CHAPTER – I

INTRODUCTION

The modern technological advancement, though has enabled us to carry out every day course more easily, but has fostered unfitness. Physical exertion is increasingly being eliminated from every day activity. The technological changes are key contributors to our sedentary life style, and people are becoming dependent on these technological innovations. On the other hand we are living in a competitive society characterised by presenting domestic problems, business obligations and tensions. All these are inter connected with the physiological system of the body and affect our state of health and fitness. The human emotions, nerves, glands and mental state along with heart are all fused into a complex wonderful organism, the body. Thus, there is a dire need to seek out stimulating exercises to set off the perils modern living.

Many men and women feel that their daily work, running up and down the stairs or keep standing posture for the job provide them with enough exercise for physical fitness. Though it is physical exertion but such limited activities do not use the
lungs fully, nor do they provide adequate stimulation for the heart to produce a training effect. If normal day to day activities leave one fatigued at the end of the day's work then one needs the increased energy and vitality which comes from regular physical exertion. To gain energy, the simple process is to use energy. The way to ensure a life time physical well being is regular physical exertion. Understanding of how our body respond and adopt to exercise is essential, if we are to get fully involved in a life style of regular exercise. It is a firm belief that it takes efforts to get and be in shape.

Regular stimulation of the total body through vigorous exercise produces increased strength and endurance which characterise physical fitness and good health, and these attributes cannot be acquired from a sedentary way of life. Exercise is the cheapest and the best preventive medicine against physiological menace. Research in Medicine, Nutrition, Psychology, Physiology and Physical Education agrees that exercises properly performed are necessary for maintaining a functional physical fitness.

Physical fitness is not an end in itself but it is a means to an end. It provides us with a basis for optimal physiological
health and capacity to enjoy a full life. As we regularly need food, rest and sleep so do we need daily exercise for the maintenance of our physical capabilities. Physical fitness is a pre-requisite not only for excellence in competitive sport but is also closely related to defence and economic potential of a nation and for the quality of Individual and Social life.

Physical Education has now been accepted as an essential aspect of Education and the contribution of Physical Education to the objectives of Education are agreed upon by educationists. Though different Physical Educationists have listed a number of objectives but all agree and list physical fitness as one of the most important objectives of the physical education. Several programme have been suggested to achieve this objective. Emphasizing the need of physical fitness, President, John F. Kennedy in an address to school on Physical Fitness of American Youth, remarked, “the strength of our democracy is no greater than the collective well being of our people. The vigour of our country is no stronger than the vitality and will of all our countrymen. The level of physical, mental, moral and spiritual fitness of every American citizen must be our constant concern. It is of great importance, then, that we take
immediate step to ensure that every American child be given the opportunity to make and keep himself physically fit, fit to learn, fit to understand, to grow in grace and stature and to live fully". The President also urged each school to adopt the three recommendations of his council on the fitness of youth.

1. To identify the physically underdeveloped pupil and work with him to improve his physical abilities.

2. To provide a minimum of fifteen minutes of vigorous activity every day for all pupils.

3. To use valid fitness tests to determine pupil's physical abilities and evaluate their progress.

The importance of physical fitness thus necessitates the assessment of the Physical fitness level of boys and girls.

It has been established that performance of the boys and girls in physical activities is influenced by different factors such as heredity and environment, age, height, weight, nutrition, state of training, fitness level, body structure, anthropometric dimensions, climate and the individual's abilities developed within the genetic structure laid down with age and experience.

12 to 16 years of age has been reported to be the most important in terms of physical development. Rarick (1973)
reported that boys accelerate markedly in motor performance during the adolescent years, whereas girls level off and even slowly decrease in performance in comparison to the pre-adolescent or early adolescent years. The sex difference in relation to motor performance becomes more apparent with the increasing age from later childhood to the end of adolescence.

It has been established that physical fitness improves in boys throughout adolescence, whereas it declines in girls after the age of 13 or 14. Ammons et al (1955) reported the superiority of boys over girls in motor performance. Anahal (1979) and Cromptom (1979) also support this view.

The competitive sports have taken a new dimension in modern times. The International Competitors have become mirrors of the nations. The medal tally at Olympic games or at other International events attract the attention of the general population. For a good performance in the competitive sports physical fitness plays a major role. And the best age for developing this aspect is 12 to 16 years.

Physical Education has been accepted as a subject in 10+2 system of Education and thus there is a need for establishing norms for fitness for the school boys. The norms
shall thus serve as a ready-recknor for the teacher of physical Education. Though some attempts have been made to fix physical fitness norms for the school boys but such studies are very limited in our country, secondly there are certain factors, which influence the norms of different. This investigator thus has chosen the districts of Haryana state surrounding the national capital as a field of the study. Similar studies on different age groups and sex can be taken up in other states to establish these relationships and to further strengthen such studies.

More House and Gross are of the opinion that latest by ten years of age males or females should start their fitness training and there after it has to be continued for the whole life. A man who does nothing for a month will lose eighty percent of his physical condition. He further explains that one who is fifty and has not worked out for twenty years can never get to the level of condition he would have achieved, had he continued to play what he played in college. If one wants to be the fittest possible at sixty the time to start was when he was ten. In physical education curriculum, fitness programme must have its
due place and children must be encouraged to adopt it. Many complexes can easily be overcome through physical activities.

After talking so much about the use of fitness for children and youth in a society or country, it is relevant here to examine shortly the youth fitness programmes taken up by the government after independence.

Physical fitness programme especially for children and youth attending educational institutions is related to the development physical education profession. This takes us back to pre-independence period, when the Y.M.C.A. in Calcutta and Madras were established in 1908 and 1920 respectively. Trained physical education teachers from T.M.C.A, Madras popularised games and sports and fitness programmes throughout the country.

After independence, government of India took seriously the promotion of games and sports and physical fitness of its youth and players. The poor performance of Indian Team at international level has always been a matter of great concern. This has been discussed at a great length at various levels from time to time in the form of commissions and seminars.
Traditionally, educational institutions aim at organizing some selected games and sports such as football, hockey, cricket, basketball, volleyball and athletics. These major activities need a lot of facilities and funds. The requiring more than one or many officials. No institution can hope to engage the total students body in major activities despite their huge resources. Some institutions on with nominal programme as they do not possess adequate facilities and funds. Many institutions do not have even a play field. Apart from this, sports equipment, has become very costly. Hundreds and thousands of students keep on passing every year without having any exposure to any kind of physical education programme.

Not only major games and sports have no substitute activities, but also do not provide total fitness to participants. Each game or activity can develop only a few selected motor fitness components. A shot-putter may have a powerful muscle with lot of explosiveness but he may be very poor when it comes to cardio respiratory fitness. A heavy weight wrestler or a weight lifter is unfit for pole-volt or high jump; similarly a pole vaulter or a high jumper is unfit for lifting heavy loads.
The physical education programmes which can suit most of our schools and colleges with nominal facilities is also limited. Fitness programme with simple free hand exercise requiring no equipment and limited space is the only solution. Such programmes are easy to organize as well. A courtyard or a small field is needed for most of the exercises involved in fitness programme. Mass participation is possible through such fitness programme, after learning these exercises, students can participate on their own without any supervision. To get a true picture of the level of performance of subject of a particular region, a region norm must be prepared. It is incorrect and unscientific to judge performances with norms prepared for a different country or a state. Infact every region, district and school should go for its own norms. Norms used today may not be correct after five years as the level of performances of participants are expected to be increased. Therefore norms must be revised.

Recently formulated National Sports Policy gives specific emphasis on the physical fitness. The Government is deeply concerned with raising the fitness while preparing norms for a particulars population or region as many as possible cases
must be tested. It is not correct to select a bigger region and test a small number. The larger number of subject tested gives standard norms sometimes it is not feasible for a researcher to test large number of subjects in such cases the area for preparing norms can be delimited.

Students are always interested in comparing their performances with that of other members of their class. They would not be happy if they grouped with other students junior or senior on the basis of their age, height or weight. They do not find such classification with other such subjects satisfactory. Investigator wants to prepare just one table of norms for each parameter for senior secondary boys to provide maximum administrative smoothness to the organizers and students.

STATEMENT OF THE PROBLEM:

"STANDARIZATION OF MOTOR FITNESS COMPONENTS OF RECOGNIZED SENIOR SECONDARY SCHOOLS (BOYS)".

SIGNIFICANCE OF THE STUDY

The significance of the study is to promote motor fitness programme in educational institutes in particular and society in general. Most of our educational institutes are without play
fields or without reasonable size of the play fields. The funds for sporting activities is also nominal. Institutions possessing some facilities and funds exert in organizing some major games and sports only. Besides, only a limited number of students get a chance to participate in these games. The remaining student population goes out of these institutions year after year without having any experience of participating in games and sports or any kind of physical education activity. The authorities including physical education teachers do not think of any additional feasible physical education programme for the entire student population.

The exercises selected are simple and interesting. They need very nominal facilities which most of educational institution possess. These exercises can be conducted on mass scale without spending much time. Norms prepared will be useful to physical education teacher in evaluating the performance of the children scientifically. Students can also easily assess their performance in relation to the performances of other students of the group or the class. Norms also create on interest in the participants for an increasing by performance.
1. On the basis of the study, students can be classified and a suitable programme of physical fitness can be given to them.

2. The study will determine the status of the students in physical fitness.

3. The study will also be helpful in measuring progress of the boys in physical fitness.

4. The study will serve as a basis for setting personal fitness goal for the school boys.

5. The selected tests measure the health related component of physical fitness and can be administered with ease and consistency.

6. Physical fitness measurement will help in evaluating present conditions will also assist in setting reasonable goals.

7. Each individual is unique with different physical abilities and different physiological limitations. Thus, evaluation of physical fitness becomes a complex matter. This study will help in developing a practical testing programme for appraising fitness and weakness.
8. It is a fundamental aspect of the human nature to be curious about how we compare with others. Physical fitness measurement affords the opportunity to do this and to evaluate fitness status.

9. The tests serve a highly effective motivational device.

OBJECTIVES OF THE STUDY

1. To measure the present level of physical fitness of the school boys for classes XI and XII.

2. To establish norms of physical fitness of the said group.

3. To compare the standard of Physical fitness of the urban and rural boys.

4. Talented students with excellent physical fitness can be spotted and given specific programme of fitness for better performance in games and sports.

5. To explain the importance of Physical fitness to boys and suggesting a right physical fitness programme.

6. To motivate boys for a programme of Physical-fitness.
HYPOTHESIS

The investigator has following hypothesis for this study:

1. That there is some difference in the motor fitness and sports ability of rural and urban children.

DELIMITATION OF THE STUDY

The present study has following limitations:

1. This study is limited to four districts of Haryana surrounding to national capital.

2. The study is limited only for the boys only.

3. Factors influencing physical fitness like, heredity and environment, social and economical, psychological and nutritional have not been accounted for.

LIMITATIONS

1. Norms have been prepared in terms of percentile ranks for students belonging to the four districts of Haryana state surrounding national capital.

2. The tests have certain limitations as they exclude certain physical factors such as body weight, height, body fat and anthropometrics differences, yet these shall provide a scale on which one can rate one's own performance.
DEFINITION OF THE TERMS USED

Standardization

(i) To transform a set of scores to a given mean and standard deviation.

(ii) To determine the exact procedure to be used in testing the permitted variation in environmental conditions and the method of scoring.

Norms

Good's Dictionary define norms as “the standard or criterion for judgment of usual performance of a given group.”

Physical fitness

Most authors define physical fitness as the capacity to carry out every day activities (work and play) without excessive fatigue and with enough energy in reserve for emergencies. But this definition indicates the narrow aspect of fitness, every one can be classified as physically fit under this explanation.

Bud Getchell define ‘physical fitness’ as the “capacity of the heart, blood vessels, lungs and muscles to function at optimal efficiency”.

Karpovitch offered the following definition of physical fitness- "strictly speaking, physical fitness means that a person
possessing it, meets certain physical requirements. These requirements may be anatomical physiological or both”.

AAHPER gave following concepts of fitness:

i) Optimum organic health is constant with heredity and other applications of present health knowledge.

ii) Sufficient co-ordinates, strength and vitality to meet emergency as well as the requirement of the daily living.

iii) Emotional stability to meet stress and strain of modern life.

iv) Special consciousness and adaptability with respect to the requirement of all throughout the life.

v) Sufficient knowledge and insight to make suitable decision and arriving at feasible solution of the problem.

vi) Attitude, values and skill, which stimulate satisfactory participation in full range of daily activity.

vii) Spiritual and moral qualities, which contribute to the fullest measure of living in domestic society.

Hallies F. Fait (1973) define fitness as “that state which
characterizes the degree to which the person is able to function. Fitness is an individual matter. It implies the ability of each person to live most efficiency with his potentiality of function depending upon the physical, mental, emotional, social and spiritual components of fitness which are related to each other and are mutually independent”.

These comprehensive definitions of the fitness encompass the concept of total fitness which is the prime objective of Physical Education and thus, there is a greater responsibility of the teacher of Physical Education. He is concerned with the well being of the child. This great responsibility involves muscular development, endurance, flexibility, agility, co-ordination and cardio respiratory fitness of the child.

Thomas (1964) remarked that “physical fitness is the condition of ones body judged in term of age, height, weight and chest expansion, in term of absence of defects from disease, constitutional affection or bodily infirmity. Full physical development, vigor, vitality and radiant health should be seen in one who is physically fit. In term of usefulness, physical fitness is total functional capacity of an individual to perform a given
task. "It provides the ability to perform a task without undue fatigue or exhaustion, having always a reserve of energy to meet heavier demands, made on the individual during stress and strain. Physical fitness depends upon several factors such as heredity, hygienically living, nutrition and bodily activity have they play an important role in developing the physical fitness".

The above explanation of fitness actually gives the concept of total fitness. Physical educationists treat physical fitness as one of the aspect of the total fitness as one of the aspects of the total fitness. Total fitness implies physical, mental, social, emotional, moral and spiritual qualities.