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EFFECT OF MODEL PHYSICAL EDUCATION CURRICULUM ON SELECTED SPEED PARAMETERS OF DEXETROUS PREADOLESCENTS.

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ABSTRACT

The purpose of the study was to find out the effect of model physical education curriculum on selected strength parameters of dexterous preadolescents. For that purpose 40 right handed dominance preadolescent students from Smart Mission high school Anantnag Jammu and Kashmir India were selected as subjects. The age ranges between 10-13 years. The subjects were divided into two groups (n=20), the experimental group and control group. The model physical education curriculum was implemented on the experimental group. The curriculum contains three parts A (the physical exercises), B (the yogic asnas), C (the recreational part).The experimental group underwent training for 15 weeks, 4 days a week and 45 minutes per class including warming-up and cooling down exercises. The speed on left and right hand were selected as dependable variables and tested before and after experimental period. The collected data was analyzed by using ANCOVA.Further independent't' was calculated to find out the difference between left and right hand and the percentage was also calculated to find out the level of improvement on dexterous. Level of confidence was fixed at 0.05. The result of the study shows that the model physical education on curriculum improves the strength of selected subjects (experimental group). As compared to control group.

Keywords: Physical education curriculum, Dexterous, speed.

1. INTRODUCTION

Physical training has been shown to be an effective way to improve the force-producing capacity of hand muscles and to partially reverse the changes observed in the muscle architecture (Izquierdo M, 2003). Mysterious reasons, the right hand significantly gains on the left hand, it is many times superior in accuracy, facility to dominate coordination. Trough dexterity testing is usually provided the result that shows the both quickness and accuracy of the subject in performing any kind of dexterity tasks. Dexterity testing products examine a person's motor skills with regards to the fingers, hands, and arms Bernstein N.A (1991).

Curriculum is a comprehensive plan for an educational training program course to offer new improved work force to fulfill the rising needs of a dynamic society. The physical education curriculum framework is structured to ensure that students can enjoy an open, flexible and balanced program featuring a variety of movement experiences.

For elementary and middle school curriculum include activities that help kids obtain and improve skills, such as running, catching, throwing and striking, applicable to sports such as base ball, volleyball or karate. Balancing skills could be applied to dance or gymnastics. High school curriculum should focus on life time sports skills like tennis or aerobic dance, with a secondary emphasis on team sports. High school curriculum prepares students to become highly proficient in one or more sports or fitness activity of their choice. The health and physical education curriculum also promotes important educational values and goals such as, tolerance, understanding excellence and good health. These values are reinforced in other curriculum areas, as well as, in society itself.

Dexterous refers to the skill and grace in physical movement, especially in the use of the hands; adroitness. In other words, ability to manipulate fine objects with the hands. Handedness is the preferred use of the right hand, the left hand, or one or the other depending on the task. Handedness is the natural or biological preference for using one hand more than the other in performing special tasks depending on which hemisphere is dominant for the task (Rice, 1998).

The adaptive response by the physiological system of the body to physical training, including the neuromuscular system is directly related to the training stimulus. The physical training involves prolonged muscular work increases physical capacity such as strength, endurance, flexibility, co-ordination and so on. The abilities that involve the use of hands develop over time, starting with primitive gestures such as grabbing at objects to more precise activities that involve precise hand coordination. Fine motor skills, are skills that involve a refined use of the small muscles controlling the hand, fingers, and thumb. The controversial idea, people are not either left-handed or right-handed but “strong-handed” or “mixed-handed” (Guiard, Y. 1987).

Handedness is a better(faster or more precise) performance or individual preference for use of a hand, known as the dominant hand, the less capable or less preferred hand is called the non dominant hand(Holder 2012).

Fine motor skills include the ability to manipulate small objects, transfer objects from hand to hand, and various eye–hand coordination tasks. The training through physical education curriculum is an effective means of training people to develop the ability to control the movements of their eyes. The exercise helps in the development of hand-eye coordination. The physical education curriculum can help in improving the fine motor skills

of the hands' grasping power and finger flexibility. Physical training using varying softness and hardness being on a continuous basis can build the hand grip. It also makes the hands and fingers stronger (Kabbash, P, 1994). These physical training methods to develop fine motor skills and improve hand-eye coordination. It also improves visual skills by showing how to distinguish and associate between dexterous and motor co-ordination.

2. METHODOLOGY

2.1 Selection of Subject

For that purpose 40 right handed dominant preadolescent students from Smart mission high school Anantnag Jammu and Kashmir India were taken as subjects. The age ranges between 10-13 years. The subjects were divided into two groups (n=20), the experimental group and control group. The model physical education curriculum was implemented on the experimental group. The curriculum contains three parts 'A' (the physical exercises), 'B' (the yogic asana), 'C' (the recreational part).

2.2 Training Procedure

The physical exercises contain the simple exercises and some special exercises like Bouncing the basketball (right and left hand alternatively), Wall catching (right and left hand alternatively), Ball juggling (both right and left hand). The yogic part includes the exercises like Dhanoor asana, Bhujang asana, Ananda Bal asana etc. The part 'c' that is the recreational part includes the recreational activities which helps to refresh the students after the finish of the above two parts, the main reason to include the recreational part in curriculum is that the children can feel the curriculum easy and can enjoy it and also prepare them to get ready for next work. Every three weeks the load and intensity of exercises was increased by 5%; so that the physiological will adopt by the model physical education curriculum on strength development among Dextrous Pre adolescents.

2.3 Training Program

The model physical educational curriculum was implemented on the experimental group for 15 weeks, 4 days a week and 45 minutes per class including warming-up and cooling down exercises. The speed were selected as criterion variable.

2.4 Tool Used

The hand reaction reaction timer (chronometer) was selected as testing tool. The subjects were tested for speed of left and right hand with the help of chronometer.

2.5 Statistical Analysis

The data was collected from two groups left and right hand was statically examined by applying ANCOVA to find out significant difference. Further independent "t" was calculated to find out the difference between left and right hand and also percentage was also calculated to find out the level of improvement on dexterous. Level of confidence was fixed at 0.05.

3. RESULTS

To find out the significant difference bbetween left and right hand group on dexterous, Mean, SD, t-ratio and ANCOVA were calculated. Percentage was also calculated to find out the level of improvement on dexterous and data pertaining to this has been presented in Table and 2.

TABLE 1
ANCOVA FOR HAND SPEED

VARIABLES	DEXTEROUS	Adjusted Post Test Mean		SOV	Sum of Squares	df	Mean Squares	'F' Ratio
		Physical Training Group	Control Group					
SPEED	Right Hand	39.08	43.66	B	207.49	1	207.49	80.84*
				W	94.97	37	2.57	
	Left Hand	39.07	44.87	B	318.25	1	318.25	55.12*
				W	213.62	37	5.77	
				W	24.17	37	0.65	

(SOV – Source of Variance, B –Between, W – With-in, df – Degree of Freedom)
* Significant at .05 level
F.05 (1,37)=4.11

Table 1 indicates the significance difference between right and left hand speed among preadolscence student of an institution, as the obtained f-ratios of 80.84 and 55.12 respectively were higher than the required F.05 (1, 37)=4.11

TABLE 2
DEXTEROUS 't' VALUE AND MAGNITUDE OF IMPROVEMENT

VARIABLES	DEXTEROUS	Mean	SD	't' Value	Magnitude of Improvement In %
HAND SPEED	Right Hand	4.01	1.90	2.37*	10.43 %
	Left Hand	6.36	3.98		15.71 %

*Significant at .05 level
t.05 (38)=2.03

Table 2 shows the significant difference between right hand and left hand Speed of pre-adolscence studentsa of an institute, as the obtained t-ratio of 2.37 was high than the required t.05 (38)=2.03. Due to selected physical training. The magnitude of improvement was higher for left hand when compared to right hand on hand Speed. Hence it was concluded that the selected physical training improves the dexterous level.

It indicates the significant difference between right hand and left hand Speed due to selected physical training. The magnitude of improvement was higher for left hand when compared to right hand on hand Speed. Hence it was concluded that the selected physical training improves the dexterous level.

4. DISCUSSION

The findings confirm that model physical education curriculum which includes the part A (Physical Exercises) Part B (Yogic Asana) Part C (The Recreational Part) epically the physical exercises and yogic part has made a significant effect on speed.All these parts have a good impact on the neuromuscular system of the body which helps in the improvement of dexterous among school pre-adolescent school boys. The following findings of different researchers were in conformity with this study.

5. CONCLUSION

It was concluded that the model physical education curriculum which includes a set of exercises programs helps in improving the speed of dexterous hands. Hence the dominant hand shows better improvement on speed. The non-dominant hand has also improves speed when compared to base level.

6. IMPLICATION

The results of the study give an idea about the physical training through curriculum on dexterity. 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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