International Journal of Multidisciplinary Research and Development
Online ISSN: 2349-4182, Print ISSN: 2349-5979, Impact Factor: RJIF 5.72
www.allsubjectjournal.com
Volume 3; Issue 6; June 2016; Page No. 379-380

Effects of intensive and extensive interval trainings on speed performance of athletes

Dr. Manikandan S

Assistant Professor, Department of Physical Education and Sports Sciences, Annamalai University, Annamalai, Chidambaram, Tamil Nadu, India

Abstract
The purpose of the study was to find out the effects of intensive and extensive interval training on speed performance of athletes. To achieve this purpose of the study, forty five men athletes in the Department of Physical Education and Sports Sciences, Annamalai University, Annamalai Nagar, Tamil Nadu, India were selected as subjects at random. The selected subjects were divided into three equal groups of fifteen subjects each, such as intensive interval training, extensive interval training group and control group. The group I underwent intensive interval training programme, Group-II underwent to extensive interval training for three days per week for twelve weeks. And Group III acted as control group who did not participate any special training programmes apart from their regular physical education activities as per their curriculum. The following variable namely Speed Performance was selected as criterion variable and it was measured by using fifty meters dash. All the subjects of three groups were tested on selected criterion variable at prior to and immediately after the training programme. The analysis of covariance was used to analyse the significant difference, if any between the groups. The level of significance to test the 'F' ratio obtained by the analysis of covariance was tested at .05 level of confidence, which was considered as an appropriate. The results of the study revealed that there was a significant difference between intensive interval and extensive interval training group and control group on speed performance. And also it was found that there was a significant improvement on speed performance due to intensive and extensive interval training.

Keywords: Intensive Interval Training, Extensive Training and Speed Performance

1. Introduction
The modern age is an age of computer. Man has been running over, since he had to hunt for survival. Computer was invented by man for the comforts of his life. He has caused man to depend on it completely. This has lead man to reduce his physical efficiency. Training in sports is essentially on education process. The athlete is instructed and educated by the trainers the physical education teachers and coaches. Training depends upon the various aspects and is a positive quality closely related to exercise and good health habits. It is an important and valuable pulse in modern society. For the last few decades, research has been conducted to develop a better training method to improve motor fitness components.

2. Methodology
The purpose of the study was to find out the effects of intensive and extensive interval training on speed performance of athletes. To achieve this purpose of the study, forty five men athletes in the Department of Physical Education and Sports Sciences, Annamalai University, Annamalai Nagar, Tamil Nadu, India were selected as subjects at random. The selected subjects were divided into three equal groups of fifteen subjects each, such as intensive interval training, extensive interval training group and control group. The group I underwent intensive interval training programme, Group-II underwent to extensive interval training for three days per week for twelve weeks. And Group III acted as control group who did not participate any special training programmes apart from their regular physical education activities as per their curriculum. The following variable namely Speed Performance was selected as criterion variable and it was measured by using fifty meters dash. All the subjects of three groups were tested on selected criterion variable at prior to and immediately after the training programme. The analysis of covariance was used to analyse the significant difference, if any between the groups. The level of significance to test the 'F' ratio obtained by the analysis of covariance was tested at .05 level of confidence, which was considered as an appropriate.

Table 1: Analysis of covariance of the data on speed of pre and post tests scores of intensive and extensive interval training and control groups

Test	Intensive Interval training group	Extensive Interval training group	Control Group	Source of Variance	Sum of Squares	df	Mean Squares	Obtained 'F' Ratio
Pre Test								
Mean	7.80	7.79	7.81	Between	0.01	2	0.005	1.0
S.D.	0.06	0.07	0.07	Within	0.22	42	0.005	
Post Test								
Mean	7.60	7.70	7.80	Between	0.46	2	0.23	46.0*
S.D.	0.08	0.07	0.07	Within	0.19	42	0.005	
Adjusted Post Test								
Mean	7.64	7.66	7.80	Between	0.75	2	0.38	19.0*
				Within	0.67	41	0.02	

The adjusted post-test means of intensive interval training group, extensive interval training group and control group are 7.64, 7.66 and 7.80 respectively. The obtained "F" ratio of 19.0 for adjusted post-test means is more than the table value of 3.226 for df 2 and 41 required for significance at .05 level of confidence on speed.

The results of the study indicated that there was a significant difference between the adjusted post-test means of intensive interval training group, extensive interval training group and control group on speed.

Table 2: The scheffe's test for the differences between paired means on speed

Intensive Interval training group	Extensive Interval training group	Control Group	Mean Differences	Confidence Interval Value
7.64	7.66	-	0.02	0.13
7.64	-	7.80	0.16*	0.13
-	7.66	7.80	0.14*	0.13

The table 2 shows that the mean difference values between intensive interval training group and control group and extensive interval training group and control group 0.16 and 0.14 respectively on speed which were greater than the required confidence interval value 0.13 for significance.

And the mean difference value between intensive interval training group and extensive interval training group 0.02 on speed which was lesser than the required confidence interval value 0.13 for significance.

3. Conclusions

1. There was a significant difference between intensive interval training group, extensive interval training group and control group on speed.
2. There was a significant improvement on speed due to intensive interval training group and extensive interval training group.

4. References

1. Alifreti CR, Uppal AK. Comparative Effect of Different Frequencies of Strength Training on selected Strength Variables, SNIPES 1984; 7(1):78.
2. Gary Moran, George Mc Glynn. Dynamics of Strength Training, (San Francisco: W.M.C. Brown Publishers), 1990.
3. Hakkinen K. Neromuscular adaptation during Strength training, aging, detraining, and immoblizxation. Crit. Rev. Phys. Reh. Med. 1994; 6:161-198.
4. Hakkinen K, Komi PV, Alen M. Effects of Explosive type strength training on isometric force and relaxation time, electromyography and muscle fibre characteristics of leg extensor muscles. Acta Physiol. Scand. 1985; 125:587-600.
5. Kraemer WJ, Ratamess NA, French DN. Resistance training for health and performance, The Human Performance Laboratory, Department of Kinesiology, The University of Connecticut, Storrs, USA 2002; 1(3):165-171.
6. Mac Dougall JD, Elder GC, Sale DG, Moroz JR, Sutton JR. Effects of strength training and immobilization on human muscle fibres. Eur J. Applphysiol. 1982; 43:25-34.
7. Rhea MR, Alvar BA, Ball SD, Burkett LN. Three sets of weigth training superior to 1 set with equal intensity for eliciting strength. The Journal of strength and conditioning Research, 2002; 16:4.