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IMPACT OF CIRCUIT TRAINING ON ATHLETIC PERFORMANCE OF SCHOOL BOYS

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ABSTRACT

The purpose of the study was to find out the impact of circuit training on athletic performance of school boys. To achieve the purpose of this study thirty school students were selected from Government Higher Secondary School, Asokapuram, Coimbatore, Tamilnadu, India as subject and their age ranged between 15 to 17 years. The subjects were randomly assigned to two equal groups of fifteen each and named as Group 'A' and Group 'B'. Group 'A' underwent circuit training and Group 'B' treated as control group. The selected athletic events namely shot put (5 kg) and 800 metre were chosen as athletic performance variables. The collected data was statistically analyzed by analysis of co - variance. From the analysis of the data, the following conclusions were drawn. It was found that the circuit training group showed significant improvement on all the selected variables among the school boys. It was also found that the experimental group shows a significant improvement on all the selected variables among the school boys compare than the control group.

Key Words: Circuit Training, Athletic Performance, School Boys.

INTRODUCTION

Now a days specific training has been playing a predominant role with emergence of different methods having sustained scientific knowledge for outstanding achievements in various levels of competition. The sportsman is able to achieve a high level of performance by concentrating on major areas like physical power, physiological efficiencies, psychological development, application of biomechanics and environmental adjustments. There are many different types of circuit training. For the purpose of this article he will refered to circuit training as simply comprising a series of exercises or activities performed in recurring patterns and sequences (**Andrew, et al. 2009**).

Circuit training is an excellent way of improving skills, mobility, strength and all round body conditioning at the same time. This type of training works simultaneously on both the neuromuscular system and aerobic and anaerobic endurance. It can be simple, complex, general or specific, can be used throughout the year and is coach driven. It needs very little equipment or space and can be used with both small and large groups. It can be a part of a training session or it can be the whole of the session. Circuit training is a type of exercise which involves exercises designed to improve both cardiovascular fitness and muscular strength endurance. Circuit training may be a fun, cost, and time effective way, and able to be administered to large groups of children at the same time, whilst still being effective. There is some evidence to suggest that school based circuit training leads to positive changes in body composition (**Westcott et al., 1995**). As well as physical benefits, circuit training may also enhance motor control and fundamental movement abilities if designed appropriately.

MATERIALS AND METHODS

The purpose of the study was to find out the impact of circuit training on athletic performance of school boys. To achieve the purpose of this study thirty school students were selected from Government Higher Secondary School, Asokapuram, Coimbatore, Tamilnadu, India as subject and their age ranged between 15 to 17 years. The subjects were randomly assigned to two equal groups of fifteen each and named as Group 'A' and Group 'B'. Group 'A' underwent circuit training and Group 'B' treated as control group. The selected athletic events namely shot put (5 kg) and 800 metre were chosen as athletic performance variables. The collected data was statistically analyzed by analysis of co - variance.

RESULTS AND DISCUSSIONS

TABLE - I
DESCRIPTIVE ANALYSIS OF SELECTED ATHLETIC PERFORMANCE OF
SCHOOL BOYS ON EXPERIMENTAL GROUP

Sl.No	Variables	Pre Test Mean	SD (±)	Post Test Mean	SD (±)	Adjusted Mean
1	Shot put	7.42	0.78	7.63	0.87	7.66
2	800 meter	2.41	0.37	2.30	0.13	2.30

The above table documents the pre & post tests means, standard deviations and adjusted mean values of experimental group on the selected variables among the school boys.

TABLE - II
DESCRIPTIVE ANALYSIS OF SELECTED ATHLETIC PERFORMANCE OF
SCHOOL BOYS ON CONTROL GROUP

Sl.No	Skills	Pre Test Mean	SD (±)	Post Test Mean	SD (±)	Adjusted Mean
1	Shot put	7.40	0.55	7.42	0.71	7.43
2	800 meter	2.39	0.39	2.38	0.29	2.38

The above table documents the pre & post tests means, standard deviations and adjusted mean values of control group on the selected variables among the school boys.

TABLE - III

COMPUTATION OF ANALYSIS OF COVARIANCE ON SELECTED ATHLETIC PERFORMANCE IN SCHOOL BOYS

Sl. No	Skills	Source of Variance	Sum of Squares	df	Mean Square	F
1	Shot put	BG	2.85	1	2.85	6.47*
		WG	12.12	27	0.44	
2	800 metre	BG	0.16	1	0.16	4.59*
		WG	0.95	27	0.03	

* Significant at 0.05 level

*F 0.05 (1,27) = 4.21

The above table shows the results of analysis of covariance on the shot put and 800 metres were 6.47 and 4.59. They obtained F value was greater than the required value 4.21 at 0.05 level of confidence. Since the observed ‘F’ value was greater than the table ‘F’ value on all the selected variables, it was concluded that there exists a significant difference among the groups.

Figure I: shows the mean values of circuit training group on shot put.

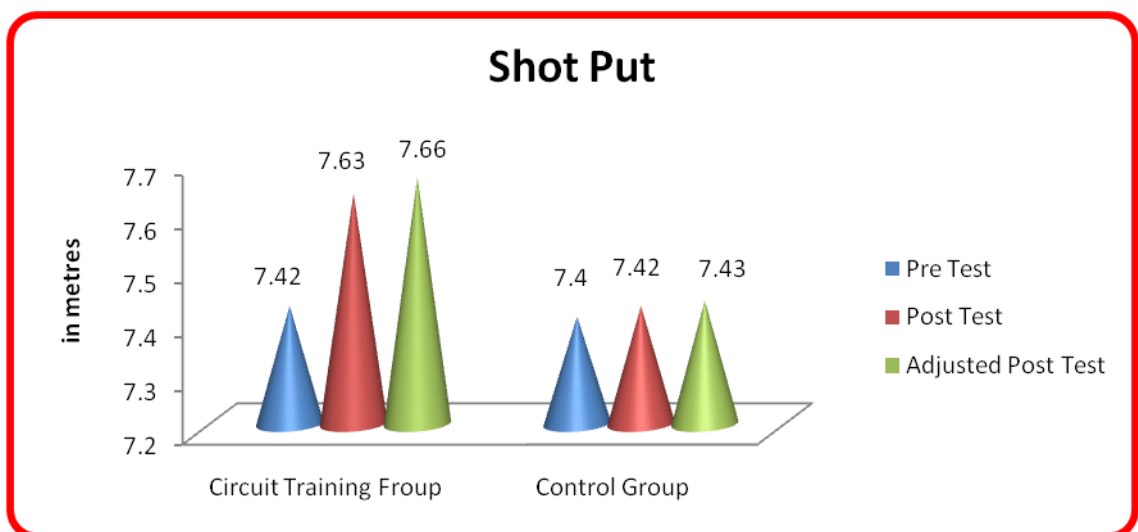
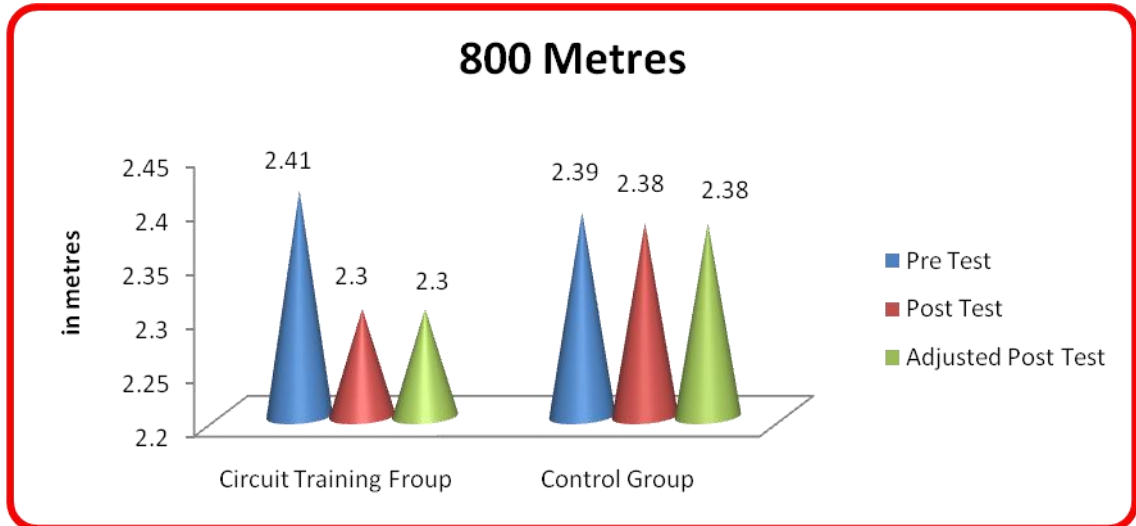


Figure II: shows the mean values of control group on shot put.

CONCLUSIONS

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

1. It was found that the circuit training group showed significant improvement on all the selected variables among the school boys.
2. It was also found that the experimental group shows a significant improvement on all the selected variables among the school boys compare than the control group.

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