

Effect of Specific Motor Skill Development Programme on Basic Coordination Abilities in Primary School Children



Physical Education

KEYWORDS : Motor skill, Basic coordination, Balance ability, Differentiation ability, Orientation ability, Reaction ability

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ABSTRACT Motor development is the development of movement. The purpose of the study was examining the effect of specific motor skill development programme on basic coordination abilities in primary school children. Total 60 students were selected randomly; the age group of the subject were between 7 to 9 years. The subjects were divided into two groups one was experimental group and another was control group, each group consist of 30 subjects. Experimental group restricted to 12 weeks of motor skill development training program, control group did not perform any specific motor skill development programme. The training session was conducted in three days per week, each session consists of 60 minutes' program including warming up and warming down. This study was restricted to selected performance variable which was chosen as basic coordination abilities. The pre and post test was conducted after intervention for the children. Based on the analysis of statistical results the twelve weeks of specific motor skills development programme was significantly improved on balance ability, differentiation ability, orientation ability, reaction ability, rhythm ability and adapted ability to the 7 and 9 years children.

INTRODUCTION

Motor development is the development of movement. Many motor skills are necessary for everyday life activities. Childhood is considered one of the most important rhythmic controls, balance and spatial orientation stages in man's life. Coordinative abilities serve the formation of the development and his talents mature and she/he gets manageable overall movement from partial movements in a consistent and docile. This also makes the attention paid to childhood motor coordination needed for the performance of motor skills. Coordination ability means an ability to quickly and purposefully perform difficult spatial-temporal movement structures. Within this context, coordination abilities are understood as an externally visible manifestation of the control and regulation processes of the motor activity of the central nervous system. The complex of coordination abilities consists of a group of basic coordination abilities. Through their involvement in physical activities, children develop components of fitness such as agility, coordination and flexibility. Physical fitness is an essential part of children's learning as it affects their performance in sports and games. Several studies show a high decline in coordinative motor skills in childhood (Roth et al., 2009).

Statement of the problem

The purpose of the study was investigative the effect of specific motor skill development programme to develop the basic coordination abilities in primary school children.

Methodology

Selection of subjects

Total sixty children those who voluntarily consent were selected from Jyoths central school, Thiruvananthapuram, Kerala for the purpose of this study. Their age group between 7 to 9 years. The children were selected randomly and divided into two groups, experimental group and control group, each group consist of thirty children. The experimental group were undergone specific motor development training for twelve weeks, the control group did not take part in any specific training for the period. Both the groups were selected according to the following criteria (a) no physical or motor deficits, (b) normal hearing and corrected vision, (c) no language or learning disorders, (d) no illness lasting more than 3^{1/2} months immediately before or during school attendance, (e) no acceleration or repetition of a grade, (f) no failure in a current subject, (g) normal

intelligence as measured by a group intelligence test, (h) right-handedness for writing, and (i) no history of educational remediation.

Selection of variables

The independent variable as specific motor skills development programme and dependent variables are basic coordination abilities. The basis coordination abilities consist of Balance ability, Differentiation ability, Orientation ability, Reaction ability, Rhythm ability and Adapted ability.

Test Administration

S.NO	VARIABLES	TEST	Unit
1	Balance Ability	Flamingo balance test	Number
2	Differentiation Ability	Target throw	Seconds
3	Orientation Ability	Tossing kerchief	Number
4	Reaction Ability	Balloon drop test	Number
5	Rhythm Ability	Tapping on the ball	Number
6	Adapted ability	Penny cup test	Seconds

Results & Discussion of the study:

To find out the difference in two group due to application of specific motor skill development programme, Analysis of Covariance was applied.

Analysis of Covariance among two groups, experimental and Control group on balance ability

Basic Co-ordinative Ability Variables	Adjusted Post Mean		SOV & df	Sum of Square	Mean Squares	F-ratio
	Experimental Group	Control Group				
Balance Ability (in Numbers)	17.97	25.44	B 1 W 58	817.1 1931.7	817.1 33.89	24.11*
Differentiation Ability (in Seconds)	2.38	1.44	B 1 W 58	13.27 14.47	13.27 0.25	51.35*
Orientation Ability (in Numbers)	6.00	5.46	B 1 W 58	4.42 7.16	4.42 0.126	35.18*

Reaction Ability (in Numbers)	0.81	1.15	B 1 W 58	1.732 1.393	1.732 0.024	70.88*
Rhythmic Ability (in Numbers)	46.91	37.68	B 1 W 58	1161.46 453.12	1161.46 7.95	146.10*
Adaptive Ability (in Seconds)	10.77	12.62	B 1 W 58	43.41 20.17	43.41 0.35	122.67*

*Significant at 0.05 level of confidence; F table value df 1 of 58 is 4.02

It is evident from above table that in Balance Ability the adjusted posttest means of experimental group and control group were 17.97, 25.44 respectively and it was found to be significant with F ratio of 24.11 at the table value 4.009.

It is evident from above table that in Differentiate Ability the adjusted posttest means of experimental group and control group were 2.38, 1.44 respectively and it was found to be significant with F ratio of 51.35 at the table value 4.009.

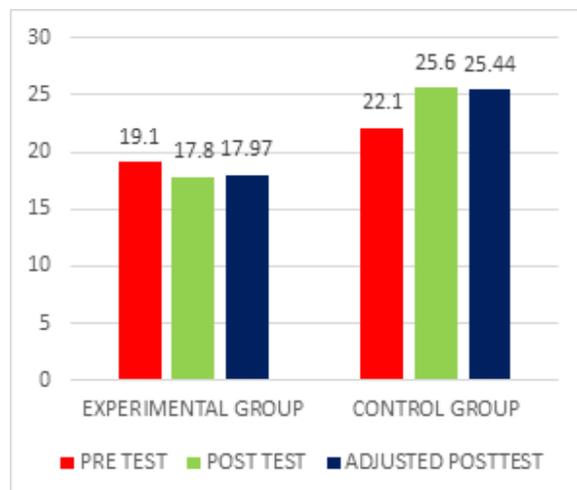
It is evident from above table that in Orientation Ability the adjusted posttest means of experimental group and control group were 6.00, 5.46 respectively and it was found to be significant with F ratio of 35.18 at the table value 4.009.

It is evident from above table that in Reaction Ability the adjusted posttest means of experimental group and control group were 0.81, 1.15 respectively and it was found to be significant with F ratio of 70.88 at the table value 4.009.

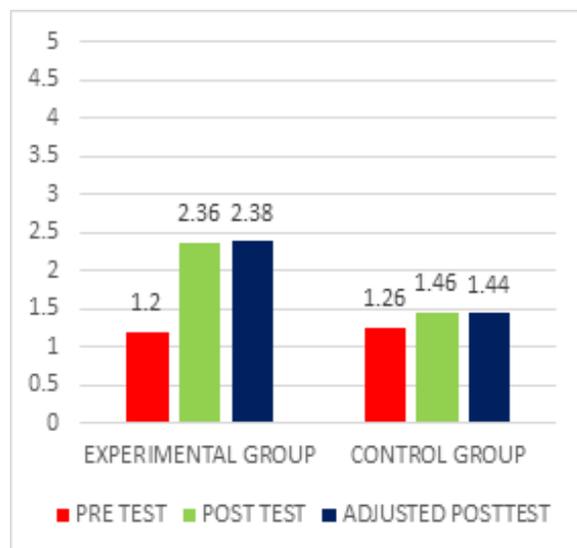
It is evident from above table that in Rhythmic Ability the adjusted posttest means of experimental group and control group were 46.91, 37.68 respectively and it was found to be significant with F ratio of 146.10 at the table value 4.009.

It is evident from above table that in Adoptive Ability the adjusted posttest means of experimental group and control group were 10.77, 12.62 respectively and it was found to be significant with F ratio of 122.67 at the table value 4.009.

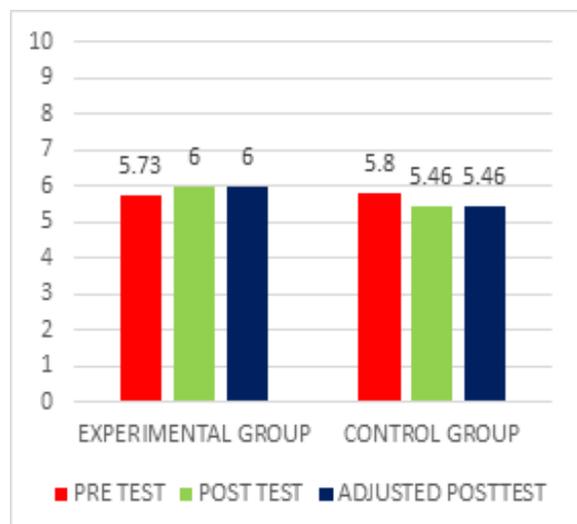
Balance Ability (in Numbers)



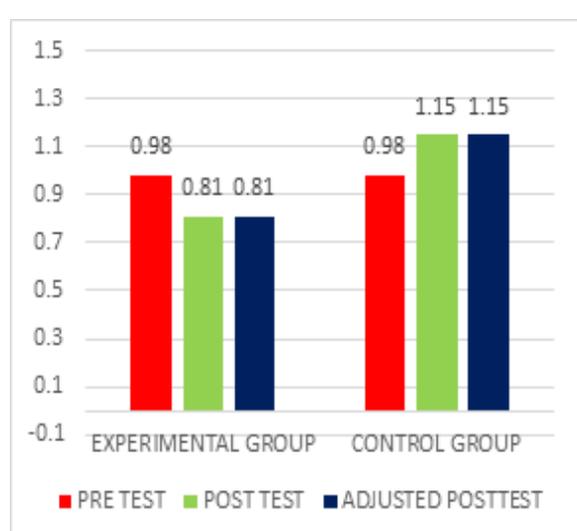
Differentiate Ability (in Seconds)



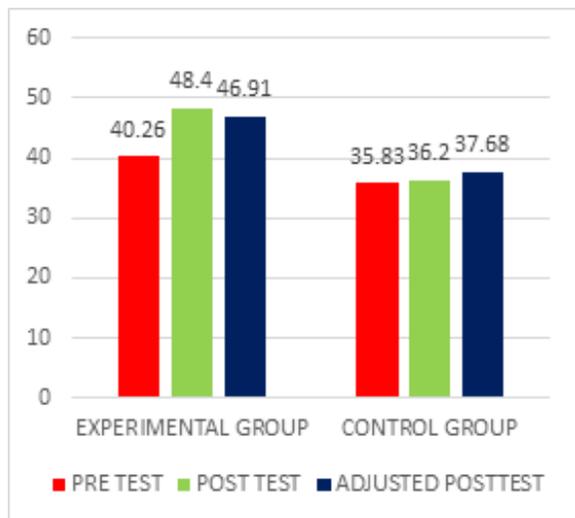
Orientation Ability (in Numbers)



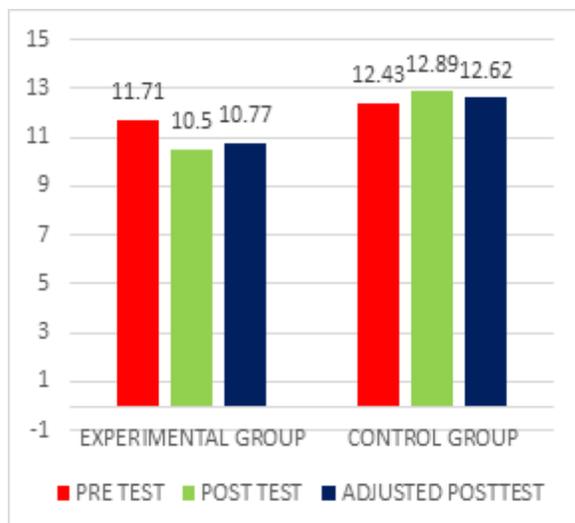
Reaction Ability (in Numbers)



Rhythmic Ability (in Numbers)



Adoptive Ability (in Seconds)



Conclusions

The following conclusions were drawn on the basis of results

The twelve weeks of specific motor skills development programme improved significantly on basic coordination abilities for experimental group when compare with control group.

The twelve weeks of specific motor skills development programme was significantly improved on Balance Ability, Differentiation Ability, Orientation Ability, Reaction Ability, Rhythm Ability and Adapted Ability to the 7 and 9 years children.

From this study it also concluded that if the children involved in specific motor skill training programme in their regular activities; their basic coordinative abilities would be developed.

These basic coordinative developments would help to the children for the activities of academic as well as in physical development.

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