

Effect Of Psychomotor Training On Selected Coordinative Abilities Of Preschool Children

Devendra Aswal

Physical Education Teacher, Apeejay School, Kharghar, Navi Mumbai

Prof. Vasanthi Kadhiraan

Head, Department of Physical Education, University of Mumbai, Mumbai

ABSTRACT

This Ph.D. research study investigates the impact of psychomotor training on the coordinative abilities of preschool children. It develops organised patterns of muscular activities guided by signals from the environment. Utilizing a controlled experimental design, the study explores the effectiveness of structured psychomotor interventions in fostering fundamental movement skills and coordination development in this critical stage of early childhood. This research employs a combination of quantitative assessments and qualitative observations to measure the progress and identify key factors influencing the outcomes. The subjects for the study were aged 4- 5 years from Apeejay School, Kharghar, Navi Mumbai and the total size of the group was 60 preschool children. Pre and post-test were conducted by administering standardized tests on the selected coordinative abilities i.e. rhythm ability, balance ability, orientation ability, adaptation ability, differential ability etc before and after the training program. The psychomotor training was executed for 4 months, 2 days in a week in a morning session for 40 minutes. The Psychomotor training consists of basic training of football, basketball, volleyball, and cricket. The collected data was analyzed by applying the 't' test. The findings contribute valuable insights into the fields of early childhood motor development, emphasizing the significance of targeted psychomotor interventions for the holistic development of preschool children.

Keywords: Psychomotor training, Coordinative abilities, Preschool.

INTRODUCTION

Free games are not sufficient for the development of the coordinative abilities of children. Children in preschool and primary school age need to participate in appropriate training programs, which should aim to prevent children's proper coordination. At the same time, these programs target better preparation for learning. Apart from these, the enhancement of the development of self-esteem and social and emotional skills could be considered essential. In that way, the curriculum of preschool includes the psychomotor education as a training that supports the holistic development of children. Psychomotor training program, enriched coordinative abilities with theatrical play, on the cognitive skills and motor proficiency of preschoolers. The existence of programs that evolve the mobility of preschoolers and, simultaneously, have a positive impact on coordinative abilities are of particular importance in preschool age.

PSYCHOMOTOR TRAINING

Psychomotor training enables preschool children to change play through communication and interaction with other children, develop roles and rules for the self, develop an understanding of self and others, improve their communication ability and socialization skills through the process of finding pleasure, and develop self-control. Children are usually active and expressive when they are free without being forced to play. The training allows the individual interests of children to develop, induces curiosity, supports the desire to obtain new experiences, and supports variations in children's behavior. This training consists of experience-based behavior tasks that enable children to realize that they are important members in-group activities and helps them to form positive self-concepts and experience that they can exert their influence. Psychomotor training, development of organized patterns of muscular activities guided by signals from the environment. Behavioral examples include driving a car and eye-hand coordination tasks such as sewing, throwing a ball, typing, operating a lathe, and playing a trombone.

COORDINATIVE ABILITIES

Coordinative abilities emerge through practice and experience that begins in early childhood and continues throughout life. It can be defined as the cognitive and motor skills set that allows a person to make movements with efficiency, accuracy, and adaptability. Such abilities are necessary for the performance of several physical activities and sports. Several components are usually categorized under the heading of coordinative abilities, such as orientation, reaction, balance, rhythm, and differentiation abilities. It is important to understand these components in order to develop training programs that enhance the performance of athletes and their everyday functionality.

METHODOLOGY

The purpose of this experimental research study was to investigate the effect of the Psychomotor Training program for the promotion of selected coordinative abilities of preschool children. The selected 60 preschool children underwent 4 months of Psychomotor training consisting of the basics of football, basketball, volleyball and cricket training for 2 days in a week (Tuesday and Friday) in a morning session for 60 minutes.

COLLECTION OF DATA

Pre-test and Post-test were conducted on the selected coordinative variables such as Rhythm, Balance, Orientation and Coupling abilities of preschool children administering Sprint at given Rhythm test, Flamingo balance test, Numbered medicine ball run test and Plate tapping test respectively.

STATISTICAL ANALYSIS AND FINDINGS:

The data obtained during the pre and post-test was then analyzed by using statistical procedure of 't' test as suggested by Mr. McGuggan for further understanding and interpretation of scores obtained.

Results:

Comparison of mean gain of pre-test and post-test on Coordinative abilities of Preschool Children.

Variables	Pre-Test			Post Test			df	't'	Significanc e	level
	Mean	SD	SEM	Mean	SD	SEM				
Rhythm	2.2380	0.9446	0.1219	1.4487	0.5324	0.0687	59	8.1585	Yes	0.5
Balance	4.63	2.13	0.28	2.27	1.42	0.18	59	13.0778	Yes	0.5
Orientation	21.0023	2.8646	0.3698	19.6317	2.5598	0.3305	59	18.4662	Yes	0.5
Coupling	21.4427	3.0081	0.3884	19.9455	2.8211	0.3642	59	58.3744	yes	0.5

In case of Rhythm ability the mean performance of the experimental group in pre-test was 2.2380 and post-test 1.4487. In SEM gain of the experimental group in Pre-test 0.1219 and Post-test 0.0687, and for Standard deviation (SD) pre-test 0.9446 and post-Test 0.5324. The Degree of freedom (df) is 59. The Result of paired 't' test of the group shows a significant improvement in Rhythm ability ($t=8.1585$). There is significant improvement in Rhythm ability. The study has proved significant at 0.5 level. Hence, H₁ Psychomotor training will show a significant improvement in the rhythm abilities of preschool children is accepted.

In case of Balance ability the mean performance of the experimental group in pre-test was 4.63 and post-test 2.27. In SEM gain of the experimental group in Pre-test 0.28 and Post-test 0.18, and for Standard deviation (SD) pre-test 2.13 and post-Test 1.42. The Degree of freedom (df) is 59. The Result of paired 't' test of the group shows a significant improvement in Balance ability ($t=13.0778$). There is significant improvement in Balance ability. The study has proved significant at 0.5 level. Hence, H₂ Psychomotor training will show a significant improvement in the balance abilities of preschool children is accepted.

In case of Orientation ability the mean performance of the experimental group in pre-test was 21.0023 and post-test 19.6317. In SEM gain of the experimental group in Pre-test 0.3698 and Post-test 0.3305, and for Standard deviation (SD) pre-test 2.8646 and post-Test 2.5598. The Degree of freedom (df) is 59. The Result of paired 't' test of the group shows a significant improvement in Rhythm ability ($t=8.1585$). There is significant improvement in Orientation ability. The study has proved significant at 0.5 level. Hence, H₃ Psychomotor training will show a significant improvement in the orientation abilities of preschool children is accepted.

In case of Coupling ability the mean performance of the experimental group in pre-test was 21.4427 and post-test 19.9455. In SEM gain of experimental group in Pre-test 0.3884 and Post-test 0.3642, and for Standard deviation (SD) pre-test 3.0081 and post-Test 2.8211. The Degree of freedom (df) is 59. The Result of paired 't' test of the group shows the significant improvement in Coupling ability ($t=58.3744$). There is significant improvement in Coupling ability. The study has proved significant at 0.5 level. Hence, H₄ Psychomotor training will show a significant improvement in the orientation abilities of preschool children is accepted.

CONCLUSION:

The result of the study indicated that there was significant improvement in Rhythm, Orientation Balance, Orientation and Coupling Abilities of preschool children due to 8 weeks of

Psychomotor training. From the results we recommend that Psychomotor training must be carried out to enhance the Coordinative abilities of Preschool Children.

REFERENCES

1. A.K.Uppal, "Principles of Sports Training", Friends Publication (India), 2001
2. Robert McMurray, "COORDINATION", Meyer and Meyer Sports Publication (UK), 2000
3. Dr. Shyam Anand, "Upkars UGC NET/JRF/SET", Upkar Prakashan Publication, New Delhi, 2000
4. D. K. Kansal, "Test and Measurement in Sports and Physical Education", D.V.S Publication, New Delhi, 1996
5. K. Chandra Shekhar, "Sports Training", Khel Sahitya Kendra Publication, (India) 2007
6. Hardayal Singh, "Science of Sports Training", D.V.S. Publications, New Delhi, 1991
7. Altinkök, M. (2016). The effects of coordination and movement education on preschool children's basic motor skills improvement. *Universal Journal of Educational Research*, 4(5), 1050–1058.
8. Latino, F., Cataldi, S., & Fischetti, F. (n.d.). Effects of a coordinative ability training program on adolescents' cognitive functioning. Department of Basic Medical Sciences, Neurosciences and Sense Organs, School of Medicine, University of Bari, Bari, Italy.
9. Gallotta, M. C., Baldari, C., & Guidetti, L. (2018). Motor proficiency and physical activity in preschool girls: A preliminary study. *Early Child Development and Care*, 188(10), 1381–1391.
10. Gül, M., & Çelik, D. (n.d.). The effect of eight weeks coordination training on tennis and motor skills performance on 8-10 years children. Kocaeli University, Faculty of Sports Science, Umuttepe Campus, Izmit, Kocaeli, Turkey.
11. Rintala, P., Pienimäki, K., Ahonen, T., Cantell, M., & Kooistra, L. (1998). The effects of a psychomotor training programme on motor skill development in children with developmental language disorders. *Human Movement Science*, 17(4–5), 721–737.