CHAPTER-III

PROCEDURE
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In this chapter, the selection of the subjects, reliability of the data, criterion measures, collection of data, description of the test, statistical procedure of analysing the data are represented.

SELECTION OF THE SUBJECTS

For the purpose of the present study one hundred male state and national level players from the fields of boxing, judo and tae-kwondo were chosen. The age groups of the chosen subjects ranged from 17 years to 25 years.

RELIABILITY OF DATA

The reliability of data was measured by ensuring instrument reliability and tester competency.

RELIABILITY OF INSTRUMENT

The instrument used to the study was procured from Anthropology Department, Manipur University, Physical Education Department, D.M.College of Science and Sports Authority of India,
Manipur which supplied by well known manufacturers catering to research laboratories and hence was considered accurate and reliable.

**TESTER RELIABILITY**

To ensure that the investigation is well versed with techniques of conducting the tests, the investigation had a number of practice sessions in testing procedure, under the guidance of the expert. The investigator took all the measurements with the assistance of qualified testers, who were also well acquainted with the tests.

Tester reliability was established by test – retest process where by consistency of a result was obtained by product moment correlation. The data collected from a randomly selected sample of five subjects in test re-test was correlated.

Since very high correlations from .85 to .99 were obtained for the variables, the competency of the tester to administer the tests was accepted.
COLLECTION OF DATA

The necessary data was collected by administering the tests for the chosen variables. All the tests were administered in the different grounds (Khuman Lampak Stadium, SAI Hall, Takyelpat Sports Authority of India Hall).

Before the administration of the tests the subjects were briefed on the objectives and requirements of the various variables that were to be tested. All were given a chance to practice and to get familiar with the desired test. The apparatus and the procedure were explained prior to the administration of tests.

ADMINISTRATION OF TESTS

The test in all the selected muscular strength, flexibility, muscular power, agility, muscular endurance cardio-vascular respiratory endurance and speed variables were administered in Manipur. All the subjects were proper oriented to the testing procedures and therefore they were allowed a few trials so that the learning effect could be minimized before finally collecting data.

For the purpose of establishing reliability of data the tests for muscular strength, flexibility muscular power, agility, muscular
endurance cardio-vascular respiratory endurance and speed were taken vary carefully and the average was recorded, as a final data.

**PULL UPS (for Boys)**

**Item No.1:**

**Direction:** The bar should be located high enough so that the feet of the tallest body do not touch the floor when performing the test.

In taking the pull-up test the subject hangs from the bar by his hands with forward hand grip and chins himself as many times as he can. In executing the movement he should pull himself up lift his chin is even with his hands, then lower himself with his arms are straight. He should not be permitted to kick, jerk or use a kip motion.

Half counts are recorded if the subject does not pull the way up, if he does not straighten his arms completing when lower ring the body or if he kicks, jerk or kip in performing the movement only four half counts are permitted.
BENT KNEE SIT-UP
(Item No.2)

Direction: (Abdominal Strength): This test measures the strength of the abdominal muscles. The subject lay supine on a mat with his knees flexed, making an approximately 90° angle between the thighs and the lower legs. His hands were locked behind the neck, one person held the feet of the subject. From this position, the subject raised his upper body till his chest touched the thighs this constituted one sit-ups. Then the upper body was lowered to the original position till both the shoulders touched the mat. Without pause, the upper body was raised again for the next sit-up. In the manner, continuously and at a medium pace, maximum possible sit-ups were done. The total number of sit-ups done was the score of the subjects.

SHUTTLE RUN-1
(Item No.3):

Instrument: (Stop-Watch)

Direction: Two blocks of wood tow by four inches one used, the pupils were sneakers or men bare footed. Two parallel times are marked on the floor 30 feet apart. The blocks are placed behind
one of the times the subjects start from behind the other, or starting time. The test consists of running to the blocks and bringing them to the starting time one at a time and placing behind the starting time. Two trials are allowed with some rest between.

**Scoring:** Recorded the time of the best of the two trials to the nearest of a second.

**STANDING BROAD JUMP**

*Item No.4 (Leg Strength)*

**Instrument:** Measuring Tape.

**Direction:** This test measures the explosive strength of the leg extensor muscles. The subject stood just behind take off line about one meter away from the jumping area. Both tests were parallel and several inches apart. He did preparatory movement by bending his knee and swinging his arms and jumped forward without touching the take-off line. There was no double jump and both feet left the ground simultaneously. Three trials were permitted in succession and the best distance jump was taken as his score.
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50 YARD DASH

ITEM NO. 5

Instrument: (Stop-Watch)

Direction: The pupil takes a position behind the starting line. The starter uses the commands. “Are you ready? And Go”. The word ‘go’ is accompanied by a downward sweep of the starter’s arm as a signal to the timer. More than one pupil may run at a time if sufficient stop-watches are available.

Scoring: The scores recorded in seconds to the nearest tenth of a second.

600 YARD DASH RUN-WALK

(Item No.6):

Instruments: (stop-watch)

The pupil uses a standing start. At the signals “Ready”? and ‘go. The subject starts running the 600 yard-distance, the running may be interspersed with walking.

Scoring: Time is recorded in minutes and seconds.
COLLECTION OF DATA:

The basic motor fitness of all the subjects were tested according to the AAHPERD test. The data were collected and recorded for further statistical analysis.