CHAPTER I

INTRODUCTION

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CHAPTER – I
INTRODUCTION

I.1 General Introduction

Education is an art which is based on science. Everything of this universe is transient in environment, and undergoes very fastly throughout the developmental circumstances of the civilization. According to Heraclitus “There is nothing permanent except change.” Each and every ultramodern theory and ensuing formulae of new notion and assumption, the circumference in motion area of the whole world elaborates more and more complicated (en.wikiquote.org/wiki/heraclitus).

The fundamental behaviour of a living being works from womb to tomb in its life cycle. Basically they work physically throughout the duration of their whole life time, such as walking, running, jumping etc. for the necessity of their lively hood. From birth the human being have to struggle physically and mentally for existence with the nature. In ancient age human walked, ran, threw or jumped together heartily, and anybody won and / anyone defeated in day to day active life. For the reason of life saving the competitiveness of human being was created into their mind minutely. According to John Heywood “Nothing is impossible to a willing heart.” (Quotations book.com/quote/20618/#stashash. ox2GDXh2.V9kfeoy2.dpbs).

The scientific and empirical evidence is indisputable – life long participation in physical activity has a significant positive impact on people’s health and wellbeing. In turn improved health and wellbeing have significant positive consequences for both individuals and society as a whole. Health minded organisation such as the American Academy of Pediatrics, the American Medical Association, the American Heart Association, the Centers for Disease Control and Prevention, the President’s Council on Physical Fitness and Sports, and the US Department of Health and Human Services, as well as the allied health community, emphasize the importance of life long physical activity so they do not become sedentary after completing their athletic careers (The Physical Best Teacher’s Guide, 2005).

During the 1950s, numerous organizations took initiative in educating the general public about the consequences of low fitness levels. Several agencies that
have been involved in fitness promotion since the mid-1950s include the American Health Association (AHA), the American Medical Association (AMA), the American Association for Physical Education, Recreation, and Dance (AAPHERD), and the President’s Council on Youth Fitness. These organizations would provide merit and legitimacy to the coming fitness movement. The American College of Sports Medicine (ACSM) was formed in 1954, and has proved to be one of the premier organizations in the promotion of health and fitness to American society and worldwide. Throughout its history, ACSM has established position stands on various exercise related issues based on scientific research. 1960s-United States President John F. Kennedy was a major proponent of fitness and its health-related benefits to the American people. He furthered the development of the President’s Council on Youth Fitness, appointing Bud Wilkinson as head of the council. The name was also changed to the President’s Council on Physical Fitness. Kennedy spoke openly about the need for American citizens to improve their fitness levels, including writing an article in Sports Illustrated entitled “The Soft American”. He said, “We are under-exercised as a nation; we look instead of play; we ride instead of walk”. Kennedy prompted the federal government to become more involved in national fitness promotion and started youth pilot fitness programs. Kennedy’s commitment to fitness can best be summarised when he said, “Physical fitness is the basis for all other forms of excellence”.

Dr. Ken H. Cooper, widely recognized as “The Father of the Modern Fitness Movement”, is generally credited with encouraging more individuals to exercise than any other individual in history. Cooper advocated a philosophy that shifted away from disease treatment to one of disease prevention. “It is easier to maintain good health through proper exercise, diet, and emotional balance than it is to regain it once it is lost”, he said.

Early in his career, Cooper stressed the necessity for providing epidemiological data to support the benefits of regular exercise and health. Data from thousands of individuals became the foundation for his aerobic concepts. Aerobics, released in 1968, sent a powerful message to the American people – to prevent the development of chronic disease, exercise regularly and maintain high fitness levels throughout life.
Dr. Cooper’s message, programme and ideas established the model from which fitness has proliferated up to modern time (www.unm.edu/~ikravitz/Article folder/history.html).

During the 21st century competitiveness in every aspect of individual and group living is taking upper hand. As a result fitness remains paramount to health and wellbeing. The modern life style is quite different from that of primitive one. The task of hunting and gathering of food for survival is no more but the need of physical activity surprisingly increases for health and wellbeing.

The time seems right for physical education to significantly affect the physical activity and health of children and adolescents. This concept is no now; there is plenty of documentation from 20 to 25 years ago calling for physical education reform. The best opportunity to prepare the majority of children and adolescents to live physically active and health lives in through physical education in the schools (The Physical Best Teacher’s Guide, 2005).

Physical fitness is an important aspect of child’s growth and development which has been universally accepted due to its positive influence over the individual and specifically society as a whole. Today physical fitness can be divided into two areas, health related physical fitness and skill related physical fitness.

University students are leading their life through a three dimensional approach such as continuing a higher education, life preparation for the future and maintaining health and sporting carrier along with higher education.

Competitive sports have many positive effects on a person’s life such as fitness, stress buster, development of learning skill, team work, character building, proper use of time, improvement of health and prevention of disease, decision-making, self confidence and achievement motivation.

In this endeavour the scholar has chosen three sporting groups keeping in mind its popularity and native form. Football is most popular team game not only in India but also in the international arena. On the other hand cricket is too popular in various form and Kabaddi, Indian Origin, is gaining its popularity not only in India but also in abroad.
Soccer in India

Football is one of India’s most popular sports. The origin of football in India can be traced back to mid-nineteenth century when the game was introduced by British soldiers. Traditionally it has enjoyed popularity in the states West Bengal, Goa, Kerala and the entire North East India, especially Manipur, Meghalaya, Mizoram and Sikkim. Football spread among the masses thanks to the efforts of one Nagendra Prasad Sarbadhichary. Several football clubs like Calcutta FC, Sovabazar, Mohun Bagan and Aryan Club were established in Calcutta around 1890s. Calcutta, then capital of British India, soon became the hub of Indian football. Tournaments like Gladstone Cup, Trades Cup and Cooch Behar Cup was also started around this time. The Durand Cup and IFA shield were both standard in late nineteenth century making them two of the oldest football competitions in the world. (http://en.wikipedia.org/wiki/Football_in_India).

It is now spread in whole India as formation of I league, Durand cup, Rovers cup, Federation Cup, IFA shield, Indian Super League, etc. which are governed by AIFF. In the game of soccer India came in international map when become two times Asia champion in between 1951 to 1962 and that time is called the golden era. In International level there are played a lot of soccer tournament which shake the heart of every people such as World Cup, Euro Cup, Confederation Cup, Euro Club Cup, Olympic games, Commonwealth Games, SAF Games, Asian Games, etc.

In school to college level soccer is played vigorously in subdivision youth sports, District school sports, National level soccer tournament, such as Subrata Cup, inter-college soccer tournament or inter-university football tournament. Indian Super League. Same to same in top educational institution it is seen that soccer is very competitive game in university level such as Inter university, All India Inter University tournament either in zone basis or central basis.

In this game it is required tremendous fitness, like agility, speed, stamina, eye foot coordination. In a comparative study on Indian National club it is reported that physical, physiological ability were not same, (Dey, kar, Debray 2010). They opined that among the motor ability and physiological qualities only flexibility, agility and VO2max were significantly different among the footballers of different national clubs.
Cricket in India

The game of cricket in India was first introduced in the middle of eighteen century by the European then it was a receptive activity; now it is a top level competitive sport which is popularly maintained with the cordial participation among cricket playing countries. In India it is organized as Ranji Trophy, Irani Trophy, Deodhar Trophy etc. so many tournament as state level, and also played in club level of Bombay, Calcutta, Maharashtra or Gujarat. India has become two time world champion in one day international in 1983 and 2011, champion in Asia cup and a lot of International trophy in between twenty and twenty first century. Now a days cricket is in new formation such as in T-20 World cup, T-20 tournament, IPL league with the major participation of so many national and international players in India.

In educational institution cricket is also very much popular which is seen in inter school tournament in sub division, college level tournament and also in university level such as Buchibabu Trophy, Ajoy Ghosh Trophy and now a days it is played the T-20 tournament very gorgeously.

In this game a participant has to need body reflex, reaction time, endurance strength, speed, coordination and other physical qualities etc. Cricket is a game of endurance as well as strength, for bowling throwing the ball, during fielding and batting, use of forearm strength is essential. (Koley, Yadav 2009).

Kabaddi in India

Kabaddi is mainly played among the people of Asian country. It is one of the primary sports and regarded as a team contact game in Indian village sports. There are 4 forms of Kabaddi played in India. They are Amar, Suranjeevi, Huttutto, and Gaminee. Amar is generally played in Punjab, Haryana, America, Canada and other parts of the world, mostly by Punjabi sportsmen. Suranjeevi is the most played form of Kabaddi in India and the world. This is the form used in international matches generally and played in Asian Games. Huttutoo was played by men in Maharashtra State. (http://en.wikipedia.org/wiki/kabaddi in India).

Perhaps this game is near about four thousand years old which is occurred in Mahabharata of ancient India. Though originated from India this game came in
International picture in SAF Games in Dhaka during 1985 (Rohan Gupta, 2010); India participated all the International Kabaddi tournament such as SAF Games, Afro-Asian Games, Kabaddi World Cup and won a lot of International trophy. In India, it is governed by Kabaddi Federation of India (KFI).

India played an important role in introducing the game of kabaddi to the African countries, while hosting a demonstration sport in Afro-Asian Games in 2002 (Rohan Gupta 2010) kabaddi played in school level, district, college tournament and also in university level such as inter-university, All India Inter University Tournament.

This game is not so expensive and not required massive playing area. It is a team sport which requires both skill and power and combines characteristics of wrestling and rugby (http://sports.indiapress.org/kabaddi.php). In this game players have to requires excellent body fitness, agility, eye-hand coordination and reflex in game to game situation. It is a strenuous outdoor game. In a study (De, Dasgupta, Panda and Bhattacharya 1982) it is reported that hand grip strength values of Indian university male kabaddi players were in comparison to those of Indian footballers and hockey players of the same sex.

In the twenty first century in a good deal of sports there are so many techniques applied on particular athlete’s game. The performance level of the different athlete may not be same in same game in different stages. Athletes’ work hard for performing accurate skill in different stages of participation such as subdivision, district and national level, international and same in school, college and university level. In every country the athlete’s performance are may not be same because that depend upon their physique, practice level, scientific training, setting of mind and playing environment. Through an enormous study Ming-Kai Chin, Y. S. A. Lo, C. T. Li and C. H. So (1992) reported that the physique of Hong Kong soccer players appeared to be smaller and lighter than those found in Europe, which may be one of the key factors that contribute to the lack of success of Hong Kong soccer teams in international competition.

There are various factors which are too much effectible and responsible for the performance of sports competitor. The athlete’s performance is dependent upon his physical, psychological, sociological and conditional factors. The physique and body
composition including the size, shape and form are known to play a significant role in this relevance (Sodhi & Sidhu, 1984).

Everything in this universe is dynamic in nature. The concept of dynamic life produces changes in various aspects of personal as well as social living. The purpose of education is to lead a good life, that is only possible through a strong physical, mental, spiritual and social aspects of life. And thus education is not only focus scholastic achievement but also striving for a sound health and fitness as well as proper education.

Physical fitness came into practice during early 1950 and the changes came into concept of fitness like health related physical fitness as the fourth learning domain during 1980 and then skill related physical fitness.

The main purpose of education is to lead a quality healthy life and to eliminate health disparities along with advancement of knowledge to meet the demand of the modern society and keep space with the advancement of science and technology.

It is opined that health related physical fitness is the foundational to skill related physical fitness. Skill related physical fitness consists of those components of physical fitness which have a good deal of relation for enhancement performance in games and sports and motor skills.

The maintaining of form of an athlete is based on the fitness. It is a condition in which any one has proper energy to avoid fatigue and maintain life. In a study of physical fitness it is reported that main existence and effectiveness depends upon physical fitness. (Gaurav, Singh and Singh, 2011). They also analyzed that physical fitness variables, physiological and psychological components play an important role in execution of sports performance. In this regard in modern science, management of a team, athletic expert, trainer, sport scientist can choose a sportsman to tackle the proper game through ultra modern techniques.

To perform well the physical fitness, physiological condition, psychological situation (attitude, tendency, motive etc.) are needed. Physiological condition of an athlete is dependent on various factors such as genetic factor, training age, level of participation as well type of activity. In a study of exercise physiology, according to Choudhury, Rajnee, Binawara (2011) exercise induces improvement in hemodynamic
status. During competitive sports it has been seen that physiological condition of the athletes are not same. Through an examination, Orysiak J., Witek K., Zmijewski P. and Gajewski J. (2012) found that difference in WBC and their subset count in volleyball players are significantly higher than in athlete group in the case of female subjects.

Success and destination in performance may be differ in man to man, athlete to athlete or athlete to non athlete. In national, international and also in inter university level a lot of necessity of motivation regarding sports in applied among athletes which has great need to perform well. This motive to any game and sports of a person may be differed. In an investigation of achievement motivation among athletes and cricketer it is reported that achievement motivation differed in between athlete and cricketers (Bari, 2013).

Therefore the athlete’s performance may depend and differ on physical, physiological and psychological demand that is their mind setting, goal orientation etc. According to Michael Johnson (2009), an world class top athlete, “The best motivation always comes from within.” Performance level may be suitable according to athlete’s physical, physiological condition and motivational techniques to game situation.

Fit means properly trained and ready for something or any circumstances or any situation. According to chamber’s Twentieth Century Dictionary it defines, ‘fitness and being fit’ as the ability to transient genes and being healthy. A person is to be considered fit he/she need to be able of performing of a level beyond more of the competition in his / her choiceable field of sport. One have to show high level of performance. One fitter man must show broadness of skill. In a study on university level athletes Choudhury & Gayen (2013) showed that there have significant difference in motor fitness and its component among the athletes. An athlete reaches a peak respectively fast then fails to enhance is considered less fit than the athlete who shows signs in maintenance of progression and improvement.

There are fitness like as physical fitness, physiological fitness, health related fitness. There are so many components to total physical fitness. Regarding sports and competition some one may break them down into health related components of
physical fitness which it is now a days assessed with the fitness testing and skill concerned physical fitness. In connection with sport and related to performance it is said that physical fitness is the body’s ability to function efficiently and effectively. It is a state of being that consists of at least five health related and six skill related physical components,(resources.gols.ac.uk/faculties/shsc/life-at./physical.fitness.cfm).

From a study about fitness another report is there that are four categories to differentiate physical component (a) Health related fitness components, (b) Skill related fitness components, (c) Physiological components of fitness and (d) Sports related components of fitness, (www.health-galaxy.com/components-of-physical-fitness.... united states). The first reference occurred six skill related physical components fitness may be clarified as agility, balance, co-ordination, power, speed and reaction time which may be effective to enable to swift and perform more efficiently. And the other may be focused as body composition, cardiovascular fitness, flexibility, muscular endurance and strength, which are needed in day to day life.

In a research report (2011) the President’s Council on Physical Fitness and Sports; Definition, Research Digest, Health, Fitness and Physical Activity; it is come to know that as “those components of physical fitness that have a relationship with enhanced performance in sports and motor skills,’’ (www.livestrong.com/.../506917-5skill-related-components-of-physi...), There it is reported that two types of personal fitness, one is health related fitness and skill related fitness is another one. According to their reference it is enlightened that there are five factors which influence one’s level of fitness, such as Heredity, Maturation, Environment, Motivation and lastly Behavior or lifestyle.

Skill related physical fitness refers to an individual’s athletic ability in sports such as tennis and encompasses skill related attributes like dynamic balance, power speed and agility. The health related aspect is a measure of cardiovascular endurance, muscular strength, endurance and flexibility and body composition (Hopkins & Walker, 1988)

Therefore skill related physical fitness is very useful when anybody want to handle a specific area of sport. It may be performed with the mind setting on behalf of ultimate destination and of the necessity or the requirements of the individual as well
as particular activity. It helps one to perform well in activities and sport which are required certain skill to display top performance of certain target, that is ability to perform in sports activities efficiently. For complete performer it is very essential to high level of result for example agility is necessary to dodge the opponent in Basketball.

According to Colfer (2004) skill related fitness is very helpful when one fixes the mind upon to take up a specific sport. It is performed with keeping the goal in mind. Many coaching centre help to carry out a specific skill related fitness programme of a sports person on high level of competitive sports. For this reason one have a particular sports activity in mind and to train oneself for it, then go for skill related fitness rather than the health related fitness.

In this regard of fitness there are six components of fitness by which skills are performed well. The components of skill related physical fitness are as follows: (www.hearth-galaxy.com/components-of-physical-fitness....united state).

**Agility :**

It is a skill related component of physical fitness. Agility relates to the ability of a person to rapidly change the position or directions of the entire body in space with speed and accuracy. It is the ability to rapidly and accurately change the position of the body in space (Lacy & Hastad, 2007).

**Balance :**

It is the ability of a person to control human body or Balance is the maintenance of equilibrium while stationary or moving (static and dynamic condition) (Lacy & Hastad, 2007).

**Coordination :**

Coordination relates to the ability of the person to use the senses, such as sight and hearing together with body parts in performing motor tasks smoothly and accurately. Coordination is the ability to simultaneously perform multiple motor tasks smoothly and accurately (Lacy & Hastad, 2007).
Power:

Power is a skill related component of physical fitness that relates to the ability to the rate of which one can perform work. It is a combination of strength/force and speed. Power is the application of speed and strength to produce a muscular movement (fitness.ygoy.com/2009/01/03/what-is-skill-related-fitness/).

Reaction Time:

Reaction time is a skill related component of physical fitness. It is the duration between the stimulation and the response to the stimulation (Lacy & Hastad, 2007).

Speed:

It is the ability of a person to execute motor movement with high swiftness in the shortest period of time. It is equal to the distance covered per unit of time. It is an integrate part of every sport (Lacy & Hastad, 2007).

Physiological Potentialities among Various Groups:

The word ‘physiology’ is interlaced of the two Greek words ‘physics’ which means ‘nature’ and word ‘Logos’ means ‘science of study’ these words stated that it is the study of physiology (such as cellular physiology, cardio respiratory physiology, molecular biology etc.) in which it helps to know how main organ of a human body and allied organs regulate in day to day moving situations in modern sport.

In the sports physiology it may be seen that the performance level of athlete may be not same. In a study Ming-kai Chin, Y. S. A. Lo, C. T. Li, and C. H. So (1992) reported that the players tend to be smaller, comparable in cardio respiratory fitness and anaerobic power, and appear to be lower in muscle knee strength and poor in flexibility in comparison with data collected from other soccer teams and Hong Kong elite sportsmen. They also reported that mean heart rate of English league players and Swedish soccer team are not same. These ability of a sports man depend upon element of blood such as Hb, W. B. C., R. B. C., which are the carrier of oxygen in blood in connection with the blood circulation.

It is seen that the performance of athletes may not be same as well as the blood
elements of an athlete may be similar or not. Lombardi, Ricci, Banfi (2011) reported that in winter the relative number of leukocyte among swimmers did not change significantly apart from a strong decrease of the eosinophils propulsion, a strong increase in the total number of neutrophil granulocytes, lymphocytes, was recorded. Hence in game to game situation or in tournament situation the blood element of sports man in different area may be differ. Orysiak J., Witek K., Zmijewski P. and Gajewski J. (2012) reported that in volleyball players WBC count were significantly higher than in athletes of canoeing and rowing (in females) neutrophil counts were the lowest in swimming athletes, Lymphocytes counts were lower in athletes of canoeing than in volleyballer and swimmer. In female, monocyte counts were lower in athletes of canoeing than female swimmer and male judo players.

Blood has a good deal of influence on human. It not only saturates all the cells and tissues with O₂ but also produces conducive effect during sports performance. In the study of circulatory system the element of blood such as W.B.C., R.B.C, Hb etc. may effect on athlete performance. In cardio respiratory system sportmen heart rate, blood pressure may also differ among athlete to athlete or non athlete. In his study Al-Bewyancy (2011) saw that RBC increased significantly in athletic footballer in comparison with non athletes and significantly decreased WBC, Granulocytes, MCV, MCHC in comparison with non athlete.

Therefore the elements of blood may be differed in athletes to athletes. Following that study this researcher have a tend to work with blood elements, Arterial Pressure, Heart Rate, P.E.I and Exercise Heart Rate.

A person’s eagerness, tendency, wanting of target directs him / her motivation which is very important for day to day active life. Because of his/her has to need to motivate for any work in sports now – a days our lack of realizing about participant’s motivation and how it can effect on performance levels of competitors and youth have declined over past years.

In recent research it is focused that Achievement Motivation defined as the need to perform well or the striving the success and evidenced by persistence and effort to achieve high performance in sports (Rajesh Kumar, Deepla 2011). The area of motivation and achievement have demonstrated and suitable guidelines are
followed, motivation can be enhanced and behaviors modified that may be varied from man to man also athletes to athletes.

Rochester Institute of Technology (RIT) reported the definition of achievement motivation as “Motivation is based on your emotions and achievement related goals. Achievement motivation is best on reaching success and achieving all of our aspirations in life”. According to their report, individual’s needs and desires visibly induce their behavior. Person with high achievement need prefers work with a moderate possibility (around 50%) of success. For these people, low-risk situations do not provide enough challenge, and high risk situations are too chancy. (Definition of Achievement Motivation e how.com) (http://www.ehow.com/about6497989definition-achievement-motivation.html#ixzz290wefduf).

Human life can be described as a continuous work at tasks. Individuals may or may not be successful in facing these tasks. The psychology of achievement motivation is engaged to run research projects aiming at a better understanding of individual performance and the nature of human resources as well as at the development of assessment and intervention techniques to increase achievement motivation. (www.sagepub.in/upm-data/9424-010157A.pdf). These consequences for athletes, it can easily understand researcher’s interest is motivation as it belongs to or relates to sports settings.

According to Costas I Karageorghis and Peter C. Terry (2000) the motivation has two vital parts, one is speaking, it comes form the outside, such as motivation to win medals, accepting economical rewards, attract attention from mass media, its external / extrinsic, it involves participation in sports, some kind of rewards that is the process of participation. On the other side, one participates to enjoy sports. It is found interesting stimulating, enjoy able to one without induced external rewards.

Achievement motivation is the part of the earliest socio-psychological theory of motivation in general which refers to the achievement motive. Motivation energizes and directs actions, and so it has great relevance to many important developmental outcomes it refers more specifically to motivation relevant to performance on tasks in which standards of excellence are operative (Wigfield, Eccles, Roeser, Schiefele, 2009).
In various games and sports achievement requires specific behaviours for the competitions. In his / her particular event must have ability to read the situation, choose the response take the quick decision, then implement his / her effort firmly. Rathee and Singh (2011) observed that high achievement motivation is an essential factors that distinguishes high level of performers emotionally strong, and socially adjusted athletes are better than that of low level performers who are emotionally unstable and socially unadjusted.

In an enormous study of achievement motivation and its role in between athletic and academic side of the education the study of G. M. Hickey (1992) revealed that academic achievement and athletic achievement were no significantly associated but athletic achievement was positively related to sports motivation.

According to Romanda’s published paper, it is revealed some scientist that people with a top level of achievement motivation exhibit certain characteristics. Achievement motivation is the tendency to endeavour for success and choice goal oriented success of failure activities. (ezine articles.com/? achievement – Motivation & id – 429438).

Motive to achieve some goal or target may not be similar in between each athletes. It may be varied in man to man in separate game situation. In a vast study Shrivastava, Singh (2012), using sports Achievement Motivation Test which was developed by Dr. M. L. Kamlesh, has shown that Basketball players showed significantly more positive in achievement motivation than volleyball players.

The level of achievement motivation on top level athlete may be differenced on the condition of competitive situation. In a long work, Khan, Khan, Haider and Ahmed (2012) noticed that national basketball players had higher and Asian table tennis players had lower level of achievement motivation amongst the group. They also discussed that national basketball, hockey and international badminton players had high level of achievement motivation and Asian table tennis players had moderate level of achievement motive.

Achievement motivation is a mindset that leads people to set for themselves realistic but challenging goals, (Paul Fontanye 2001). According to him achievement motivation can be calculated mathematically by taking a person’s desire to succeed
and subtracting their fear or failure.

Achievement motivation is the tendency to endeavor for success and choose goal oriented success or failure activities (Richard Romando) (ezine articles.com/?Achievement-motivation & id = 429438).

Therefore it is said that people of high achievement need choiceable work with a moderate probability of success and people of low – risk condition do not take up enough challenge but on the another side people of high risk get a chance.

I.2 Statement of the Problem

The proposed work is to compare the skill related physical fitness, physiological profile and sports achievement motivation of players of various discipline of university level and accordingly the problem has been stated as, “A Comparative Study Of University Soccer, Cricket, And Kabaddi Players On Skill related Physical Fitness, Physiological Profile And Their Sports Achievement Motivation”.

Sub-problem: To find out the relationship between percentage of blood Hb and physical efficiency index of the subjects.

I.3 Limitation of the Study

The study was conducted under the following limitations:

a) This study was confined among the non residential male senior students.
b) In this study subject’s socio-economic condition, their diet, life style, and other activities could not be control
c) Skill related physical fitness was used to find out the skill related state of athlete.
d) To find out the state of blood elements of the subjects, physiological profile was used.
e) Only sports achievement motivation was used to find out the psychological state of the athletes.
f) The level of fitness could not be control among the subject for the optimum level during various phases of test.
g) The physiological element (blood) and motivation could not be control among the
subjects during various phases of tests.

h) In this study weather and temperature could not be control.

1.4 Delimitation of the Study
a) This study was conducted on university level only
b) Only there were three categories of subjects like soccer, cricket and kabaddi
   players.
c) The study was delimited only on male soccer, cricket and kabaddi playing.
d) Sports achievement motivation was considered as only psychological profile.

1.5 Hypothesis
1. It was hypothesized that there would be significant differences in skill related
   physical fitness among university soccer, cricket and kabaddi players.
2. It was further hypothesized that there would be significant differences in selected
   physiological profile among university soccer, cricket and kabaddi players.
3. It was also hypothesized that there would be significant differences in achievement
   motivation among university soccer, cricket and kabaddi players.
4. Finally there would be no relationship between Hb% of blood and PEI among the
   subjects.

1.6 Purpose of the Study
1. The study was taken with a view to compare physical fitness of university soccer,
   cricket and kabaddi players.
2. To investigate and to compare the physiological abilities between soccer, cricket
   and kabaddi players, this study was taken.
3. The study was taken to compare the achievement motivation among soccer, cricket
   and kabaddi players.
4. To find out the relationship between Hb% of blood and PEI among three different
   sporting group.
I.7 Significance of the Study

a) In this study it will be known the ability and fitness level of various university players.

b) From this study, the result may help to motivate other university student for regular participation in games and sports.

c) It will help to know the physiological potentiality of university students, that will help to compare with national players.

d) The study will help to understand the role of achievement motivation for any game and sport.

I.8 Definition and Explanation of the Terms

In modern era every athlete have to need top performance at any situation of playing filed on behalf of participant’s particular sports. To improve performance in sporting activities such as running, gymnastics etc. one has to work on skill related fitness and has to work with best motive for achieve a target for ultimate destination. The term skill related physical fitness as well as achievement motivation will be clearly understood through its proper explanation.

Skill Related Physical Fitness

Skill related physical fitness is occurred to a personal athletic capability in games such as soccer, basketball, gymnastic etc. That fitness and its components ensure the playing in between low and top level performer. These skill or abilities decide athletes skill performance into a particular sports.

Skill related fitness is the ability to perform well in physical activities, sports. To improve performance in sporting activities such as running, gymnastics. One has to work on skill related fitness. (www.myguidon.com/index.php?option=com-content&task=view&id=4382&itemid=39) (See George R. Colfer) (fitness.ygoy.com/2009/01/03/what-is-skill-related-fitness/)

Due to clarification and definition of skill related physical fitness in a research report (2011) President Council on Physical Fitness and Sports sought to broaden the definition of physical fitness laid down in Surgeon General’s report, sub categorizing
skill related fitness as, “Those components of physical fitness that have a relationship with enhanced performance in sports and motor skills”.

Therefore to successfully take part in games and sports, recreational game and daily activities, it is too much necessary to achieve and standard level of skill related physical fitness choosing one’s areas of strength and weakness, it will enable one to set up a plan / programme for enhancement and he / she will have better success and enjoyment in his / her sports activities.

**Achievement Motivation**

Motivation is a numerous studied heading in a lot of areas of sports scientific works such as industrial settings, education, exercise etc. According to Khan, Haider, Ahmed (2011), “Motivation is important psychological variable in sports and its need to achieve high level of competition”.

Achievement Motivation typically refers to the level of one’s motivation to engage in achievement behaviors, based on the interaction of such parameters as need for achievement, expectancy of success, and the incentive value of success (Tigger. uic. Edu/-thork /fair/defn.htm).