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PHYSICAL EDUCATION

AN IMPACT OF INTERMITTENT TRAINING, CONTINUOUS RUNNING TRAINING AND COMBINED TRAINING ON SPEED PARAMETER OF INTER SCHOOL FOOTBALL PLAYERS

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Abstract

The present study was designed to find out the effect of intermittent training, continuous running training and Combined intermittent Training and Continuous running training on speed performance of inter school Football players. To attain the purpose, sixty men (N=60) Football players studying various schools in Sivagangai District, Tamil nadu during the year 2015-2016 were selected randomly as subjects. The subjects were assigned at random into four groups of fifteen each (n=15). Group-I underwent Intermittent training, Group-II underwent Continuous Running Training, Group-III underwent Combined intermittent training and Continuous Running Training and Group-IV acted as Control. The duration of the training period for all the three Experimental groups was restricted to twelve weeks and the number of sessions per week was confined to three in a week. For Combined intermittent training and Continuous Running the training period was restricted to alternative weeks for twelve weeks. Speed only selected as dependent variable and it was assessed by 50 Meters Run test. All the subjects were tested prior to and immediately after the training for all the selected variables. Data were collected and statistically analyzed using ANCOVA. Scheffe's post hoc test was applied to determine the significant difference between the paired means. In all the cases 0.05 level of significance was fixed. The results of the study showed that there was a significant difference was found among all the Experimental groups namely Intermittent Training, Continuous Running Training and Combined Intermittent Training and Continuous Running Training groups had significantly increase in the Speed Performance. Further the results of the study showed that Combined intermittent training and Continuous Running group was found to be better than the Intermittent training group and Continuous Running group in Speed.

Keywords: Intermittent training, Continuous Running, Combined intermittent training and Continuous Running, Speed.

Introduction

Technology has permeated every aspect of modern life and sports are no exception. Science applied to sports have enabled modern youth to develop physical capacities beyond limitations and sports have become highly competitive and records are broken with great rapidity.

The time when sports were nothing more than an enjoyable recreation for individuals is irrevocable past. The phenomenon of sports today intervenes in almost all fields of human endeavor and very often it even has a central position in sports. Thus it has experienced an enormous intension quantitatively as well as qualitatively, with many positive but also some negative aspect. A part from health, sports with their special meaning as a prophylaxis against civilization damage.

The word "training" means different things in different fields. Training denotes the process of preparation for some task. This process varyingly extends to a number of days and even months and years. The term "Training" is widely used in sports. In a narrow sense training is physical exercise for the improvement of performance. Training involves constructing an exercise programme to develop an athlete for a particular event. This increasing skill and energy capacities need equal consideration **(*Singh, 1991*).**

Intermittent exercise is a term used to describe a variety of different physical training types. The term "intermittent," which means to stop and start at intervals, and the term "interval," as in interval training, is used somewhat interchangeably. In most circumstances, interval training will be conducted as a high intensity exercise activity. The major point of interval training is that if the work rate or intensity is increased while work duration is held constant, the athlete will increase his work capacity to higher levels ***(Sreedhar, 2007).***

Continuous training is a type of physical training that involves activity without rest**.** This type of training may be of high intensity, of moderate intensity

with an extended duration, or fartlek training**.**

Continuous training means the person training uses 60-80% of their maximum heart rate for at least 30-60 minutes at least four or five times a week. This method suits long distance runners as well as tennis players etc, because it means that their endurance levels will increase, and it is the way which they would normally compete. Continuous training is a good way for an athlete to build up their cardio-vascular endurance levels. Continuous training forms the basis for all other training methods both anaerobic and aerobic ***(Seaton, 1983).***

Methods

The study was conducted on sixty men (N=60) Football Players who have studying various schools in Sivagangai District, Tamilnadu during the year 2015-2016 were selected randomly as subjects. Subjects were randomly assigned equally into four groups. Group-I underwent Intermittent training, Group-II underwent Continuous Running Training, Group-III underwent Combined intermittent training and Continuous Running Training and Group-IV acted as Control. The experimental groups underwent the respective training for a period of 12 weeks (3 days/week), the Combined intermittent training and Continuous Running the training period was restricted to alternative weeks for twelve weeks whereas the control remain as normal with the sedentary life. Among various motor components Speed only selected as dependent variable, and it was assessed through 50 meters run test. All the four groups were tested on selected Speed was analyzed before and after the training period.

Analysis of the data

The data collected from the experimental groups and control group on prior and after experimentation on selected variables were statistically examined by analysis of covariance (ANCOVA) was used to determine differences, if any among the adjusted post test means on selected criterion variables separately. Whenever they obtained f-ratio value in the simple effect was significant the Scheffe's test was applied as post hoc test to determine the paired mean differences, if any. In all the cases 0.05 level of significance was fixed.

Results and Discussion

The Analysis of covariance (ANCOVA) on Speed of Experimental Groups and Control group have been analyzed and presented in Table -1.

Table I. Values of Analysis of Covariance for Experimental Groups and Control Group on Speed

Certain Variables	Adjusted Post test Means				Source of Variance	Sum of Squares	df	Mean Squares	'F' Ratio
	Intermittent Training Group	Continuous Running Training Group	Combined Intermittent Training and Continuous Running Training Group	Control Group					
Speed	7.22	7.59	7.02	7.62	**Between** **Within**	2.72 2.51	3 55	0.91 0.05	18.20*

* Significant at.05 level of confidence
(The table value required for Significance at 0.05 level with df 3 and 55 is 2.77)

Table-I shows that the adjusted post test mean value of Speed for Intermittent Training group, Continuous Running Training group, Combined Intermittent Training and Continuous Running Training group and Control group is 7.22, 7.59, 7.02 and 7.62 respectively. The obtained F-ratio of 18.20 for the adjusted post test mean is more than the table value of 2.77 for df 3 and 55 required for significance at 0.05 level of confidence.

The results of the study indicate that there are significant differences among the adjusted post test means of Experimental groups on the decrease of Speed.

To determine which of the paired means had a significant difference, Scheffe's test was applied as Post hoc test and the results are presented in Table-2.

Table II. The Scheffe's test for the differences between the adjusted post tests paired means on Speed

Certain Variables	Adjusted Post test Means				Mean Difference	Confidence Interval
	Intermittent Training Group	Continuous Running Training Group	Combined Intermittent Training and Continuous Running Training Group	Control Group		
Speed	7.22	7.59	--	--	0.37*	0.15
	7.22	--	7.02	--	0.20*	0.15
	7.22	--	--	7.62	0.40*	0.15
	--	7.59	7.02	--	0.57*	0.15
	--	7.59	--	7.62	0.03	0.15
	--	--	7.02	7.62	0.60*	0.15

* Significant at.05 level of confidence

Table-II shows that the adjusted post test mean differences on Speed between Intermittent Training group and Continuous Running training group, Intermittent training group and Combined Intermittent Training and Continuous Running training group, Intermittent training group and Control group, Continuous Running training group and Combined Intermittent Training and Continuous Running training group, Combined Intermittent Training and Continuous Running training group and Control group are 0.37, 0.20, 0.40, 0.57and 0.60 respectively and they are greater than the confidence interval value 0.15, which shows significant differences at 0.05 level of confidence.

The adjusted post test means differences on Speed between Continuous Running training group and Control group is 0.03, which is lesser than the confidence interval value 0.15, which shows there is no significant difference at 0.05 level of confidence.

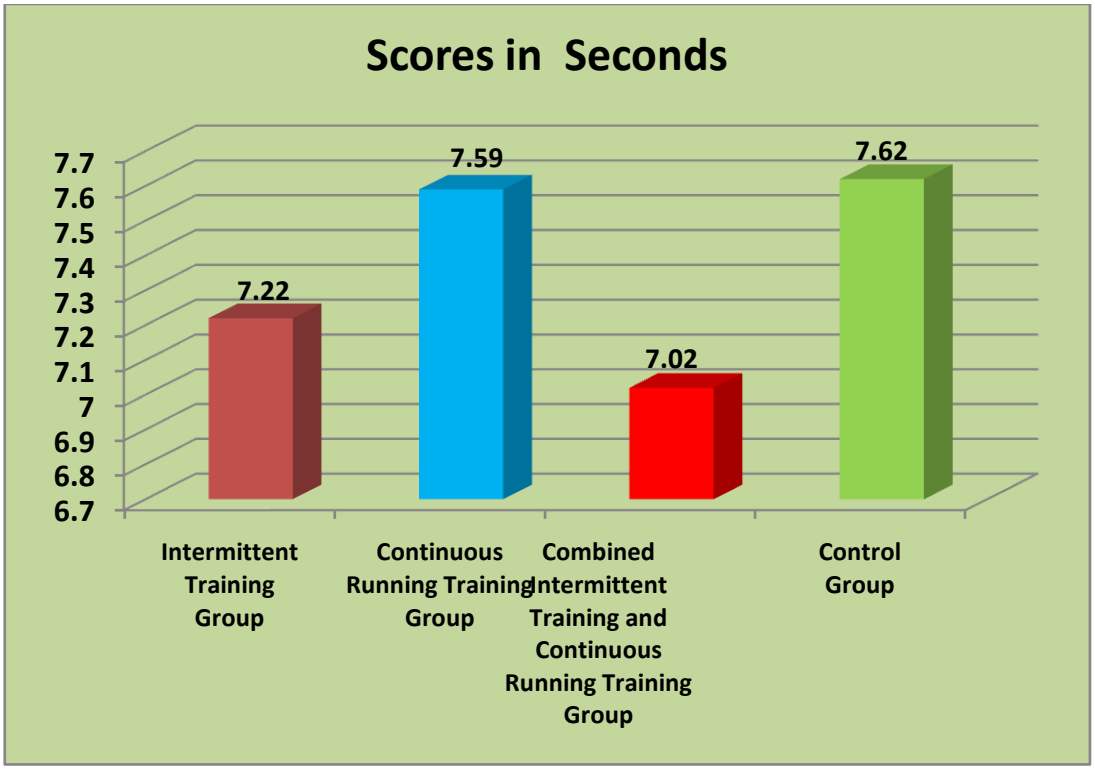
The results of the study further have revealed that there is a significant difference in Speed between the adjusted post test means of Intermittent Training group and Continuous Running training group, Intermittent training group and Combined Intermittent Training and Continuous Running training group, Intermittent training group and Control group, Continuous Running training group and Combined Intermittent Training and Continuous Running training group, Combined Intermittent Training and Continuous Running training group and Control group.

The results of the study further have revealed that there is no significant difference in Speed between Continuous Running training group and Control group. However, the decrease in Speed was significantly higher for Combined Intermittent Training and Continuous Running training group than other Experimental groups.

It may be concluded that the Combined Intermittent Training and Continuous Running training group has exhibited better than the other experimental groups in decreasing Speed.

The adjusted post test mean value of Experimental groups on Speed is graphically represented in the Figure -I.

Figure-I. Bar diagram on ordered adjusted means of Speed



Conclusions

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

1. Significant differences in achievement were found between Intermittent Training group, Continuous Running Training group, Combined Intermittent Training and Continuous Running Training group and Control group in the selected criterion variable such as Speed.
2. The Experimental groups namely, Intermittent Training group, Continuous Running Training group, Combined Intermittent Training and Continuous Running Training group and Control group had significantly improved in Speed.
3. The Combined Intermittent Training and Continuous Running Training group was found to be better than the Intermittent Training group, Continuous Running Training group and Control group in decreasing Speed.

References

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