

## E4

### **A study on Visual Motor Integration Therapy and Sensory Processing skills to improve writing skills in children with Autism Spectrum Disorder(ASD)**

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**Introduction:** Visual Motor Integration (VMI) is the ability of the eyes & hands to work together in smooth and efficient patterns. It involves visual perception and eye-hand co-ordination. Visual motor integration is an important variable to a child's handwriting skills, particularly when copying or transposing from printing material to cursive or manuscript writing. There are various factors like visual-perceptual, motor planning, motor memory, sequencing etc. for handwriting performance

When our body's sensory systems are functioning appropriately, we are able to manage tasks like writing with a pencil. There are many sensory processing skills and its strategies to help the children in writing tasks like holding a pencil, forming letters, writing on lines, and copying from a chalkboard. When there is a deficit in one of these areas, the children with Autism Spectrum Disorder having sensory integration problems and activities that we are required to perform are affected. These children fail to realize that they've dropped their pencil or that they've got pencil smears all over their palms. So the present study is focusing on visual Motor Integration and Sensory processing skills for the development of the writing skills in children with ASD.

#### **Objective:**

- To identify the Visual Motor skills and sensory processing skills in writing
- To find the effectiveness of Visual Motor Integration Therapy in children with ASD

**Method:** The 5 children with Autism Spectrum Disorder age group of 5 to 6 years were conveniently selected for this study. The subject was assessed with Sensory Profile to find out the sensory issues related to writing problems. The pre-test was conducted with Beery VMI and Evaluation tool of Children Handwriting (ETCH). Visual Motor Integration Therapy and Sensory Processing skills activities was developed and implemented to the children for 3 days in a week/ 45 minutes' duration. The post test was conducted at the end of 3 months and the data was analysed statistically.

**Result and conclusion:** This result of this study shows that there was a significant improvement found in BVMI and ETCH. This study was concluded that the Visual Motor Integration Therapy along with sensory processing skill activities are more effective in the development of writing skills in children with ASD. This study need to be used in large group of children and longer duration in future study.

**Keywords:** Visual Motor Integration, Sensory Processing, Writing skills