

EFFECT OF INTERVEL TRAINING, PLYOMETRIC TRAINING AND STRENGTH TRAINING ON  
THE DEVELOPMENT OF SPEED QUALITY AMONG COLLEGE MEN STUDENT'S

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**Abstract**

The physical fitness over a long span and examination of the same reflect the status of health. Physical examination assesses the growth pattern and functional efficiency of sensory and motor organs, functional efficiency of the body in terms of strength, cardio respiratory endurance, flexibility, speed, agility, balance and neuromuscular co-ordination. The purpose of the study was the effect of interval training, plyometric training and strength training on the development of speed quality among college men students. The finding of the study shows that plyometric training had a significant improvement in speed quality.

**Key words:** , plyometric training, Interval Training, Strength Training

## **Introduction**

The present concept of physical fitness not only freedom from disease, but also to gain enough strength, agility, flexibility, endurance and skill to meet the demands of the daily life and to build sufficient reserve energy withstand stress and strain. Physical fitness is an important outcome of physical education it is physical education in the school system that is most capable of bringing it out. The physical fitness over a long span and examination of the same reflect the status of health. Physical examination assesses the growth pattern and functional efficiency of sensory and motor organs, functional efficiency of the body in terms of strength, cardio respiratory endurance, flexibility, speed, agility, balance and neuromuscular co-ordination. The physical fitness plays a vital role in the performance. An individual physical fitness and performance depend in the co-coordinative functions of the various factors such as physical, physiological abilities, nutrition, technique, tactics, and potential physical challenges of life with success. Numerous training procedures are in vogue to improve each physical and motor fitness quality at various levels. These basic training procedures will serve better when utilized with modifications suited to the individuals or a group dealt with. The best training programmed is that which increases the desired quality at a higher rate without causing unwanted effects.

## **Objectives of the Study**

The purpose of the study was the effect of interval training, plyometric training and strength training on the development of speed quality among college men students.

## **Hypothesis**

It hypothesized that the interval training, plyometric training and strength training would show significant improve in the speed quality.

## **Methodology**

The purpose of the study was randomly selected sixty men student from Tamilnadu physical education and sports university Chennai. Respondents belong to the age group of 18 to 21 year were considered for the study. They were randomly divided into three groups, in each 20 subjects. Group1 underwent interval training (n=20), group 2 underwent strength training (n=20) for duration of 6 weeks.

### **Selection of Variable**

The following speed variable were selected for development of interval training plyometric training, strength training. In this study. Test selection of speed for 50 mts run

### **Excremental Design**

Group1-interval training for six weeks (3 days per weeks)

Group2-plyometric training for six weeks (3 days per weeks)

Group3- strength training for the six weeks (3 days per weeks)

From the selected subjects (N=60) has pretest and a posttest was conducted on the criterion measures at the beginning and end of the experimental training programmer.

### **Statistical Techniques**

The obtained data from the experimental group and control group before and after the experimental period were statistically analyzed with dependent t' test and analyzed of covariance (ANCOVA). The level of confident was fixed at 0.05 levels for all the cases to test the hypothesis.

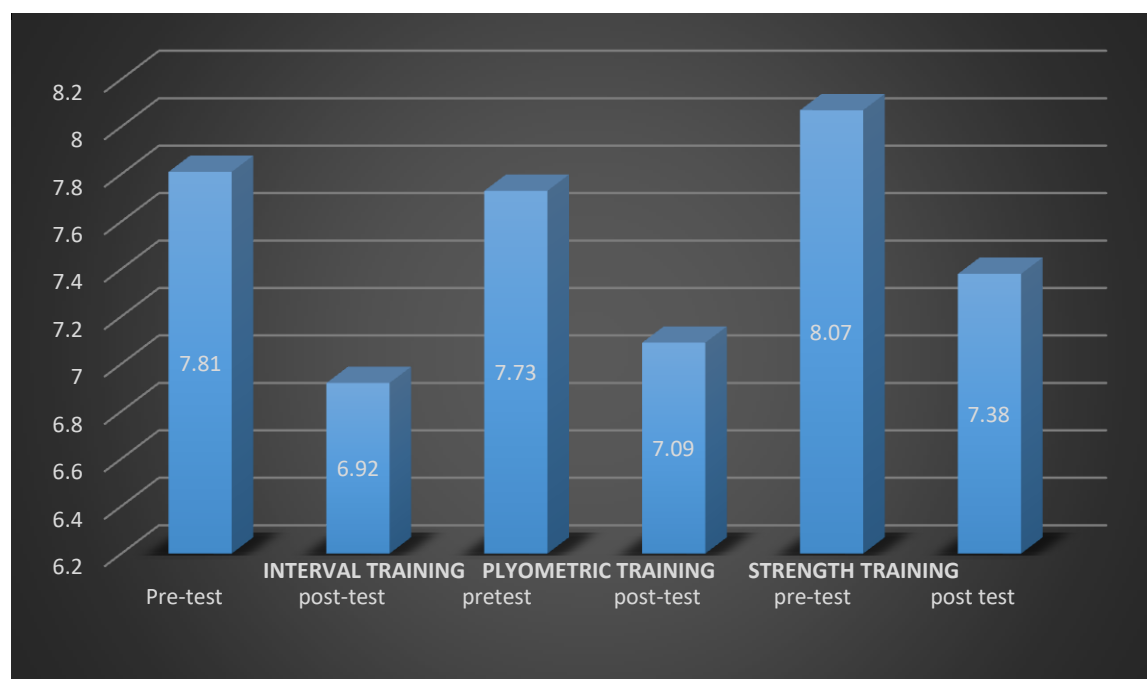
### **Computation of analysis of co-variance of the pretest and posttest on speed of training group (score in seconds)**

	<b>Interval training group (N=20)</b>	<b>Plyometric training group (N=20)</b>	<b>Strength training group (N=20)</b>	<b>Source of variance</b>	<b>Sum of squares</b>	<b>df</b>	<b>Means squares</b>	<b>F ratio</b>
Pre test means	7.81	7.73	8.07	B; W;	1.27 12.07	2 57	0.64 0.21	3.05
Post test means	6.92	7.09	7.38	B; W;	2.22 11.11	2 57	1.11 0.19	5.84
Adjusted post test means	6.95	7.15	7.29	B; W;	4.85 8.40	2 56	2.43 0.15	16.2
Mean gains	0.86	0.58	0.78					

The analyzed data of speed. The pretest means of 7.81, 7.73, 8.07 sec of speed for interval, plyometric and strength training group, resulted with an F-ratio of 3.05, which was

insignificant. The post-test means of 6.92, 7.09, 7.38 sec of speed for speed for same group respectively were result in F – ratio of 5.84 , which was significant at 0.05 level. The adjusted post-test means of 6.95, 7.15, 7.29 sec of speed for same group respectively produced F-ratio 16.2 which was significant at 0.05 level for the degrees of freedom of 2 and 56. Hence, the hypothesis was accept at 0.05 level of confidence. The result indicated that the various training group had significantly increased in speed when compared with the pre-test in terms of mean difference.

**Bar Diagram Showing the Mean Difference of pre test and post test scores among Training Group on Speed**



### **Discussion and Findings**

All the subjects of the experimental group involved in this study were undergoing regular interval training, plyometric training, and strength training, which is assign to them. From the previous table it is evident that in the case of selected dependent variable such as speed has shown significant changes after 6 weeks of interval training, plyometric training and strength training thus the investigation clearly pointed those training will helps to improve the speed quality. Compared with pretest.

## **Conclusion**

The finding of the study shows that plyometric training had a significant improvement in speed quality. The finding of the study shows that strength training had a significant improvement in speed quality. The finding of the study shows that interval training had a significant improvement in speed quality.

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