SUMMARY
SUMMERY
STANDARIZATION OF MOTOR FITNESS
COMPONENTS OF RECOGNIZED SENIOR
SECONDARY SCHOOLS (BOYS)

Interest in physical fitness has existed since long. The ancient athletic contest and feats of strength reveals that human physique and strength were important physical attributes. Even today the Darvman concept of “fittest should survive” has its own importance. Mental and physical fitness of people is quite necessary for a healthy society. Physically unfit person cannot contribute towards the good of nation. That is why necessity of improving physical fitness has been realized by every country. John F. Kennedy, the late President of U.S.A. said, “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, than what we take immediate step to ensure that every American child be given the opportunity
to keep himself physically fit, fit to learn, fit to understand, to grow in grace and stature to live fully."

Since independence, changes in social and political structure in our country have bearings on physical well being of the people, though the emphasis on this aspect may not be equal to other fields of development. It was felt obvious that improved physical fitness is essential for a developing nation like ours. With this ambition the enthusiast physical educationist took up to assess the fitness ability of the Indian Population. Though some tests were conducted, but there remains a great deal of work to do. The central advisory board of physical education and recreation prepared a national plan of physical education and physical fitness test were suggested for different age groups. A scheme of national physical efficiency drive was also launched under the National plan of physical education. Even today the tests under this scheme were launched but the enthusiasm with which these scheme were launched seems to be vanishing. This is because of number of reasons and one of the aspect in this direction is to restart the
plan, to make new, experiments and research in this field which is very rare.

Though this programme seems to be a new aspect to us but the developed countries have realized the value of physical fitness long back. A number of fitness tests have been done in this field. Some of the important fitness tests are that of AAHPER Physical fitness test, Kraus Weber test, Fleshman physical fitness test, California Physical Test, Indian Physical fitness test. We are not to discuss the detail of these tests, but the idea is to give a pictures of these tests and the values they carry. Norms of the tests have been prescribed and it is desired that each student attains a certain standard of fitness. The level of physical fitness also determines the level of performance in games and sports.

The performance of our sportsmen at international level is far from satisfactory. One of the main reasons of it is the poor physical fitness of our children who are the future sports person of the nation. An important aspect in this respect is to assess the physical fitness of our children and to standardize the norms of
fitness and to emphasize that each student should attain a certain standard of fitness. A well planned and systematic programme of physical education shall attribute to improve physical fitness and this in turn will improve the skill and performance capacity of our participants.

The study is based on the presumption that in order to improve the standard of physical performance at national and international level our physical education programme should lay greater emphasis on all round development of the school children. Those countries which have been winning laurels in the field of games and sports at international competitions have laid special emphasis on the development of sound programme of physical education at school level.

A well planned, systematic and regular programme of physical education contributes to the improvement of physical fitness and this also improves the skill and performance capacity of the participants. One of the reasons of poor performance by our sportsman at international competitions is primarily the lack of
emphasis on the development of a sound programme of physical education, games and sports at school level. There is no sound and broad based programme at the grass root level to teach fundamental movements of the body and promote physical fitness of the children. As a result children are not conscious about their efficiency of physical fitness and also the value of physical fitness. It is an accepted fact that physical fitness is a basic for an improved performance in games and sports. The games and sports have now become an international phenomenon. The prestige and glory of a nation in the international sports competitions have always been appreciated by the society and have become a reflection on the nation's caliber. Thus, for achieving distinction in games and sports, a programme of physical fitness has universally become an essential part of educational curriculum. The different schemes have been envisaged by the government for the promotion of physical education its contribution for the development of fitness and activities of games and sports.

The November 1982 Asian Games further awakened the spirit of games. The government has now established the Ministry
of sports at the central level. Sports Authority of India has also been established to boost the sports programme. A national sports policy has also been framed. Comparatively lower standard of our performance in international sports competition has been analyzed a number of times and physical fitness has been reported to be one of the major reasons for our debates at various international competitions. Physical fitness has, thus, become a subject of study and has attracted attention of students and scholars of physical education.

Interest for excellence in physical activities is innate in men. From the dawn of civilization the human beings have been taking part in competitive activities. Everyone wishes to know his capabilities and his physical status. Studies on physical fitness have served this purpose. Individual knowledge of his physical abilities also motivates him for improve abilities so that he can compete with others and finally the competition. The studies of physical fitness also indirectly tend to achieve the educational task of developing a harmonious personality physically fit, mentally alert and emotionally sound.
Improving in games and sports is also based on mass participation. Application of this study provides an opportunity for mass participation in physical activities. This procedure will help in spotting talented and potential sportsman. Talented persons thus selected and given proper training can show better results.

The study shall also serve as a motivating device. The students can easily assess their motor fitness level themselves and thus knowing their level. They will, thus, try to improve their performance capacity.

STATEMENT OF THE PROBLEM

Having a keen interest in the research of motor fitness and to further the study of motor fitness I have chosen the topic, "Standardization of Motor Fitness components of Recognized Senior Secondary Schools (Boys)". The study will serve as a ready reference to the teachers and researchers of physical education. Particularly, now when different agencies are coming
forward to recommend physical education as a subject in schools and colleges.

AIMS AND OBJECTIVES
1. To estimate the motor fitness level of schools boys of Haryana (age group 16 to 18 years). Specially in four districts of Haryana State surrounding national capital.
2. To establish norms for motor fitness of the said group.
3. To compare standards of motor fitness of urban and rural boys.

METHODOLOGY

For the purpose of this study, 1200 boys have been randomly selected and a test of motor fitness have been conducted on them. The following popular tests were conducted:-
1. 50 meters run for speed.
2. Shot put for strength
3. Standing broad jump for explosive power
4. Zig Zag run for agility
5. Sit up for abdominal strength and flexibility
6. Step test for endurance
7. Pull-up for arm strength
8. Bent Knee Sit ups
9. Shuttle Jump for agility
10. Vertical Jump for explosion power
11. 600 run or walk for endurance.

Though 11 items were used for pilot study on 50 students and the six items which are easy for the students have been selected for further study and detailed analysis.

DELIMITATION OF THE STUDY

1. The study has been limited to State of Haryana specially four districts surrounding national capital.
2. The study has also been limited to boys section only.

SIGNIFICANCE

1. Norms of motor fitness have been prescribed and thus the study will serve as a guideline to the teachers of physical education and to further research projects in this field and related.
2. The study shall help in spotting talented and potential athletes.
3. The study shall also be helpful in planning out a programme of physical education in schools on the basis of findings and conducting test.

HYPOTHESIS

The investigator has following hypothesis for this study:

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

PURPOSE OF THE STUDY

1. The study determines the status of the students in motor fitness.

2. The study will also be helpful in measuring progress of the boys in motor fitness.

3. The study will serve as basis for setting personal motor fitness goal for the schools boys.

4. The selected tests measure the health related component of motor fitness and can be administered with ease and consistency.
5. Motor fitness measurement will help in evaluating present conditions and shall assist in setting reasonable goals.

6. The tests shall serve as a highly effective – motivational device.

Sample

1200 school boys of the 4 districts of Haryana were randomly selected as per details below:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Age Group</th>
<th>Rural sample</th>
<th>Urban sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>16 to 17 years</td>
<td>300</td>
<td>300</td>
<td>600</td>
</tr>
<tr>
<td>2</td>
<td>17 to 18 years</td>
<td>300</td>
<td>300</td>
<td>600</td>
</tr>
</tbody>
</table>

The multi-staged randomization technique was applied to selected the sample. The boys were studying in classes from 11th and 12th. Performance of the boys was recorded on each of the following items.

1. 50 meters run
2. Shot put
3. Standing broad jump
4. Zig Zag run
5. Sit ups
6. Step test

For testing the effect of environment (rural and urban) on the performance, the boys in each group were divided into three groups: rural, urban, and mixed group. The performance of rural and urban boys in each group have also been compared.

Statistical Design

The data has been analyzed by calculating the mean, standard deviation, and t-ratio. The norms have been prepared in terms of percentile rank for different events for each age group.

Results and Discussion

The results of the study have been presented in the following sections:

1. The difference between scores of the rural and urban students of different age group at different events of motor fitness.
2. Explanation of motor fitness through measures of central tendency.
3. Physical fitness norms for the boys of the age group 16 to 17 and 17 to 18 years.

**Frequency Distribution**

Frequency distribution of all the events for different age groups have been presented in tables. A careful review of these tables reveals that the distribution are more or less normal. The results have also been presented graphically in figures.

**Comparison of the urban and rural group**

16 to 17 years

The whole sample of each age group has been divided in three groups, i.e. urban group, rural group and the mixed group. Mean, S.D. and t – ratio of these groups have been presented in table 8 to 10.

In the first age group 16 to 17 years there is no significant difference at .01 level in the event of 50 meters run, zig zag run, sit
ups and step test. The urban boys have shown slightly better performance at standing broad jump; but the range of performance shows that 70 percent of the boys in both groups have almost shown similar pattern of performance, which means that there is no remarkable difference in the performance of urban and rural boys.

**17 to 18 years**

The statistical analysis have shown that there is no significant difference at .01 level in the performance of urban and rural group in the events of 50 meters run, shot put, sit ups and step test. Though some difference has been seen in the event of standing broad jump and zig zag run where rural group has shown better performance but the difference is not very significant as the range of performance is almost similar.
Norms for difference events

Norms in terms of percentile rank for two groups are presented in table 15 and 16. $P_5$ and $P_{95}$ of each event in each age group are presented here for comparison.

<table>
<thead>
<tr>
<th>S. No</th>
<th>Events</th>
<th>16 to 17 years of age</th>
<th>17 to 18 years of age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$P_5$</td>
<td>$P_{95}$</td>
</tr>
<tr>
<td>1.</td>
<td>50 meter run</td>
<td>8.96 sec.</td>
<td>7.21 sec.</td>
</tr>
<tr>
<td>2.</td>
<td>Shot put</td>
<td>4.04 mts</td>
<td>7.57 mts</td>
</tr>
<tr>
<td>3.</td>
<td>Standing broad jump</td>
<td>1.58 mts</td>
<td>2.28 mts</td>
</tr>
<tr>
<td>5.</td>
<td>Sit ups</td>
<td>16</td>
<td>51</td>
</tr>
<tr>
<td>6.</td>
<td>Step test</td>
<td>19.12</td>
<td>75.69</td>
</tr>
</tbody>
</table>

The above comparison indicates that the boys in upper age groups have shown better performance than the lower age group which indicate performance has increased with growth.
The mean and S.D. comparison of these group are given below for further comparison.

<table>
<thead>
<tr>
<th>S. No</th>
<th>Events</th>
<th>16 to 17 years of age</th>
<th>17 to 18 years of age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>1.</td>
<td>50 meter run</td>
<td>8.079 sec</td>
<td>.488</td>
</tr>
<tr>
<td>2.</td>
<td>Shot put</td>
<td>5.804 mtr</td>
<td>1.074</td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td>43.423</td>
<td>16.79</td>
</tr>
</tbody>
</table>

The above comparison also indicate that with growth the mean value performance have also increased.