CHAPTER III
DESIGN OF THE STUDY

In order to have a successful study the procedure adopted is of vital importance in any research study. In this chapter, the procedure for the source of data, selection of subjects, criterion measures, administration of the tests and collection of data are described.

SOURCE OF DATA

For this study 2000 students from Sr. Secondary School of Delhi was selected. All the 2000 students acted as the sources of data.

COLLECTION OF DATA

The data pertaining to this study was collected from 2000 students studying in Sr. Secondary School of Delhi by administering AAHPER Youth Physical Fitness Test and the socio-economic status scale questionnaire of Kulsherestha.

The criterion measures adopted for the study were-

1. Physical fitness was measured by administering AAHPER Youth Physical Fitness Test Battery.

2. Scholastic Standard was assessed by the Harvard Step Test.
Pull-Up
3. Socio-economic status was measured by administering the
socio economic status scale questionnaire of Kulshrestha and
Day).

ADMINISTRATION OF TESTS

AAHPER Youth fitness test battery was used to measure the
physical fitness of the subjects. The test was conducted in two days
consequently. The test items-pull-ups, bent knee sit-ups and 50 yard
dash were conducted on the first day and remaining three items i.e.
shuttle run, standing broad jump and 600 yards run/walk on the second
day in accordance with the instructions given for AAHPER Youth fit-
ness Test.

PULL-UP

Each subject performed as many pull-up as he could possibly
do in the manner described below from a horizontal bar of enough height
so that the feet of the tallest boy did not touch the floor when performing
the test.

In taking the pull-up test, the subject hang from the bar by his
hand with forward hand grip and chinned himself as many time as he
could. In executing the movement, he pulled himself up until his chin
was over straight. Swings of the body, raising of the knees and kicking
of the legs were not permitted.

SCORING

The number of completed pull-ups were recorded as the scores
Bent Knee Sit-Up

Shuttle Run
BENT KNEE SIT-UP

Each subject was asked to do as many sit-ups as he could perform in a minute in the manner described below.

The subjects assumed a supine lying position, knee bent at an angle less than 90 degrees, and hands grasped behind the neck. The feet were held down by a partner. To perform the sit-ups the subjects brought his head and elbows towards knees. In returning to the supine position, the elbows touched the knees each time.

SCORING

The number of completed sit-ups were recorded as the score of the abdominal muscle strength.

SHUTTLE RUN

Two parallel lines were marked on the ground, ten yard apart. One of the lines was the starting line and the other was the restraining line. Two-wooden block were placed behind the restricted line in each of the two lanes provided for.

Two subjects selected at random position themselves behind the starting line. On the sound of the clapper, they ran to the opposite restraining line, picked-up a block, ran back to the starting line, placed the block behind it, ran back and pick up the second block and carried it across the starting lines. Two timers took the time taken to run between the start and crossing the same and second return. Two trials were allowed with an interval during which another pair of students were tested.
Standing Broad Jump

50 Yard Dash
SCORING

Better timing of the two trials were recorded to the nearest one tenth of a second as the score for agility.

STANDING BROAD JUMP

A line was drawn at the edges of the take off board. The subject was asked to take position on the take-off board with toes touching on the takeoff board toes touching the line, feet slightly apart. Taking off from both feet simultaneously, he jumped to cover maximum possible horizontal distance, landing on both feet. While jumping, he crouched slightly and swings the arms to aid the jump. Three trials were given to each subject, the jumping pit was filled with fine river sand and frequently leveled with a long wooden block.

Measurement was taken from edge of the take-off board to the heel or other part of the body, that touched the pit nearest to the take-off board.

SCORING

Best of three trials was recorded in meters and centimeters as the score for explosive strength of leg muscles.

50 YARD DASH

A track of 50 yards straight was marked on the football field to conduct this test.
Harvard Step Test
HARVARD STEP TEST

Equipments and Facilities:-

Stop watch, Metronome, 20 inch step up bench, score sheet.

TEST DESCRIPTION

The subject took the position in front of the step up bench. The starter gave the signal "Go" on the command "Up-Up" or the first sound of metronome the subject placed one foot fully on the bench with body erect, straightened his legs and back, and immediately steps down again, one foot at a time. The pace "up-2-3-4-, up-2-3-4 or the tick-tick sound of metronome was followed. The subject was also restricted to repeat the stepping "up-up" and "down-down" exercise for five minutes. Exactly one minute after the exercise the tester started counting the pulse rate and recorded the same for the duration from one to one half, from two to two and one-half, and from three to three and one-half minute. Then the following formula was employed to find out the P.E.I. score.

SCORING

\[
\text{Index} = \frac{(\text{Duration of exercise in second}) \times 100}{2 \times (\text{sum of pulse counts in recovery})}
\]
For determining the socio-economic status of the subjects, the students were assembled in batches of 25 in a class room and the copies of questionnaire were distributed. They were explained the purpose and method of filling in the questionnaire. Their quarries were appropriately answered. Adequate time was given to the students to fill-up the questionnaire.

Scoring was done as per instructions in the scoring key of the questionnaire and the cores entered in the spaces on the questionnaire.