Chapter-V

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 SUMMARY

Man is always striving for perfection in every area of knowledge and practice. Human being is a unique product to nature’s creations and evolutions. It is no doubt, on account of highly developed muscular and nervous system, which enables him to think, express and search whatever he wants to do. In the modern life, the scientific development, technological advancement and research findings in every part of life demands fitness to overcome all the behaviors of life.

A happy child is a pride of nation, children are the world greatest resources let us have a great millennium ahead with reference to the investment of child’s developments which would be an investment of a strong and developing nation like our country India.

Underlying the objectives of the fitness initiative is a belief that physical fitness is a very personal matter and is ultimately the responsibility of the individual. Each person in accepting or rejecting this responsibility must realize the implications of the choice on the lives of others in our families in our communities and in our society.

The physical fitness status of National population varies between National due to such influences as age, sex, heredity, ethnic, cultural and economic patterns and the physical environment. Leaders in physical education around the world have shown increased concern in recent years about the level of physical fitness of their nations populations. This concern is reflected by the development and administration of fitness tests in many different countries.

To develop and maintain the physical fitness requires vigorous efforts by who are physically fit looks better feel better and possess the good health necessary for a happy and full life. The possession of optimal strength muscle tone and endurance not only for emergencies but for the everyday living can be the key to dynamic health.
The measurements and evaluation of the physical fitness status of youth in different countries provide information with which one can make an indirect comparison between the levels of effectiveness of physical education programmes with regard to achieving physical education objectives. By measuring, weighing and evaluating the physical fitness levels and athletic abilities of their students. Physical education teacher can establish growth curves and set fitness and athletic ability standards. Such data can be used to make comparison between programmes of physical education and between populations of youth.

Physical fitness of the students, in the Schools, Colleges and Universities has been largely ignored in our country. There is absence of sound and broad physical education programme in schools and colleges.

It is learn that “Physical Fitness” factor was totally understood in a different way by the people and by the different direction. They said that to have a better “off spring” to have healthy citizens parents must be physically fit. So they encouraged the people to keep themselves physically fit, for which they were given more facilities. Several royal rules were made flexed. In order to popularize physical activities once a year, they started to conduct sports fairs, where several types of competitions were organized and the winners used to be honored. This gradually gave birth to sports. These sports used to be of differed type, where one had to exhibit ones power and strength on one another.

The World Health Organization has set a target that every person in the World should become health conscious by 2000 AD and it is a right step in the attainment of health for all. The International Olympic Committee has signed an agreement with WHO for furthering the cause of health for all and sports for all by 2000 AD. The agreement is clearly directed towards attaining total fitness of all individuals by 2000AD. To attain this objective the citizens of the nation are to be made health and fitness conscious and for this purpose scientific programs should be made all ages.

Physical fitness has been defined in many different ways. A Physical may define it as the absence of disease. Some athletes may rate fitness according to the amount of musculature developed. Other individuals perceive fitness as the ability to perform certain sports skills. The authorized council of the physical fitness and sports had stated that it is kind of measures of the
fitness in physical and sport which increase the strength of stamina of the body, and flexibility, perhaps the most comprehensive definition has been given by the American Medical Association, which defines fitness in sports and physical activity as the whole common stamina to respond and adopt favorably for maximum results and their efforts. In day to day life for effectively and safe working without getting exhausted and having maximum energy for various recreational activities and leisure which comprise personal physical fitness while they get in to ordinary and at the same time they meet with unusual demands that arise, if any. Fitness in Physical and sport could be divided into both categories which are as follows: a) fitness related to health, b) fitness related to motor skill.

Most authorities agree that from a health point of view total physical fitness involves four basic components that are separate but interrelated cardiovascular endurance, muscular strength and endurance, muscular flexibility, and body composition. To improve the overall fitness level an individual has to participate in specific program to improve each of the four basic components, nevertheless, after the initial fitness boom swept across the country in the 1970’s it became clear that just improving the four components of physical fitness alone would not always decrease the risk of disease and ensure better health.

Physical fitness can mean thing. To a physician, physical fitness may simple mean the absence of disease. To a weight lifter, it may be synonymous with large bulging muscles. To a health or physical educator, physical fitness may mean the ability to perform a specific number of calisthenics activities or to run or walk one mile in a certain time. To a health fitness professional, physical fitness means being able to acquire and maintain specific health standards. When people are asked to define or to describe the term fitness, their most common replies deal only with the physical part of fitness. Two other parts of fitness that are often overlooked are mental emotional fitness and social fitness. Total fitness is said to be achieved when people possess all there parts of fitness mental emotional social and physical mental emotional fitness is a combination of many qualities. Two of these qualities are the ability to control emotions and the ability to handle stress. A positive self-concept and the ability to feel and to show love and concern for others are other qualities of mental emotional fitness. Social fitness is the ability to get along with people in many kinds of situation. Behaving in ways that are socially acceptable are signs of social fitness. Physical fitness is achieved when people are
able in order to carry out their daily routine with enthusiasm, cautiousness and except unwanted fatigue

Physically fit people also have enough energy to participate in leisure activities and to meet the stresses that are part of many emergency situations. For taking part in various leisure activities and to get the stresses that is the part and parcel of many emergency conditions for Physically fit people. It is one of the richest possession of physical fitness the one who wants to gain it has to be obtained through a daily physical exercise as well as through it’s daily practice those who adopts this physical fitness, lean to get better felling and feels and also experience good health which gives the genuine quality to life. It is a requisite for physical fitness that enable strain and stress that may occurs due to different sporting activities and games that may prove fruitful for prevention of sports injuries in the long run and is an inseparable part of sports performance and achievement. The quality of an individual sportsman’s the level of fitness, the greater is the ability of a person to attain higher level of performance.

“A Fit nation is an asset and weal nation a liability” Fitness means a satisfactory adjustment to one’s environment. Physical education is a tremendously important issue in modern life, worthy of our serious attention. People are more cautious and alter related to vast advantages of fitness and how to gain it than earlier. Their present information regarding physical fitness is been earned. The benefit of physical fitness were neither achieved how to get it clear nor defined. Various concept of fitness related to physical education and sport are discussed in large almost in every book in the field of physical education and sport still it has not got an idea to interpret it whole that concerns which extends the concepts of total fitness. The definition of total fitness has been presented as encompasses physical education in which the fitness of spiritual, social and moral as well as every other kind of considerable characteristic if any. Related to physical education and sport the fitness is studded with in a specific and broad opinion of entire fitness and exclusive as to give not any value. To overcome this barrier having so large definition, generally people are often described and looked physical education to meet their requirements of day to day life by using maximum amount of endurance and muscular strength.

As stated above related to the definition of physical education which is entirely incorrect and inadequate. Whose life are we talking about what is adequate. Recently most of the people
are leading toward prosperous life just by watching various channels in television without doing any physical work which can give minimum amount of strain to their body. If the people have adequate stamina, endurance in their body and sufficient strength they are assumed to be physical fit was the overall judgment of general people who were physically inactive whose immediate requirement of professional and social life. Such kind of definition related to physical fitness and sport creates many questions than it answers. It has been identified and recognized by professional in the field of physical education and sports related to characteristics in it’s least form.

A news view of fitness is emerging, one rooted in a Socio-ecological view of health. Traditionally, fitness has been viewed nearly totally as individual issues with improved fitness seen as a matter of individual responsibility. When people are unfit or less fit than one might like them to be, then they get the blame, to the point where their character or fortitude is questioned. Clearly, the fitness movement of recent time has been predominantly a middle and upper socio-economic class phenomenon. The fact that children youth and adults of low socio-economic groups have not participated in this fitness renaissance is not a matter of choice nor can any blame be attached to members of these groups for not joining the fitness movement. If society is to become healthier and if a more fit citizenry can help to achieve that public health goal, then this new approach to understanding the social complexities of fitness and activity across the variety of groups within our society is necessary. We must view fitness as an individual and a social issue and we must attempt to restructure society so that more people have the opportunity to engage in activity, to pursue fitness and to remain healthy.

As far as fitness related to person’s other than physical education and sports the significance of physical fitness begins on a micro level in our cells since birth in our whole body. It takes excessive oxygen while performing various physical exercises, which is kind of fuel for the brain and heart. The heart starts to work faster pumping and provides fresh blood and oxygen to the body which help in cleaning the cells. When we take breath we omit carbon dioxide which is a waste product. As far as heart is concern which is the vital part of muscle of the body it can be developed strongly or weakened. By performing daily physical fitness exercises strengthens the heart muscle which supports to prevent various diseases related to heart. If the working of heart is good it signifies that the blood circulation throughout the heart is good and the
circulatory system is functioning well. By performing daily physical fitness exercises it helps to strengthen heart and helps in prevention of strokes in heart and help to regulate blood or HDL (High-Density Lipoprotein).

Promotions of health and physical fitness have been the main objectives of physical education from ancient time’s world over. However, in the recent past neglect of one’s own health for various reasons has been evident, especially by a vast majority of adults. This was the direct result of wrong emphasis on winning by a few selected top athletes, at the sacrifices of the health and physical fitness of the population. The nation as a whole was shocked at the poor performance of our sportsmen in International competitions. Consequently, there seems to be better awareness and attitude, at least among many of the educated and at long last the fitness of the individual is being talked about. Some positive propaganda on physical fitness is being made through T.V. There are crowds to watch high performance sports, often sponsored by industries or private firms. How far these would promote physical fitness of the vast population in India is doubtful. The people should not become more spectators but involve themselves in physical activities which would make them fit and thus improves the quality of life.

In the curriculum of physical education Physical fitness plays a very important role. Among the various objectives of physical education such as Health, participation in games and sports, as cultural heritage, develop qualities conducive to social and sports and national unity, mental alertness, maturity and citizenship, the objective of physical fitness can be realized only through a program of physical education, whereas in the realization of other areas the school curriculum may also play its part. Physical fitness is also essential for achieving better success in other areas of physical education curriculum such as ministry in sports.

Feeling fit and fine is all about fitness. Feeling fit certain to health and fine is about the mental state. Fitness has assumed even greater significance in the present times because the daily routine of most people is devoid of regular and effective exercise. Our forefathers did not need any gyms or health clubs because their lifestyle involved a lot of physical activity. Walking long distances was a matter of routine; many people used bicycles, which gave them enough exercise. Since there were no televisions, playing outdoor games were their idea of recreation. Women labored through the day on activities like cleaning grinding, cooking et al, since there were no fancy gadgets. Unpolluted air open spaces unadulterated and fresh food added to their fitness and
good health. One the contrary the present generation has to make an extra effort to get required physical exercise the lifestyle has necessitated it. Health is the most important topic to be discussed as healthy person can live long and contribute his her best to the society. The future of society depends upon the present students and hence healthy student means a healthy and better future of the society. Health never means merely absence of diseases, but it is the individuals to live most and serve best. Thus health is a holistic concept comprising of growth, development and proper functioning of each organ and system physical strength and vigor as well as its social mental emotional and moral health of the student. Laying the stress on the importance of health education and fitness Swami Vivekananda ji said, This ATMA not attainable by a weak man, If the students of a country are healthy the country is sure to make the apex mark in every field of life, Those countries had made progress in every field where the health and fitness of students were given preference. Thus if health is so important and precious, then awareness of health and fitness is most essential. Health education promotes good health habits, maintains the norms of good health, informs about health and hygiene, helps to locate physical deformities, provides knowledge for prevention and control of diseases, provides first aid training, develops sense of responsibility, advices and guides maximum development of students etc.

The most productive and fruitful time period in the life of human is student life. Whatever he she have gained in this period, is most beneficial for the society as well as the country. So Students health should be taken at par. As far as human body is concerned physical fitness plays an important role which makes one to perform to its extreme potential. The features of the body and muscle strength of the body condition for better and pleasant look fitness plays and major role. For performing vigorous work the body fitness must be able to perform it, which necessitates everyone to perform exercise for limbs, organs, etc. for sound and robust performance of the body and to derive all possible advantages it is necessary for everyone to perform their daily routine physical fitness exercises. These are not the hollow words or the fiction of an idealist philosopher’s brain they are pregnant with a stork reality a reality which the individuals and the nation must take cognizance of health and fitness are sine quo non of human life. Healthy and fit student is an asset while a weak student a liability is truism the former commands and the later demands. Realizing that human efficiency and productivity are very much dependant exclusively on students health and fitness. For efficient functioning of different motor mechanism of body one needs to perform Physical fitness exercise daily. A fit student
possesses sufficient reserve of energy to meet emergencies. The physical fitness play an important role for balanced life of every student. Health and fitness is important as it improves the total efficiency of student, ensures better growth and development of body better functions of the body systems prevents health hazard, improves shape, size structure and weight of body etc. It prevents premature ageing and develops social qualities to lead a better life. Students are the vulnerable to stress, tension anxiety mental disorder and other health disorder in this competitive world. The useful energy which can be utilized for the development of a student gets spoiled to overcome these diseases. This useful energy can be saved and channelized for the benefit of students.

Aerobic Capacity:

In absolute terms, the maximal oxygen uptake of children is much lower than that of adults, but when corrected for body weight, the Vo2max of boys is similar to that found in young men. Young girls have a greater Vo2max per kilogram body weight than young women. But when adjusted for height, they have lower capacities. However, peak oxygen uptake may be a better expression of aerobic power in children than Vo2max because children have a difficult time reaching a true maximal effort because of 1. Local muscular fatigue, 2.a limited attention span during testing, and 3. A low threshold for discomfort. The accuracy of Vo2max to predict cardio respiratory fitness and endurance performance in children is not well established. Maximal oxygen uptake is directly related to the maturity level of the individual. As children mature, maximal oxygen uptake levels increase. Until maturity is reached a relative rather than an absolute expression should be used to compare peak aerobic power in children. Values for Vo2max increase at about the same rate in both sexes until age 12. After age 12, boys continue to increase their maximal oxygen uptake until the age of 18, whereas girls show little improvement after age 14.

As per the age increases the oxygen intake capacity and the ability to perform exercise also increases. Due to the enhanced capacity of metabolic and oxygen transport there is vast increase in the endurance capacity. Several excellent reviews have been written looking at the effects of physical activity on the trainability of prepubescent children. In addition, numerous researcher have demonstrated improvements in Vo2max following endurance training with
changes ranging from 5 to 18% which depends on the exercise intensity, duration of study and the various types of modes adopted for training.

Payne and Morrow have performed a met analysis on exercise and Vo2max in children. Payne and morrow found 69 training studies using children and used 28 of them in their analysis. In their review, Payne and Morrow found that the typical child in the studies they reviewed would expect to improve their Vo2max by only 2.07. mL/kg/min as a result of training. The researchers concluded by stating, “Our work suggests the aerobic benefit of training is small to moderate for children and is a function of the experimental design.”

Training Considerations:

Sufficient evidence exists that children do physiologically adapt to endurance training. However, a general consensus is adapt to endurance training. In general there is a common view that if there are laggards in students, the quality of exercise and aerobic fitness should be improved. However for the adult people in 1978 a report has been published by American College of Sports Medicine and also released in 1990 to improve the quality of exercise and increase endurance. The same report also opined about the fitness amongst youth and children. But the report does not present the clear view nor it has defined precisely for optimal functional health and capacity the requisite amount of exercise that has to be performed. The recent recommendations in general is that youth and children must perform minimum 20 -30 min. of vigorous exercise daily and that the classes conducted by physical education experts always stressed on the physical fitness of students.

Maximum investigation and research recommends that for increasing the exercise intensity, frequency and duration of fitness schedule for children the standards in practice for adults must be taken into consideration. These recommendations are supported by Rowland, in which he found that of the eight studies he reviewed, six that used adult standards of aerobic training produced significant improvements in aerobic power; whereas no significant improvements were noted in the other two studies.

Anaerobic Capacity:

Anaerobic capacity is defined as the energy production during exercise that occurs from reactions other than mitochondrial respiration. Anaerobic activities are those that are high in
intensity and short in duration. Several tests are commonly used to assess anaerobic power; one of the most frequently used is the Wingate test. The Wingate test is designed to determine both peak anaerobic power and mean power output during a 30-s test. The Wingate test has been used extensively in assessing the anaerobic capacity of children.

Young children have a distinctly lower anaerobic capacity when compared to adolescents and adults. Some of the reasons for these differences may be related to (1) low levels of male hormones, (2) a lower glycolytic capacity, (3) lower lactate production during exercise, (4) a decreased capacity to buffer acidosis during exercise, (5) lower rates of glycogenolysis during exercise and (6) a lower lactate threshold. As children mature their ability to increase anaerobic capacity improves.

The responses to training improve with maturity. Maximal oxygen uptake is strongly related to lean body mass, which increases throughout childhood. In addition, oxygen delivery to the working muscles and oxygen extraction and utilization all improve with age and growth. Peak anaerobic power also increases with age and growth. Social stories are very helpful for children with physical fitness who have strong language skills. The child’s teacher or the physical educator writes and then reads an explanation or what will happen in the upcoming activity, what the child might seem, who might be there, and what the expected behaviors are. The following is an example of a piece of a social story for testing. Finally, an excellent way to prepare a child for testing is to practice some test items in the classroom or the gymnasium. Initially, it is best to practice the test items in the classroom because it is a safe, familiar place for the child. The teacher or teacher assistant can present test items at first, and then later the physical educator can come into the classroom and present others. To participate without any type of fatigue in different types of activities and to resist any type of disease the various parts of the body system i.e. lungs, muscles, heart, blood vessels, etc. must function efficiently. For any individual who claims to be physically fit must have sufficient stamina to pursue, in any type of activities or in the activities they participate daily, weekly, monthly or yearly. These activities includes activities like leisure, family activities, daily routine work, recreational activities, etc. The program related to physical and comprehensive fitness must have following components i.e. muscular endurance, cardio respiratory endurance, body composition, flexibility and muscular strength.
Basic Guidelines for Fitness Program:

Many people are confused about the type and amount of exercise needed to become and stay fit. Some people who workout regularly started out improperly and found it a struggle. Fortunately, they survived the early rigors to become regular adherents. But for all those who made it, there are many more who didn’t. In my lectures throughout the country, the same basic questions are asked. How hard do I have to exercise? How far do I have to run? Do I have to run to be Physically fit? How long do I need to work out? How often do I need to work out? What are the best activities for getting in shape? These are fundamental questions and they need to be answered before starting or resuming a fitness program. The concept and guidelines that are needed to set up a sound and reasonable program are provided. This information will help you determine for yourself what the best activities are and how hard you should work out to get the results you want.

The American college of sports medicine which ascribed these physical fitness attributes can be attained through exercising at the duration, consolidation, level of frequency and kind of exercise prescribed. Our physical fitness levels however are also partly a result of our genetic endowment. There is no question that some individuals have a higher natural capacity to excel at various exercises or sports because of their genetic makeup. Scientific evidence, the part which is related to the health indicates that taking part in physical exercise has been our regular activity in comparison to traditional part of fitness. Those who feel they cannot benefit from physical activity because they have not been dealt genetic cards allowing them to obtain elite fitness levels are mistaken. Physical activity is required to make use of the genetic makeup of any individual. Sedentary individuals differ in their health related fitness level because of physical inactivity and not genetic capabilities. Although we cannot choose our parents, we can choose how we live our lives.it is the boon that human body has specifically designed to do physical activities therefore no should get surprise that symbols of breakdown in chronic sedentary.

Intensity:

In the schedule of various physical activities and conditioning, vigorous overload exercises must be included for improvement of muscular fitness and cardio respiratory system. This can help in better stimulation of heart, muscles and lungs as per the capacity of individuals. As while performing exercise the energy and stamina increases with proportionate to increase in
heart rate. In other words, the heart rate increases to a similar degree as the exercise workload increases. To determine the intensity levels of exercise and to estimate physiological stress on the body the exercise for increase heart rate is mandatory. The heart rate during exercise must be raised by approximately 75% of the difference between the sitting and maximal heart rates for appreciable gains in cardio respiratory fitness. To represents a safe and reasonable intensity for most participants it can be referred to the 75% heart rate. To make significant progress in your fitness program the working out at this heart rate level is a key factor.

**Duration:**

The time bound activity of physical exercise is directly concerned to consolidation of the activity which exert our expect heart rate which makes able us to extend our work for a long duration, than is allowed by a more intense level of exercise. Most research and our own experiences suggest that an exercise session of 30 minutes is sufficient to produce beneficial fitness changes. Thirty minutes seems to be the threshold for significant improvement even though there is some additional enhancement in cardiovascular functions from training sessions for up to an hour or more. For a beginning program it is often unwise for you to be able to exercise continuously for 30 minutes or even reach a 75% level. Due to your present fitness level your beginning workouts will most likely be limited to short periods of vigorous exercise alternated with more moderate levels of exercise such as walking. More on this later.

**Frequency:**

Continuous persistency to a spontaneous exercise schedule is requisite if anybody wants to fulfill and manage sufficient level of the physical fitness. This research suggests that training effects are both gained and lost rather quickly. Therefore you must work out regularly.

Surprisingly, we have found that daily activity, though desirable, is not necessary to improve one’s cardio respiratory fitness. Above average physical fitness can be attained with regular workouts four times per week. Keep in mind, however, that improvements in many aspects of physical fitness continue over many months. It is wise to allow several of the initial weeks for adaptation. This recommendation is based on the assumption that your conditioning workouts will eventually be at your target heart rate intensity for at least 30 minutes. In our programs, adherence to such a vigorous physical fitness program has yielded physiological benefits for the participants.
The environment should be free of extraneous distractions such as other people and equipment that will not be used during testing. Equipment that will be used during testing should be neatly organized, ideally in the order in which it will be presented to the child. As noted earlier, equipment can be placed in one big basket to cue the child when testing is completed. However, vigorous, continuous, and rhythmic activities that involve the large muscle groups can be excellent for the development of the whole body which helps the heart to get beat at a rhythmic which is sufficient enough to show the effect of the physical fitness, challenging your cardio respiratory system.

In common, routine where there is need of short bursts of speed and rapid motions do little to develop cardio respiratory system. For example, 30 to 60 minutes of racquetball or tennis, even four days a week, is not as good as rhythmic, endurance type activities for substantial physical fitness. Obviously, the skill of the participant determines the training benefit of any sports activity. If you and your opponent have a reasonable amount of skill, you may be able to stay active enough to keep your heart rate elevated for conditioning purposes. However, a sustained workout for 30 minutes at your 75% HR reserve intensity four days a week, will produce greater cardio respiratory fitness. You will be better prepared for your racquetball or tennis game. In other words, you get in shape to play your favorite sports rather than getting in shape by playing. If you have been inactive, you should avoid highly competitive sports which usually require sudden bursts of energy and quick movements. The older you grow, the more dangerous these activities become unless you have been participating regularly in appropriate physical fitness activities.

Today, nearly everyone preaches the virtues of physical fitness, yet many of these same people do not themselves maintain a regular fitness program. Two primary reasons for this failure to maintain individual fitness are not knowing: (1) How much exercise is enough, (2) The kinds of exercise that work best for physical fitness. In fact many written on physical fitness activities. One frequently hears vague statements, such as, “There are many ways to develop fitness,” Do your own thing, choose whatever activity you enjoy, or don’t overdo it, don’t seat. Such suggestions are chaotic and groundless and confuse the reader. Of course there are different ways to develop cardio respiratory fitness. Nevertheless, you must exert yourself, in a continuous
and rhythmic activity at a substantial level of exertion for at least 30 minutes. And you must adhere to this program regularly.

The key is the heart rate. It must be pushed high enough and held there long enough for cardio respiratory conditioning to take place. Let’s be clear about it: it takes effort to be physically fit. This does not mean punishing, exhaustive exercise, but rather a workout that is well within your present physical capacity.

It is not like behavioral processes of exercise and physical activity which health attributes of physical fitness a person possess such as cardiorespiratory endurance, muscular strength and endurance, flexibility and body composition which contribute to one’s capacity to do physical activity. Different fitness levels are mainly a outcome of our level of physical exercise and activity which is channelized to enhance the multiple features of fitness. The American college of sports medicine which ascribed these physical fitness attributes can be attained through exercising at the duration, consolidation, level of frequency and kind of exercise prescribed. Our physical fitness levels however are also partly a result of our genetic endowment. There is no question that some individuals have a higher natural capacity to excel at various exercises or sports because of their genetic makeup. Scientific evidence, the part which is related to the health indicates that taking part in physical exercise has been our regular activity in comparison to traditional part of fitness. Those who feel they cannot benefit from physical activity because they have not been dealt genetic cards allowing them to obtain elite fitness levels are mistaken. Physical activity is required to make use of the genetic makeup of any individual. Sedentary individuals differ in their health related fitness level because of physical inactivity and not genetic capabilities. Although we cannot choose our parents, we can choose how we live our lives. it is the boon that human body has specifically designed to do physical activities therefore no should get surprise that symbols of breakdown in chronic sedentary.

According to many people physical fitness is somewhat like stamina strength, capability, enthusiasm and zeal which make a man able to do a work though this view of fitness is partial. The term of fitness is in reality a very wide term which is required to be viewed and perceived in large. It should be taken into consideration that physical fitness is complete physical fitness which comprise readiness to the life and soundness as well as it functions. There may be special kinds of fitness such as fitness for certain occupations and behaviors etc. that perhaps is the
reason why people talk of physical fitness, mental fitness, emotional fitness or social fitness referring to its specific nature in specific context. Most people by mistake, consider strength as the sole basis of fitness. Strength is important but there is however no fitness that solely rests on muscle strength with adequate strength only we can resist disease, postponed fatigue and have enough vigour and vitality in order to perform our life routines efficiently. But strength is end in itself, it is valuable only when other components of fitness such as speed, endurance, agility etc. are proportionate and concurrently developed. No individual is capable of performing life function satisfactorily without total fitness. Moreover the muscle strength does not give any hint about man’s skills, internal body concept of fitness. According to Williams, equipment can be place in separate baskets relating to each activity. When an activity is complete and the basket is empty. The child will know he is finished with the item. It also may be helpful to allow the child to walk by the equipment so he can see all the things he will do during the testing session. If he is very distractible, it may be useful to keep the equipment for each section of the test hidden until needed.

Total fitness is an ideal concept difficult to concretize, because rarely is person totally fitness in real sense of the term of all the dimensions of fitness, physical fitness is the most observable and achievable condition in which the individual is truly supposed to be functioning efficiently and effectively. Some people associates good at games and sports. This again is wrong because fitness for each sport is different and specific while jogging; aerobics, weight training etc. are becoming popular these days. The concept of fitness for a common man, in general, has undergone tremendous change. Strength power and cardio-vascular efficiency are inter-related terms. These are also extremely important through they exist as different aspect of total fitness. The total fitness would imply that in addition to demonstrating acceptable degree of performance in physical attributes, individual must demonstrating social adaptability, emotional stability, mental efficiency and even positive mental, spiritual as well as cultural qualities. Cones, mats, and other visuals can be used to set up boundaries to define the testing area, particularly if testing is taking place in a large gymnasium. A clearly marked spot such as a poly spot or carpet square should be placed for the child to sit or stand on upon entering the gym. Finally, the child should be allowed to bring a favorite toy or object that he can hold during breaks or sit next to during testing. This may help alleviate anxiety.
For healthy body and to remain fit as a whole it signifies that the person should be physically fit. As, Physical fitness in general can be defined as individual who look or feel mentally as well as physically better, in spite of age, for a human body it must have a good health. Good fitness signifies well-functioning of human body. Fitness in Physical and sport could be divided into both categories which are as follows: a) general fitness, b) specific fitness. Proper fitness can be achieved through proper nutritious diet, exercise and timely rest. Physical fitness characterizes the degree of capability of working of a person or it can be mentioned as capacity an individual to live effectively and most rigorously with the available resources. Men’s existence and effectiveness depends upon his physical fitness. Physical fitness really implies more than the ability to do a work without much efforts. Physical fitness affects, to same degree all of life activities, not only his physical well-being but also mental effectiveness and personal social adjustment as well.

Since many youths and adults do not fully understand and appreciate the importance of health and fitness, a heavy responsibility rests on the shoulders of educators. As discussed previously, student with physical fitness tend to be visual learners and frequently rely on visual cues when communicating and trying to understand instructions. Visual cues can be in many forms including demonstrations, photographs, and the picture exchange communication system. Visual cues are helpful when conducting motor skill assessments. For example, a peer or teacher may demonstrate a skill and then ask the child to imitate it. If the child uses picture cards or PECS to communicate in the classroom or at home, they may be useful during the testing situations as well. They must continually strive for sound school and community programs in their special fields.

It is also essential that an effort be made by professionals to reach adults no longer in the school setting. The fitness boom and knowledge of the health gains and related benefits to be derived from participation have motivated many adults, after years of inactivity to get up from their armchairs and begin exercising. Corporate fitness programs, commercial health and fitness clubs, community sponsored programs and continuing education programs can play an important role in educating all segments of the population about fitness and health. It is of critical importance that these programs be conducted under the direction of qualified professionals so that the desired outcomes can be achieved.
When the child attempts the skill. The teacher offers verbal feedback while showing the child a card. With a picture representing the massage “good job.” Another useful visual cue may be in the form of video modeling, in which the child watches a video clip of a model performing the desired skill or behavior and then attempts to imitate the skill.

Education is essential to help people follow a healthful regimens. Video modeling has been shown to be an effective strategy in improving play skills, social behaviors, and functional skills in children with physical fitness. The video can be of a peer, a teacher, or even the child himself performing the targeted skill or test item. Video modeling can be a useful visual tool in the assessment of motor skills and can be easily watched one laptop computer, I-pad, or smartphone. The video can be viewed ahead of time at home or in the classroom to prepare the student for the assessment and can be brought to the testing site so the student can watch it prior to each test item to help her understand the expected skill or behavior.

Providing breaks

Examiners need to consider the time needed to conduct the assessment and determine whether the child can attend to directions, stay on task, and remain motivated for that length of time. One option is to break the assessment into sections and conduct the testing over a period of several days. Another option is to arrange for frequent breaks during testing to allow the child time to rest and transition between activities. For example, after the child performs four test items or remains on task for minutes. He earns a three-minute break.

Some children with physical fitness may become over stimulated or agitated by the change in their daily routine, being in an unfamiliar setting, or being asked to follow so many directions during the assessment. For some children with physical fitness sensory activities help them calm down and regulate their behaviors. If this is the case, a sensor break may be a useful option. For example, a break that includes spinning on a scooter, playing with a favorite sensory object, bouncing on a therapy ball, or listening to calming music might be provided between test items or at specific intervals throughout the assessment.

Testing in authentic setting

Information about a student’s abilities can also be gathered while the student is engaged in a real-life situation or game like activity. This is known as authentic assessment. It is the fact that due to insufficient educational activity thousands of school children have undesirable health. For that sound school physical education programs are needed. To have outstanding programs
educators must have a clear understanding of the philosophy of physical education and its worth in education. The following definitions’ of terms and concepts will be helpful in setting the stage for fitness education of young and old persons alike be it in a school or a non-school setting.

It is a non-standardized test that takes place in the student’s typical settings, such as in the classroom, on the playground, and during physical education. Authentic assessments often use rubrics or other alternative techniques to gather information on the child’s abilities.

Testing in authentic setting may provide more realistic and accurate information than standardized, authentic assessments don’t focus on isolated skills in an artificial testing environment or follow strict test guidelines. Instead, students’ skills are measured in their traditional tasks that pertain to real-world skills and situations. For example, running, fleeing, and dodging skills can be assessed while the student is participating in a tag game on the playground. Physical fitness is related to the tasks the person must perform the potential for physical effort, and the relationship of physical fitness to the total self. The equivalent level of physical exercise is not required for everyone. It should be sufficient to meet the requirements of the job plus a little extra as a reserve for emergencies. The student who plays football needs a type of physical fitness different from the student who plays in the school orchestra. The question fitness for what must always be asked.

Furthermore, determining the physical fitness of a person must be done in relation to that person’s own human resources and not those of others. It depends on one’s potentialities in the light of individual physical makeup. Finally physical fitness cannot be considered by itself but, instead, as it is affected by mental, emotional and social factors. A human being functions as a whole and not as segmented parts.

Students’ ability to interact appropriately with peers can be observed and assessed while they participate in small-group warm up activities in physical education. Testing in authentic settings may be particularly useful when assessing the motor skills of students with more severe physical fitness who have difficulty following directions or participating in a structured testing environment, living healthfully at home and providing services for health improvement.

(4) Physical education contributes to physical activity. It should be requisite that the student must go through regular physical fitness practice which reacts on him positively this practice has on the body and mind. The student not only requires to be gone and followed to get
physical fit to personal needs as well as the same activities organized for safe and healthy. The students should develop skill in various sports as well as in first aid. Those are mere some citations which show that how physical fitness and physical education program helps to achieve the objective of physical fitness.

(5) It should be inevitable part where there is Physical education is concerned educational program to achieve the goal of physical fitness most effectively. This subject is not a frill or appendage of the schools curriculum or a medium for the amusement of the students. It also should be take into consideration that it must be a live part and parcel of every educational program in this country. Furthermore, such a concept must repeatedly be injected into programming, scheduling and other practices that reflect the true educational philosophy of each school.

Getting children with physical fitness to score well on tests of fundamental motor patterns can be a real challenge for the examiner. It is not that the child cannot perform these basic fundamental skills; rather, the problem is getting the child to demonstrate all the components of a mature pattern for each skill. For example, with the two-footed jump, the child is expected to swing the arms back and then forward forcefully. Although most children with physical fitness can jump, getting them to understand the concept of swinging their arms forcefully may be difficult. A teacher can evaluate a child’s developmental level in throwing and other fundamental motor skills to determine his present level and then determine what to focus on with instruction. Fundamental motor patterns also can be assessed by simply determining whether the child has mastered the mature level of the pattern. For example, in the popular test of gross motor development, the mature throwing pattern is broken down into the following four components:

1. Initiates windup with a downward movement of the hand or arm.
2. Rotates hips and shoulders so the non-throwing side faces the target.
3. Transfers weight by stepping with the foot opposite the throwing hand.
4. Follows through diagonally across the body toward the non-preferred side after releasing the ball.

Interscholastic only a signal part of the physical education is reflected by athletics which contributes to physical fitness. The as children get older, they begin to develop basic motor
patterns including skills such as running, jumping, throwing, and catching. These fundamental motor patterns can be assessed qualitatively to examine how the child performs each skill. These qualitative assessments can be developmental where developmental progressions are presented. For example, when just learning how to throw, children do not step with either foot. As they develop more advanced throwing skills, they progress to first stepping with the same side foot to eventually the most skillful pattern of stepping with the opposite foot. The development of physical skills is a major contribution to long-term physical fitness of students. Obstacle In this case, equipment stations or various types of equipment can be set out for the student to choose from and explore in an unstructured manner. As the student engages in play with the equipment, tools such as checklists and rubrics can be used to evaluate general motor abilities.

Many standardized assessment tools are appropriate for children with physical fitness. Following are the keys to choosing one:

a) Age of the child
b) Purpose of the assessment
c) Ability of the child to understand test directions

The following assessment categories, taken from Horvath and colleagues, should be considered when testing children with physical fitness. Assessments are listed in order from tests appropriate for younger children to those for older children.

Developmental motor assessment

For children ages two through six, the most appropriate tests are developmental motor assessments. These typically evaluate children’s present motor skills compared to age norms. For example, children who follow a normal course of motor development would be expected to jump on two feet by around the age of two, catch a large ball by age three, and walk on a balance beam without stepping off by age four. The typical developmental motor test has several motor tasks listed by the expected age of mastery. For the most part these tests are quantitative, measuring whether a child can perform a particular task rather than examining the quality of the pattern. The most popular developmental motor-scales. These scales present several motor skills in six-month age strands. The age strands represent when most children are expected to have mastered particular skills.
Items found in most developmental motor tests are fairly self-explanatory, so most children with physical fitness should not have too much trouble understanding what to do. In addition, many items are things they probably have done before. Items targeting older preschool children may require more forceful movements and it may be difficult to get some children with physical fitness to do these forcefully enough to meet the criteria with these items it is important, although challenging to make the sure the child foresees on the demonstration and understands the forcefulness needed to be successful.

Fitness is not a static state it is dynamic, ever changing. Awareness about health and fitness is greater now than ever before, and the means to protect it available. This is true for most fundamental motor patterns. Although there is no easy solution, the best way to help children with physical fitness understand what to do is to provide a clear demonstration exaggerating key components and setting up the task so that it forces the pattern.

Motor ability assessment.

Another popular form of assessment is motor ability assessment. Motor ability tests force on such areas as balance, eye-hand coordination, agility, and dexterity. Items in motor ability tests tend to be novel for children, such as jumping and clapping hands, standing on one foot, performing a shuttle run, or sorting a deck of cards. The advantage of motor ability tests is that they are highly standardized with age norms.

Motor ability tests are perhaps the most challenging type of test for children with physical fitness. Items tend to be things the child has not attempted. In addition, many items on motor ability tests are timed, requiring the child to move as quickly as possible. Many children with physical fitness have difficulty understanding exactly what to do and doing the activity quickly enough to score well on these tests.

Physical fitness testing is popular in school settings, beginning in upper elementary grades and continuing through high school. Most physical fitness tests measure strength, flexibility, endurance, and body composition, and most tests have age-normed criteria for what constitutes physical fitness proficiency. For example, in the fitness gram physically fit 10-year-old boys should be able to do 50-sit-ups in one minute, and physically fit 10 year old girls should be able to do 35 sit ups in this same time period. Many students with physical fitness can participate in fitness testing without modifications to the assessment items. Some, however,
require accommodations or alternative test items. Total health comprises of both mental and physical well being. Our lifestyle determines our fitness consciousness they will to deep fit or the ignorance which would ruins our health. The stress of the world today requires a striking balance between our physical fitness and our mental will being for ensuring success without physical harm or degeneration.

When using standardized tests to assess the physical fitness of children with physical fitness, examiners need to determine whether the children understand the instructions to ensure that the results are a fair representations of their fitness levels. Many physical fitness test items involve multiple-step directions, which may pose a challenged for some students with physical fitness. For example, in the fitness gram pacer test, the student must understand where to start and stop as well as how to follow the cadence of the beeps to complete the test successfully. The curl-up test also requires students to understand how to slide their hands the appropriate distance across the testing strip while performing the curl-up motion and follow a recorded cadence at the same time. These multiple-step directions and multiple cues may cause confusion or be over stimulating for students with physical fitness. In addition, these students may become agitated by the noise and activity around them during fitness testing, particularly if many children are participating in the assessment.

Modifications can be made to physical fitness tests such as the fitness gram to allow for the successful participation of students with physical fitness general modifications might include testing in a quieter area or room for children who become overstimulated by the noise and activity, or providing a schedule, visual aids such as pictures or video, and multiple demonstrations of the test items to help students understand the directions. Suggestions for modifications to specific test items to encourage and motivate students with physical fitness.

The statistical estimates reveal that the main cause of death today are basically fife style related. Majority of the deaths is caused by cardio vascular problems and the fact is that more than 75% of these could be prevented. Therefore to improve the quality of life and also to increase longevity one has to follow all the health rules and adopt a positive lifestyle programmed. It is recommended that each individual should regularly take part in fitness and wellness programmers for developing positive addictions and continue with them throughout so as to experience a new quality of life.
Obesity is one of the main causes which leads to cardiovascular problems among people. It is important to note that if a test has been modified. It may not be appropriate to compare the students results with the regular standards.

All of the input we receive comes through our seven senses before it goes to the brain where emotion and judgment are attached to that sensation. Many students with physical fitness have problems processing sensory information, which can create added stress. People with as have described sensory information as painful. For some people, trying to process more than one mode of information at a time can also be overwhelming.

Hence, taking into consideration the above facts scholar feel that it is necessary to do research and find real status of Physical fitness of Secondary School Boys of Amravati district for which the topic selected for the researcher was entitled, “Standardization of Physical fitness norms for the secondary school boys of Amravati district”.

The main purpose of this study was to Standardization of Physical Fitness Norms for the Secondary School Boys of Amravati district, with a view to further realizing the followings. To determine the Physical fitness status of the Secondary school boys of Amravati district. To provide motivation to the Secondary School boys for improving their basic Physical fitness. To develop necessary plan and programmers for improving the Physical fitness of the Secondary School of Amravati district for a fit citizen and nation in future.

Keeping in the view of the needs, importance and purpose of the study the investigator listed the following major objectives. To study and assess the status of physical fitness of secondary school boys of Amravati district by preparing the associated norms. To study and identify the problems associated in administrating the test and to suggest measures to improve and overcome them. To find out the reliability and validity of the physical fitness norms of Amravati district.

It is hypothesized that the norms of Physical Fitness for the Secondary Level Boys would bear sufficient level of reliability and validity.

The scope of the present study was delimited to the following aspects. The study was delimited only Amravati districts. The study was further delimited only to the secondary school
going Boys. The study was conducted on 1000 school going Boys. The age group of the subject was 14-16 years. The study was delimited into Ten Tahsils (ie. Amravati, Badnera, Daryapur, Akot, Achalpur, Chikhaldara, Dharni, Morshi, Varudan, Dhamangaon) of Amravati District. Only six components i.e. muscular strength, abdominal strength and endurance, agility, speed, power and cardio-respiratory endurance aimed at assessing the related physical fitness components was selected in this study. Only Six test items i.e. Pull-Ups, Sit-Ups, Shuttle Run, Standing Broad Jump, 50 Yard Dash, and 600 Yard Run/Walk was selected in this study.

The limitations of the study were recognized as follows. Extra curriculum involvement of the subjects was unknown and hence will not be possible to keep. Nutritional factors were unknown to the scholar. Boys coming in their school from various socio-economic background which was not be controlled. Various climatic conditions were not being controlled. Various psychological conditions of the subjects during the test administration will not be controlled which would have some effect in performance. No special motivational technique applied while conducting the test.

The present study would be significant in the following ways, the study would provide the Physical Fitness Norms for the Secondary School Boys of Amravati district. This study would help in determination of Physical fitness status of the Secondary school Boys of Amravati district and promotion of Physical activity programmes for them. It would help to adopt evaluative procedures on the basis of norms established. It would help the students to understand himself and his potentialities through such appraisal. It would help to organize the Physical Education Programme on the base of the classification of the students. The study would also enable to the Secondary school students for their better performance in Physical activities and Sports. The study would help the physical education teachers and educational planners to compare the status of the students of Amravati district. The study would create a consciousness and enthusiasm amongst the students of the country for physical welfare. The study would also opens avenues for further research in this direction.

The present research scholar collected 60 reviews by giving visit the libraries of the S.G.B. Amravati University Amravati, Degree College of Physical Education H.V.P.M. Amravati, Shree Shivaji College of Physical Education Amravati. It was found that some studies
in the area of development of norms were undertaken in some of the universities, but they were related to the development of norms of other tests. The scholar found no study which was directly related to the present study.

Required data for the present study were collected by conducting the AAHPERD Physical Fitness Test on the Secondary School boys of Amravati district.

The subject were selected from the secondary school of selected Ten Tehsil of Amravati district on simple random sampling basis from each Tahsil’s at least One Hundred boys were selected random as subjects for the study. The total number of subjects were near about one thousand.

The tests selected for measuring the physical fitness of the students were based on the suggestions of the experts working in the field of physical educations besides expertise of the guide and this appropriate physical fitness variables were taken into account which are as follows. Pulls-ups for muscular Strength, Sit-Ups for Abdominal Strength and Endurance, Shuttle Run for Agility, 50-Yard Dash for Speed, Standing Broad Jump for Power, 600-Yard Run/Walk for cardio-respiratory endurance.

The main purpose of the study was to Standardization of Physical Fitness Norms for Secondary School boys of Amravati district. To achieve this objective the researcher collected the data in the specified scoring Tables.

As the work was a normative study, the researcher calculated percentiles and T-scale norms on the basis of obtained scores of each test items for three group i.e. 14 year, 15 year and 16 year boys. The percentiles and T-scale norms were calculated by using MINITAB Software and the further statistical analysis were prepared for the percentile and T-scale norms which were presented in the Tables.

5.2 CONCLUSIONS

Following conclusions were drawn after analysis of the data.
Pull-Ups:

There are 1000 boys from the age of 14 to 16 years, were involved in the AAHPERD Physical Fitness Test item called Pull-Ups, it is found that under the age group of 14 year, 104 (31.23%) boys have score minimum percentile i.e. 25% in the same age group 91 (27.32%) boys have secured 25% to 50% of percentile score, however there are 72 (21.62%) boys were able to reach within 50% to 75% of percentile score in this test item, were five 66(19.81%) boys are able to secure maximum i.e. 75% to 100% of percentile score.

Under the age group of 15 years it is found that 116 (34.83%) boys have found score 25% in the same age group 81(24.32%) boys have secured 25% to 50% of percentile scores and 70 (21.02%) boys were able to reach 50% to 75% of percentile scores, and 66 (19.81%) boys were able to secured maximum i.e. 75% to 100% of percentile scores.

In the age group of 16 it is found that 22 (6.58%) boys score minimum percentile i.e. 25% in the same age group 173 (52.31%) boys have secured 25% to 50% of percentile score. There are 66 (19.76%) boys able to reach within 50% to 75% and 73 (21.85%) boys are able to secure maximum i.e. 75% to 100% of percentile scores.

Sit-Ups:

There are 1000 boys from the age of 14 to 16 years, were involved in the AAHPERD Physical Fitness Test item called sit-ups, it is found that under the age group of 14 year, 98 (29.42%) boys have score minimum percentile i.e. 25% in the same age group 85 (25.52%) boys have secured 25% to 50% of percentile score, however there are 76 (22.82%) boys were able to reach within 50% to 75% of percentile score in this test item, were five 74 (22.22%) boys are able to secure maximum i.e. 75% to 100% of percentile score.

Under the age group of 15 years it is found that 27 (29.12%) boys have found score 25% in the same age group 78(23.42%) boys have secured 25% to 50% of percentile scores and 81 (24.32%) boys were able to reach 50% to 75% of percentile scores, and 77 (23.12%) boys were able to secured maximum i.e. 75% to 100% of percentile scores.
In the age group of 16 it is found that 104 (31.13%) boys score minimum percentile i.e. 25% in the same age group 84 (25.14%) boys have secured 25% to 50% of percentile score. There are 72 (21.55%) boys able to reach within 50% to 75% and 74 (22.15%) boys are able to secure maximum i.e. 75% to 100% of percentile scores.

**Shuttle Run:**

There are 1000 boys from the age of 14 to 16 years, were involved in the AAHPERD Physical Fitness Test item called sit-ups, it is found that under the age group of 14 year, 95 (28.52%) boys have score minimum percentile i.e. 25% in the same age group 78 (23.72%) boys have secured 25% to 50% of percentile score, however there are 100 (30.03%) boys were able to reach within 50% to 75% of percentile score in this test item, were five 59 (17.71%) boys are able to secure maximum i.e. 75% to 100% of percentile score.

Under the age group of 15 years it is found that 87 (26.12%) boys have found score 25% in the same age group 76 (22.82%) boys have secured 25% to 50% of percentile scores and 78 (23.42%) boys were able to reach 50% to 75% of percentile scores, and 92 (27.62%) boys were able to secured maximum i.e. 75% to 100% of percentile scores.

In the age group of 16 it is found that 98 (29.34%) boys score minimum percentile i.e. 25% in the same age group 77 (23.05%) boys have secured 25% to 50% of percentile score. There are 80 (23.95%) boys able to reach within 50% to 75% and 79 (23.65%) boys are able to secure maximum i.e. 75% to 100% of percentile scores.

**Standing Broad Jump:**

There are 1000 boys from the age of 14 to 16 years, were involved in the AAHPERD Physical Fitness Test item called sit-ups, it is found that under the age group of 14 year, 81 (24.32%) boys have score minimum percentile i.e. 25% in the same age group 107 (32.13%) boys have secured 25% to 50% of percentile score, however there are 72 (21.62%) boys were able to reach within 50% to 75% of percentile score in this test item, were five 73 (21.92%) boys are able to secure maximum i.e. 75% to 100% of percentile score.
Under the age group of 15 years it is found that 99 (29.72%) boys have found score 25% in the same age group 81 (24.32%) boys have secured 25% to 50% of percentile scores and 62 (18.61%) boys were able to reach 50% to 75% of percentile scores, and 94 (27.32%) boys were able to secured maximum i.e. 75% to 100% of percentile scores.

In the age group of 16 it is found that 86 (25.74%) boys score minimum percentile i.e. 25% in the same age group 70 (20.95%) boys have secured 25% to 50% of percentile score. There are 106 (31.73%) boys able to reach within 50% to 75% and 72 (21.55%) boys are able to secure maximum i.e. 75% to 100% of percentile scores.

**50-Yard Dash:**

There are 1000 boys from the age of 14 to 16 years, were involved in the AAHPERD Physical Fitness Test item called sit-ups, it is found that under the age group of 14 year, 99 (29.72%) boys have score minimum percentile i.e. 25% in the same age group 74 (22.22%) boys have secured 25% to 50% of percentile score, however there are 83 (24.92%) boys were able to reach within 50% to 75% of percentile score in this test item, were five 77 (23.12%) boys are able to secure maximum i.e. 75% to 100% of percentile score.

Under the age group of 15 years it is found that 94 (28.22%) boys have found score 25% in the same age group 91 (27.32%) boys have secured 25% to 50% of percentile scores and 84 (25.22%) boys were able to reach 50% to 75% of percentile scores, and 64 (19.21%) boys were able to secured maximum i.e. 75% to 100% of percentile scores.

In the age group of 16 it is found that 116 (34.73%) boys score minimum percentile i.e. 25% in the same age group 64 (19.16%) boys have secured 25% to 50% of percentile score. There are 91 (27.24%) boys able to reach within 50% to 75% and 64 (18.86%) boys are able to secure maximum i.e. 75% to 100% of percentile scores.

**600-Yard Run/Walk:**

There are 1000 boys from the age of 14 to 16 years, were involved in the AAHPERD Physical Fitness Test item called sit-ups, it is found that under the age group of 14 year, 96 (28.82%) boys have score minimum percentile i.e. 25% in the same age group 77 (23.12%) boys
have secured 25% to 50% of percentile score, however there are 90 (27.02%) boys were able to reach within 50% to 75% of percentile score in this test item, were five 70 (21.02%) boys are able to secure maximum i.e. 75% to 100% of percentile score.

Under the age group of 15 years it is found that 99 (29.72%) boys have found score 25% in the same age group 77 (23.12%) boys have secured 25% to 50% of percentile scores and 86 (25.82%) boys were able to reach 50% to 75% of percentile scores, and 71 (21.32%) boys were able to secured maximum i.e. 75% to 100% of percentile scores.

In the age group of 16 it is found that 97 (29.04%) boys score minimum percentile i.e. 25% in the same age group 82 (24.55%) boys have secured 25% to 50% of percentile score. There are 79 (23.65%) boys able to reach within 50% to 75% and 76 (22.75%) boys are able to secure maximum i.e. 75% to 100% of percentile scores.

**Grading Scale of the Performances in Physical Fitness Tests of the 14 Year Age Group Boys:**

After preparing the percentile of six tests, undertaken in this study of the 14 year secondary school boys of Amravati district, the researcher developed a Grading Scale on the basis of the percentile norms. The grading category were Excellent, Good, Average, Fair and Poor.

**PULL-UPS:**

It was observed that, in Pull-Ups for 14 year boy’s test, the students who performed 13 repetitions and above belonged to the Excellent Grade, whereas in Poor category there performance level was 5 repetitions and below. The Good, Average and Fair Grades were 12-10 repetition, 9-8 repetitions and 7-6 repetitions respectively.

**SIT-UPS:**

In case of Sit-Ups for 14 year boys test, the Excellent, Good, Average, Fair and Poor gradation were 45 and above repetitions, 42-40, 37-32, 30-25 and 24 below repetitions respectively.
SHUTTLE RUN:

In Shuttle Run test 10.7 sec. and below was considered as excellent grade and between 10.8-11.4 sec., between 11.5-12.4 sec. between 12.5-13.4 sec., between 13.5 sec. and above were categorized into Good, Average, Fair and Poor respectively.

STANDING BROAD JUMP:

It was evident that the Excellent grade performed 7’4 feet and above, whereas in Poor category the performance level was 9 feet and above. The Good, Average and Fair grades were 7’5 -6’5 feet, 6’3- 5’.4 feet and 5’3-4’2 feet respectively.

50-YARD DASH:

It was observed that the excellent category must have to finish 50-Yard dash sprint within 6.9 sec. and below. The good performer finished within 7.0 to 7.2 sec. The running time of the average performer was 7.3 to 7.9 sec. The fair performer finished within 8.0 to 8.9 sec. and the timing of the Poor performer was 9.0 sec. and above.

600-YARD RUN/WALK:

As per the performance level of the 14 year boys in 600-Yard Run/Walk test, the Excellent, Good, Average, Fair and Poor gradations were 1:46 min. and below, between 1:47 to 1:58 min., between 1:59 to 2:08 min., between 2:09 to 2:31 min., between 2:32 min and above respectively.

Grading Scale of the Performances in Physical Fitness Tests of the 15 Year Age Group Boys:

After Preparing the percentile of six tests, undertaken in this study of the 15 year secondary school boys of Amravati district, the researcher developed a Grading Scale on the basis of the percentile norms. The grading category were Excellent, Good, Average, Fair and Poor.
PULL-UPS:

It was observed that, in Pull-Ups for 15 year boys test, the students who performed 16 repetitions and above belonged to the Excellent Grade, whereas in Poor category there performance level was 07 repetitions and below. The Good, Average and Fair Grades were 15-13 repetition, 12-10 repetitions and 9-8 repetitions respectively.

SIT-UPS:

In case of Sit-Ups for 15 year boys test, the Excellent, Good, Average, Fair and Poor gradation were 48 and above repetitions, 46-44, 42-37, 36-28 and 24 below repetitions respectively.

SHUTTLE RUN:

In Shuttle Run test 10.6 sec. and below was considered as Excellent grade and between 10.7-11.6 sec., between 11.7-12.8 sec. between 12.0-14.6 sec., between 14.7 sec. and above were categorized into Good, Average, Fair and Poor respectively.

STANDING BROAD JUMP:

It was evident that the Excellent grade performed 8’1 feet and above, whereas in Poor category the performance level was 5’2 feet and above. The Good, Average and Fair grades were 8’0-7’0 feet, 6’9-6’6 feet and 6’5-5’3 feet respectively.

50-YARD DASH:

It was showed that the Excellent category must have to finish 50-Yard dash sprint within 6.4 sec. and below. The good performer finished within 6.5 to 6.8 sec. The running time of the average performer was 6.9 to 7.4 sec. The fair performer finished within 7.5 to 8.0 sec. and the timing of the Poor performer was 8.1 sec. and above.
600-YARD RUN/WALK:

As per the performance level of the 15 year boys in 600-Yard Run/Walk test, the Excellent, Good, Average, Fair and Poor gradations were 1:42 min. and below, between 1:43 to 1:55 min., between 1:56 to 2:04 min., between 2:05 to 2:22 min., between 2:23 min and above respectively.

Grading Scale of the Performances in Physical Fitness Tests of the 16 Year Age Group Boys:

After preparing the percentile of six tests, undertaken in this study of the 16 year secondary school boys of Amravati district, the researcher developed a Grading Scale on the basis of the percentile norms. The grading category were Excellent, Good, Average, Fair and Poor.

PULL-UPS:

It was observed that, in Pull-Ups for 16 year boys test, the students who performed 17 repetitions and above belonged to the Excellent Grade, whereas in Poor category there performance level was 08 repetitions and below. The Good, Average and Fair Grades were 16-14 repetition, 13-11 repetitions and 10-9 repetitions respectively.

SIT-UPS:

In case of Sit-Ups for 16 year boys test, the Excellent, Good, Average, Fair and Poor gradation were 52 and above repetitions, 50-44, 42-38, 36-28 and 25 below repetitions respectively.

SHUTTLE RUN:

In Shuttle Run test 10.2 sec. and below was considered as Excellent grade and between 10.3-11.4 sec., between 11.5-12.4 sec. between 12.5-13.6 sec., between 13.7 sec. and above were categorized into Good, Average, Fair and Poor respectively.
**STANDING BROAD JUMP:**

It was evident that the Excellent grade performed 8’6 feet and above, whereas in Poor category the performance level was 5’7 feet and above. The Good, Average and Fair grades were 8’5 -7’9 feet, 7’8 - 6’9 feet and 6’8-5’8 feet respectively.

**50-YARD DASH:**

It showed that the Excellent category must have to finish 50-Yard dash sprint within 5.9 sec. and below. The good performer finished within 6.0 to 6.3 sec. The running time of the average performer was 6.4 to 6.7 sec. The fair performer finished within 6.8 to 7.3 sec. and the timing of the Poor performer was 7.4 sec. and above.

**600-YARD RUN/WALK:**

As per the performance level of the 16 year boys in 600-Yard Run/Walk test, the Excellent, Good, Average, Fair and Poor gradations were 1:30 min. and below, between 1:31 to 1:40 min., between 1:41 to 1:47 min., between 1:48 to 2:09 min., between 2:10 min and above respectively.

**5.3 Recommendations**

After duly analyzing the data and concluding the interpretations the research scholar proposes the following recommendation.

(i) The same study may be undertaken on different districts of the Maharashtra State.

(ii) On females subjects the same study may be undertaken.

(iii) The evaluation of standard of Physical fitness may be conducted on the basis of the results and percentiles of the current study.

(iv) The examinations conducted to assess the physical fitness of the secondary school boys of Amravati district on the basis of the results and percentiles of the present study.
(v) The trainers, coaches and physical education teachers may refer the norms while imparting training to their players and students.

**5.4 Recommendations for further studies**

The same type of study can be conducted for the research purpose which are stated as below:

1. The study can be conducted to assess the physical fitness of the secondary school students of either gender.

2. The study can be conducted to assess the physical fitness of the primary school students of either gender.

3. The study can be conducted to assess the physical fitness of the physical education college students of either gender.

4. The study may be undertaken on different districts of the Maharashtra State.

5. The study can prove a guidelines for the fitness test in various schools throughout India for various age groups.