Ilkogretim Online - Elementary Education Online, 2021; Vol 20 (Issue 6): pp. 2404-2411
http://ilkogretim-online.org
doi: 10.17051/ilkonline.2021.06.220

Effect Of Concurrent Training On Selected Motor Fitness Variable Among Hockey Players

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Abstract

The purpose of the present study was to investigate the effect of concurrent training on speed among hockey players. To achieve the purpose of the study thirty hockey players were selected from Alagappa Univerity, Karaikudi Tamilnadu, India during the year 2021. The subject's age ranges from 18 to 25 years. The selected subjects were divided into two equal groups consists of 15 subjects each namely experimental group and control group. The experimental group underwent a concurrent training programme for six weeks. The control group was not taking part in any training during the course of the study. Speed was taken as criterion variable in this study. The selected subjects were tested on speed was measured through 50 yards dash. Pre-test was taken before the training period and post- test was measured immediately after the six week training period. Statistical technique't' ratio was used to analyse the means of the pre-test and post test data of experimental group and control group. The results revealed that there was a significant difference found on the criterion variable. The difference is found due to concurrent training given to the experimental group on speed when compared to control group.

Keywords: Concurrent training, Speed and't' ratio.

INTRODUCTION

Concurrent Training (CT) is defined as the combination of resistance and endurance training in a periodized program to maximize all aspects of physical performance. Unless an athlete is in a pure-power sport like Olympic Weightlifting, or a pure-endurance sport like long distance cycling; a combination of both power-related and endurance-related attributes are required to excel in mixed-type sports. Mixed type sports are sports that depend on several

different energy systems and different strength and speed properties. MMA, boxing, basketball, soccer, hockey and many other team-based sports fall under this category.
During the eccentric phase, the muscle tissue is an absorbing force, and during the concentric phase, it is expressing that absorbed force. During the transition phase, your body is converting this absorbed energy into usable energy (or force) training has also been shown to improve running-based endurance performance by enhancing your running economy – which really indicates that it should also hold a key place in the training of endurance athletes as well (Spurrs, 2005).

RESEARCH METHODOLOGY

Selection of subjects

The purpose of the study was to find out the effect of concurrent training on speed ability among hockey players. To achieve this purpose of the study, hockey players were selected as subjects at random. The age of the subjects were ranged from 18 to 25 years.

Selection of variable

Independent variable

- Concurrent training

Dependent variable

- Speed

EXPERIMENTAL DESIGN AND IMPLEMENTATION

The selected subjects were divided into two equal groups of fifteen subjects each, such as a concurrent training group (Experimental Group) and control group. The experimental group underwent concurrent training for five days per week for six weeks. Control group, which they did not undergo any special training programme apart from their regular physical activities as per their curriculum. The following motor fitness variable namely speed was selected as criterion variable. All the subjects of two groups were tested on selected criterion variable Speed was measured through 50 yards dash at prior to and immediately after the training programme.

Statistical technique

The‘t’ test was used to analysis the significant differences, if any, difference between the groups respectively.

Level of significance

The 0.05 level of confidence was fixed to test the level of significance which was considered as an appropriate.

ANALYSIS OF THE DATA

The significance of the difference among the means of the experimental group was found out by pre-test. The data were analysed and dependent't' test was used with 0.05 levels as confidence.

TABLE I Analysis of t-ratio for the pre and post tests of experimental and control group on Speed

(Scores in seconds)

Variables	Group	Standard Deviation		Sd Error	
		Pre	Post	Pre	Post
Speed	Control Group	0.359	0.358	0.093	0.092
	Experimental Group	0.355	0.373	0.091	0.096

TABLE II

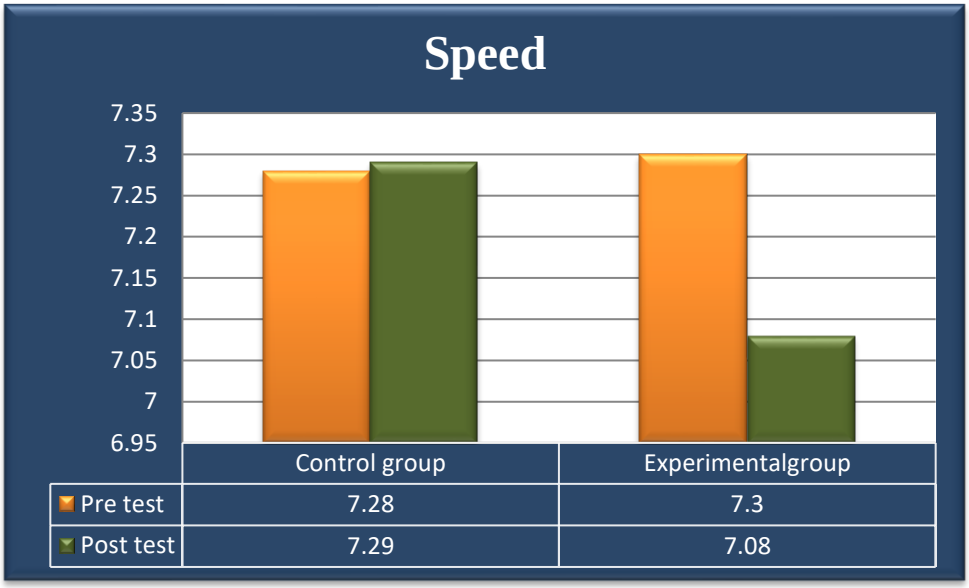
Variables	Group	Mean		Degree of freedom	't' ratio
		Pre	Post		
Speed	Control Group	7.28	7.29	14	0.64
	Experimental Group	7.30	7.08	14	**5.59***

*Significance at .05 level of confidence.

The Table-I and II shows that the mean values of pre-test and post-test of the control group on speed were 7.28 and 7.29 respectively. The obtained 't' ratio was 0.64, since the obtained 't' ratio was less than the required table value of 2.14 for the significant at 0.05 level with 14 degrees of freedom it was found to be statistically insignificant. The mean values of pre-test and post-test of the experimental group on speed were 7.30 and 7.08 respectively. The obtained 't' ratio was 5.59* since the obtained 't' ratio was greater than the

required table value of 2.14 for significance at 0.05 level with 14 degrees of freedom it was found to be statistically significant. The result of the study showed that there was a significant difference between control group and experimental group in speed. It may be concluded from the result of the study that experimental group improved in speed due to six weeks of concurrent training.

Figure-1 Bar Diagram Showing the Pre and Post Mean Values of Experimental and Control Group on Speed



DISCUSSIONS ON FINDINGS

The result of the study indicates that the experimental group, namely concurrent training group had significantly improved the selected dependent variable, namely speed, when compared to the control group. It is also found that the improvement caused by concurrent training when compared to the control group.

CONCLUSION

On the basis of the results obtained the following conclusions are drawn,

1. There was a significant difference between experimental and control group on speed after the training period.
2. There was a significant improvement in speed. However the improvement was in favor of experimental group due to six weeks of concurrent training.

ACKNOWLEDGEMENT

The author thank all the participants who have involved in the study

CONFLICT OF INTEREST

Nil

FUNDING AGENCY

Self-Funding

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