CHAPTER I

INTRODUCTION

The process of acquiring knowledge from their ancestors to the younger generation is called Education. It makes man civilized, refined, cultured and educated. To make individual more perfect is the main purpose of the education. Every society gives much attachment to education because it is a panacea for all evils and it can solve various problems of the life (Silva & Weinberg, 1984). Educations simply mean the transformation of skills, and knowledge from one generation to the next by training or research and fulfill his possibilities.

Education is a training process which causes about through study and instruction or a series of experiences which enables one to understand new experiences and others it means growth and adjustment.

The term education is derived from the word ‘Educate’ a Latin word which means to “Bring up” or “To rise”. Through all these meanings education seeks to nourish good qualities in a man and draw out the best in every individual. Being as a part of the society, man has to think about the various issues and should conclude in an assumption that he should be free from bias and prejudices and blind beliefs. For a good development of society, all the individuals contribute to the development of good human beings.

ADVANTAGES OF EDUCATION

The main aim of education is to live the individual with perfect meaning by educate individuals. To educate individuals, Education has a vital role to play in assisting respondents to understand their cultural identity.

Education will raise the economic growth of the country and promote knowledge and understanding of rural communities. In simple sense we can see the educated people really enjoy the respect from their friends and colleagues and this will leads to the development of the country by inventing new products devices.

EDUCATION IN INDIA
In ancient India, Veda was the main source of education. Veda says that the meaning of education is liberation. In those days students were followed by gurukul system. Education was totally free on that day and there was no external body to control the system. At that time only Brahmans were offered education. Hence the temples become the centers of the education. Under East India Company rule over India makes English as a medium, they provided higher education and awarded better government services for the educated people. The English people left India after the independence and India becomes democratic. After that the educational strategies changed and the education is divided into two sectors one is public sector and the other one is the private sector.

Now in India education is controlled by both central and state governments. Improved education system plays a major role in the economic rise of India and both governments are giving much important in primary education and it is now compulsory for all the citizens. Secondary and higher education is the other two types of education which is implemented by the government. Now a day the authorities are taking lots of good steps to improve the level of education and they are given equal importance to the health of the student as well as education.

Physical Education and sports have been developing in recent years. The mass Medias, non-governmental organizations, different federations, and associations influencing the increase interest in the sport.

Education gives better results to regulate the different experience of an individual. It further means that the individual’s education consists of everything he or she gets from birth to death. Education is doing phenomenon. One learns through doing. Education may get from the classroom, library, from the playground, in the gymnasium and home. It is not confined to school, but takes place wherever individual congregate. Education first starts from reading, writing and doing arithmetic. But now a day’s modern concept of scientific world education is considered to bring out National harmonious and progressive development of man’s innate power. It helps an individual to make an original contribution to human life. Educational institutions are the chief agencies of the progress of society. Education must meet the challenges presented to the society.

PHYSICAL EDUCATION
The meaning of Physical education is nothing but through learning an individual obtains optimal, physical, mental and social skills and physical fitness activity. Today, it plays a vital role in the educational process. It is not a leisure time activity as means keeping children busy. By doing daily physical activity, children develop their skills by well directed physical education programme. Involvement of daily activity will improve their physical and mental health (Hanin, 2000). It is an educational system that has its own aim. The improvement of human performance and enhancement of human development through the medium of physical activities can improve the human performance and development.

Physical education is the education, in which we develop health, physical strength, physical skills and skills of thinking and balance of personality. With the help of Physical Education, we can achieve socialism, obedience, leadership and manners. The Government has declared ten values of education and they are patriotic, National Integration, Secularism, and Equality between man and woman. All these things are included in the value education. And it is very easy to achieve all these values.

Through physical education, we can simply achieve physical and mental health, which is necessary and for the sake of society and culture and through a sport we can achieve values of our life. Physical Education is a student’s development oriented education. So physical education is the part of our education. In our country from ancient period we have been taking education through physical movement. We achieve religious gain through physical movement. So the physical education is the education of children’s body, mind, emotions, social balance and development of society (Silva & Weinberg, 1984). Physical movement is the base of physical education and our body is the main source of physical education. But only the physical body is not sufficient for physical activity. With that we must concentrate on the mind, emotions and thinking power as the sources of physical education.

Physical Education takes currently acknowledged universally as a vital part of the overall education system. It is also familiar that physical education plays no less significant part than education in hypothetical subjects of the youngster to make a real citizen with physically, mentally and emotionally fit. In this prospectus has contains of various trials such as yoga, rhythmic and lezium, team game, internal normal game (Drill march, team games) etc. Physical
education has been made essential in the curriculum right from higher secondary to graduation level by integrating the college in the condition of the education at the all Maharashtra. This is an inseparable part of a whole system of education in today’s life. Physical education an organized way for the enjoyment and concurrently avoids the society from unhealthy sorrow under the root of physical Education. Many aspects come with from the free hand exercise to highly competitive sports. Physical education is known by different names such as Exercise, Drill and marching, physical activities, physical culture, physical training, movement education, Gymnastics, Games& Sports (James et al., 1992).

Physical Education and sports activities were very essential for the development of real competition and good health. Physical training is an unavoidable activity of human life. Achievements in sports have a considerable bearing on the national prestige and moral. India has had a rich tradition of sports and physical education. It was from here that the ‘Guru Shishya Parampara’ came into vogue, with Arjuna, the archer trained as the ‘Shishya’ and Acharya Drona’ was the Guru.

The use of modern equipment, nurturing of talent from a very tender age, stress on physical training along scientific lines, introduction of modern infrastructure and highly sophisticated equipment have changed a lot in the complexion of modern sports. The government of India has taken a number of initiatives despite resource constraints to improve the standard of sports in the country. However, a lot more remains to be done. In order to bring about a radical change in the country’s efforts to achieve excellence in sports, the government had devolved a new national sports policy.

The new sports policy is to help the promotion of sports through business and industry. It is hoped that these initiatives will help the India to grow to reckon with. The progress of civilization is so inextricably interwoven with the threads of education that it can be assumed that one never existed without the other. From the age of the caveman, the way man has reviewed and used his body and mind has had an impact on society.

The first physical education class came when a parent taught his son to do all physical activities that were important for a youth to learn in the tribal life of uncivilized man. Over the century the civilization has changed tremendously and the new pattern of stress has imposed to
the human (Silva & Weinberg, 1984). They need to learn to throw a spear has passed, but the need to throw remains; the need to climb a tree is gone, but the urge to climb appears in every child; the need to leap a brook rarely occurs, but the necessity to leap arises again and again in tile urgent jumping and leaping of youth. Include patterns developed by nature are old and fundamental forms, which their demands in a highly industrial and complex present.

Physical education has developed from all unappreciated unwanted appendages of the curriculum into an indispensable phase of the general education for everyone, While not so many years ago a few or no physical education facilities were provided for the education of the children and youth, today no educational facility can be considered modern unless it amply provides for a wide and varied programme of physical education. For this reason all who are responsible for authorizing, designing or using the facilities should have an accurate knowledge of the scope and contents of the present and if possible future programme of physical education. It is only in this manner that facilities can be constructed that enhance, rather than restrict the achievement of the educational goals of the programme (Kamlesh & Sangral, 1991).

The comparatively late entrance of physical education into the college programme with the subsequent growth to the point where it is considered indispensable in the proper development of youth is ample evidence of the need for continued thought, study, and research by those in the profession. Physical education is an organized experience, related to general education which attempts to lead the individual and the group into situations offering opportunities for the learning of neuromuscular skills, acquisition of organic vigor, development of desirable social attitudes and the enjoyment of creative expression through big muscle activity.

**OBJECTIVES OF PHYSICAL EDUCATION**

Objectives are the particular and precise means employed to realize an eke aim. It is desirable which seems possible for being attained and through which the final goal of realization.

The objectives of physical education as contemplated by various authors from time to time are being mentioned as below.

1. Physical fitness
2. Mental health and efficiency
3. Social-moral character
4. Emotional expression and control
5. Appreciation

**PHYSICAL CULTURE**

The term physical culture is an old term in the education which is used in the late nineteenth century (like other course that time was as known as religious culture social culture and intellectual culture). The term is used by some people with old belief in commercial ventures to popularize the beneficial effect of exercise. Physical culture has mainly been used for physical training. It is a term, however, that is not in use today in our academic world (James *et al.*, 1992).

Physical and mental fitness is very essential for human being. Physically fit people are able to withstand fatigue for longer periods and are better equipped to tolerate physical stress. Hence, all the age groups of people must involve in physical activity being mentally and physically fit. Social situational factors play a more important function in accounting for socialization into sports roles. Much data shows that the opportunities to become involved in sports are differentially distributed among various groups, sports involvement and by rather strong inference in sport is strongly influenced by socioeconomic background.

**PHYSICAL EDUCATION AND SPORTS SCIENCES**

Physical education helps to improve the all round development of the child especially physical, mental, social and emotional development. Research has proved that academic performance will improve by physical exercise for children. Some of the governments have good enough support to physical education particularly for school students to promote good health and formulated a separate curriculum to introduce many schools of their country. The UNESCO already introduced and emphasizes the importance of the physical education in school curriculum, which pointed out that to involvement of the child to any recreational activities.

In India through the physical education curriculum, Schools and colleges have the potential to improve the health of young people. Physical fitness of the human being will improve by daily physical activity and that will lead diseases less life. Inactive lifestyle will lead
to the unhealthy status of the body and this will negatively affect the defensive mechanism of the body. Fitness should begin with the birth of a human. It will improve health in general. Physical activity is very important for the child growth (Hanin, 2000). It is depend upon of the physical, social and spiritual aspects. So it is a must that a well organized physical programme for school students.

Physical movement is giving some experience of good health for human. That played many roles to prevent all types of life style diseases and maintain good posture. Any physical activities give some enjoyment for the people even sixty and seventy age groups, more over it gives some pleasure also. A sport is an activity in our lives where pursuits of different movement achieved through the total investigation of Nero – muscular co-ordination. In the present decade we can see every person has directly or indirectly related to any physical training activities (James et al., 1992).

Man’s endeavor to achieve a higher standard of performance has remained unchanged. As a result, today’s sports and games demand optimum fitness and the highest degree of performance. If the level of fitness is below their abilities, performance tends to go down though the sports person. Instead of merely playing the game, one may develop a certain level of fitness through physical activities and can bring some kinds of entertainment in the society. The games demand a basic level of physical abilities and need for the higher level of motor fitness for maximum performance.

Almost all physical activities incorporate one or more of the elements like strength, speed and mobility. Overcome the resistance is called Strength. Speed is required for high frequency and stride length. If distance, duration or the numbers of repetitions are high, an endurance exercise is performed. And finally, when in a given exercise a high degree of complexity is required is known as a co-ordination exercise. Some athletes are more capable than others of performing such exercises. They are said to have "talent" for that type of activity. But this talent is largely genetic; it is rather inherited from one's family.
The basic physical qualities are inherited abilities which play the most important role in one's chances of reaching high levels. So the term "motor" refers to movement, whereas the prefix "bio" is added to illustrate the biological importance of these three abilities.

Sports performance is the sum of numerous factors which can vary from individual to individual. It is very important to identify and fully mobilize each individual’s potential.

Importance is not only due to the fact that performance sports are glamorous and spectacular to watch. Sports perform multifarious functions for the human society in the modern age. In fact sports culture and sports sciences as the backbone of the performance sports. This brought into sharper focus of the training system as the means of development of sports performance. Systematic and scientific knowledge is very important for maintain the standard of sports performance and the development of the physical education discipline.

**PHYSICAL FITNESS**

Physical fitness is the capacity to do daily activities without any fatigue. It means the functioning of the organic system of the body is taking vigorous tasks and leisure activities beyond organic development, and stamina. Physical fitness is the most important and necessary factor to measure the physical performance of an individual, through that we can assess the physical capacity of the people to do the physical task. Natural ability is a potential, but fundamentals are the foundation of excellence. Our food habits and life style are the important factors to maintain the health. Human body is comprised with many elements, physical activities in order to produce energy and stamina to face the obstrucle.

Improved standards of living and increasing affluence, however, have had to a decreased emphasis on physical fitness and locomotive power and in the industrialized modern world man has become more and more sedentary both at work and during the leisure hours (Kamlesh & Sangral, 1991).

All the people must know the importance of physical activities and basic fitness; on the other hand they should know about the physiological functions of the body. Physical fitness comprised with many factors such as speed, strength, endurance, flexibility, agility and balance.
Sports participation of an individual needs some good physical fitness i.e. explosive strength, muscular endurance, hip mobility and elastic strength.

The systematic training is needed to improve the athlete’s physical and physiological potential to increase the bio-motor abilities to achieve maximum performance and standards. More over physical capacity based on lot of factors. High standard of physical capacities and fitness are the basic components to achieve the skills and performance of all the games. Only the physically fit person can lead and maintain the fitness level and performance for long duration.

The fundamental human movements are walking, running and jumping. Fitness plays a vital role even in old aged, and lack of fitness will cause a lot of fitness problems. If these conditions worsen over time, any older people become more sedentary thinking that if they rest they will get better. We can see that pain and immovability create less fitness level and body will become functionless. For a good fitness daily exercise or activities are must.

**Importance**

Every individual should know the importance of physical fitness in life and the knowledge about anatomy and physiology that enable people to know the physical capacities. If a person is physically fit, he will be able to act staidly and smoothly. Physical fitness triggers you to act body; it makes you mentally and physically fit and sharp (Hanin, 2000). It enables your body to adjust with the daily demands and makes you feel comfortable. It improves your performance and many MNCs employed full time fitness directors as a backup for their ignited minds.

**PHYSICAL EDUCATION AND FITNESS**

Fitness body is very important for to perform all the competitive sports. Training and coaching provide a base for motor ability and physical fitness. The primary aim of physical education is not to develop star athletes, winning team of expert performance, but a national vitality with character values and physical fitness. Physical fitness in simple means can say that the capacity of a particular individual to overcome a physical situation. If you are more physically active you will be more mentally sharper. In general physical fitness improves the work performance rather than health.
Fitness is the main objective of physical education curriculum and this directed towards achieving the objectives through specific development exercises as well as games and activities that help to improve physical fitness. Nero muscular coordination of individual which include his ability to learn a new skill finally to achieve competency in physical activities in essential to all phases of physical education (James et al., 1992).

Physically related activities were helping the development of a child in all the faces. In olden days physical education programme means only for fun and enjoyment. Research in the field of physical education proved that it will help the human being a lot. The development of personality depends on physical activity. Ample chances are given to children for their mental, social, and physical development. It is essential to have a well organized programme in schools (Kamlesh & Sangral, 1991).

In all the stages of growth physical activity is mandatory for health and recreation. It provides youthful exuberance and elderly care. Not only in the stage of struggle for excellence physical fitness matters.

Health, the freedom from the disease fitness, the ability to meet the demands and performance are poorly correlated phenomena.

THE NEED FOR FITNESS EDUCATION

Fitness means the ability of a person to his daily activities without any risk. In each the amount of fitness will vary according to their health. Physical activities help a man achieve a high degree of physical conditioning. In physical education curriculum student are having daily sports activities in schools. There are many physical fitness tests to evaluate the ability of the students to carry out daily tasks without undue fatigue.

An increase physical activity will lead to good health, increase HDL cholesterol, decrease LDL cholesterol, improve the heart efficiency, decreased the triglycerides level, the blood circulation and physical efficiency. We can see that human being is less interested in physical activity (James et al., 1992). All are become lazy because of the mechanical life. Physical exerted job will become less. Now health statistics showed that obesity become the major
problem of youth. The sedentary life will leads to the children high blood pressure, diabetics strike, etc.

**COMPONENTS OF PHYSICAL FITNESS**

The individual capacity to measure live efficiency in the environment is the total fitness. Fitness is individual physical fitness gives more energy and potential ability to function. Physical activity makes a passion not only physically fit but also mental, emotional, social and spiritual fitness. There is health motor fitness. Physical fitness works as a remedy of illness and improved performance level. Fitness helps men to adjust with environment and to harmonize body and mind. Physical fitness makes the people able to survive. Advancing technologies works as to ensure to the manpower.

**BASIC ELEMENTS OF PHYSICAL FITNESS**

1. Cardio respiratory endurance

2. Muscular endurance

3 Muscular strength

4 Flexibility

5 Explosive strength

6 Body compositions (percentage of fat)

The above said components and its healthy distribution makes one healthy. Different modules are there to test the children implemented by state. A healthy body can give happiness satisfaction and enjoyment. On some level physical fitness results mental fitness. Daily works influence physical fitness as place of work satisfaction and time affects it (James et al., 1992).

**PHYSICAL FITNESS IN INDIA**

The tradition of physical fitness in India is closely related with the religious activities and back to thousand years. The physical fitness programme was in the form of physical activities
like Pranayama, Yogasana, Lezium, Lathi, Calisthenics, Combative Dumbbells and so forth and the games like, Kabaddi, Kho-kho and Atyapatya have been in vogue from time immoral. In India physical education system were vary old and it was vary systematic and practiced by people. They take responsibility of education in the year 1833, was in the hands British rulers.

The war of Indian independence in 1857 had suppressed the physical fitness programme of Indigenous physical activities, and it was replaced by Westernized type because the whole country was under the control of the whites. The fire of patriotism was injected into the minds of strong and south Indians to refuse the physical fitness programme of a westernized system of physical activities, but in vain. The rulers themselves were a lover of gymnasium work. They patronized several wrestlers – to develop strength and Malkhamb (wrestler’s pillar) to develop flexibility as components of physical fitness.

The impact of World War II made to develop physical fitness in the youth of the nation. The need for the national programme of physical fitness was felt by the administrators of India because young people were not in sound physical condition for selected services and professional preparation programme.

Physical fitness programme was very much necessitated for habilitating the war victims and it was also used in the educational and training institutions in the form of physical therapy, occupational therapy and physical re-training. After India becomes independence utmost importance was given by the Indian Government for the promotion of physical fitness programme to keep the citizens fit, individual welfare and efficiency in production.

The Government launched various measures for the betterment of physical fitness among youths and improved performance of the Indian sportsmen at International competitions. The development of physical fitness programme was started with the establishment of Rajkumari Sports Coaching Schemes (1953), and the All India Council of Sports (1954) and National Discipline Scheme (1954)

CHILDREN AND PHYSICAL FINESS
Growth and development of children is a natural process. There are many factors that contribute to growth and development. However, the factors related to heredity and environments have much more role to play. After a child’s birth, the mother takes care so that child grows. Normal growth of a child’s height, structure, outlooks, organic functions, depends upon heredity and its nutrition, nature of learning, attitude, behavior, emotion, and personality etc. (Hanin, 2000). It has a common base mostly on the environment.

During the past 30 years, a great and dramatic change has acquired in the childhood and adolescent obesity, it is a national and international problem which result in high health risk before adulthood including diabetic’s mellitus, fatty liver diseases and elevated cardiovascular risk factors. It diminishes quality of life results health consequences. We have to treat all these to save the generation from obesity.

In past 30 years childhood obesity have increased dramatically during the past and now represents one of the most pressing national and international public health priorities. This will lead to greater risk of adult obesity, cardio related diseases; diabetic’s etc. this will affect the quality of life. The true toll of childhood obesity must be calculated across the lifespan since it often continues into adulthood (James et al., 1992).

A child’s development in any field depends on personal interest, opportunity, cultural, social and financial status. Actually this was not in the case of slum students. We can consider the following arguments for this. It is assumed that children below the poverty line i.e. slum dwelling children fall behind the children belonging to the middle-class and upper class not only in their physical fitness but also in growth, development, and nutrition. This is due to a lack of various facilities, equipments, technical guidance, and proper diet. Therefore, overall health related fitness of children of slum area seems to be affected (Kamlesh & Sangral, 1991). In the case of slum student the fitness is god but in the other hand the students are less active so that less fitness.

Physical growth in boys is somewhat different than that of girls up to adolescence. The growth velocity is earlier in girls than boys. The child woods between 6 to 12 years an age comparison of competition. At the age of 12 to 15 years the physique will change. In the third stage of growth (adolescence stage) where the gender identifications are observed because later
year is a stage of separation. Maximum strength is obtained after approximately one year following a peak period of growth in height and weight. Maximum aerobic capacity is also obtained at that time. Therefore achieved good fitness in children’s sports programme should be arranged accordingly. For a happy life every individual need health and fitness. So all the person in the world needs fitness for daily activity.

At the first stage priority on fun reaction skill development and opportunities for competition should be provided. At the second stage exercise should be both more competitive as well as more exhaustive than the 1st stage where as in the 3rd and 4th stage; the exercise should be severe enough to attain maximum fitness. Schools are playing a vital role in the promotion of activity (Silva & Weinberg, 1984). However, some schools have no good facilities to inhibit the offering the good quality of physical education and sports activities in schools.

In our country most of the people shuttered physical activity that will lead to decreasing the sports and physical education. In addition schools are not giving the much of importance to the physical education in the schools also. So to improve the health status of the children research should be conducted in the field of physical education field.

**IMPORTANCE OF MOTOR FITNESS**

Motor fitness is very essential factors of sports performance. Traditionally, motor ability has been viewed as a combination of factors that are basic to all movement. In the past this quality has been evaluated by presenting motor problems that are new to the students. A student who possesses a high level of this quality is generally called a ‘natural’, and responds to teaching and coaching quickly. This aspect of human performance is ascribed to quality by birth itself, this quality encompassed with human motor development (Baumgartner & Jaison, 1982).

The components of motor fitness, physical fitness and motor ability are almost the same. Even though, their components are more or less same, they have different motor performance. Since the motor ability is looked as a mosaic comprised of many components, then each of these components must contribute interdependently in a successful performance of a movement skill. However, there is no common agreement on what these components are. Test items are generally used in a battery to measure as many of these components as possible.
PHYSICAL VARIABLES

Sports performance depends largely on physical fitness factors such as the basic qualities of fitness. Sports activity is a physical activity, which is not possible without these motor abilities. Fitness factors are the most important for predicting athletic performance. Natural ability is the promise of potential, but fundamentals are the foundation of excellence.

Result of a performance is directly proportional to the resistance that is applied of the particular body. If the resistance strength is higher better the performance of the body almost all performances depend on the ability of applying greater force against a resistance (Baumgartner & Jaison, 1982). Increased strength will often contribute to better performance.

In all physical activities muscular strength has been recognized as an essential element and basic components. Strength affects the performance level of any sports person and it is very important factor of physical capacity. Systematic training is the best way to improve the strength. The coaches and physical education teachers must use apt and beneficial ways to train sports man (James et al., 1992).

Energy liberation process in the muscles decided strength, which is a direct product of muscle contraction. Strength is an unavoidable factor in all motor abilities. Muscles contraction produces all sports movements.

Strength is a powerful tool of most of the sports events. Motor abilities are comprised with many factors; strength is one of the most important component of that. It gives enough energy to do maximum performance by the muscle contraction. Without sufficient strength an athlete cannot do the maximum performance, so strength vital role to get the high level performance (Johnson & Nelson, 1982). Systematic training and skills are the importance factors for achieving maximum performance in all the sports activities. Strength training is useful for general health, good posture and the prevention of many injuries.

All sports require a certain amount of strength, but strength becomes a priority in sports where heavy weight such as body must be lifted, carried or thrown. The cross sectional area of the muscles is lead to muscle strength. Both large and small muscles are important for any sports event, some sports events are needed maximum muscle strength such as weight lifting and power
lifting. Muscle co-ordination is also an important factor to perform some sports events such as gymnastics and diving.

EXPLOSIVE STRENGTH

Explosive power is defined as the rate of expenditure of energy. It is the ability of the muscles or a group of muscles to overcome resistance with maximum speed and effort. Explosive power represents one of the most important features of track and field. The biological basis is represented only by the energy aspects of substrate utilization, as many investigators believe. Indeed the most peculiar factors for explosive power development must be formed in neuromuscular properties.

Explosive strength training is used by sports person who needs to get maximum explosiveness. It is characterized by one short burst of or energy and is seen in such test as standing long jump vertical jump and ball games. The strength of the muscles in the limbs in moving and supporting the weight of the body repeatedly over a given period of time in terms as dynamic strength. Explosive strength and dynamic strength involve movement of the body of its limbs (James et al., 1992).

Directly or indirectly athletic performance dependence on muscular strength. The primary functions of the boot muscles is the contract which result in body movements, muscles are the only body parts which can causes movements. The contraction of the muscles dependence on the strength of the muscle. Be conscious and vigilant in avoiding injury is the basic note in keeping muscle strength. Neuromuscular system can be developed by applying stress to the muscles or to the neural aspects (Baumgartner & Jaison, 1982).

One must improve the explosive strength of the concerned groups to improve the speed performance. A decrease in strength will affect the speed. We can improve speed by giving more and more training and emphasis on the explosive strength, which mainly rely on muscles, co-ordination, muscle size and composition. It also dependence on metabolic process. All these factors expect muscle composition, can improve through training. There is some evidence that strength developed dynamically makes a better contribution to speed than strength developed statically.
SPEED

Speed is the capacity to perform successive movements of the same patterns at a faster rate is called speed. Movement of speed can be gained through practice, but speed of muscle contraction is something innate. Speed is vital in all sports and games strength and speed are related factors (Johnson & Nelson, 1982). We can say a strong team wins as it is the fastest team. Speed is characterized by the contraction and relaxation of muscle groups; it is the capacity to administer the movement actions in shortest possible time. It is the conditional ability like strength and endurance.

The amount of speed differs from event to event. In fact inborn ability plays had a major role in sports. Sprinters are born not made. Without novelty in techniques and improved training, no one can archive goal as now a day’s everything is fierce and competitive.

Speed is the capacity of an individual to perform successive movements of the same pattern at a faster rate. Speed is the performance per-requisite to do motor actions under given conditions (movement task, external factor, individual pre-requisite) in minimum time. Speed is a determining factor in the explosive sports such as sprints, jumps and most field events (Baumgartner & Jaison, 1982). Speed is an unavoidable component to get maximum athletic performance, which is improved through scientific training.

The speed is essential for many physical activities. The speed of movements can be gained through movements. Speed very essential for all the sporting activities like track and field athletics, football and so on. Speed is also connected with strength. It is an evident that the performance or chances of winning is also depends on speed of activity. Speed is a technical movement and it is comparatively less trainable as compared to strength and endurance.

All the sports events are basically depend on speed, especially track and speed athletics. Frequency and stride length are the two main components of speed. Stride frequency is an inborn quality, which we cannot improve that quality through training at significant level. But the stride length can increase through systematic training such as resistance training, explosive strength training and speed drills. A sprinter has to improve the sprinting speed, were as loco-motor
abilities play a key role to improve the forward movement. Many studies have been established the fast forward movement can be increased by systematic training (Johnson & Nelson, 1982).

**FLEXIBILITY**

Flexibility is defined as the ability to move muscles at its full range of motion. The daily activities demand a great deal of strain on those activities. The inability results in loss of flexibility, the inability results in loss of flexibility, sitting for a long period also results the same. People who perform occasional physical work develop back problems. The physician prescribes suitable exercise giving emphasis on stretching exercise.

**Importance of Flexibility**

Flexibility has an important interrelationship with other performance factors.

1. Flexibility is a necessary prerequisite for maximal development of movement force and speed
2. Good flexibility helps in achieving higher movement economy.
3. Flexibility is indispensable for prevention of injuries. Improvement of flexibility: - For the improvement of flexibility,

   The best age for the development of flexibility is before puberty. For good effect each muscle group must be stretched at least 10-15 repetitions. Flexibility training should aim at optimum flexibility not maximum flexibility. Stretching exercises should be done when the sportsman is fresh. Flexibility exercises can be done daily or even twice a day for faster improvement of flexibility (Johnson & Nelson, 1982).

**STRENGTH ENDURANCE**

The term strength endurance differs from person to person and which is widely used in sports. The sustainability is the meaning of the term, according to a sports person. Energy supply is mandatory by the circulatory and respiratory system to maintain the unstained activity. To test the effeteness of heart and lungs during physical activity along with fitness tests cardiovascular tests can be used. To perform the daily activities and tasks, strength is important. Serious injuries
can be avoided, if a person is strong when an emergency comes and can be escaped from harm (James et al., 1992).

In sports movements, muscular endurance provides a great success, it is the ability to sustain the muscle capacity for some duration. The above said factors depends for how well one’s slow twitch muscle fiber are developed. Dynamic and static endurance are the two types of muscular endurance. The first one is muscles ability to contract and relax repeatedly. And the second one that is the static endurance is the ability to regain contracted for a long period. There are three categories of muscular endurance first one is power endurance, second one is short term endurance and third one is ling term endurance.

AGILITY

The ability to change the directions quickly and effectively when moving body as nearly as possible with speed is agility. This is very necessary for better achievement in certain games. The common tests of this parameter involve such tasks as the zig zag run for a time through a maze of obstacles or shuttle run. Agility is the ability to change direction and position quickly without loss of balance. It is increased through participation in a varied assortment of activities. Specific agility training would involve a quick change of position and direction in rapid success. Some examples of agility exercises in connection with track events are, reaction exercises, agility runs, and exercise on balance beam against time etcetera. Agility can be measured by clocking the timing for 4 x 10 yard shuttle run.

Agility is a combination of several motor qualities. Its display becomes essential in such movements as dodging zigzag running, stopping and starting and changing body positions quickly. The term agility has been gradually replaced by the term coordinating abilities. The agility or coordinative abilities are primarily dependant on the motor control and regulation processes of central nervous system (Baumgartner & Jaison, 1982). Coordinative abilities are understood as relatively stabilized and generalized pattern of motor control. This enables the sportsman to do a group of movement with better quality and effect.
The importance of coordinating abilities: - The movement quality depends to a great extent on coordinating abilities. The rhythm, flow, accuracy, some examples of coordinating abilities exercises are

1. Practice with different side, hand and foot.

2. Movement executions with changed rhythm.

3. Change in the surface, change in the height, weight, size, shape, Pressure of the equipment.

4. Running and throwing.

5. Ball bouncing and walking on a balance beam,

6. Reaction exercises.

**BODY COMPOSITION**

To maintain the good health a proper ratio should be maintained between the lean weight and fat weight should be maintained. Younger generations were more obese than the older generation because of the sedentary life style. Decreasing the total body fat is the only way to avoid obesity. For this we have to change our life style along with proper exercise.

The devolved nation’s obesity can be seen in youngsters. Lack of dietary control results obesity and it should be delta with proper counseling of the parents. At present the word obesity means over ft which derived from the Latin word ‘to over eat’. Current research shows that the role played by blood gutting weights. Brain and blood gut peptides either increase appetite through alpha androgenic system for decrees it through the beta –androgenic system. Now a days the whole world is threaded because of the over fat in the new generating due to lack of physical fitness. It is because of the sedentary life style of the new generation (Johnson & Nelson, 1982). Lot of cardiac problems is because of the obesity. Proper exercise is the only way to prevent the problem. So the government and all the institution are very much importance for this problem.

**PHYSIOLOGY**
It is the study of the functions of the physical parts of the living beings. It analyses the performances of the living being, like how it feeds, how it moves, how it adapts to the changing circumstances, and how it spawns new generations. Physiology is a science that studies the functions of the living organisms how the various parts of the body normally work, and how their activities are regulated, coordinated and integrated for maintaining the well being of the organism as a whole. Physiological functions are the important part of physical education; sports performance may affect the physiological conditions of an athlete. So the study about exercise physiology is a main part to get the physical performance for the sports scientists.

The level of performance may included by all the systems in the body like cardiovascular system, cardio respiratory system, body composition and musculoskeletal system. Physiology is a science that is more important for the coach to know, understand, and be able to apply properly. In its fundamental sense, physiology involves the functioning of each major body system used in playing volleyball (e.g., skeletal muscles, cardiovascular system, and respiratory system) and how those systems are interrelated. In its applied science, physiology addresses how exercise affects the functioning of body systems as well as how those systems impact performance.

For the players to be successful in competitive sports, they must be highly developed in several physical and physiological parameters. The muscles must be strong, flexible, explosive, well coordinated, and capable of sustaining intermittent bouts of intense exercise for 2 to 3 hours. On top of that, they must be resilient enough to recover in time for the after that match.

The muscles need help from the energy-supplying support systems of the body to do all these things, from the mitochondria in the cells themselves to the cardiovascular and respiratory systems. The coach needs to know about physiology to assess the players conditioning level and to design training sessions that optimize the players physiological functioning.

**EXERCISE PHYSIOLOGY**

Exercise physiology is a scientific discipline that focuses on how an organism responds to exercise. The exercise represents one of the greatest stresses that an organism can encounter. A good athlete always wants to do work for a long time. So all the organs in his body
should work in perfectly represents one of the greatest stresses that an organism can encounter. Therefore, the exercise represents an outstanding model for studying human and animal physiology. People are familiar only because it is related to the sports performance. Involvement of specific training will make the all the organism to do the needful thing to the body. Exercise Physiology is one of the major sub-disciplines of Sport and Exercise Science, and evolved from its parent discipline physiology (Mathew & Fox, 1976). Now a day’s sports physiology is deep relationship between the cardiovascular cardio respiratory, metabolic and Nero muscular adaptations to exercise and training. Advanced biochemistry is giving help to perspective health and fitness.

The physiological variables may affect the maximum sports performance, the Neuro-psychological abilities which would seem to be topping the hierarchy of the overall psychological demands of the competitions. It is an established fact that a ‘sound body’ alone cannot do much in the absence of a ‘sound brain’. In competitive situations, the competitors are exposed to a variety of stimuli or situations which require a very quick and accurate analysis of the adequate manage the task. The competitor possesses the ability of sharp memory, and high intelligence always has an edge over those competitors who lag behind in these abilities (Weinberg & Gould, 2001). In some of the individual sports events, it may not to be the same extent these attributes are greatly needed in team games.

Training increases vital capacity, the maximum volume of air the lungs exchange in one respiratory cycle and aids materially in establishing economy in the oxygen necessity. The process of intake of air into to the lungs and expelling out of the air constitutes one respiration (external and cellular) here external respiration is one taken into account, means taking in of air into the lungs and expelling it out, constitute one respiration. The most important of respiration in athletics is the capacity of respiratory rate, which is very important for runners, which increases or decreases the time of the run (Ghosh, 1980).

In athletics, the time taken in one respiration is high, the capacity of the lungs, respiratory system is in anaerobic activity’s performance will be increased and aerobic activities, recovery period will be higher. The resting heart rate is vary from person to person and under different situations also. The American college of sports medicine (ACSM) explicit the normal heart rate
is from 50 to 90 per minute. Some endurance athletes with very strong and efficient hearts have rates as low as 45 beats per minute. Women have heart rates 5-10 beats faster than men. This is primarily due to their size. Good cardio respiratory condition would be indicated by a pulse rate of 60 for women and 50 for men. The minimum heart rate is good for attaining maximum sports performance.

The best training is achieved simply by carrying out the activity for which one is trained, physical training may influence a number of the factors, which constitute physical performance, capacity, and that is, it may cause changes not merely on muscle strength and through both the mouth and nose.

Biologically, human beings are designed to be active creatures. It is important to be aware of the requirements for the good health and to recognize the importance of vigorous physical activity in the life. Regular activity increases strength and power and develops endurance for straining work. Physical exercise contributes to improve the posture and appearance through the development of proper muscle tone, greater joint flexibility and good feeling of well – being. It generates pure energy and thus contributes to greater individual’s productivity for both physical and mental tasks. Physical fitness is not entirely a dependent exercise. Desirable’s health practices also play an important role. The person who is physically fit has more strength, energy and stamina and improved sense of well being, better protection from injury and improved cardio respiratory functions.

**RESTING PULSE RATE**

The throbbing sensation felt on the wall of the arteries is called the resting pulse rate. It is nothing but the pressure that transmitted in the form of a wave. The pulse rate is almost the same as the heart rate. Resting heart rate shows the basic physical condition of general population (Mathew & Fox, 1976). In order to diagnose whether a person is in good health or not, the pulse rate is often used. The best pulse rate is measured in the morning, when the heart is at rest. The heart rate will rise with the age and lower in fit people.

An alight athlete can have minimum heart rate and better heart condition. The mode of exercise will affect the pulse rate when the person involved in physical activity. The study of the
pulse is called sphygmology. A normal pulse is regular in rhythm and force. The heart rate is same as pulse rate it is the number of times a minute that our heart contracts or beats. Or in other words, how many times a minute that our arteries expand and contract in response to the heart.

The pulse rate of athletes who are training regularly is lower than that of less enthusiastic people. A typical 40-year old maximum heart rate during exercise is round 180 beats a minute. The normal resting pulse rate for adults, including older aged and everyone over the age of 10 years. Athletes who have done a lot of training may see their resting heart rate fall below 60 beats for every minute, perhaps to as low as 40 beats for every minute.

It is the general view that cardiovascular fitness mainly dependence of the pulse rate, blood pressure which is said to be cardio respiratory fitness. A good cardio respiratory condition shows a healthy heart and powerful lungs that is very important for attaining maximum performance for a sports person. A disease free healthy and wholesome life is the concern of all perplex. In this competitive world, people are always litigated by stress and strain which later lead to physical and physiological complications, it is a known feel that a regular practice of physical exercise or yoga sanas relaxes the mind and brings down the mental streets and physical strain (Mathew & Fox, 1976).

It has also been established that the pulse rate will decrease the quality of physical condition like. Vital observes “How high the heart rate is when the body is at rest how living it climes during various in the sites of exercise and how quickly it reforms to it ‘starting rate following different levels of exercise are good indication of the gourd heart condition and working capacity.

**BREATH HOLDING TIME**

To induce the dysphonic sensations breath holding is the most powerful method. It gives much information on dysphoea. Berating exercise generally increases the lung volume of air flow, providing more oxygen and removing co2 more efficiently. The practically breath holding time depends only factor only the breath pattern of the person. Holding the breath helps to concentrate better. Reduction of circulatory and respiratory system reduces the breath holding ability. Breath holding time is related with the oxygenation and deoxygenating of the body. To
measure the oxygenating pinch of your nose after your usual exhalation and hold your breath but only until first stresses. Breathing model after the test should be the same as before the test. The breath holding time decrease with increased duration of exercise before the rest (Ghosh, 1980). Improvement in breath holding time could be achieved through practice. It may possibly for some individual to hold their breath until they become unconscious.

VITAL CAPACITY

Vital capacity is the capacity of the lungs to consist maximum amount of air. The major factors affecting the vital capacity are 1) the position of the person during the vital capacity measurement 2). The average Indian adult men have only 3.9 liters and women have only 2.6 liters.

The vital capacity gives an indication of the ability to respond to the additional oxygen requirements of the body during exercise. It varies with the type of work an individual does and the use to which he has put his respiratory apparatus. Athletes, swimmers, divers, etc. have a higher vital capacity, it also increased with practice. Vital capacity is the maximum in the standing position. In sitting and supine postures there is a muscular hindrance to maximum expiration of the lungs (Ghosh, 1980).

Vital capacity is related to the respiratory system of the body. Although it measures the approximate capacity of the lungs recent information indicates it is of little use in predicting the ability to perform tasks of endurance. Obviously other factors are more significant. For example, any limitation of the oxygen delivery system to the cells will reduce the effectiveness of the delivery regardless of vital capacity. Probably a large vital capacity is important in very intense exercise when the lack of oxygen may be found in the alveoli but it is of little value when the exercise is less demanding. The main advantage of time with fewer but deeper inspirations thus prolonging the onset of fatigue in the respiratory muscles.

All the physiological function that is happening in the body is because of super natural power in the body. Contraction and relaxation of the ventricle will cause the pumping of the blood to all the body parts.

BLOOD PRESSURE
Blood pressure (BP) is defined as the pressure exerted by the blood on the walls of the arteries. There are two types of pressure. One is systolic which the high pressure is and the second one is diastolic pressure which is the lowest pressure (Mathew & Fox, 1976). It is the measure of the force that the heart needs to push blood through the body. The resistance of the blood against the artery walls, during systolic myocardial contraction forces a volume of blood into the arteries and during the diastolic the arteries recoil and the pressure drops. Medical studies now show that participation of sports will induce at rest 5 to 25 millimeters of mercury reduction in the systolic blood pressure and 3 to 15 millimeters of mercury reduction for the diastolic one. It can be unhealthy high, but can be also be too low. Without a normal base line, white blood cells—which are part of the immune system by keeping a healthy body weight, eating a diet rich in fruits, vegetables, cutting down the sodium intake practice daily aerobic exercise will keep the blood pressure rate normal in our life.

Systolic blood pressure is the highest level to which the arterial blood pressure rises during the systolic ejection of blood from the ventricle. The pressure when blood pumping from heart to artery is called systolic blood pressure. And in diastolic pressure the lowest level to which the arterial blood pressure gone into the interval between the successive hearts beat is called diastolic blood pressure (Mathew & Fox, 1976).

**PSYCHOLOGY**

Psychology means the study of relationship between human behavior and human relationship. It is nothing but applying the psychological theories to the individual which are lively in the field of sports. Sports psychologist used to assess the psychological aspects of those individual. For this purpose they are giving certain activities in that particular group. Sports psychology means applying psychological theories and concepts to the aspects of sports such as coaching and teaching (Silva & Weinberg, 1984). Every aspect of sportsman’s behavior becomes a respondent of study under sports psychology.

‘Psychology’ is the study of behavior, and it is both covert and it is relatively easy to investigate overt behavior accurately, reliably, and to employ an independent verification of that phenomenon. When it came to covert behavior, such as thoughts and emotional interpretations,
the ability dependently verifies the phenomena were usually. However, it may still be possible to affect covert behavior without actually observing them.

One aspect, it is emphasized and become increasingly vital during the recent years in the study of psychological characteristics that limits the performance of an individual in a given sport during high level competition. The personality of an individual is formed early in life in can be modified by later experience, psychologist recognize the participation in games and sports of achievement as well as provided a wholesome outlet for the drive of physical activity and creativity. These are desirable traits as they help in molding socially acceptable personality.

Sports psychology researchers have been investigating different means and forms of exercise for better support coaches and scouts in recruitments talent development and also enhance athletic performance. Most investigations are based on the assumption that psychological characteristic should be considered as important determinants of athletic performance and success. Recently, researchers have made an effort to reveal the most relevant psychological character and traits of elite athletes in different sport settings.

SPORTS PSYCHOLOGY

The studies of physiological and mental factors that influence and are influenced by sports person are called Sport psychology. Sports psychologist are watching the daily activities like doing the skills participation in the sports, physical exercise of an athlete and how it will help the devolvement of the behavior of the athlete. Sport psychologists often work as a part of teams or organizations, as well as in a private capacity. In sports psychology the sportsman’s behavior may undergo important changes it is an applied science (Silva & Weinberg, 1984).

Sport psychology is a particular science that involves preparing the mind of an athlete, and it prepares the body. Sport psychology is now not a recreational thing. It is an emerging science. A successful performance is not only because of the physical performance of the athlete, but some psychological efforts are also behind the success (Cote & Thomas, 2007).

A sport psychology is a science with is interrelated with sports. It studies human behavior and manifestation of human activities in different situation. Sports psychology deals with the sports performance, performing situations, competitions arena and body movements (Kamlesh &
Sangral, 1991). It is the study of all mental processes that enhance or detract the performance from physical performance. It is the development and application of mental skills of the person. Sports psychology is concerned with all aspects of human development particularly the field of sports competitions and body contact games.

In modern sports there are lot of aspects influenced by the performance of the athletes (physical physiological and psychological factors). The main thing is the various types of exercise or skills that are involved in that particular game. Sports psychologist which was worked with the professional athletes will help the coaches to increase the performance level of the athlete and the motivational level also. Now days the authorities are really recognized the importance of the sports psychologist along with the athlete and they also realized that psychological training will reduce the stresses and strains in sports participation.

Contemporary sports psychology is another field and it is a part of sports psychology. Sport psychology will help to improve physical activity and it will also help to the coaches to give the adapted scientific coaching the athlete. It says that a particular individual’s thought is having a make a critical impact on the performance of that individual (Silva & Weinberg, 1984).

Sports scientists are focused their research the area of sports training to improve maximum performance. They are concentrated in this area in the kinds of these things coaches can say or do to improve their coaching technique and their athletes' performance. The psychology of sports is interesting not only to professional athletes, but to anyone with interest in the mind, especially if they are in the psychology of peak performance (Marie & Beretta, 1986).

Sports psychology is about winning and requires dedication at every stage of the game. If we wait until you play a match to apply the principles of sports psychology. Sports training involve many psychological techniques like positive attitude, and even meditation to enhance focus. Psychologists, and although they get very little of the glory, they are instrumental behind the senses. Sports psychology is no longer a set of folksy trick used by athletes. The sports psychology used in gyms to help normal people in their workout routine. Application of sports psychology is the most important and difficult factor in the area of sports field.
Sports psychology is a branch of psychology that researches mental factors in the attainment of athletic skills and performance. It is a study of mental factors that influence and are influenced by participation in sports and exercise. Psychology has a major role to play in determining the levels of performance achieved in competitive setting (Kamlesh & Sangral, 1991)

Athletes should be apprised of the techniques and be provided with practice opportunities for their implementation as part of the evolving profession of coaching and sport psychology, interestingly the need of sports psychology seems to be increasing in two contradictory ways first athletes and coaches they are looking to sports psychologist for a mental advantage. They are asking for technique and procedures that will make the good athlete even better, as physical skills, training techniques and workloads reach their maximal levels the remaining frontier is the mind.

Sports psychology is gradually and steadily gaining momentum in the field of high performance training of sportspersons at all levels. A sport is no more a recreation today. It is not a show of just strength and fitness. Scientific training plays an important role to attain maximum performance. Really the sports performance is a mixture of inborn quality and dedicated sports training. The winning margins in sports these days have consistently narrowed down and the constant strive for higher and better performance among sportspersons have pushed sports to incorporate the essentials of sports psychology (Silva & Weinberg, 1984). It can be said as a process through which a sports person to prepare himself physiologically and psychologically for better result.

Maximum sports performance and stress relief of the sports man are the two services provided by the sports psychologists. Psychologist like coaching and teaching is called sports psychology. It helps to examine the within and behavior of an individual when she or he performs various activities in a group. To achieve the zenith performance level experts use sports psychology.

Sport psychology research and practice have been in existence for almost a century, during which time scholars and professionals alike have made ongoing efforts to learn more about the performance variables. The most variables like anxiety, motivation and self concept to external
variables such as athletic performance and group cohesion numerous factors have been considered in an effort to better understand the development and maintenance of performance excellence (Marie & Beretta, 1986). Although researchers have amassed an extensive body of literature examining both internal and external variables of sports. The interventions of sports psychology remain a notable concern for professional practice

Certain psychological characters are personality futures facilitate participation in physical activities and acquiring proficiency and skills which in turn may enhance desirable physiological dimensions. A minimum level of I.Q is necessary to achieve superiority in sports endeavor (Kamlesh & Sangral, 1991).

The application of principles of physiology for the improvement of the athlete has got great attention on these days. Because of the help of these principles the athlete is getting high performance in the field. So the coaches and sports scientists are very eager to watch the latest trend that is happening in the field of the psychology. The present world gives great importance to the psychological principles to improve maximum sports performance.

AGGRESSION

Aggression is overt, often harmful, social interaction of a particular individual with the intention of inflicting unpleasantness to the other person. It is the behavior between the two individuals that some time causes harm or pain. It is defined as any interpersonal behavior indented to cause physical harm or mental in sports is called aggression in sports can be caused by a number of factors fluctuation instinct, environmental causes (Hanin, 2000). It may happen because of the provocation of the other individual that is also in that particular group.

Aggression is the defensive behavior of human being. In the same sense the aggression can take a variety of forms and can be physical or mental. Aggression commonly called assertiveness although the terms are often used interchangeably among lay people. Aggression may happen human frustration and other emotional problems. In sports aggression plays a vital role. Aggressive players are used in football. In sports aggressive act can be defined as those in which the athlete is highly motivated to produce a great energy release or not inhibited by fear or potential failure of energy (Marie & Beretta, 1986).
Aggression has a positive influence on the performance outcome of an individual or team if the aggressive behavior harmed the opposition either physically or psychologically either by weakening their resources. Human beings are capable of a wide range of behaviors. Aggressive behavior is quite visible in sport. On the one hand, they may show comparison and help others, while on the other; they may seek to harass others, through aggressive actions (Weinberg & Gould, 2001). Of course, not all aggressive behavior in sport is violent and destructive. In fact, many forms of aggressive behavior are accepted and even promoted. Aggression is a behavioral aspect, and not an attitude, emotion or motive; also, aggression is directed or intentional behavior.

Research into the relationship between aggression and sport has taken three main routes. Some researchers have approached aggression in sport as catharsis that allows for the release of aggressive impulses and reduces aggressive behavior in non-sport settings. Other investigators have examined the antecedents and consequences of aggression in sport, while still others have focused on the effects of aggressive behavior on sport performance (Silva & Weinberg, 1984). The following review highlights the major findings of these three approaches.

1. Sport as catharsis for aggression
2. Antecedents of aggression in sport
3. Aggression and sport performance

Aggressive behavior is quite visible in sport. Aggression affects performances and other sport behaviors either immediately or over a period. Aggression influences our thoughts and feelings about the sport experience.

It also influences how sport participants react to their own aggressive behaviors and aggressive behaviors of others. Aggression in sport has been found to be helpful at times if expressed by defensive players whose expressions of skill need not be precise. Aggressive nature is related to social cognitive skills.

ANXIETY
Anxiety is the normal reaction of the stress people. These are the main systems of the anxiety, muscle weakness, tension, chest pain, nausea, tiredness, stomach pain and shortness of breath. Increased, blood flow to the major muscle groups is increased and immune and digestive system functions are inhibited.

There is some difference between the trait and state. Anxiety is considered to situational nature. Trait anxiety connected with the human nervous system and it is very uses when coping with situations in his or her environment.

Anxiety is a psychological and physiological state of emotional and behavioral actions. The root meaning of the word ‘anxiety’ is to vex or trouble; in either presence or absence of mental stress. It creates feelings of fear, worry, uneasiness, and dread. Emotional maturity includes the ability to deal constructively with reality. It is a process in which personality is continually striving. Anxiety is one of the greatest problems of modern society (Hanin, 2000). The emotional state of mind is arises as a result of fear for something unknown which creates tension and disturbance. Anxiety is an emotion that is difficult to define and even more difficult to reliably detect performance. “Nervousness” is often used synonymously for anxiety. Everyone has nervous at one time or another. It can be experienced at different levels of intensity. Anxiety is directly related to tension. It changes or varies over time. It is commonly referred to as a state, which is the degree of anxiety a person experiences at a given movement.

There are two types of anxiety, first one is the harmless which is being able to identify why or how what he is fearful. Free floating anxiety is a type of anxiety. A minimum level of anxiety is needed for better performance, however high level of anxiety gives negative result to the performance. There is a health relation between the anxiety trait and anxiety state levels of participants in athletic competition.

**Anxiety and Sports**

Effects of anxiety subtly impair the performance by restraining the individual. That is not to say that you cannot produce superlative performance when nervous. In fact, most athletes experience some anxiety before producing their top performance. By its nature, anxiety tends to interfere with athletic performance. The Anxiety is one of the most common deterrents to good
performance. At worst, the lowering of anxiety may be caused due to regular participation in games and sports.

It is estimated that many young athletes drop out of organized sports each year due to frustration and fear of failure. Many young athletes thrive; on the pressure and tension associated with competitive sport, for too many find that the experience precipitates the feeling of apprehension and stress (Weinberg & Gould, 2001). The phenomenon of anxiety and how it affects the athletes experience present numerous strategies designed to intervene and reverse the negative effects of anxiety on the athlete, based on an understanding on the neuron physiology of the nervous system as arousal and the effect of runaway anxiety and associated arousal.

There are two types of anxieties such as positive and negative. Positive anxiety will affect the result positively and the negative anxiety will affect the result negatively. A minimum level of anxiety is needed to perform motor skills (Silva & Weinberg, 1984).

Anxiety plays a vital role in sports and games. Normally, all sportsmen have some level of anxiety. Even coaches have anxiety to a certain level. When the players are more anxious their level of performance also decreases. If it is at a lower level, it will lead to better performance. Therefore the level of anxiety should be minimized. If anxiety becomes very high, that person loses complete control of himself and the situation (Marie & Beretta, 1986).

ACHIEVEMENT MOTIVATION

Motivation in education is calculating the interest of the students in that particular subject. Achievement motivation put forward by is a factor that relates to one’s aptitude for success. The term motivation has derived from ‘mover’ means to move. It is regulated and directing the pattern of activity thrall behavior adapted will involve activity which is directed towards the attainment of some standard excellence. So it is said that achievement motivation is an expectancy of finding satisfaction in mastering challenging and difficult performance. Competitive sports reflect cultural aspirations of a person and his past civilizations.
Achievement motivation may be associated with a variety of goals. The interaction of an individual with his environment provides constant sources of modification of his old motives and acquisition of new ones (Kamlesh & Sangral, 1991).

**Emotional Maturity**

Emotional maturity can be understood in terms of the ability of self control which in turn as a result of thinking and learning. Emotionally matured person is one whose emotional life is well under control. Life today is full of stress, interpersonal stress and professional stress, the place of the life is getting faster and faster every day so the emotional maturity is one of the important aspects of human personality to get rid of negative emotion life hatred anger and to develop the positive emotion of love, compassion and understanding. It may not be a part of the curriculum. But it is the part of the educational process and also part of growing maturity.

It is actually a process of readjustment the infant learns under parental supervision it. It is that characteristic of emotional behavior that is generally attained by an adult after the expiry of his adolescence period. After attaining emotional maturity, it is able to demonstrate a well balanced emotional behavior in his day to day life. Emotional intelligence makes an important part of life. It can help one to assess the emotional maturity. Student’s academic achievement throughout a period of one semester found to be significantly predicted by the personal and academic emotional adjustment (Hanin, 2000).

Emotional maturity contributes to the total result of fulfillment of a person’s fulfillment of his intellectual, emotional and social needs. A person is called to be an emotionally matured person should have some patients and control over the emotions. Emotional maturity is a requirement of maintaining and starting the relationship of two persons. Emotional maturity includes cooperation, humor, and quick conflict, family contact space for privacy and stabilizing and energizing qualities.

Emotions are present in all aspects of human life, including sport and exercise. In fact, emotions represent an important aspect of one’s involvement in sport and is a critical factor in both improving the individual and team performances. It is said that ‘man is a speck of reason
floating on a sea of emotion. Emotions are personal experiences that arise from a complex interplay among cognitive, physiological and situational factors (Weinberg & Gould, 2001).

Many theories said that emotions are thought to be related to certain activities in brain areas that direct our behavior, attention, and the significance of what is going on around us. An emotional experience has “valence,” meaning that the emotion has a positive or negative quality and they often motivate people towards action. Emotional experience is a main of sports activities. Emotional behavior and learning are the control and appropriately express emotions in various sporting cultures are challenging, but critical tasks for adolescents. A better understanding of emotions has the potential to help and enhance sport experiences for adolescents.

Youth researchers in sport and exercise have recognized that emotional experiences influence the performance, behavior, and motivation. Emotional experiences are entwined in many, if not all, facets of the sporting experience. Each one develops an inconsistent emotional pattern. Maturity is greatly dependent on an accurate time and emotional competence (Hanin, 2000).

Maturity is defined as the "wisdom or prudence with which man is governed. Maturity is patience. It is the ability to sweat out a project or a situation in spite of heavy opposition and discouraging moments.

Most theories of personality define maturity in individual terms mature people have high self-esteem, high emotional stability, high achievement motivation, are self-actualized, are at peace with themselves, and so on. The negative feedback from others, including team mate, coach, audience, peers, spouses, children, students, and employees especially others with less status than oneself. Adolescents with high emotional maturity have shown significantly higher stress and higher self confidence than those with lower emotional maturity (Cote & Thomas, 2007). Youngsters with high emotional maturity have better ability to directing and controlling themselves in each and every action thus resulting in their high self confidence. Emotional maturity is an essential condition for the development of every individual.
Emotional maturity is the understanding and acceptance of all of one’s normal feelings and emotions and the appropriate response to those emotions in all circumstances. One’s behavioral response to any situation is a product of one’s mental script. The goal of developing EM is to re-write the mental script in a way which will produce positive and productive behaviors. Which interfere with rewriting our mental script and heightening our degree of EM have been identified as: trash cans, bricks, negative self-validation behaviors, and negative habit patterns? Trash cans and bricks refer to the baggage we carry with us from past experiences and the emotions closely related to the ability to acquire and utilize new information.

Emotional maturity helps us not to set ourselves up for disappointment, but is living in the present and what we are having. Emotional maturity and emotional stability are the keys to our own perception of success. Emotional maturity means, in essence, controlling one’s emotions rather than allowing emotions to control one by becoming aware of the negative and inaccurate beliefs and ideas (Hanin, 2000).

Adolescents with high emotional maturity have shown significantly higher stress and higher self confidence than those with lower emotional maturity. Thus, he projected the result as someone in control of himself and determined to do something for his people desperate in the current financial meltdown. The concept “Mature” emotional behavior on any level is that which reflects the fruits of normal emotional development.

The major aim of an excellent sports programme is to help learners gain adequate emotional maturity. It includes factors like the ability to deal constructively with reality; the capacity to adapt to change; a relative freedom from symptoms that are produced by tensions and anxieties.

**Emotional maturity and sports performance**

Like all other fields sports is also having all aspects of emotions. Emotions are present in all aspects of human life, including sport and exercise. In fact, emotions represent an important aspect of one’s involvement in sport and are a critical factor in both enhancing or impairing individual and team performance. Emotional phenomena play an important part in sport and exercise from both an intra and an interpersonal perspective.
Emotional maturity is nothing but the ability of self-control which is the result of thinking and learning. We can see that international players are more stable in emotional maturity than that of national players. This is because of the experience and the better training that is given to the international players. There is a deep relationship with emotional maturity and stress.

**KERALA STATE**

Kerala is the southern state of India with a population of around 4.25 cores. Population of Kerala was a combination of different groups of Dravidians. With a 100 percent literacy rate the state is holding a leading position in the Union. The proper education with various types of academic and co-academic programmes is the base of the development of the state. Kerala has a tradition in sports and other such activities from the time of formation of the state itself. The economic situation and cultural environment at the State Kerala have totally altered from the colonial period to modern times. The precipitate income sources to have a resource for NRIS (working abroad India and in India) private sector employees, etc. The primary sector/agriculture and agrarian based Industries are stagnant in Kerala State. Majority Keraleites are looking for white collar jobs which consist of professionals like doctors, engineers and IT Professionals. All these have led to a new professional culture. In Kerala the life concept all professionals and their students are transformed, this transformation brought out new health awareness. Kerala has 14 districts. Kerala is one of the economically developed states of India with a per capita significantly higher than the all India.

The prevalence of overweight and obesity among adolescents, which is increasing worldwide, has slowly crippled into the Indian context with the percentage of obese youth doubling in the last context. The mobility rates among Kerala state are similar to those among Americans. These striking changes in rates over times and among populations among indicates that the primary determents’ of these diseases are not genetic but environmental factors.

**EDUCATIONAL INTERVENTIONS**

Efforts to change diets, physical activity patterns and other physiological aspects of lifestyle have traditionally attempted to educate the individuals through schools, parents and society.
Those play a major role but they can be strongly reinforced by policy and environmental changes.

**SCHOOL BASED PROGRAMME**

School based programme included the roles of nutrition and physical activity in maintaining the physical and mental health. In many country schools based physical education remains a significant source of physical activity for young people. Maintaining these programme should be a high priority because they have likely to contribute to the historically low rates of obesity in such countries.

The present study is intended to analyze the situation of new cultural purity of Keraleites and their physical, physiological and psychological problems of students’ representatives of different schools of southern, northern and central districts of Kerala. As the representatives who are special births of new generation parents. This research work will intend to analyze the 3Ps (Physical, Physiological and Psychological) of young school students of Kerala. The three cities which are taken to the subject selection is Trivandrum Ernakulum and Kannur. Trivandrum which is the capital of the Kerala and it is the northern side of the Kerala and it is a coastal area and the people in that area most of them are employed and the rest of them are living in the coastal area and the level of education is above average. In the case of Ernakulum it is an industrial city and it is situated in the central part of Kerala and is highly populated among all the other districts in Kerala. Most of people are living in cities and in high standard. Most of them are living with mechanical life. And the third and last is Kannur and it is situated in the northern part of Kerala and comparing the other Districts population is average and totally different from the other two districts.

**STATEMENT OF THE PROBLEM**

The study is intended to analyze the physiological, physical and psychological variables among different kinds of schools such as government, government aided and private in Kerala. In this study comparison is being done in three types of schools. Leg strength, explosive strength, Speed, flexibility, strength endurance, agility and body mass index as physical variables. Pulse
rate, breath holding time, vital capacity, blood pressure, as physiological variables. Aggression, anxiety, achievement motivation and emotional maturity as psychological variables.

DELIMITATIONS

These are the delimitation of this study:

1. Only 300 school students were selected as subjects for this study and the age ranged from 14 – 17 years.

2. The subjects were selected from government schools, government aided schools and private schools of three districts which is located in south, north and central part of Kerala.

3. The only leg strength, explosive power, flexibility, strength endurance, body mass index, agility, resting pulse rate, breath holding time, vital capacity, blood pressure, aggression, anxiety, achievement motivation and emotional maturity will be selected as dependent variables of the study.

4. The selected variables for the study were assessed by the following standard test items, leg strength was assessed by leg lift by dynamometer, explosive power was assessed by standing long jump, maximum speed was assessed by 50 meters run, flexibility was tested by sit and reach test, agility was tested by shuttle run, resting pulse rate was tested by stop watch, vital capacity was tested by parameter blood pressure tested by sigmomanometer. Aggression, anxiety, achievement motivation and emotional maturity were assessed by questionnaire.

LIMITATIONS

These are the limitations of this investigation,

1. The previous experience of the subjects for sports participation, and games, psychological factors, food habits, lifestyle and atmospheric conditions were not considered.
2. During the period of testing no subjects were motivated by verbally.

3. No effort was put to find out the difference in environmental conditions during the test.

The heredity and family factors could not be controlled.

**HYPOTHESIS**

Keeping all physical, physiological and psychological variable factors in view, the literature that has gone through, research findings and the scholar’s understandings of the problem, the hypothesis has been formulated. There will be significant difference on physical, physiological and psychological variables between different kinds of school students such as government schools, aided schools and private schools due to different lifestyle and experience in Kerala state.

**OBJECTIVES OF THE STUDY**

The researcher has endeavored in this investigation to contribute some constructive information in this direction.

1. To identify the physical qualities of government, government aided and private school students in Kerala.

2. To evaluate the physiological conditions of different kinds of school students in Kerala state.

3. To verify the psychological status of different kinds of school students in Kerala

4. One of the main objectives of this study is to understand the physical, physiological and psychological status of the school students in Kerala state.

**EXPLANATIONS OF THE TERMS**

**Leg Strength**

Leg strength may be defined as the force the leg muscles can exert against a resistance in single maximum contraction and which is usually measured with leg dynamometer.
For exerting muscular forces there should be acquire a capacity for the lower limp this capacity is called leg strength (James et al., 1992).

**Explosive Power**

Explosive power is the capacity to overcome the resistance with high speed. It is supported by neuromuscular system (Johnson & Nelson, 1982).

**Speed**

Speed is the ability to move the whole body or parts of it from one point to another as quickly as possible (Baumgartner & Jaison, 1982).

**Flexibility**

Flexibility is defined as the range of motion in a single joint or a series of joints. It is the ability to move a joint smoothly through its complete range. It may also be limited by the bones and joints. It is one of the main components of motor fitness and is believed to be important for physical health (Harrison et al., 1971).

**Agility**

Agility is the capacity of the body to change the directions rapidly and accurately with speed (Johnson & Nelson, 1982).

**Body Mass Index**

A condition of exercise, excessive body fat that results from a chronic energy imbalance were by intake exceeds expenditure.

**Resting Pulse Rate**

It as the distension of the arterial walls at the beginning of the systolic injection of blood, which is not confined to the aorta, but travels down the arteries that lie close to the body, such as the radial artery of the wrist, the arrival of the wave of distension and subsequent recoil may be
felt as a distinct throb pulse which offers a conventional method of counting the pulse rate (Brain, 1986).

**Breath Holding Time**

Breath holding time has been defined as an individual’s ability to hold the breath, a voluntary forced maximal inhalation without exhalation during the period of holding the breath. Breath holding time is the times consumed to keep or without taking the breathing action as much as possible (Ghosh, 1980).

**Vital Capacity**

Vital capacity is a total amount of air than can be forcibly expired after a completed inspiration. It is the capacity of two lungs it is a pulmonary measure the maximum amount of air can be exhaled after the deepest inhalation (Ghosh, 1980).

**Systolic Blood Pressure**

This is the highest level to which the arterial blood pressure rises following the systolic ejection of blood from the left ventricle (Mathew & Fox, 1976).

**Diastolic Blood Pressure**

This is the lowest level in which the arterial blood pressure falls in between the successive heart beat.

**Sports Psychology**

It is a branch of sports science that provides the answers to questions about human behavior in sports activities and competitions (Cote & Thomas, 2007).

**Aggression**

Aggression is behavior and actions that usually seek to inflict psychological and physical harm, either on another person or on his possessions or dear ones. Aggression has directional components (Marie & Beretta, 1986).
Anxiety

Anxiety is an emotional state with feelings of, worry, nervousness and apprehension related with the arousal of body and it will affect negatively (Weinberg & Gould, 2001).

Achievement Motivation

Achievement motivation is a situation to characterize by the attainment of success or failure. The two prime aims are either to achieve success or to avoid failure (Kamlesh & Sangral, 1991).

Emotional Maturity

Emotional maturity is an individual appropriate emotional response, that relevance to social value according to adult response (Silva & Weinberg, 1984).

SIGNIFICANCE OF THE STUDY

1. The study carried out the physiological, physical and psychological difference among the school students of Kerala. This study reveals that there is a major difference in physical, physiological and psychological variables among the three types of school students in Kerala.

2. The significance of the study helps the Educationalists of the state to organize a better educational strategy.

3. It may help the educational stakeholders of the state to enrich the school educational system of the state and strengthen their educational counseling programme.

4. It will enhance the Sports related activities of the state with more organized and well arranged manner.

5. It will help to identify the basic physical fitness level of Kerala school students and can give correct directions to improve the physical fitness of school students.
6. This study will add to the knowledge in the area of school fitness programme.

7. This study provided a new area of research that will be very useful for the coming researchers.

8. This finding of the study by bringing forth adequate, inadequacies in physical education of school of Kerala.