



ISSN: 2456-0057

IJPNPE 2018; 3(2): 37-39

© 2018 IJPNPE

www.journalofsports.com

Received: 20-05-2018

Accepted: 22-06-2018

Dr. J Samuel Jesudoss

Asst Professor, YMCA College of
Physical Education Chennai,
Tamil Nadu, India

Impact of music therapy on mathematical skills of educable mentally challenged children

Dr. J Samuel Jesudoss

Abstract

The purpose of the study was to find out the effect of movement oriented music therapy on Mathematical Skills of educable mentally challenged children. To achieve this purpose, forty mild (educable) mentally challenged children were randomly selected from Balavighar School, kilpauk, Chennai. The subjects who adolescent boys and girls ranging from 12 to 17 years of age. They were randomly divided into two equal groups. The experimental group consists of 20 mild mentally challenged children and control group 20 mild mentally challenged children. The subjects were trained for 12 weeks with movement oriented therapy like yoga, aerobics, calisthenics, and music therapy. The Mathematical Skills as one of the cognitive domains was selected as a criterion variables were recorded prior, mid and immediately after the training program by the test Numbers Counting through the special educators. The Two way repeated measures of ANOVA were applied to find out the significant difference if any in the criterion variables between pre mid and post-tests. The result of the study revealed that there was significant differences on Mathematical Skills after a training period of 12 weeks, which included movement therapy.

Keywords: Music therapy, mentally challenged children, calisthenics

1. Introduction

Yoga is a scientific system of physical and mental practices that originated in India more than three thousand years ago. Its purpose is to help each one of us achieve our highest potential and to experience enduring health and happiness. With Yoga, we can extend our healthy, productive years far beyond the accepted norm and, at the same time, improve the quality of our lives.

The Calisthenics exercise is one of more available means of developing coordination, reaction time and balance. The Calisthenics exercise must be performed in an exact manner and in full range of motion. In most cases ten or more repetitions are performed for each exercise and repeated in sets of two or three (Seaman 2003) ^[2].

Calisthenics exercises are the all-time favourite means of developing physical condition. Exercises serve nicely as a warm up routine for other activities to follow and it generally provides an outlet for the need for something vigorous especially when a particular lesson requires the pupils to observe and listen more than usual. (Staley 1926) ^[3]

The investigator has chosen minor games which included the basic motor activities. Since the subject under treatment are children, the investigator felt that they may feel stale and bored-up if the same types of exercises were given on all the day of a week. The investigator strongly felt that if the activities are in the form of minor games, they will be happy to participate with the competitive spirit without feeling fatigue.

2. Methodology

To achieve this purpose, forty mild (educable) mentally challenged children were randomly selected from Balavighar School, kilpauk, Chennai. The subjects were adolescent boys and girls ranging from 12 to 17 years of age. They were randomly divided into two equal groups. Experimental group consists of 20 mild mentally challenged children and control group 20 moderate mentally challenged children. The subjects were trained for 12 weeks with movement oriented therapy like yoga, aerobics, calisthenics, and music therapy. The factor of Cognitive Domain the mathematical Skill was selected as criterion variable and they were

Correspondence

Dr. J Samuel Jesudoss

Asst Professor, YMCA College of
Physical Education Chennai,
Tamil Nadu, India

recorded prior, during and immediately after the training program by the following mathematical skill test, (counting the numbers) special educators were used to conduct the test.

Table 1: Cognition

S.no	Variable	Tools administered
1.	Mathematical Skills	Numbers Counting



Fig I

3. Analysis and Interpretation of the Data

The following statistical procedures were used to analyze the obtained data. The Two way repeated measures of ANOVA were applied to find out the significant difference if any in the criterion variables between pre, middle and post-tests. To test the level of significance of difference between the means 0.05 level of confidence was fixed.

4. Results and Discussion

The statistical analysis comparing the initial, middle and final means of Cognitive Domain the Mathematical Skills due to the movement therapy of mentally challenged children are presented in table and graphs.

Table 2: The Mean and Standard Deviation on Mathematical Skills Pre Test, Mid Test, Post Test of Mentally Challenged Children

Groups		Pre test	Mid test	Post test
Experimental group	Mean	5.50	6.20	7.05
	SD	1.762	1.673	1.394
Control group	Mean	5.65	5.10	5.70
	SD	1.424	1.447	1.080

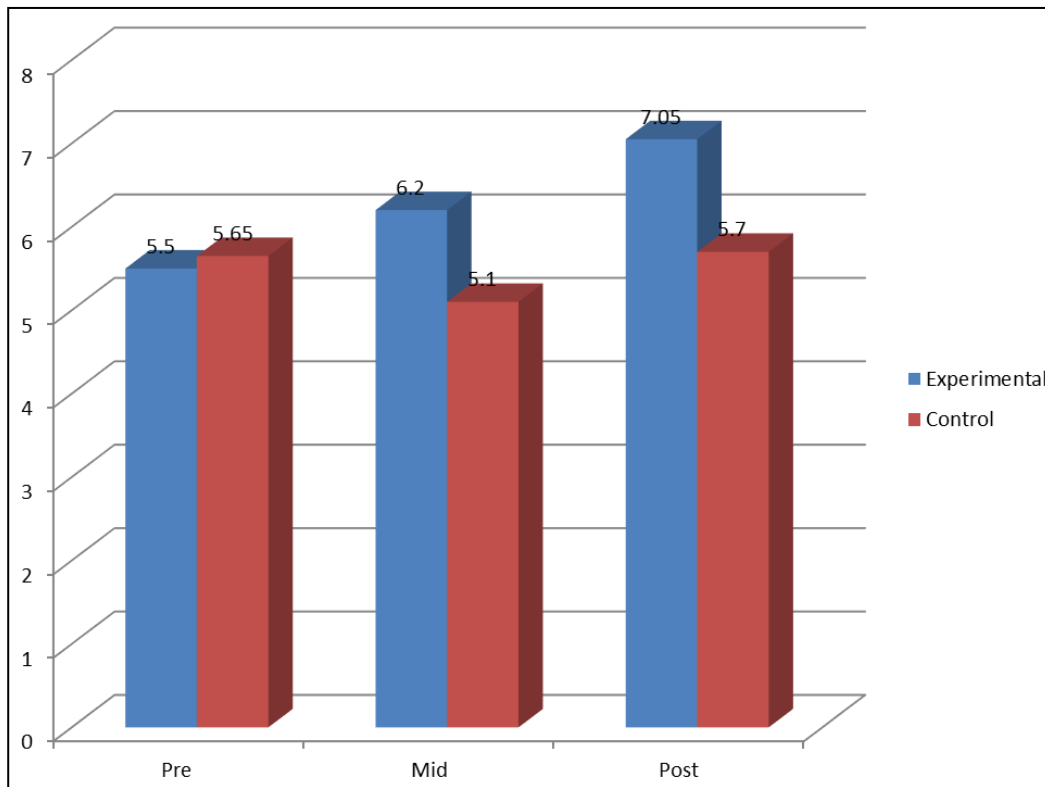


Fig 2: Mean Scores of Pre Test, Mid Test, Post Test of Experimental And Control Group on Mathematical Skills

Table 3: Two Way Repeated Measures of Anova on Mathematical Skills of Experimental and Control Groups among Training

Source of Variance	Sum of Squares	df	Mean Squares	Obtained F-ratio
A factor (Group)	17.63	1	17.63	2.43
B factor (Trial)	12.80	19	12.80	46.76*
AB factor (Interaction) (Group and Trial)	11.25	1	11.25	31.66*
Error I	93.20	19	4.90	

*Significant at 00.05 level

From the above Table, the obtained F-ratio value of interaction factor A x B (group x trial) is 31.66, which is greater than the table value of 4.38 with df 1 and 19 required for significance at 0.05 level of confidence. The result of the study shows that there is a significant difference among the paired means of interaction factor A x B (group x trial) on Mathematical Skills.

5. Conclusions

It was concluded that the movement therapy for a period of 12 week had significantly improved Mathematical Skills of educable mentally challenged children.

6. References

1. Joseph winnick P. Adapted Physical Education and Sports, USA. Human Kinetics, 2005.
2. Seaman, Depauw, Morton, Omoto. Making Connections from Theory to Practice in Adapted Physical Education, Scottsdale: Holcomb Hathway Publishers, 2003.
3. Staley SC. Calisthenics, New York.: A.S. Barnes and company publishers, 1926.
4. Anderson W. Introduction. In W. Anderson (Ed.), Therapy and the arts: Tools of consciousness. New York: Harper Colophon Books, 1977.
5. Boxhill EH. A continuum of awareness: Music therapy with the developmentally handicapped. Music Therapy, 1981; 1(1):43-49.
6. Boxhill EH. Music therapy for the developmentally disabled. Austin, TX: PRO-ED, 1985.
7. Grunfeld, Frederic V. Music. New York: Newsweek Books, 1975.
8. National Association for Music Therapy, Inc. Professional Competencies, 1996.