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Effect of Complex Training on selected Psychomotor Variables of School Boys

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Abstract

The purpose of the study was to find out the effect of complex training on selected psychomotor variables of school boys. It was hypothesized that there would be significant differences on selected psychomotor variables due to the effect of complex training on school boys. For the present study the 40 school students from Lake Montfort School, Bengaluru, Karnataka, India were selected at random and their age ranged from 15 to 17 years. For the present study pre test – post test random group design which consists of control group and experimental group was used. The subjects were randomly assigned to two equal groups of twenty each and named as Group 'A' and Group 'B'. Group 'A' underwent complex training and Group 'B' has not undergone any training. The data was collected before and after twelve weeks of training. The data was analyzed by applying dependent 't test. The level of significance was set at 0.05. The complex training had positive influence on balance and hand eye co-ordination of school boys.

Keywords: Complex Training, Psychomotor, School Boys.

Introduction

Complex training, one of the most progressive types of sports preparing, incorporates quality preparing, plyometrics, and sport-explicit development. It comprises of an extreme quality exercise followed by a plyometric work out. Complex preparing enacts and works the sensory system and quick jerk muscle filaments all the while. The quality exercise initiates the quick jerk muscle filaments (liable for dangerous force). The plyometric development focuses on those muscle strands that have been actuated by the quality preparing development. During this initiated express, the muscles have an enormous capacity to adjust. This type of extreme preparing can encourage moderate jerk muscle strands to perform like quick jerk filaments. Complex preparing as exchanging biomechanically tantamount high burden weight preparing and plyometric practices in a similar exercise. Complex preparing as different arrangements of gatherings/buildings of activities acted in a way where a few arrangements of a hefty obstruction practice are trailed by sets of a lighter opposition work out. These creators additionally notice the term contrast stacking and characterize this as "the utilization of activities of differentiating loads that is, substituting weighty and light activities set for set". Eduardo, et al. (2008) characterized complex preparing as the execution of an opposition preparing exercise utilizing a substantial burden followed moderately rapidly by the execution of a biomechanically comparative plyometric work out. Complex preparing substitutes biomechanically comparative high burden weight preparing practices with plyometric works out, set for set in a similar exercise. A case of complex preparing would incorporate playing out a bunch of squats followed by a bunch of bounce squats. As on account of plyometric preparing, complex preparing seems to have its birthplaces in Eastern Europe.

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Methodology

The purpose of the study was to find out the effect of complex training on selected psychomotor variables of school boys. It was hypothesized that there would be significant differences on selected psychomotor variables due to the effect of complex training on school boys. For the present study the 40 school students from Lake Montfort School, Bengaluru, Karnataka, India were selected at random and their age ranged from 15 to 17 years. For the present study pre test – post test random group design which consists of control group and experimental group was used. The subjects were randomly assigned to two equal groups of twenty each and named as Group 'A' and Group 'B'. Group 'A' underwent complex training and Group 'B' has not undergone any training. The data was collected before and after twelve weeks of training. The data was analyzed by applying dependent 't' test. The level of significance was set at 0.05.

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Table 1. *Variables and test*

S.No	Variables	Tests
1	Balance	Stork Stand
2	Hand eye co-ordination	Alternate Hand wall Toss Test

Results

The findings pertaining to analysis of dependent 't' test between experimental group and control group on selected psychomotor variables of school boys for pre-post test respectively have been presented in table 2 to 3.

Table 2. *Significance of mean gains & losses between pre and post test scores on selected variables of complex training group*

S.No	Variables	Pre-Test Mean	Post-Test Mean	Mean difference	Std. Dev (±)	σ DM	't' Ratio
1	Balance	35.45	39.21	3.76	1.28	0.87	3.88*
2	Hand eye co-ordination	26.22	34.80	8.58	1.75	0.99	7.97*

* Significant at 0.05 level

Table 2 shows the obtained 't' ratios for pre and post test mean difference in the selected variable of balance (3.8) and hand eye co-ordination (7.97). The obtained ratios when compared with the table value of 2.09 of the degrees of freedom 19, it was found to be statistically significant at 0.05 level of confidence. It was observed that the mean gain and losses made from pre to post test were significantly improved in psychomotor variables namely balance (3.76, $p<0.05$) and hand eye co-ordination (0.48.583, $p<0.05$) thus the formulated hypothesis is accepted.

Figure I. Comparisons of pre – test means and post – test means for experimental group in relation to psychomotor variables

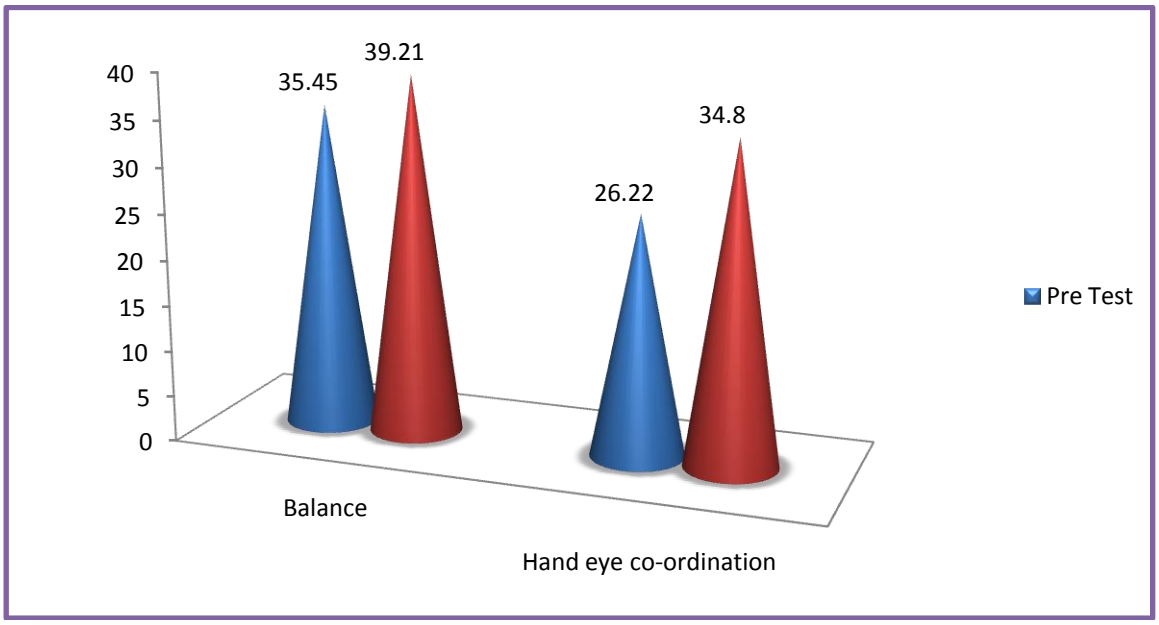

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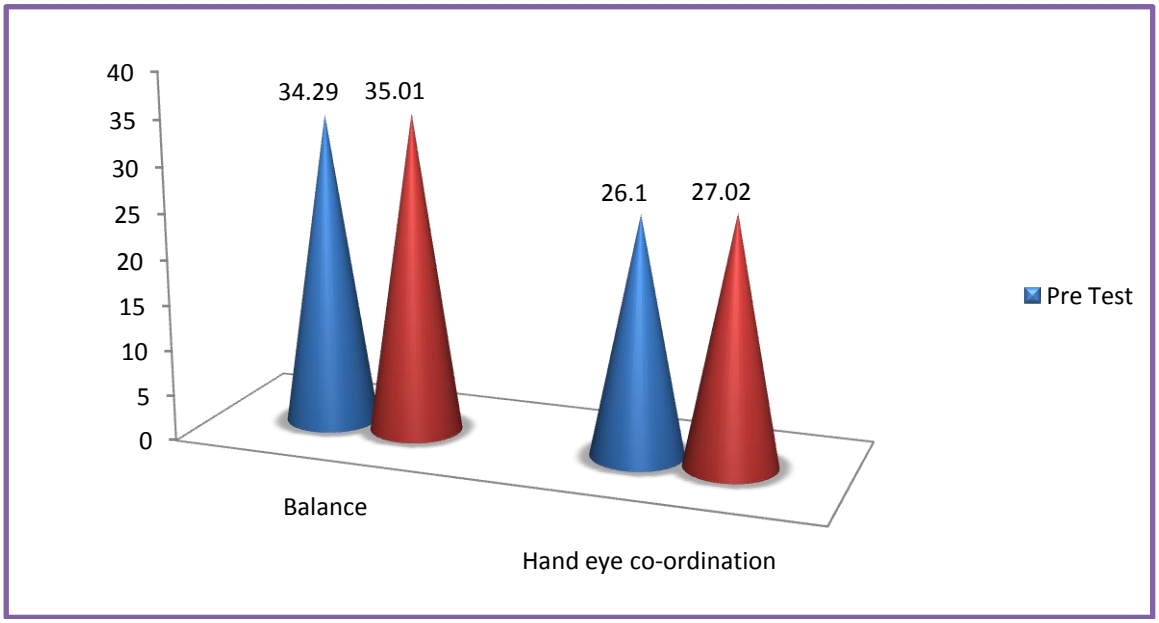
Table 3. *Significance of mean gains & losses between pre and post test scores on selected variables of control group*

S.No	Variables	Pre-Test Mean	Post-Test Mean	Mean difference	Std. Dev (±)	σ DM	't' Ratio
1	Balance	34.29	35.01	0.72	1.09	0.77	1.12
2	Hand eye co-ordination	26.10	27.02	0.92	1.28	0.89	1.38

* Significant at 0.05 level

Table 3 shows the obtained 't' ratios for pre and post test mean difference in the selected variable of balance (1.12) and hand eye co-ordination (1.38). The obtained ratios when compared with the table value of 2.09 of the degrees of freedom 19, it was found to be statistically significant at 0.05 level of confidence. It was observed that the mean gain and losses made from pre to post test were not significantly improved in psychomotor variables.

Figure II. Comparisons of pre – test means and post – test means for control group in relation to psychomotor variables



Discussions on Findings

In case of psychomotor variables i.e. balance and hand eye co-ordination the results between pre and post test has been found significantly higher in experimental group in comparison to control group. This is possible because due to regular complex training which may also bring sudden spurt in psychomotor variables in school boys. The findings of the present study have strongly indicates that complex training of twelve weeks have significant effect on selected psychomotor variables i.e., balance and hand eye co-ordination of school boys. Hence the hypothesis earlier set that complex training programme would have been significant effect on selected psychomotor variables in light of the same the hypothesis was accepted.

Conclusions

On the basis of findings and within the limitations of the study the following conclusions were drawn:

1. The complex training had positive influence on balance and hand eye co-ordination of school boys.
2. The experimental group showed better improvement on balance and hand eye co-ordination of school boys than the control group.

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