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Effect of intensive interval training on speed of Annamalai university students

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Abstract

The purpose of the study was to analyse the effect of intensive interval training on selected Speed parameter. To achieve the purpose of the study, forty five male students studying bachelor's degree in physical education, from the Department of Physical Education and Sports Sciences, Annamalai University, Chidambaram, Tamil Nadu, India were selected as subjects at random. The age, height and weight of the subjects ranged from 19 to 21 years, 160 to 175 cms and 50 to 60 kg respectively. The selected subjects were medically examined by a qualified physician and certified that they were medically and physically fit enough to undergo the intensive running programme.

The selected subjects were randomly assigned into two groups of 15 each namely experimental group I, experimental and II control group. The experimental group I underwent Intensive Interval Training and group II acted as control, who did not participate in any special training apart from their regular physical education programme of the curriculum. The experimental group underwent the respective training programme for three days a week for twelve weeks. The subjects were free to withdraw their consent in case they felt any discomfort during the period of their participation and there were no dropouts in this study. The collected data were statistically analysed by ANOVA the experimental group showed significant difference compare to control group.

Keywords: Intensive interval training, speed

Introduction

Intensive interval training

The interval training constitutes the intermittent variation of exertion and active recovery periods within a training unit. Characteristics of the extensive interval method are short exertion periods with high load intensity (Competition Specific Endurance or Intensive Strength Endurance) with the duration of the recovery periods being short enough as to not result in full recovery.

Objectives of the Study

The purpose of the study was to analyse the effect of intensive interval training on selected Speed parameter.

Methodology

To achieve the purpose of the study, forty five male students studying bachelor's degree in physical education, from the Department of Physical Education and Sports Sciences, Annamalai University, Chidambaram, Tamil Nadu, India were selected as subjects at random. The age, height and weight of the subjects ranged from 19 to 21 years, 160 to 175 cms and 50 to 60 kg respectively. The selected subjects were medically examined by a qualified physician and certified that they were medically and physically fit enough to undergo the intensive running programme.

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The collected data were statistically analysed by ANOVA. The significance was tested at 0.05 levels.

Administration Of test Speed (50 Meters Dash)

Purpose

The purpose of this test was to measure the speed, stride length, stride frequency and acceleration of the subjects.

Facilities and Equipment

Test course on the track, standard measuring tape, pistol, stopwatch and video camera were used.

Procedures

After a short warm-up period the subject took a position behind the starting line. If the starter used the command ready and clap, the subject would run across the finish line, drawn at

50 meters from the starting line, as fast as possible.

Scoring

The score was the elapsed time to the nearest tenth second between the starting signal and the subject crossing the finish line.

Experimental Design and Statistical Procedure

The experimental design used in this study was random group design involving forty-five subjects. (Clark *et al.* 1972) Analysis of variance (ANOVA) was used for computing. The descriptive analysis of data collected on speed Prior to and immediately after the 12 weeks of intensive interval training

Analysis of Covariance on Speed of Intensive Interval Training and Control Groups

	Group I	Group II	Source of variance	Sum of Squares	df	Mean squares	'F' ratio
Pretest Mean SD	7.94	7.83	Between	0.1213	2	0.0607	0.86
	0.3888	0.1543	Within	2.9667	42	0.0706	
Posttest Mean SD	7.35	7.85	Between	1.9151	2	0.9576	16.7*
	0.2722	0.2532	Within	2.408	42	0.0573	
Adjusted Posttest Mean	7.33	7.88	Between	2.29	2	1.15	29.33*
			Within	1.60	41	0.04	

* Significant at .05 level of confidence. (The table values required for significance at .05 level of confidence for degree of freedom 2 and 41 is 3.23 and degree of freedom 2 and 42 is 3.22.)

Discussion

The pretest means on speed of intensive interval training, groups and control group are 7.94, and 7.83 respectively. The obtained 'F' ratio value on the scores of pretest means 0.86 was lesser than the required F ratio value 3.22 for significance at 0.05 level of confidence with degrees of freedom 2 and 42. The result of the study reveals that there was no significant differences existed between the experimental and control groups during the pre test period.

The post test means on speed of intensive interval training, control group are 7.35, and 7.85 respectively. The obtained posttest 'F' ratio value of 16.70 was greater than the required table value of 3.22 for significance at 0.05 level of confidence with degrees of freedom 2 and 42. It reveals that significant differences existed between the groups after twelve weeks of training.

The adjusted post-test means on speed of intensive interval training, groups and control group are 7.33, and 7.88 respectively. The obtained 'F' ratio value 29.33 was greater than the required table value of 3.23 for significance at 0.05 level of confidence with degrees of freedom 2 and 41. The result of the study shows that significant differences existed between the adjusted posttest mean of the intensive interval training group and control groups in improving the speed.

Conclusion

It reveals intensive interval groups have significantly increased in speed than control group.

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