



INFLUENCE OF INTERVAL TRAINING ON SPEED AND SPEED ENDURANCE AMONG FOOTBALL PLAYERS

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Abstract

The purpose of the study was to find out the influence of interval training on speed and speed endurance among football players. To achieve this purpose of the study twenty men football players were selected randomly from Thanthi Hans Roever College, Perambalur, Tamilnadu, India. They were divided into two equal groups of each ten players. Group I underwent interval training for three days per week for eight weeks and Group II acted as control group who did not underwent any special training programme apart from their regular physical education curriculum. The following variables such as speed and speed endurance were selected as criterion variables. The speed was assessed by 50 meters dash and speed endurance was assessed by using 110 meters. All the subjects of two groups were tested on selected criterion variables at prior to and immediately after the training programme. Analysis of covariance (ANCOVA) was used to find out the significant difference if any, among the groups on each selected criterion variables separately. In all the cases, 0.05 level of confidence was fixed to test the significance, which was considered as an appropriate. The results of the study revealed that there was a significant difference between interval training group and control group on selected criterion variables such as speed and speed endurance.

Key Words: Interval, Speed, Speed Endurance, Football.

INTRODUCTION

Interval training is a highly taxing type of training that we could compare with the extremely strenuous work performed by Sisyphus. According to Greek mythology, Sisyphus was the king of Corinth and well known for his craftiness. When Hades, the god of death, came to get him, Sisyphus tricked Hades and put him in chains. Hades eventually escaped and punished Sisyphus for his trickery. The sentence was that

Sisyphus would eternally push a huge stone to the top of a hill. Every time Sisyphus reached the summit the stone would roll back down forcing him to start his work again and again and again (Ferrari, 2008). The physical work done by an individual depends upon the duration, nature and the purpose of activity. The physiological systems switch over from one energy source to another as the activity changes. The purpose of the study was to find out the

effects of interval training on speed related parameters among football players.

MATERIALS AND METHODS

Twenty men football players were selected randomly from Thanthai Hans Roever College, Perambalur, Tamilnadu, India. They were divided into two equal groups of ten player's students each. The groups are namely interval training group and control group. Group I underwent interval training for three days per week for eight weeks and Group II act as control group who did not underwent any special training programme apart from their regular physical activities. The variables such as speed and speed endurance as criterion variables. The speed was assessed by 50 meters dash and speed endurance was assessed by using 110 meters. All the subjects of two groups were tested on selected criterion variables at prior to and immediately after the training programme. During the training period, group I

underwent interval training, for three days per week for eight weeks in addition to their regular physical education activity, every day workout lasted about 45-60 minutes including warm-up and warm down exercises. Group II act as control group who did not participate any specific training, however, they perform regular physical education programme. The data was collected from two groups at prior to and after completion of the training period on selected criterion variables, were statistically examined for significant difference if any, by applying analysis of covariance (ANCOVA) if they obtained 'F' ratio was significant, In all cases 0.05 level of confidence was utilized to test the significance.

RESULTS ON SPEED

The data collected prior and after the experimental period on speed of interval training and control group were analysed and presented in table-I

TABLE – I

ANALYSIS OF COVARIANCE FOR THE DATA ON SPEED BETWEEN PRE TEST AND POST TEST SCORES OF INTERVAL TRAINING GROUP AND CONTROL GROUP

Test	Experimental Group	Control Group	Sources of Variance	Sum of Square	df	Mean Squares	'F' Ratio
Pre Test Mean	7.26	7.24	Between	0.003	1	0.003	1.69
S.D	0.04	0.03	Within	0.028	18	0.002	
Post Test Mean	7.23	7.26	Between	0.002	1	0.002	1.58
S.D	0.04	0.03	Within	0.028	18	0.002	
Adjust Post Mean	7.22	7.27	Between	0.008	1	0.008	21.91*
			Within	0.006	17	0.00004	

*Significant at 0.05 level of confidence

(The table values required for significance at .05 level of confidence for 1 and 18 and 1 and 17 are 4.45 and 4.41 respectively).

Table I shows that the pre test means on speed of experimental group and control group are 7.26 and 7.23 respectively and the obtained F ratio of 1.69 for pre-test scores is less than the required table value of 4.41 for df 1 and 18 required for significance at 0.05 level of confidence on speed. The post test means on speed of experimental group and control group are 7.23 and 7.26 respectively and the obtained F-ratio of 1.58 for post-test scores is less than the required table value of 4.41 for df 1 and 18 required for significance at 0.05 level of confidence on speed. The adjusted post-test means on speed of experimental group and control group are 7.22 and 7.27 respectively and the obtained F ratio was

21.91 for adjusted post-test means scores is more than the required table value of 4.41 for df 1 and 17 required for significance at 0.05 level of confidence on speed. The result of the study indicates that there is statistically significant difference between the adjusted post-test means of experimental group and control group on speed.

RESULTS ON SPEED ENDURANCE

The data collected prior and after the experimental period on speed endurance of interval training and control group were analysed and presented in table-II

TABLE – II

**ANALYSIS OF COVARIANCE FOR THE DATA ON SPEED ENDURANCE
BETWEEN PRE TEST AND POST TEST SCORES OF INTERVAL
TRAINING GROUP AND CONTROL GROUP**

Test	Experimental Group	Control Group	Sources of Variance	Sum of Square	Df	Mean Squares	'F' Ratio
Pre Test Mean	15.48	15.37	Between	0.065	1	0.065	2.05
S.D	0.18	0.16	Within	0.568	18	0.032	
Post Test Mean	15.27	15.46	Between	0.173	1	0.173	4.35
S.D	0.19	0.20	Within	0.715	18	0.040	
Adjust Post Mean	15.26	15.48	Between	0.225	1	0.225	5.84*
			Within	0.653	17	0.038	

* Significant at .05 level of confidence.

(The table values required for significance at .05 level of confidence for 1 and 18 and 1 and 18 are 4.41 and 4.45 respectively).

Table II shows that the pre test means on speed endurance of experimental group and control group are 15.48 and 15.37 respectively and the obtained F ratio was 2.05 for pre-test scores is less than the required table value of 4.41 for df 1 and 18 required for significance at 0.05 level of confidence on speed endurance. The post test means on speed endurance of experimental group and control group are 15.27 and 15.45 respectively and the obtained F-ratio was 4.35 for post-test scores is more than the required table value of 4.41 for df 1 and 18 required for significance at 0.05 level of confidence on speed endurance. The adjusted post-test means on speed endurance of experimental group and control group are 15.26 and 15.48 respectively and the obtained F ratio was 150.43 for adjusted post-test means scores is more than the required table value of 4.45 for df 1 and 17 required for significance at 0.05 level of confidence speed endurance.

CONCLUSIONS

The following conclusions were drawn based on the analysis of the study,

1. There was a significant improvement in the performance of speed after the interval training when compared with the control group.
2. There was a significant improvement in the performance of speed endurance after the interval training when compared with the control group.
3. There was a significant difference between the interval training group and control group on selected speed and speed endurance.

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