



ISSN: 2456-0057  
IJPNPE 2018; 3(2): 35-36  
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www.journalofsports.com  
Received: 27-05-2018  
Accepted: 30-06-2018

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## Efficacy of therapeutic recreation on cognitive abilities of trainable mentally challenged children

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### Abstract

The purpose of the study was to find out the influence of therapeutic recreation on cognitive abilities of trainable mentally challenged children. To achieve this purpose, forty moderate (Trainable) 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 moderate mentally challenged children and control group 20 moderate mentally challenged children. The subjects were trained for 12 weeks with therapeutic recreation like yoga, aerobics, calisthenics, and music therapy. The Cognitive Domain (Memory and Attentional focus) selected as a criterion variables were recorded prior, mid and immediately after the training program by test (identification and reading) 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 Cognitive Domain (Memory and Attentional focus) after a training period of 12 weeks.

**Keywords:** Therapeutic recreation, cognitive abilities, mentally challenged children

### 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) <sup>[1]</sup>.

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) <sup>[3]</sup>

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.

### Methodology

To achieve this purpose, forty moderate (trainable) 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 moderate 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

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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:** I cognition

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



**Fig I**

**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.

**Conclusions**

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

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**Analysis and Interpretation of the Data**

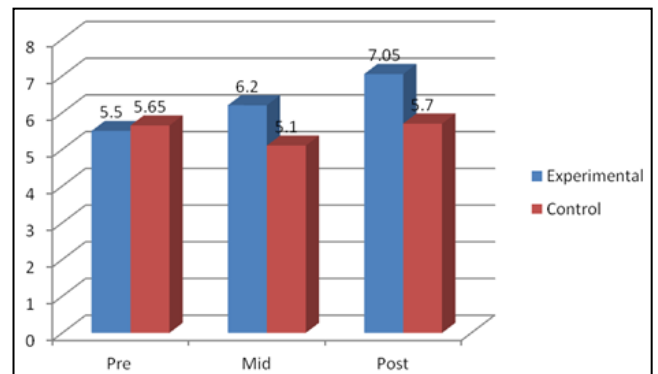
The following statistical procedures were used to analyze the obtained data. The Two way repeated measures of ANOVA were applied to find out the significant difference if any in the criterion variables between pre, middle and post-tests. To test the level of significance of difference between the means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

**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

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