anxiety, they are a common symptom. Panic attacks usually come without warning, and although the fear is generally irrational, the perception of danger is very real. A person experiencing a panic attack will often feel as if he or she is about to die or collapse.

Emotional effects may include "feelings of apprehension or dread, trouble concentrating, feeling tense or jumpy, anticipating the worst, irritability restlessness, watching (and waiting) for signs (and occurrences) of danger, and, feeling like your mind's gone blank" as well as "nightmares/bad dreams, obsessions about sensations, a trapped in one mind feeling, and feeling like everything is scary." Cognitive effects of anxiety may include thoughts about suspected dangers, such as fear of dying. One feels an intense fear when you think of dying, or one may think of it more often than normal, or can't get it out of one mind". Behavioral effects may include withdrawal from situations where unpleasant effects of anxiety have been experienced in the past. It can also be affected in ways which include changes in sleeping patterns, nail biting and increased motor tension, such as foot tapping (Spielberger, 1972).

1.7.1 ANXIETY AND SPORT

Alleviation and control of anxiety appear today as the main purpose of psychological intervention in sports. Therefore in view of growing request of specialist psychologist on part of sport organizations in Italy, it seemed useful to consider the problem of “anxiety” and of the more recent developments in the work of sports psychologists.

In most literature on the subject anxiety is considered a psychological manifestation involving all dimensions of athletes, such as psychological, behavioral and psychological process include all change involving the autonomic system. Psychological process include all symptom pertaining to the psyche domain, that is compulsive thoughts, emotional and instability incapacity of contraction and ineffectiveness of perception, difficulties in interpersonal relationship, both with peers and with the staff. These difficulties may often bring to disproportionate request for help or, on contrary, to scarce communications with others, being subsequently unable to receive suggestions, psychological support, etc. Anxiety has been divided moreover, into state and trait anxiety: state anxiety is a transitory form of apprehension that varies in intensity: trait anxiety is a more enduring variable that reflects nonspecific anxiety proneness (Mohan, 1996).

1.8 MENTAL TOUGHNESS

Mental toughness is having the natural or developed psychological edge that enables you to: generally, cope better than your opponents with the many demands (competition, training, and lifestyle) that sport places on a performer; specifically, be more consistent and better than your opponents in remaining determined, focused, confident, and in control under pressure (Jones, et al., 2002).

Sports psychologists have consistently referred to mental toughness as one of the most important psychological characteristics related to outcomes and success in elite sport. Mental toughness is the ability to consistently sustain one's ideal performance state during adversities in competition. Performing to one's potential requires good techniques and mental skills. Fluctuation in performance is often directly traceable to psychological ups and downs. Players who create a special atmosphere within their teams perform consistently. Mental toughness is learnt, not inherited.

Mentally tough athletes are self-confident, self-assured and they are unaffected by the competition or adversity. These athletes have the strong belief and they control their own destiny (Clough et al., 2002).

Mental Toughness may be evident in the willingness of an athlete to respond to criticism of his or her performance, in the ability of an athlete to stick to a more difficult training regime than his or her closest competitor, in the commitment of an athlete who fights back from injury, or in the ability of an athlete to maintain focus at the end of a grueling competitive event. Mental Toughness is evident every time that you push yourself a little harder, that you persevere in the face of adversity, that you rebound from a difficult experience, and that you perform well under pressure. If you want to increase your chances of playing at the highest level you need to develop your Mental Toughness (Etnier, 2009).

Mental toughness is the mind set to meet a challenge and overcome the obstacles that stand in the way of success. It is the inner strength that creates resolve and dedication, the courage to fight back from failure. It is the understanding that achievement rarely comes without enormous hardships along the way, and that the

mentally tough are those who can work their way through the ordeals and persevere to success. It means keeping your head when others around you are losing theirs, and it means having the courage to speak up at the right time. The goal for Mental Toughness is a conscious decision a person makes in order to increase his or her opportunities for success **(Kuehl et al., 2005)**.

It is a collection of values, attitudes, and emotions, a blend of the flexibility to make adjustments with the stubborn perseverance to overcome obstacles. Players who are mentally tough know how to control their emotions to perform in clutch situations, they can stay calm when breaks go against them; they avoid becoming intimidated; they don't give in by changing plans, losing sight of goals, or taking the easy way out; they push themselves to become their best, even working through exhaustion; they are disciplined and avoid easy distractions; they bounce back from disappointments and adversity; they are prepared and know how to prepare; they do not make excuses, particularly to themselves; they overcome fear. Mental Toughness requires a state of alertness that allows the player to react quickly to changing situations while remaining intensely focused. It is a combination of self control and discipline that allows quick, intelligent decisions at the most intense moments. Everyone feels fear, the mentally tough learn to execute despite fear. **(Kuehl et al., 2005)**

This quote above speaks to some significant factors involved in Mental Toughness. Not only does it touch on concentration but it also touches on confidence and self-belief as well as arousal regulation and anxiety control. The captain shows how with some players the loss of concentration leads to the loss of wickets which in turn results in a loss of confidence, This low self-belief thereafter leaves the athlete feeling anxious and nervous and therefore unable to perform to their best ability. The

captain successfully highlights how important it is to improve elements of Mental Toughness such as concentration as this individual factor alone has such a 'ripple effect' influence on other Mental Toughness aspects. This aforementioned point confirms that by targeting certain individual mental skills the athletes overall Mental Toughness is likely to improve as a resulting outcome. Mental toughness in sport seems to be a multidimensional construct" and that "the key mental toughness characteristics are not isolated, but rather are interconnected with some being considered more important than others. As a leader of the team an athlete who is not only expected to understand the team the best but also the one player in a good position to have insight into the team members, the captain is questioned about what specific mental attributes need work in order to help this team reach higher levels of performance (Gucciardi, et al., 2008).

1.8.1 MENTAL TOUGHNESS AND SUCCESS

Individuals are obviously successful at what they do. But is success necessary for an individual to be considered mentally tough? For example, take a baseball player (Tim) who has spent the last 7 years in the minor leagues. He was a decent college player but he never really excelled at batting (although he was an excellent fielder at second base). Over the last several years he has done a variety of things to help his batting including lifting weights regularly to build muscle, taking extra batting practice daily, working with the hitting coach, and mentally preparing for each game by watching game film and reading scouting reports of the opposing pitcher and team. With all of these efforts, Tim managed to increase his batting average from .245 to .275 and his home run production from 8 to 15. However, the major league club to which his minor league team was attached had a young all-star 2nd baseman and a

quality back up. So although Tim improved throughout his years in the minor leagues he never really got a chance in the major leagues except for a couple of late call-ups in September when the pennant race was over. Eventually at the age of 30 he left baseball and went back to school to get a business degree. Was Tim mentally tough? Because your success can be so although most people associate being mentally tough with being successful, that may not always be the case. Because your success can be decided by another individual (e.g., a coach or a boss), being successful is not always in your control. In addition, a person might be really mentally tough but simply lack the physical or technical skills to be successful. Being mentally tough appears to help you achieve success but certainly does not guarantee success.

An interesting twist to the notion of success and failure as it relates to mental toughness comes from a TV commercial featuring Michael Jordan. Specifically, in the commercial, all time basketball great Michael Jordan notes all the times that he has lost, failed or missed a potentially game-winning shot. He goes on to say that all of these failures helped him to succeed. What is left unsaid but what one can read between the lines is the idea that somehow, failing helped him develop the resiliency to stay the course and keep focused on success. In essence, failure provided him with humility and perspective that helped him become prepared for, and embrace success in the future. You might say that all that failure helped Michael Jordan learn to deal with disappointment and become mentally tough. Thus failure can help you understand what it takes to be successful (and appreciate success), which can make you more mentally tough. Before discussing the similarities of mental toughness in sports, here is a brief look at how mental toughness might be important for enhanced performance (Weinberg, 2010).

1.9 SELF CONCEPT

Self-concept is defined as the value that an individual places on his or her own characteristics, qualities, abilities, and actions (**Woolfolk, 2001**). Self-concept is the totality of a complex, organized and dynamic system of learned beliefs, attitudes and opinion that each person holds to be true about his or her personal existence (**Purkey, 1988**). Self-concept generally refers to 'the composite of ideas, feelings, and attitudes people have about themselves'. We could consider self-concept to be our attempt to ourselves, to build a schema that organizes our impressions, feelings and attitudes about ourselves (**Tim and Frank, 2001**).

Carl Rogers (1959) Believes that the self concept has three different components, that is the view of oneself (Self Image), how much value place on his/her self (Self Esteem or Self Worth), and what is he/she wish were really like (Ideal Self). **Baumeister (1999)** provides "the individual's belief about himself or herself, including the person's attributes and who and what the self is". Self-concept may be defined as the totality of perceptions that each person has of themselves, and this self-identity plays an important role in the psychological functioning of everyone. The term self-concept is a general term used to refer to how someone thinks about or perceives themselves. The self concept is how we think about and evaluate ourselves. To be aware of oneself is to have a concept of oneself.

Sports interactions with teammates, opponents and coaches in and through sport experiences are generally assumed to benefit the psychosocial development of participants. Although there is considerable discussion of psychosocial outcomes associated with participation in youth sports. Much of the emphasis is on sports influences players and coaches in contrast to the influence of sport on aspects of

psychosocial development such as self-concept and self esteem, perceived competence in sport and sports interaction coaches and player's relationships, values of fair play, and so on. Self concept and its different domains is a behavioral outcome that has received most attention. Self-concept refers to the perception of self, whereas self-esteem refers to the value placed on one's self-concept. Self-concept comprises sport competence and appearance, the structure of self-concept changes with age and becomes more clearly differentiated in the transition into physical activity is positively correlated with sports and physical self concepts. This study indicates strong positive effects of physical activity on global self-concept and specific domains of physical self-concept, appearance and sport competence. Although sport activities are positively associated with global self-concept and perceived sport competence, they also have the potential for negative influences. Two key factors in this context are outcome (for example: winning or losing) and quality of players involvement specifically coaches such as coaching styles (**Smoll and Smith, 2003**).

This dynamic aspect of self-concept is important because it indicates that it can be modified or changed. There is a growing body of research which indicates that it is possible to change the self-concept. Self-change is not something that people can will but rather it depends on the process of self-reflection. Through self-reflection, people often come to view themselves in a new, more powerful way, and it is through this new, more powerful way of viewing the self that people can develop possible selves. There is a great deal of research which shows that the self-concept is, perhaps, the basis for all motivated behavior. It is the self-concept that gives rise to possible selves, and it is possible selves that create the motivation for behavior (**Franken, 1994**).

1.10 PSYCHOLOGICAL TESTING

Psychological testing is a field characterized by the use of samples of behavior in order to assess psychological construct(s), such as cognitive and emotional functioning, about a given individual. The technical term for the science behind psychological testing is psychometrics. By samples of behavior, one means observations of an individual performing tasks that have usually been prescribed beforehand, which often means scores on a test. These responses are often compiled into statistical tables that allow the evaluator to compare the behavior of the individual being tested to the responses of a norm group. A psychological test is an instrument designed to measure unobserved constructs, also known as latent variables. Psychological tests are typically, but not necessarily, a series of tasks or problems that the respondent has to solve (Lambert et al., 2011).

1.11 SPORT SPECIFIC PSYCHOLOGICAL TESTS

Psychological testing is the most outstanding contribution that comes solely from the efforts and constant research by the sport psychologist. Its value is immense in the sense that tests are the most sophisticated tools of measuring human characteristics and individual differences that form basis of sport psychology. Testing is a highly complex sub-field of modern psychology in general and sport psychology in particular. In using any sound measuring instrument the first question that has to be answered is: Does the device (test) really measure what it is intended to measure? If the test measures and serves the purpose of the intention of the test, it is considered valid. A necessary condition for validity is that the test must give scores that are consistent. The same subject must score in about the same way if he/she were tested again by the same instrument under similar conditions. An instrument that gives

consistent scores is called reliable. Inches, foot-rules are, in this sense, very highly reliable measures, because they will give precisely the same measure of the same aspects of the same things even if they are repeated hundred times. Thus, the reliability of a test may be defined a test's ability to give consistent results when repeated.

In order to be reliable, the measuring instrument must be objective. It should be kept in mind that if two or more persons use it on the same person, the result of, test must also tally again, if the subject's test score is to impart any meaningful information, it must be interpretable in relation to scores made by the other individuals in a defined group. This is accomplished by 'standardization'. Thus, the most distinguishing marks of a sound scientific psychological test are that it must have a very high validity, reliability, objectivity and its results must be clearly interpretable (**Gangopadhyay, 2008**).

1.12 SPORTS PSYCHOLOGY INTERVENTION

Sport psychology interventions can help the athlete achieve the optimum state of mental and physical preparation, especially when accompanied by a sound physical training regimen. These techniques and concepts can be equally effective for the week-end warrior or fitness enthusiasts trying to keep on track and get the most out of his/her exercise experience. Sports psychologists are highly trained professionals that apply theoretical knowledge and testing in order to better understand and improve performance. Often they work as sport psychology "consultants" to teams or individual athletes (**Murphy, 1995**).

1.13 PSYCHOLOGICAL CONSTRUCT

Since its founding by Wundt, Fechner, James and their contemporaries, psychology has been distinguished from physiology by the measurement of consciousness, for example, of thought, judgments and feelings. Psycho physics involves measuring judgments people make about their physical environment. Though modern-day psycho physics have become more interested in comparing people's judgments, the classical approach taken in psycho physics was, and mainly still is, to scale things not people psychometrics is based on a process called construct validation, whereby such patterns are established through comparison of different constructor "traits", using multiple methods of measuring each one.

Validity: The key steps to measuring a psychological construct involve demonstrating six principal types of validity: content, factorial, concurrent, criterion, logical, and convergent/discriminant.

Content: The items that make up the test should be representative of the entire known universe of possible items. This ensures that some features of the construct are not omitted and that items better related to other constructs are not included. Researchers usually ensure the completeness of content by canvassing experts on the construct and by using focus groups consisting of the types of people who will be taking the test. Content validity is sometimes confused with face validity, which implies that a test is valid because it appears valid on its face to most people. The appearance of validity is an important part of the acceptance of a test by professionals and the public, but it is a weak scientific standard. Nonetheless, for test items to have clear meaning, they must match the experiences of the people who will be taking the test.

Factorial: Items that correlate more closely with each other than with other items are identified by a statistical technique known as factor analysis, which can be used to determine whether the structure of a test seems consistent with the construct it purports to measure. Exploratory factor analysis (EFA) is strictly empirical; it describes the patterns of correlated responses to items on a test. Confirmatory factor analysis (CFA) ascertains how well the observed pattern of correlated responses fits a predetermined pattern that is based on a theory about what and how many factors are needed to describe the construct.

Concurrent: The test scores should be strongly related to other available measures that estimate the construct. For example, the rankings of people who complete two tests purportedly measuring anxiety should agree.

Criterion: A person judged to exhibit the key features of a construct according to standardized, expert agreement should score high on a test presumed to measure that construct. For example, someone diagnosed as having a depressive disorder should score higher on a depression scale than a person without a depressive disorder.

Logical: Scores on the test of the construct should change in response to events believed to be causes of change in the construct. For example, a measure of anger should yield higher scores for most people when they are forced to endure frustration, pain, or insults. Likewise, scores on the anger test should be unchanged by situations known to be joyous.

Convergent/discriminant: Scores on the measure of the construct should be strongly related to behaviors, contexts, and biological responses theorized to be unique components or elicitors of the construct. For example, convergent evidence for the validity of a test of anger would be shown by correspondence with aggressive

behavior, menacing facial expression, and increased blood pressure, especially if they occurred in a combative social confrontation. In contrast, scores on a test of anger would not be expected to correlate highly with scores on valid tests of other emotions or with behaviors and biological responses unique to those emotions. Indicators that scores on the test are specific to the construct being measured provide discriminant evidence for construct validity (Jennet and Dishman, 2002).

1.14 PSYCHOLOGY OF PERFORMANCE IN TEAM SPORTS

Performance in team sports is determined by the interaction of physical characteristics, co-ordination, technique and tactics with psychological factors, images, operation and states; and by external conditions, such as the development in international and national standards. Cultural upbringing is just as important as physical training. An analysis of this relationship makes it easier to understand training and competition processes. Sports psychology focuses on the psychological factors which guide and motivate player behavior.

The educating athletes and the development of their psychological characteristics, which become established through the relevant psychological images, operations and states, are closely connected with their dominant activity training and competition. Education must take place within the training process, not exclusive of or parallel to it. A fundamental basis for the development of activity specific characteristics is a positive attitude toward training contents and well-defined goals. To realize these goals, athletes need the help and support of their coaches, teachers and teammates. This is especially important during periods of performance stagnation and failure, when criticism can have a negative effect. Encouragement is more conducive to achievement than criticism in all situations. Team sports demand

genuine collective relationships. Playing must be enjoyable and playing with friends is one of the most fundamental attractions of team sports (Sheokand, 2007).

1.15 OBJECTIVE OF THE STUDY

The objectives of the research study are outlined below.

1. This research study aim to construct the game specific anxiety questionnaire and construct norms related to city league cricket players.
2. This research study aim to construct the game specific mental toughness questionnaire and construct norms related to city league cricket players.
3. This research study aim to construct the game specific self-concept questionnaire and construct norms related to city league cricket players.

1.16 NEED OF THE STUDY

Sports performance is the product of many ingredients. It includes well proportionate physique, physical fitness qualities and physiological efficiency of various organs, technical and tactical factors along with psychological qualities. Emotional and temperamental factors are the determinant factors of sports excellence. It is the duty of the coach of the team assesses the various psychological qualities of the player often during the training and competition sessions. This is useful to give a psychological tonic to the players. To know the psychological state, we require psychological questionnaire. It is possible only through the standardized psychological questionnaires in related to the specific game. The present study is intended to construct the game specific psychological questionnaires of anxiety, mental toughness and self-concept which are needed to assess selected psychological qualities of cricket players.

1.17 RATIONALE FOR THE SELECTION OF THE STUDY

The absence of game specific psychological inventories motivated the investigator of the study to make an attempt to construct inventory questionnaires on factors like Anxiety, Mental Toughness and self concept. The investigator much interested in the game of cricket and follower of city league in the game and thereby interested in computing norms for the Chennai city league players on the said psychological factors which would in turn help to assess the status in such factors.

1.18 STATEMENT OF THE PROBLEM

The purpose of the study was to construct game specific psychological inventories in Anxiety, Self concept and Mental toughness and compile norms for the city league players in the game of cricket.

1.19 VARIABLES FOR THE STUDY

The following sports psychological variables were selected for the construction of game specific psychological inventories and compilation of norms.

- a) Anxiety
- b) Mental Toughness.
- c) Self Concept

For the construction of inventory questionnaires, the investigator consulted and suitably followed the procedure adopted by the renowned sports psychologists.

1.20 DELIMITATIONS

The following were the delimitations of the study.

1. Anxiety, mental toughness and self concept were selected as psychological variables for the construction of inventories in the study.

2. Only five hundred men cricket players participating in the Chennai city league tournaments during the season 2011-2012 were chosen as respondents of the selected psychological inventory questionnaires.
3. The age of the subjects ranged from 18 to 30 years.
4. To avoid boredom leading to lack of interest in responding the questionnaires just prior to the match, the investigator collected the responses on different occasions. This was possible because the city league is a year long programme with matches played on Saturdays and Sundays.
5. Only men players were included in this study.

1.21 LIMITATIONS

The following were considered as limitations of the study.

1. The stages of the city league tournament and strength and weaknesses of the opponent team players which may otherwise influence the psychological factors were not taken into consideration while responding the questionnaires.
2. The factors like rest prior to the match, atmospheric temperature, types of surfaces and outfield which may influence factors like anxiety, self concept and mental toughness were not taken into consideration.
3. The city league is conducted by the Tamil Nadu Cricket Association and the participating population of men comprise of college students, employed and unemployed youth.

1.22 FORMULATION OF HYPOTHESIS

A research study concerning the construction of inventory questionnaires to be used as tools to measure psychological factors does not warrant the formulation of

hypothesis except that it was hypothesized that the tools would positively measure the actual psychological characteristics of cricket players. It was hypothesized that the constructed and standardized questionnaires when responded without any ambiguity by players in the group would be of immense utility to divide the players on the basis of psychological factors and psychological skill training be given accordingly.

1.23 SIGNIFICANCE OF THE STUDY

The study would have the following significance.

1. The study would add to the body of knowledge in evaluation and measurement specifically under inventory questionnaire construction.
2. It would also partly fulfill the expectations of sports psychologists who always want the budding physical educators to think and make an attempt of constructing game/sports specific psychological inventories.
3. The standardized questionnaire inventory in each psychological factor would indicate the mental makeup of the cricket players prior to competition which may further indicate the manager, coach and sports psychologist of the team to apply the kind of mental training needed for the team to acquire mental balance.

1.24 DEFINITION OF THE IMPORTANT TERMS

The important terms used in this study were defined below.

1.24.1 PSYCHOLOGY

Psychology is “a science which aims to give us better understanding and control of behavior of the organism as a whole” (McDougall, 1949).

“Psychology is defined as “the scientific study of behavior and mental process” (Crider, 1989).

1.24.2 SPORT PSYCHOLOGY

“Sports psychology is a science in which principles of psychology are applied in sport setting, often to enhance performance” (Kamlesh, 2009)

“The scientific study of people and their behavior in sport and exercise activities” (Thelma, 2008).

Sports psychology is the key to sporting excellence and success. It is the sport science that governs quality of performance. It is the body of knowledge that shows that psychological factors and procedures to produce performance-enhancement effects (Kamlesh, 2009).

1.24.3 ANXIETY

“A state of apprehension, uncertainty, and fear resulting from the anticipation of a realistic or fantasized threatening event or situation, often impairing physical and psychological functioning” (Davis, M. 1992).

“It is a negative emotional state with feelings of nervousness, worry and apprehension associated with activation or arousal of the body” (Weinberg et al., 1995).

1.24.4 MENTAL TOUGHNESS

Goldberg (1998) defined “mental toughness is an ability to cope with or handle performance”.

"Mental toughness is a collection of values, attitudes, behaviors, and emotions that enable an individual to persevere and overcome any obstacle, adversity, or

pressure experienced, but also to maintain concentration and motivation when things are going well to consistently achieve your goals" (Gucciardi et al., 2008).

Dennis (1981) defined "mental toughness is an ability to overcome or respond from failure".

1.24.5 SELF CONCEPT

Self-concept is defined as the value that an individual places on his or her own characteristics, qualities, abilities, and actions (Woolfolk 2001)

Self-concept is the way people think about themselves. It is unique, dynamic, and always evolving. This mental image of oneself influences a person's identity, self-esteem, body image, and role in society. As a global understanding of oneself, self concept shapes and defines who we are, the decisions we make, and the relationships we form. Self- concept is perhaps the basis for all motivated behavior (Wayne and Lloyd, 2003).

1.24.6 EVALUATION

Evaluation is the statement of quality, goodness, merit, value, or worthiness about what has been assessed (Morrow, 2005).

1.24.7 TEST

A test is an instrument or tool used to make the particular measurement (Morrow, 2005).

1.24.8 MEASUREMENT

Measurement is an aid to the evaluation process in that various tools and techniques are used in collection of data (Johnson and Nelson, 1988).

1.24.9 VALIDITY

Validity refers to the degree to which a test actually measures what it claims to measure (Miller, 2002).

1.24.10 RELIABILITY

Reliability refers to the degree to which a test consistently measures a given factor (Miller, 2002).

1.24.11 NORMS

Norms are values considered to be representative of a specified population. They provide information for the individual in the programme and counsels to enable them interpret any individual's score in relation to the scores made by other individuals in the same population. Norms are usually based on age, grade, height, weight, sex or the various combinations of these characteristics (Johnson and Nelson, 1988).