



**A STUDY TO ASSESS THE EFFECTIVENESS OF SENSORY STIMULATION  
ON COGNITIVE ABILITY AMONG CHILDREN WITH MODERATE  
INTELLECTUAL DISABILITY AT A SELECTED SPECIAL SCHOOL OF  
BHIND, MADHYA PRADESH**

**Mr. Ashok Kumar Sahu**

**(Ph.D. Scholar, Malwanchal University, Indore)**

**INTRODUCTION:**

Children with mental retardation have various clinical problems. They mostly have motor delay and sensory deficit. Neuro-rehabilitation focuses on restoring remaining abilities. Thus, the present study was designed to study the effects of simultaneous use of sensory-motor therapy on manual skills of children with mental retardation.

In surveys of the general population in India among people of all ages, it has been found that around 2% are mentally challenged. In other words, in a village of 1000 people, 20 people are mentally challenged. Only in children, (under 18 years of age) there will be about 3% of cases with mental retardation. Mild mentally challenged are much more common than severe mentally challenged, accounting for 65 to 75% of all cases, who are considered the educable and trainable.

Recent studies have shown a significant relationship between sensory and motor components such as deep sense, tactile perception, the processing sensory-bodily ability, subtle motor skills of the hands, self-care performance, and social movement, and functioning. Also, a relationship has been found between sensory-motor skills and handwriting quality. Therefore, it seems that sensory-motor skills and manipulation of the hands are important components of handwriting. Studies have also shown that progress in manual skills and subtle movements of the hands is related to the increase

50

in rational age in people with mental retardation, and children who show less accuracy in tactile areas, such as stereognosis, have a learning disability compared to their peers. Since, In India most of the children are mentally retarded around 20 million with peak in 10 to 12 years of age and as children are the backbone of the nation, the researcher felt that his small dissertation can contribute to a minor extend to help them cope up with mental retardation. So, researcher felt the need to conduct this study.

#### **OBJECTIVES:**

1. To assess the cognitive ability before intervention among children with moderate intellectual disability in selected special children's schools
2. To assess the cognitive ability after intervention among children with moderate intellectual disability in selected special children's schools
3. To compare cognitive ability before and after intervention among children with moderate intellectual disability in selected special children's schools
4. To associate the findings with selected demographic variables among children with moderate intellectual disability in selected special children's schools

#### **HYPOTHESIS:**

H<sub>0</sub>: There will be no significant effect of sensory stimulation on cognitive ability of moderate intellectually disabled children.

H<sub>1</sub>: There will be a significant effect of sensory stimulation on cognitive ability of moderate intellectually disabled children.

#### **MATERIALS AND METHODS:**

In this study, the researcher has used quantitative approach. The research design adopted for the study was quasi experimental design (one group pre-test post-test control group design) was used. The population for the study is the intellectual disabled children of Bhind, M.P. The study samples consist of moderate intellectually disabled children of Santoshi special schools for Special Kids of Bhind. The sample size selected for the study was 40. Purposive sampling technique was used. The following criteria are set to select samples.

##### **Inclusion Criteria**

1. Children with moderate intellectual disability from special children's schools.
2. Children in age group of 05-15 years.

1. Children, who have mental retardation with any other psychiatric disease condition like M.R. with psychosis, M.R. with schizophrenia etc.
2. Children, who have physical problems like handicapped, blindness, deafness etc.

The result shows that, in experimental group, 45% of them had age 9 to 12 years and 40% of them had age 13 to 15 years, 15% of the children with moderate intellectual disability had age 5 to 8 years. In control group, 60% of them had age 9 to 12 years and 30% of them had age 13 to 15 years, 10% of them special school children had age 5 to 8 years. Result show that, in pre-test, 65% of the children with moderate intellectual disability in experimental group had poor cognitive ability (score 0-9) and 35% of them had average cognitive ability (score 10-21). 55% of the children with moderate intellectual disability in control group had poor cognitive ability (score 0-9) and 45% of them had average cognitive ability (score 10-21).

The study revealed that the sensory stimulation is effective in improving the cognitive ability score of the children with moderate intellectual disability and also to help them live a good life.

1. Fletcher JM. Classification and Identification of Learning Disabilities. 4th ed; 2012; pp. 231-56.
2. Chien CW, Brown T, McDonald R. A framework of children's hand skills for assessment and intervention. *Child Care Health Dev.* 2009;68(6):194-207.
3. Markham LR. Influences of Handwriting Quality on Teacher Evaluation of Written Work. *Am Educ Res J.* 1976;13(1):124-31.
4. Case-Smith J. Effectiveness of School-Based Occupational Therapy Intervention on Handwriting. *Am J Occup Ther.* 2002;56(1):17-25.

