Chapter III

PROCEDURE

In this chapter the procedure adopted for the selection of the subjects, criterion measure, reliability of data, procedure for administering the test, design of the study, administration of training and the statistical techniques used for analysing the data have been discussed.

Subjects

Eighty boys from Bilthai Higher Secondary School and Panisagar High School of Tripura were selected as subjects for the study on the basis of best performance in 100 metres sprinting. The average age of the subjects was sixteen years, ranging between fifteen and eighteen years, as obtained from school records.

In order to ensure medical fitness of the subjects, their medical examinations were conducted by qualified doctors. The examination indicated that all the subjects were medically fit to undergo the testing and training requirements for this investigation.
The requirements of the research study were explained to all the subjects in the presence of the Headmaster and Physical Education teacher of the School concern and all of them agreed voluntarily to undergo the testing and training programmes. A thorough orientation of the rigid requirements of the experimental procedures - testing as well as exercise schedules - were explained to the students so that there was no ambiguity regarding the effort required on their part and what hardships they might have to endure. Headmaster and Physical Education Teacher of the respective schools urged the subjects to cooperate in the study even though they might have to work hard, in the interest of new scientific findings and improvements in their own performance levels. No special technique was used to motivate the subjects to put in their best efforts, but the subjects were very enthusiastic and cooperative throughout the project.

The subjects were fairly well developed physically as they were from the rural areas. They had fair acquaintance and appreciation for sports though they were taking part only in the required programme of physical education in the school. The subjects were oriented to the testing and training procedures for one week to eliminate
the learning effect.

The subjects were exempted from attending the required programme of Physical Education of the School and were asked not to take part in any voluntary sports programme or unusual physical exertions.

The subjects were, at random, assigned to three experimental groups and one control group, each consisting of twenty subjects. The experimental groups were speed-strength dominated training group (Group A), Speed-Endurance dominated training group (Group B) and Strength-Endurance dominated group (Group C).

Performance of the subjects in 100-metres run was taken at the beginning and after an experimental period of ten weeks. This period commenced from 20th January, 1987 and concluded on 30th March, 1987. The period chosen was immediately after the Annual Examination, so that there were no disturbances due to anxiety to prepare for the examination and also because of favourable climatic conditions.

**Criterion Measure**

The criterion measure chosen to find out the effect of speed - strength dominated training, speed -
Endurance dominated training and Strength - Endurance dominated training on sprinting speed was as follows:

Time taken by the subjects to run a distance of 100 metres as fast as possible recorded to the nearest 1/10th of a second. The time was clocked with the help of stop watches which were properly calibrated and synchronised.

Reliability of Data

The reliability of data was ensured by establishing instrument reliability and tester competency.

Instrument Reliability

The stop watches used in this study were supplied to the Regional College of Physical Education, Panisagar, Tripura, by the Bionicks, well known manufacturer of Delhi and were got calibrated before use through Chakravorty Watch Company a renowned Watch Dealer of Tripura. These stop watches were also used during the Senior National athletic Championship held at Agartala, Tripura.

Therefore, all the stop watches used for measuring the performance of the subjects were considered
reliable and precise enough for the collection of data needed for the study.

Tester Competency and Reliability of the Test

The tester competency was evaluated together with the reliability of the test. To determine the reliability of test, data on 100 metres sprint performance were recorded twice with a gap of one day in between under identical conditions on fifteen subjects selected at random from the entire group. The scores thus obtained on two occasions were correlated using Pearson Product Moment Correlation Method. The correlation of coefficient of .887 thus obtained shows that data were reliable.

Procedure for Administering the Test

All the subjects were assembled at the Track of the Regional College of Physical Education, Panisagar, Tripura. They were briefed on the objectives and the requirements of the test. A demonstration was conducted regarding the standing start in order to familiarise them with the manner in which they would start. All the doubts regarding the start was removed before actual collection of data.
The subjects practised the test for a week in order to eliminate the learning effects before the initial performances were recorded.

The test was conducted on the 400 metre track of the above mentioned College of Physical Education. All the eight lanes of 100 metres straight were properly marked. The subjects were instructed to warm-up on their own in order to gain best performance and avoid possible injuries. The subjects were started in groups of four and assigned chest numbers for identification by the judges and timekeepers.

Sprinting Speed Test (100 Metres Dash)

a) **Equipment used and Marking.**

Clapper and Stop watches.

100 metres distance was measured with five parallel lines with a gap of 1.22 metres in between each two consecutive lines.

b) **Description of the Test.**

All the subjects ran bare-footed. Standing start was adopted by all. The starting command used by research scholar was "on your marks", "set", and in place of "go"
the clapper was sounded. Before starting in the test
the subjects were instructed to keep their own lanes.
Three time keepers at the finishing line took time of
each subject.

c) Rules.

The conduct of the test and recording of the
official timing for each subject was as per the rules
and regulation prescribed by the International Amateur
Athletic Federation.

d) Scoring.

The elapsed time from the starting signal until
the runner's torso crossed the finish line was recorded
to the nearest one tenth of a second as score for each
subject.

Design of the Study

For the present study the experimental design
adopted was random group design. Equal number of subjects
were assigned randomly to four groups of twenty subjects
each. The experimental treatment were also assigned
randomly to the three experimental groups (A, B and C)
and control group (D). The three experimental groups were
administered three different kinds of training programmes for the development of sprinting speed. One group was trained with the method of speed-strength dominated training load (Group A), the second group with the speed-endurance dominated training load (Group B), and the third group with the strength-endurance dominated training load (Group C). The training sessions were conducted thrice a week i.e., on Monday, Wednesday and Friday. Timing for 100 metres sprint was taken before and after an experimental period of ten weeks. The subjects were exempted from attending the required programme of Physical Education of the School and also advised not to take part in any voluntary sports programme or unusual physical exertions so that physical activities remained uniform for all the groups chosen for the study.

Administration of Training

Training sessions for Group A (Speed - Strength dominated group) were conducted at the Balthai Higher Secondary School, while the Group B (Speed - Endurance dominated group) and Group C (Strength - Endurance dominated group) trained at the Panisagar High School. The experimental groups met 3 days per week for the
period of ten weeks (January 20, 1987 to March 30, 1987). The first two weeks training for all the experimental groups was for physical conditioning, so that, physical and physiological systems of the subjects were ready to undertake the specific load administered to them for the purpose of the study.

PHYSICAL CONDITIONING PROGRAMMES FOR THE EXPERIMENTAL GROUPS

1. Jog for 400 metres.
2. Jogging backward for 50 metres, then changing direction and jog 50 metres 4-5 times.
3. Jog 2x50 metres slowly bending to touch ground (3 point-start) and gradually accelerate 10 to 15 metres.
5. Easy Jog and bending over to touch the toes.
6. Skipping 50 metres without a rope with arms swinging.
7. Walk 50 metres swinging the arms forward.
8. Walk 50 metres swinging the arms backward.
9. Jog 50 metres doing alternate knee lifts to the front and high knee action on spot with emphasis on action of the hands.
10. Jog 2x50 metres doing cross steps. (running side ways) with arms crossed infront of the body and changing directions.

11. Walk several times 50 metres doing various flexibility movements: alternate toe touching (bouncing in nature), hip circles (twists) ankle extensions (achilles stretch).

12. Flexibility exercises with partners.

13. Calf stretching drills.

14. Hamstring and quadriceps stretching drills.

15. Some hurdles drills.

16. 2-3 x 40 metres acceleration runs.

17. Sit-ups with knee flexed.

18. Proper limbering down.

After the two weeks of conditioning programmes, the training was administered separately for the three experimental groups for eight weeks more. Details of which are as follows:
GROUP - A

TRAINING PROGRAMME FOR SPEED-STRENGTH DOMINATED GROUP

Third and Fourth Weeks

Monday

a) 15-20 minutes warm-up.

b) 80 metres Acceleration Run x 4 Rept.  
   Intensity 80-100%.

c) Weight Training with 30% of Weight of  
   Maximum Load.

   Half Squat  6-12 Rept. x 2 sets.

   Split Squat 6-12 Rept. x 2 sets.

   Stride Jump 6-12 Rept. x 2 sets.

   Sprint Arm Action (with Dumble) 6-12 Rept. x 2 sets.

   Exercise for Ham-string (with iron shoe). 6-12 Rept. x 2 sets.

   Exercises for Quadriceps (with iron shoe) 6-12 Rept. x 2 sets.

d) Proper limbering down.

Tuesday   Active rest.

Wednesday  a) 15-20 minutes Warm-up.

b) 120 metres Ins and Outs Run x 3 Rept.  
   Intensity 80-100%.

c) Weight Training with 30% of Weight of  
   Maximum Load.
Half Squat 6-12 Rept. x 2 sets.
Stride Stretching (with weight) 6-12 Rept. x 2 sets.
Leg Curl (with iron shoe) 6-12 Rept. x 2 sets.
Bench Press 6-12 Rept. x 2 sets.
Heel Raise 6-12 Rept. x 2 sets.

d) Proper limbering down.

Thursday
Active rest.

Friday
a) 15-20 minutes Warm-up.
b) 60 metres Acceleration Run x 6 Rept.
   Intensity 80-100%
c) Weight Training with 30% of Weight of
   Maximum Load.
Split Squat 6-12 Rept. x 2 sets.
Stride Stretching (with weight) 6-12 Rept. x 2 sets.
High Knee action 6-12 Rept. x 2 sets.
(Weight on shoulder)
Exercise for Hamstring (with iron shoe) 6-12 Rept. x 2 sets.
Exercises for Quadriceps (with iron shoe) 6-12 Rept. x 2 sets.

d) Proper Limbering down.

Saturday
Active rest.
Fifth and Sixth Weeks

Monday

a) 15-20 minutes Warm-up.

b) 80 Metres Acceleration Run x 5 Rept.  
   Intensity 80-100%

c) Weight Training with 40% of Weight of  
   Maximum Load.

   Half Squat  8-12 Rept. x 2 sets.
   Split Squat 8-12 Rept. x 2 sets.
   Stride Jump 8-12 Rept. x 2 sets.
   Sprint Arm Action 8-12 Rept. x 2 sets.  
   (with Dumbbells)

   Exercises for 8-12 Rept. x 2 sets.
   Hamstring  
   (with iron shoe)

   Exercises for 8-12 Rept. x 2 sets.
   Quadiceps  
   (with iron shoe)

   d) Proper limbering down.

Tuesday

Active rest.

Wednesday

a) 15-20 minutes Warm-up.

b) 120 metres Ins and Outs Run x 4 Rept.  
   Intensity 80-100%

c) Weight Training with 40% of Weight of  
   Maximum Load.
Half Squat 8-12 Rept. x 2 sets.
Stride Stretching 8-12 Rept. x 2 sets.
(with Weight on shoulder)
Leg Curl 8-12 Rept. x 2 sets.
(with iron shoe)
Bench Press 8-12 Rept. x 2 sets.
Heel Raise 8-12 Rept. x 2 sets.
d) Proper Limbering down.

Thursday  Active rest.

Friday  a) 15-20 minutes Warm-up.

b) 60 metres Acceleration Run x 6 Rept.
Intensity 80-100%

c) Weight Training with 40% of Weight of Maximum Load.

Split Squat 8-12 Rept. x 2 sets.
Stride Stretching 8-12 Rept. x 2 sets.
(with Wt. on Shoulder)
High Knee Action 8-12 Rept. x 2 sets.
(with Wt. on Shoulder)
Exercise for Hamstring 8-12 Rept. x 2 sets.
(with iron shoe)
Exercise for Quadriceps 8-12 Rept. x 2 sets.
(with iron shoe)
d) Proper Limbering down.

Saturday  Active rest.
Seventh and Eighth Weeks

Monday

a) 15-20 minutes Warm-up.

b) 80 Metres Acceleration Run x 6 Rept.
   Intensity 80-100%

c) Weight Training with 50% of Weight of Maximum Load.

   Half Squat  8-12 Rept. x 3 sets.
   Split Squat 8-12 Rept. x 3 sets.
   Stride Jump 8-12 Rept. x 3 sets.
   Sprint Arm Action (with Dumble) 8-12 Rept. x 3 sets.
   Exercise for Hamstring (with iron shoe) 8-12 Rept. x 3 sets.
   Exercise for Quadriceps (with iron shoe) 8-12 Rept. x 3 sets.

d) Proper Limbering down.

Tuesday

Active rest.

Wednesday

a) 15 - 20 minutes Warm-up.

b) 120 metres Ins and Outs Run x 5 Rept.
   Intensity 80-100%

c) Weight training with 50% of Weight of Maximum Load.

   Half Squat  8-12 Rept. x 3 sets.
   Stride Stretching 8-12 Rept. x 3 sets.
   (with Wt. on shoulder)
Leg Curl (with iron shoe) 8-12 Rept. x 3 sets.
Bench press 8-12 Rept. x 3 sets.
Heel raise 8-12 Rept. x 3 sets.
d) Proper Limbering down.

Thursday Active rest.

Friday
a) 15-20 minutes Warm-up.
b) 60 metres Acceleration Run x 7 Rept.
   Intensity 80-100%
c) Weight training with 50% of weight of
   Maximum Load.

Split Squat 8-12 Rept. x 3 sets.
Stride Stretching 8-12 Rept. x 3 sets.
   (with Wt. on shoulder)
High knee action 8-12 Rept. x 3 sets.
   (with Wt. on shoulder)
Exercise for hamstring 8-12 Rept. x 3 sets.
   (with iron shoe)
Exercise for Quadriceps 8-12 Rept. x 3 sets.
   (with iron shoe).
d) Proper Limbering down.

Saturday Active rest.
Ninth and Tenth Weeks

Monday

a) 15-20 minutes Warm-up.

b) 80 metres Acceleration Run x 6 Rept. 
   Intensity 80-100 %

c) Weight training with 50% of Weight of 
   Maximum Load.

Half Squat 10-14 Rept. x 3 sets.

Split Squat 10-14 Rept. x 3 sets.

Stride Jump 10-14 Rept. x 3 sets.

Sprint Arm Action 
   (with Dumble) 10-14 Rept. x 3 sets.

Exercise for 
   Hamstring 
   (with iron shoe) 10-14 Rept. x 3 sets.

Exercise for 
   Quadriceps 
   (with iron shoe) 10-14 Rept. x 3 sets.

d) Proper Limbering 
   down.

Tuesday

Active rest.

Wednesday

a) 15-20 minutes Warm-up.

b) 120 metres Ins and Outs Run x 5 Rept. 
   Intensity 80-100%

c) Weight Training with 50% of Weight of 
   Maximum Load.

Half Squat 10-14 Rept. x 3 sets.

Stride Stretching 10-14 Rept. x 3 sets. 
   (with Wt. on shoulder)
Leg curl (with iron shoe) 10-14 Rept. x 3 sets.
Bench Press 10-14 Rept. x 3 sets.
Heel raise 10-14 Rept. x 3 sets.
d) Proper Limbering down.

Thursday Active rest.

Friday
a) 15-20 minutes Warm-up.
b) 60 metres Acceleration Run x 7 Rept.
   Intensity 80-100%
c) Weight Training with 50% of Weight of
   Maximum Load.
Split Squat 10-14 Rept. x 3 sets.
Stride Stretching 10-14 Rept. x 3 sets.
   (with Wt. on shoulder)
High knee action 10-14 Rept. x 3 sets.
   (with Wt. on shoulder)
Exercise for hamstring 10-14 Rept. x 3 sets.
   (with iron shoe)
Exercise for Quadriceps 10-14 Rept. x 3 sets.
   (with iron shoe)
d) Proper Limbering down.

Saturday Active rest.
GROUP - B

TRAINING PROGRAMME FOR SPEED-ENDURANCE DOMINATED GROUP

Third and Fourth Weeks

Monday

a) 15-20 minutes Warm-up.

b) 80 metres Acceleration Run x 4 Rept.
   Intensity 80-100%

c) Interval Running - 120x2, 150x1, 200x1
   Intensity 70%

d) Proper Limbering down.

Tuesday

Active rest.

Wednesday

a) 15-20 minutes Warm-up.

b) 120 metres Ins and Outs Run x 3 Rept.
   Intensity 80-100%

c) 20 minutes continuous Run
   Intensity 60%

d) Proper Limbering down.

Thursday

Active rest.

Friday

a) 15-20 minutes Warm-up.

b) 60 metres Acceleration Run x 6 Rept.
   Intensity 80-100%

c) Interval Running - 120x2, 150x1, 200x1
   Intensity 70%

d) Proper Limbering down.

Saturday

Active rest.
Fifth and Sixth Weeks

Monday

a) 15-20 minutes Warm-up.

b) 80 mètres Acceleration Run x 5 Rept.
   Intensity 80-100%

c) Interval Running - 120x2, 150x2, 200x1.
   Intensity 70%

d) Proper Limbering down.

Tuesday

Active rest.

Wednesday

a) 15-20 minutes Warm-up.

b) 120 metres Ins and Outs Run x 4 Rept.
   Intensity 80-100%

c) 20 minutes continuous Run.
   Intensity 60%

d) Proper Limbering down.

Thursday

Active rest.

Friday

a) 15-20 minutes Warm-up.

b) 60 metres Acceleration Run x 6 Rept.
   Intensity 80-100%

c) Interval Running 120x2, 150x2; 200x1.
   Intensity 70%

d) Proper Limbering down.

Saturday

Active rest.
Seventh and Eighth Weeks

Monday
a) 15-20 minutes Warm-up.

b) 80 metres. Acceleration Run x 6 Rept.
   Intensity 80-100%.

c) Interval Running - 120x3, 150x2, 200x1.
   Intensity 70%.

d) Proper Limbering down.

Tuesday
Active rest.

Wednesday
a) 15-20 minutes Warm-up.

b) 120 metres Ins and Outs Run x 5 Rept.
   Intensity 80-100%.

c) 25 minutes continuous Run.
   Intensity 60%.

d) Proper Limbering down.

Thursday
Active rest.

Friday
a) 15-20 minutes Warm-up.

b) 60 Metres Acceleration Run x 7 Rept.
   Intensity 80-100%.

c) Interval run - 120x3, 150x2, 200x1.
   Intensity 70%.

d) Proper Limbering down.

Saturday
Active rest.
Ninth and Tenth Weeks

Monday
a) 15-20 minutes Warm-up.
b) 80 metres Acceleration Run x 6 Rept.
   Intensity 80-100%
c) Interval Running - 120x4, 150x2, 200x1.
   Intensity 70%
d) Proper Limbering down.

Tuesday
Active rest.

Wednesday
a) 15-20 minutes Warm-up.
b) 120 metres Ins and Outs Run x 5 Rept.
   Intensity 80-100 %
c) 30 minutes continuous Run.
   Intensity 60%
d) Proper Limbering down.

Thursday
Active rest.

Friday
a) 15-20 minutes Warm-up.
b) 60 Metres Acceleration Run x 7 Rept.
   Intensity 80-100%
c) Interval Running - 120x4, 150x2, 200x1.
   Intensity 70%
d) Proper Limbering Down.

Saturday
Active rest.
GROUP - C

TRAINING PROGRAMME FOR STRENGTH-ENDURANCE DOMINATED GROUP

Third and Fourth Weeks

Monday

a) 15-20 Minutes Warm-up.

b) Weight Training with 30% of Weight of Maximum Load.

Half Squat 6-12 Rept. x 2 sets.
Split Squat 6-12 Rept. x 2 sets.
Stride Jump 6-12 Rept. x 2 sets.
Sprint Arm Action (with Dumble) 6-12 Rept. x 2 sets.
Exercise for Hamstring (with iron shoe) 6-12 Rept. x 2 sets.
Exercise for Quadriceps (with iron shoe) 6-12 Rept. x 2 sets.

c) Interval Running - 120x2, 150x1, 200x1.
Intensity 70%

d) Proper Limbering down.

Tuesday

Active Rest.

Wednesday

a) 15-20 Minutes Warm-up.

b) Weight Training with 30% of Weight of Maximum Load.

Half Squat 6-12 Rept. x 2 sets.
Stride Stretching (with weight) 6-12 Rept. x 2 sets.
Leg Curl 6-12 Rept. x 2 sets.  
(with iron shoe)

Bench Press 6-12 Rept. x 2 sets.

Heel Raise 6-12 Rept. x 2 sets.

c) 20 Minutes Continuous Run.  
Intensity 60%

d) Proper Limbering down.

Thursday  
Active rest.

Friday  
a) 15-20 minutes Warm-up.

b) Weight Training with 30% of Weight of Maximum Load.

Split Squat 6-12 Rept. x 2 sets.

Stride Stretching 6-12 Rept. x 2 sets.  
(with weight)

High Knee action 6-12 Rept. x 2 sets.  
(with weight on shoulder)

Exercise for Hamstring 6-12 Rept. x 2 sets.  
(with iron shoe)

Exercises for Quadriceps. 6-12 Rept. x 2 sets.  
(with iron shoe)

c) Interval Running - 120x2, 150x1, 200x1.  
Intensity 70%

Saturday  
Active rest.
Fifth and Sixth Weeks

Monday

a) 15-20 minutes Warm-up.

b) Weight Training with 40% of Weight of Maximum load.

Half Squat 8-12 Rept. x 2 sets.
Split Squat 8-12 Rept. x 2 sets.
Stride Jump 8-12 Rept. x 2 sets.
Sprint Arm Action (with Dumble) 8-12 Rept. x 2 sets.
Exercise for Hamstring (with iron shoe) 8-12 Rept. x 2 sets.
Exercises for Quadriceps (with iron shoe) 8-12 Rept. x 2 sets.
c) Interval Running - 120x2, 150x2, 200x1. Intensity 70%
d) Proper Limbering down.

Tuesday

Active Rest.

Wednesday

a) 15-20 minutes Warm-up.

b) Weight Training with 40% of Weight of Maximum load.

Half Squat 8-12 Rept. x 2 sets.
Stride Stretching 8-12 Rept. x 2 sets. (with weight on shoulder)
Leg Curl 8-12 Rept. x 2 sets.
(with iron shoe)

Bench Press 8-12 Rept. x 2 sets.

Heel Raise 8-12 Rept. x 2 sets.

c) 20 Minutes continuous Run.
   Intensity 60%

d) Proper Limbering down.

Thursday Active rest.

Friday a) 15-20 minutes Warm-up.

b) Weight Training with 40% of Weight of
   Maximum Load.

Split Squat 8-12 Rept. x 2 sets.

Stride Stretching 8-12 Rept. x 2 sets.
   (with weight on shoulder)

High knee action 8-12 Rept. x 2 sets.
   (with weight on shoulder)

Exercise for Hamstring
   (with iron shoe) 8-12 Rept. x 2 sets.

Exercise for
   Quadriceps
   (with iron shoe)

c) Interval Running - 120x2, 150x2, 200x1.
   Intensity 70%

d) Proper Limbering down.

Saturday Active rest.
Seventh and Eighth Weeks

Monday

a) 15-20 Min. Warm-up.

b) Weight Training with 50% of Weight of Maximum Load.

Half Squat 8-12 Rept. x 3 sets.
Split Squat 8-12 Rept. x 3 sets.
Stride Jump 8-12 Rept. x 3 sets.
Sprint Arm Action (with Dumble) 8-12 Rept. x 3 sets.

Exercise for Hamstring (with iron shoe) 8-12 Rept. x 3 sets.

Exercise for Quadriceps (with iron shoe) 8-12 Rept. x 3 sets.

c) Interval running - 120x3, 150x2, 200x1.
Intensity 70%

d) Proper Limbering down.

Tuesday

Active rest.

Wednesday

a) 15-20 Minutes Warm-up.

b) Weight Training with 50% of Weight of Maximum Load.

Half Squat 8-12 Rept. x 3 sets.
Stride Stretching 8-12 Rept. x 3 sets. (with weight on shoulder)
Leg Curl (with iron shoe) 8-12 Rept. x 3 sets.
Bench Press 8-12 Rept. x 3 sets.

Heel raise 8-12 Rept. x 3 sets.

c) 25 minutes continuous run.
   Intensity 60%

d) Proper limbering down.

Thursday  Active rest.

Friday

a) 15-20 minutes Warm-up.

b) Weight Training with 50% of Weight for Maximum Load.

Split squat. 8-12 Rept. x 3 sets.

Stride Stretching 8-12 Rept. x 3 sets.
   (with weight on shoulder)

High Knee action 8-12 Rept. x 3 sets.
   (weight on shoulder)

Exercise for hamstring,
   (with iron shoe) 8-12 Rept. x 3 sets.

Exercise for Quadriceps
   (with iron shoe)

c) Interval running - 120x3, 150x2, 200x1.
   Intensity 70%

d) Proper limbering down.

Saturday  Active rest.
Ninth and Tenth Weeks

Monday

a) 15-20 minutes Warm-up.

b) Weight Training with 50% weight of Maximum load.

Half Squat 10-14 Rept. x 3 sets.

Split Squat 10-14 Rept. x 3 sets.

Stride Jump 10-14 Rept. x 3 sets.

Sprint Arm Action (with Dumble) 10-14 Rept. x 3 sets.

Exercise for Hamstring (with iron shoe) 10-14 Rept. x 3 sets.

Exercise for Quadriceps (with iron shoe) 10-14 Rept. x 3 sets.

c) Interval Running – 120x4, 150x2, 200x1. Intensity 70%

d) Proper Limbering down.

Tuesday

Active rest.

Wednesday

a) 15-20 minutes Warm-up.

b) Weight training with 50% of weight of Maximum load.

Half Squat 10-14 Rept. x 3 sets.

Stride Stretching – 10-14 Rept. x 3 sets. (weight on shoulder)
Leg Curl 10-14 Rept. x 3 sets. (with iron shoe)
Bench Press 10-14 Rept. x 3 sets.
Heel raise 10-14 Rept. x 3 sets.
c) 30 minutes continuous run.
   Intensity 60%
d) Proper Limbering down.

Thursday
   Active rest.

Friday
a) 15-20 minutes Warm-up.
b) Weight training with 50% of weight of Maximum load.
   Split squat 10-14 Rept. x 3 sets.
   Stride stretching 10-14 Rept. x 3 sets.
      (with weight on shoulder)
   High knee action. 10-14 Rept. x 3 sets.
      (with weight on shoulder)
   Exercise for Hamstring 10-14 Rept. x 3 sets.
      (with iron shoe)
   Exercise for Quadriceps.. 10-14 Rept. x 3 sets.
      (with iron shoe)
c) Interval Running 120x4, 150x2, 200x1.
   Intensity 70%
d) Proper Limbering down.

Saturday
   Active rest.
Statistical Analysis

To find out the effect of training, following statistical techniques were employed:

1. To find out the significance of difference between pre and post-test means, 't' test was employed.

2. To find out the significance of mean difference among pre-test, post-test and adjusted means, analysis of variance and co-variance techniques were employed.