

EFFECT OF COMPLEX TRAINING ON SPEED AMONG SCHOOL GIRLS

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ABSTRACT

The purpose of the study was to investigate the effect of complex training on speed among school students. For this study the investigator selected 30 school girls from Bengaluru, Karnataka. The age of the subjects was between 15 and 17 years. The subjects were divided into two group consists 15 subjects in each group. The random group design was used as experimental design for this study. The variable to be used in the present study was assessed from all subjects before the experiments. It was assumed as pre-test. After completion of treatment they were tested again as it was in the pre-test on all variables used in the present study. This test was assumed as post-test. The data collected for statistical treatment to find out significant difference between the pre test and post test means by computing dependent 't' test. In all cases 0.05 level of confidence was utilized to test the significance. The result of the experimental group showed significant improvement on speed when compared to the control group.

KEYWORDS: Complex training, Speed, School Students.

INTRODUCTION

Complex training, one of the most advanced forms of sports training, integrates strength training, plyometrics, and sport-specific movement. It consists of an intense strength exercise followed by a plyometric exercise. Complex training activates and works the nervous system and fast twitch muscle fibers simultaneously. The strength exercise activates the fast twitch muscle fibers (responsible for speed). The plyometric movement stresses those muscle fibers that have been activated by the strength training movement. During this activated state, the muscles have a tremendous ability to adapt. This form of intense training can teach slow twitch muscle fibers to perform like fast twitch fibers (Bevan et al. 2009).

METHODOLOGY

The purpose of the study was to investigate the effect of complex training on speed among school students. For this study the investigator selected 30 school girls from Bengaluru, Karnataka. The age of the subjects was between 15 and 17 years. The subjects were divided into two group consists 15 subjects in each group. The random group design was used as experimental design for this study. The variable to be used in the present study was assessed from all subjects before the experiments. It was assumed as pre-test. After completion of treatment they were tested again as it was in the pre-test on all variables used in the present study. This test was assumed as post-test. The data collected for statistical treatment to find out significant difference between the pre test and post test means by computing dependent 't' test. In all cases 0.05 level of confidence was utilized to test the significance.

RESULTS

TABLE – I
COMPUTATION OF MEAN AND ANALYSIS OF COVARIANCE SPEED OF
EXPERIMENTAL AND CONTROL GROUPS

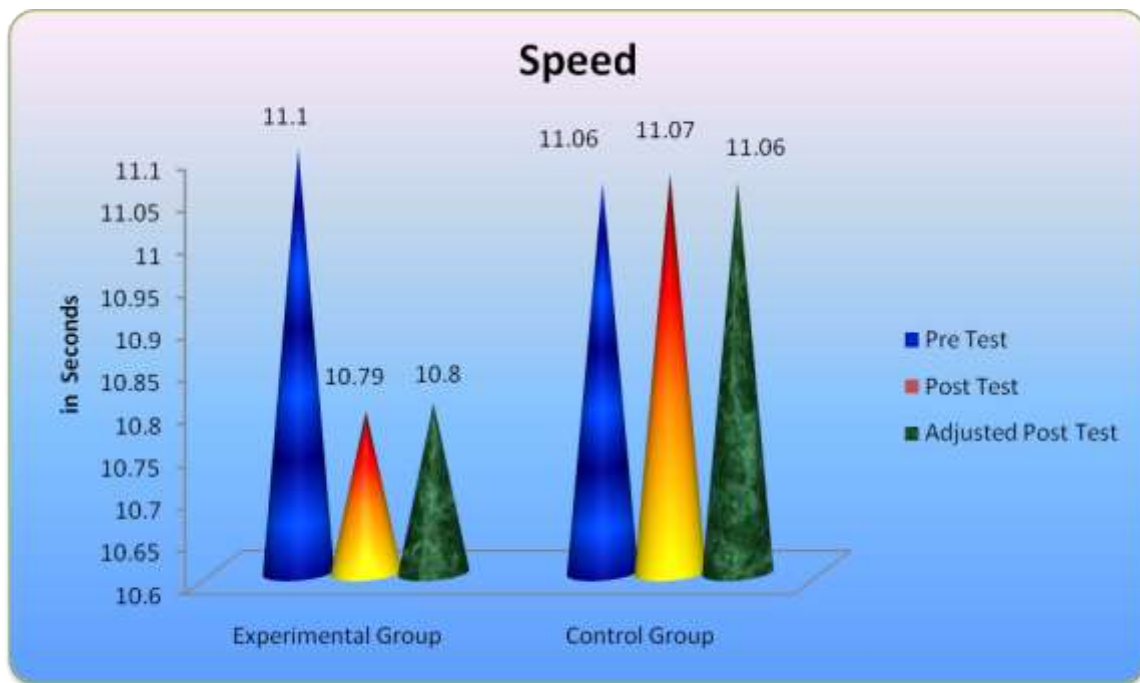
	Experimental Group	Control Group	Source of Variance	Sum of Squares	df	Mean Square	F
Pre Test Mean	11.10	11.06	BG	0.013	1	0.013	2.65
			WG	0.135	28	0.005	
Post Test Mean	10.79	11.07	BG	0.577	1	0.577	46.42*
			WG	0.348	28	0.012	
Adjusted Post Mean	10.80	11.06	BG	0.464	1	0.464	38.56*
			WG	0.325	27	0.012	

* Significant at 0.05 level

Table value for df 1, 28 was 4.20, df 1, 27 was 4.21

The above table indicates the adjusted mean value on speed of experimental and control groups were 10.80 and 11.06 respectively. The obtained F-ratio of 38.56 for adjusted mean was greater than the table value 4.21 for the degrees of freedom 1 and 27 required for significance at 0.05 level of confidence. The result of the study indicates that there was a significant difference among experimental and control groups on speed. The above table also indicates that both pre and post test means of experimental and control groups differ significantly.

FIGURE - I
SHOW THE MEAN VALUES ON SPEED OF EXPERIMENTAL AND CONTROL
GROUPS



CONCLUSIONS

1. The result of the experimental group showed significant improvement on speed when compared to the control group.

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