CHAPTER - V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS
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SUMMARY

Sports Training aims to prepare a sportsman for better performance through physical exercise. It is based on the scientific principles of aiming at education and performance enhancement. The improvement of physical fitness includes improvement of general health and organic functions as well as increasing the strength and stability of the muscle-skeletal system. Development of motor skill is also the objective of sports training. Sports activities consist of motor movement and action and their success depends largely on how correctly they are performed. Techniques of training and improvement of tactical efficiency play a vital role in the training process.

Training is a systematic scientific programme of conditioning exercise and physical activities designed to improve the physical fitness and skills of the players. Though many methods prevail to develop power and speed, the role of Maximal Resistance Training and Plyometric Training with varying
intensities is undisputed. Maximal Resistance Training and
plyometric Trainings are now used both men and women of all
ages to improve physical condition. However there is still much
controversy concerning the fixing of intensity.

In this context, the investigator made an attempt to
compare the effects of four different kinds of power training on
selected power and speed related parameters.

The present study was designed to compare the effects of
power training programmes of varying intensities on selected
power and speed related parameters, such as Anaerobic Power,
Explosive Power, Elastic Power, Speed, Stride Length and Speed
Endurance among College men

To achieve the purpose of the study, forty men students
studying Bachelor of Physical Education, Health Education and
Sports in, H.H.The Rajah’s College, Pudukkottai were selected at
random as subjects of this study. The age of the subjects ranged
from 18 to 21 years. The subjects were assigned equally into four
groups of 10 each namely Group-I Maximal Resistance Training
with 60% Intensity, Group-II Maximal Resistance Training with
80% Intensity, Group-III Plyometric Training with 60% Intensity,
Group-IV Plyometric Training with 80% Intensity.
The Experimental Group-I underwent Maximal Resistance Training with 60% Intensity, Group-II underwent Maximal Resistance Training with 80% Intensity, Group-III underwent Plyometric Training with 60% Intensity, and Group-IV underwent Plyometric Training with 80% Intensity for twelve weeks of three days per week in addition to the regular curricular activities.

Among the Power and Speed parameters, the following variables were selected as criterion variables namely Anaerobic Power, Explosive Power, Elastic Power, Speed, Stride Length and Speed Endurance. All the groups were tested on selected criterion variables prior to and immediately after the training periods. Anaerobic Power was assessed by Margaria - Kalamen Anaerobic power Test, Explosive Power was assessed by Vertical Jump Test, Elastic Power was assessed by Bunny Hop Test, Speed and Stride Length were assessed by 50mts run, Speed Endurance was assessed by 150mts Run.

The collected data were analysed by using dependent 't'-test to find out significant improvements. Analysis of covariance (ANCOVA) was used to determine the differences, if any, among the adjusted post-test means. Whenever 'F'-ratio for adjusted
post-test mean was found to be significant, the Scheffe's test was applied as post-hoc test to determine the paired mean differences. The level of significance was fixed at .05 level of confidence for all the cases.

**CONCLUSIONS**

From the analysis of the data, the following conclusions are drawn.

1. The Experimental groups namely, Maximal Resistance Training with 60% Intensity, Maximal Resistance Training with 80% Intensity, Plyometric Training with 60% Intensity and plyometric Training with 80% Intensity groups had significantly improved in Power related variables such as Anaerobic Power, Explosive Power and Elastic Power.

2. The Experimental groups namely, Maximal Resistance Training with 60% Intensity, Maximal Resistance Training with 80% Intensity, Plyometric Training with 60% Intensity and plyometric Training with 80% Intensity groups had significantly improved in Speed related variables such as Speed, Stride Length and Speed Endurance.
3. Significant differences in achievement were found among Maximal Resistance Training with 60% Intensity, Maximal Resistance Training with 80% Intensity, Plyometric Training with 60% Intensity and Plyometric Training with 80% Intensity groups in all the selected criterion variables such as Anaerobic Power, Explosive Power, Elastic Power, Speed, Stride Length and Speed Endurance.

4. Plyometric Training with 60% intensity was found to be better than the other Experimental groups in developing Anaerobic Power, Explosive Power, Elastic Power, Speed, Stride Length and Speed Endurance.

**RECOMMENDATIONS**

1. From the Present Study, it may be concluded that Anaerobic Power, Explosive Power, Elastic Power, Speed, Stride Length and Speed Endurance were improved by Plyometric Training with 60% Intensity. Hence, trainers and Physical Educators could adopt these training to improve Anaerobic Power, Explosive Power, Elastic Power, Speed, Stride Length and Speed Endurance among their athletes.
2. A similar study may be conducted by selecting Physiological variables as criterion variables.

3. A similar study may be attempted by selecting the state or national level athletes or players as subjects.

4. A similar study may be conducted on female subjects.

5. A similar study may be undertaken to analyse the Psychological and Haematological parameters.