

Impact of Model Physical Education Curriculum on Biomotor Development of Co-Ordination (Maximum) Among 12 Year Preadolescent Dexterous School Boys

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Abstract – Education is the process of development in which efforts are made for all-round development of a child. Education involves three processes, Teaching, Training, and Instruction. The learning experiences are provided with the help of the activities for bringing desirable behavioral change among students. The learning situations are generated by teaching tasks in which a student gain new experiences and has to do something; this is the objective of teaching learning. An outline of the content in the narrow sense is called as curriculum, or syllabus. The teaching structure is based on the format of curriculum and the pivot of education is the curriculum. The curriculum is based on the social philosophy which is changing phenomenon. The purpose of the study was to find out the impact of model physical education curriculum on bio-motor development of coordination among 12 year (under 13 years) preadolescent dexterous boys. To achieve the purpose 40 right hand dominance preadolescent boys with the age category of 12 years from Dream Land educational institute Kulgam district, Jammu & Kashmir, India were selected as subjects at random and, the selected subjects were divided in to two groups namely physical training (n=20) and control (n=20). The physical training group underwent training for 15 min/4 days/15 weeks. The collected data were analyzed by using ANCOVA and the magnitude of Improvement was also calculated to find out the level of improvement on dexterous. Level of significance was fixed at 0.05. The result of the study shows that the model physical education curriculum helps to improve the hand strength maximum of dexterous boys.

Keywords: Physical Education Curriculum, Bio-motor, Maximum Strength, Dexterous and Preadolescents

INTRODUCTION

Curriculum is a mean to achieve the aims of education which are dynamic and go on changing with the changing social requirements. It includes all the experiences that child undergoes the guidance of school

authorities. It is the interaction between and among pupils (**Hamilton and David 2014**). Physical education is distinguished from other curricular areas by its primary focus on the body and on physical experiences and is an integral part of the educational process, without which the education of child is

incomplete. Physical education is distinguished from other curricular areas by its primary focus on the body and on physical experiences and is an integral part of the educational process, without which the education of child is incomplete.

Handedness is an attribute of humans defined by their unequal distribution of fine motor skill between the left and right hands. An individual who is more dexterous with the right hand is called right-handed (sinistralists), and one who is more skilled with the left is said to be left-handed (dextralists). Minorities of people are equally skilled with both hands, and are termed ambidextrous (Kabbash, P, 1994).

Coordination refers especially to physical, mental, or moral robustness or vigor enough to do the work. Power is the ability to do something and especially to produce effect (Brookfield, 1994) coordination is essential for physical activity. The value obtained for the strength of a muscle or muscles depends on the type of action, the velocity of the action, and the length of the muscle or muscles. Although early gains in absolute strength are influenced by neural factors, long-term gains depend mainly on increases in muscle size.

A curriculum is the instructors road map of what students need to learn and how it will be done, effectively during the class time specifying concrete objectives for students learning will help to determine the kinds of teaching and learning activates that we use in class.

RESEARCH DESIGN & METHODOLOGY

To achieve the purpose 40 right hand dominance preadolescent school boys with a selected age category of 12 year from Dream Land educational institute Kulgam

district, Jammu & Kashmir, India were selected as subjects at random, the selected subjects were divided in to two groups namely physical training (n=20) and control (n=20). The physical training group underwent training for 15 weeks/ 4 days a week and 45 minutes per day, including warming up and cooling down exercises. The coordination was selected as criterion variable. The hand peg board was tested by nine hole peg board which was selected as testing tool. The subjects were tested for maximum strength for right and left hand with the help of hand grip dynamometer was selected as dependent variable and was tested before and after the experimental period for both the groups. The model physical education curriculum was implemented on the experimental group, while as the control group perform their day to day activities. The curriculum contains four parts 'A' (the physical exercises), 'B' (the yogic asana), 'C' (theoretical part) Part 'D' (the recreational part).The physical exercises contain the simple exercises and some special exercises like Dribbling in Basketball (right and left hand alternatively), Chest pass in Basketball, Dribbling in Hockey, Under Arm and Upper Arm pass in volleyball Ball juggling (both right and left hand). The yogic part includes the asana like Tol Asana, Anand Bal asana, Parsvottan Asana etc. for fifteen weeks, four days per week and forty five minutes per day including warming up and cooling down exercises. The collected data were analyzed by using ANOVA to find out the significant difference, and the magnitude of improvement was also calculated to find out the level of improvement on dexterous. Level of significance was fixed at 0.05.

RESULTS**(a) Hand Peg Coordination****(Dextrality Nine Whole Peg Board Test under-12)**

The table shows the mean, standard deviation and 'F' ratio of coordination Right Hand Nine Hole Peg Board Coordination Test of less than 12 experimental group and control group.

Ancova of Experimental and Control Group among Under 12 Boys on Nine Hole Peg Board Test of Dextrality

Test		Experimental Group	Control Group	Source of Variance	Sum of Squares	Degree of Freedom	Mean Square	F value
Pre Test	Mean	0.75	0.75	B	0.00	1	0.00	0.00
	SD	0.27	0.27	W	5.82	78	0.07	
Post Test	Mean	0.49	0.75	B	1.42	1	1.42	37.08*
	SD	0.03	0.27	W	2.99	78	0.03	
Adjusted post test	Mean	0.49	0.75	B	1.41	1	1.41	77.78*
				W	1.39	77	0.01	

*Significant

The table value of degree of freedom of 1 and 78 and 1 and 77 was 3.96 and 3.97.

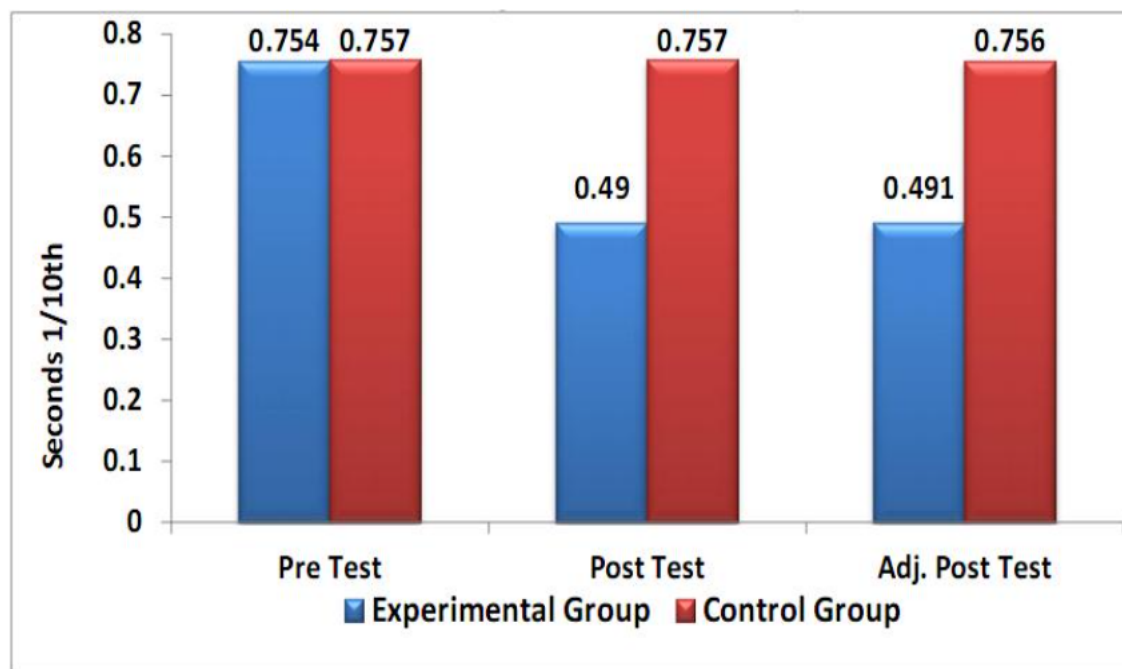
The table shows that, the pretest mean value of experimental group and control group of Nine Hole peg board test of dextrality was 0.75 and 0.75 and the obtained 'F' value 0.00 which was less than the table value 3.96 of degree of freedom of (1 and 78) on Nine Hole peg board test of dextrality .

The posttest mean value of experimental group and control group of Nine Hole peg

board test of dextrality was 0.49 and 0.75 and the obtained 'F' value 37.08, which was greater than the table value 3.96 of degree of freedom of 1 and 78 on Nine Hole peg board test of dextrality.

The adjusted posttest mean value of experimental group and control group of Nine Hole peg board test of dextrality was 0.49 and 0.75 and the obtained 'F' value was, 77.78 which was greater than the table value 3.97 of degree of freedom of 1 and 77 on Nine Hole peg board test of dextrality.

Bar Diagram Shows the Mean Values of Experimental Group and Control Group among Under 12 Boys on Nine Whole Peg Board Test of Dexterity



The result of above table shows that, there was a significant difference between experiment group and control group on hand grip strength of dexterity among under 12year old pre-adolescent boys. Further, the result shows that the experimental group shows better improvement on hand grip strength of dexterity when compared with control group.

DISCUSSION & FINDINGS

The findings confirm that model physical education curriculum has a significant impact on maximum strength on dexterous. The classification of handedness was based on the writing hand. It is speculated that a larger corpus (anybody) callosum (technical) in left-handed men allows for the greater transfer of training between the hands.

The findings confirm that model physical education curriculum which includes the part A (Physical Exercises) Part B (Yogic Asana) Part C (theoretical part) and Part D

(The Recreational Part), especially the physical exercises and yogic part has made a significant effect on strength. All these parts have a good impact on the neuromuscular system of the body which helps in the improvement of dexterous among 12 pre-adolescent school boys.

Incel et al., (2002) have evaluate the grip and pinch strength differences between sides for the right and left handed population. The study included 128 right and 21 left hand dominant volunteers. Grip strength of the participants was measured by using a Jamar dynamometer. Pulp pinch strength measurements were performed by manual pinch meter. When the study group was totally evaluated, a statistically significant difference was found between the group and pinch strengths of dominant and non-dominant hand. For further information they were grouped 149 participants as right and left handed and investigated the number of subjects with stronger non-dominant hand for each group. The percentage of stronger

non-dominant hand grip was 10.93% and 33.33% for right and left handed groups respectively. The rustles were less significant for pinch strength with 28.12% and 28.57% for right and left handed subjects respectively.

Speed strength as the ability to quickly execute an unloaded movement or a movement relatively small external resistance. Speed strength is assessed by the speed of movement

CONCLUSION

It was concluded that the model of physical education curriculum improved the right hand and left hand strength (maximum) of dexterous (Hands). The non-dominant hand showed better improvement on hand strength. Hence, non-dominant has improved the strength when compared to base level.

IMPLICATION

With the help of this model of physical education curriculum, the ambidextrous quality gets developed among the sports persons and professional students like engineer, surgeon and the people dealing with information and technology. Being ambidextrous (using both hands) in sports activity is especially helpful during high-level competition. Further the racket and bat game players will be given such type of specific physical training to improve their dexterity, and to reduce higher use syndrome of hand.

The model physical education curriculum helps to develop the dexterous from early stage among preadolescents. If an individual is heaving better dexterity, they can able to do any sort of work with both hands

simultaneously without getting tired. The findings of the study are helpful for physical educationists and coaches to enhance the dexterity of players who involved in various sports activities. The players can use their dominant and non-dominant hands effectively while performing any kind of physical activity. Being ambidextrous (using both hands) in sports activity is especially helpful during the competition

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