

VISUAL MOTOR INTEGRATION- CONCEPT, SCREENING AND INTERVENTION

NIRUPMA SAINI & VANDANA SINGH

Associate Professor, Department of Human Development

GURU NANAK GIRLS COLLEGE, YAMUNA NAGAR

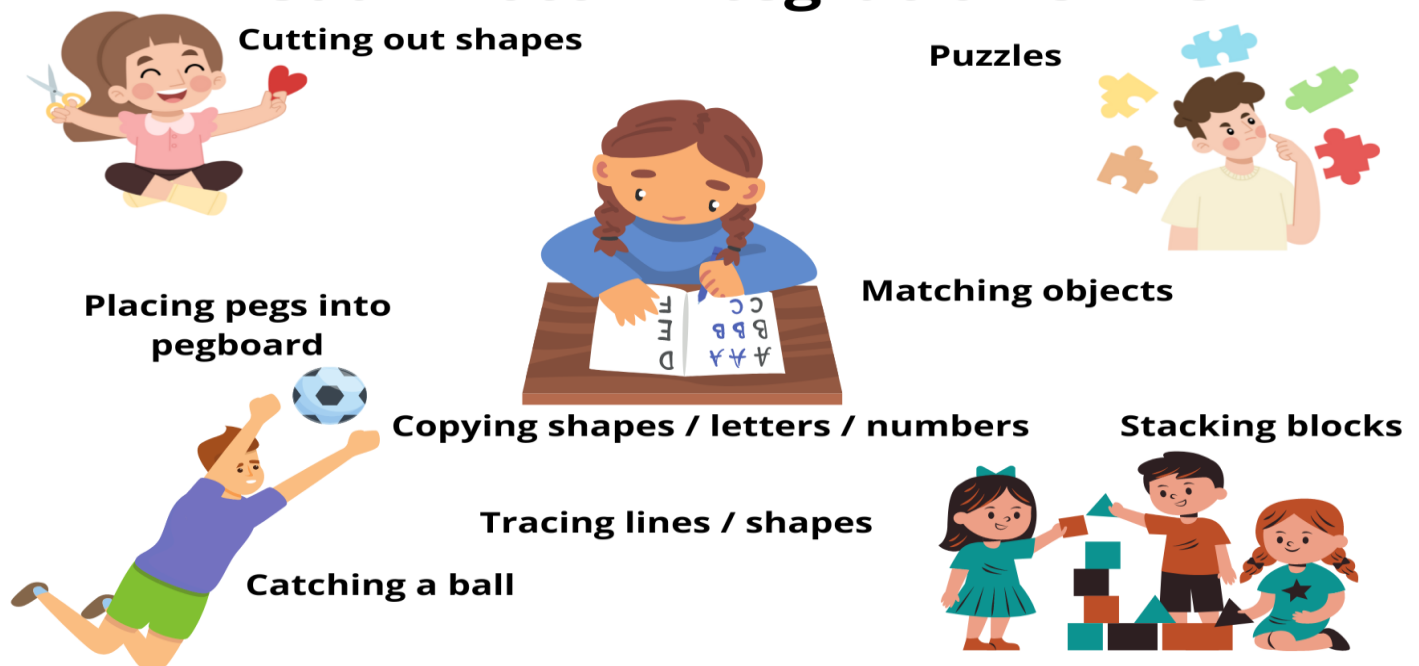
nirupmasaini@yahoo.com vandanasingh72@gmail.com

INTRODUCTION

If the twenty first century is to be better for mankind than the twentieth has been, then, it is essential that children should have top priority on society's commitment at all points of time.

Visual motor integration is the ability to combine visual perception with fine motor skills to perform tasks, essentially the coordination between what the eyes see and what the hands do. Visual motor integration is the coordination between visual perception and motor output. It involves the teamwork of your eyes and hands to process visual information and respond with a coordinated physical action. The ability is critical for a wide range of tasks throughout childhood and adulthood. It is crucial for functional skills like handwriting, catching a ball, and tying shoelaces. Activities that improve visual motor integration include building with blocks, tracing shapes, and playing ball games.

Visual-Motor Integration Skills



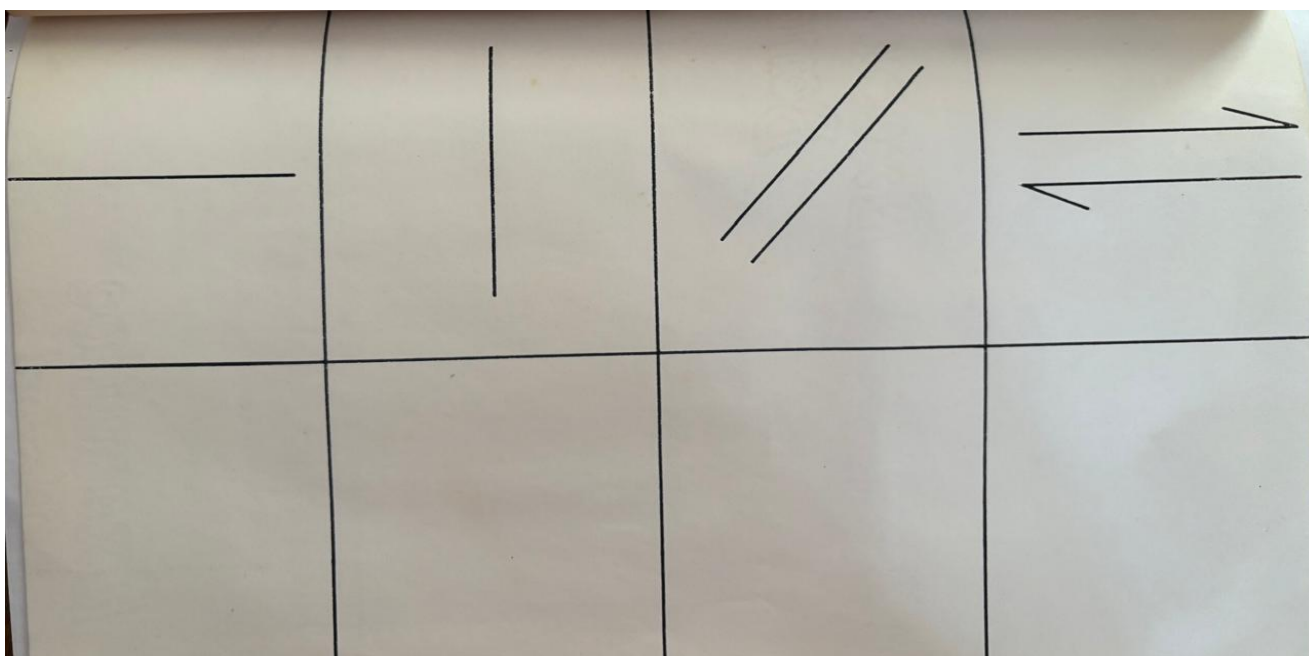
The concept of visual-motor integration (VMI) is complex and influenced by various factors, including visual receptive functions, visual cognitive functions, fine motor skills and the coordination of visual, cognitive and motor processes. The VMI encompasses sensory, perceptual and motor components, signifying the coordination of visual perception with motor skills. The sensory component involves processing visual stimuli in a specific environment, while the perceptual component interprets and understands the observed information. Collectively, these components empower an individual to comprehend visual stimuli, and both elements are essential for functional vision. The visual perception is also the ability to copy geometrical shapes, letters, and images within a designated space. This

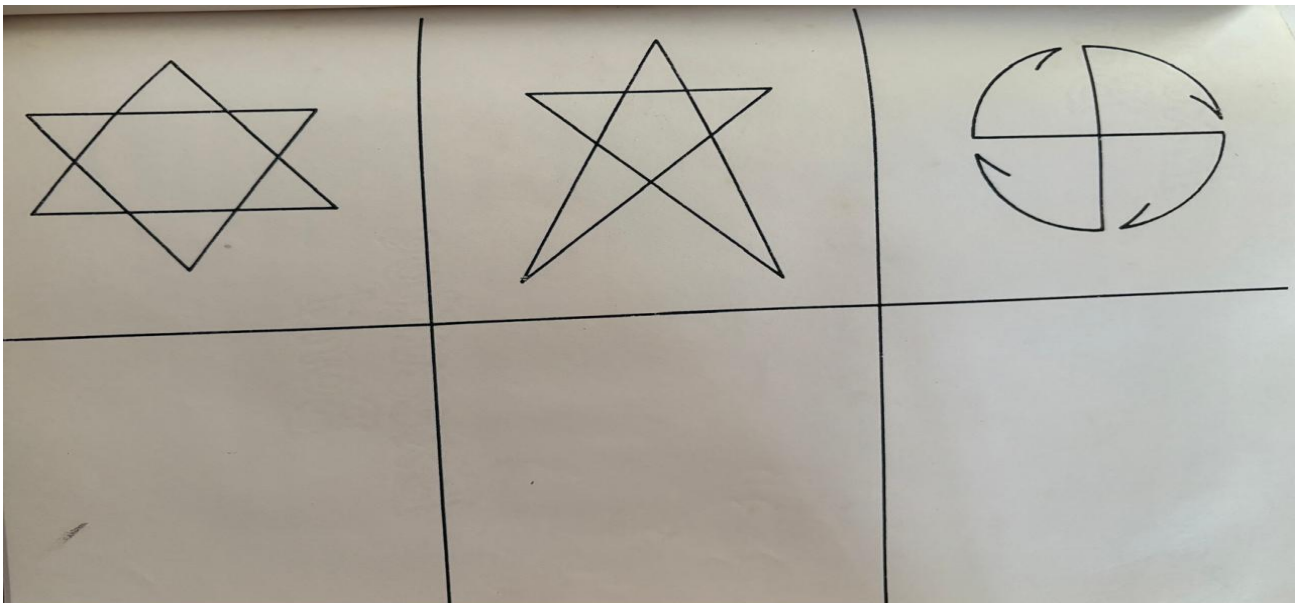
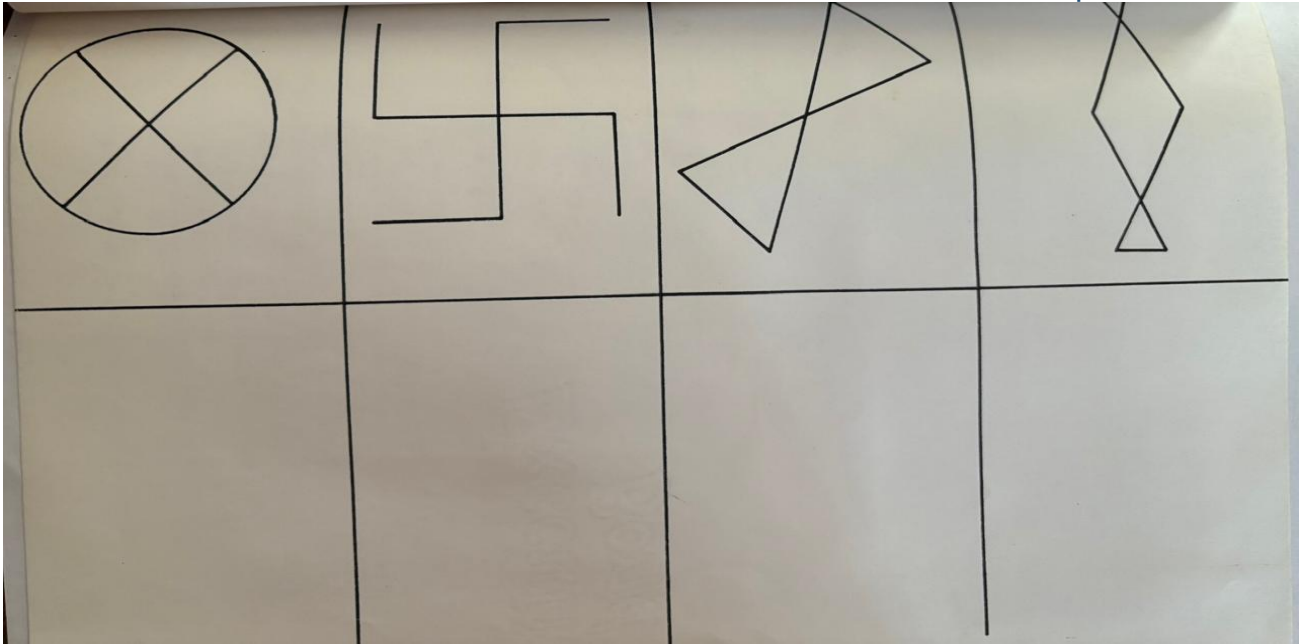
proficiency is deemed crucial for effective motor coordination. The motor component entails physical movements in response to the visual stimuli. Efficient coordination between the visual system and the motor system becomes effective when the foundational skills of both visual and motor abilities are firmly established. The VMI is closely linked to various functional abilities and the capacity to engage in daily tasks. VMI skills enable individuals to plan, monitor, and perform motor tasks, such as tying shoelaces, threading a needle, and catching or hitting a ball. For instance, visual-motor integration plays a crucial role in the acquisition of handwriting skills.

Approximately 10% to 30% of school-aged children are estimated to encounter difficulties with handwriting. Various research has noted that visual-motor integration is a significant predictor of handwriting performance.

SCREENING

Screening would help in early identification of preschoolers who are at risk. This inventory was developed by Nirupma Saini and Sudha Chhikara (1995). It contains figures of horizontal, vertical, diagonal and curved lines. As eye hand coordination is required in drawing and colouring of these figures as close as possible to their original picture would give researchers, teachers some idea and clue of VMI of preschoolers. Once subjects are identified they can go for proper assessment and evaluation through standardized inventory.





INTERVENTION

Early implementation of interventions targeting a child's visual-motor integration skills is crucial. Addressing deficits in VMI skills before formal schooling begins is essential, as these deficits can impact a child's academic journey. By practicing, enhancing, or remediating these skills early on, children can cope better with school-related challenges, preventing potential delays compared to their peers.

Interventions designed to enhance the VMI skills of children should incorporate activities and exercises that engage their visual senses. Tasks involving visual stimuli, such as objects, encouraged children to actively engage with what they observed. This facilitates the development of Gross Motor Skills through activities involving object manipulation, as well as enhancing the VMI skills. This is because children need to interpret their visual environment to execute appropriate motor responses while interacting with the objects.

HOW IT CAN BE IMPROVED

Activities that improve visual motor integration include building with blocks, tracing shapes, and playing ball games.

Here is list of few Activities to improve VMI:

- A variety of games and exercises can help build these skills.
- Building with blocks
- Tracing, drawing, and scribbling
- Cutting with scissors
- Catching or throwing a ball
- Threading beads or stringing large blocks
- Using pipe cleaners to match shapes

Vision therapy:

- In some cases, vision therapy can help by using eye exercises to retrain the eyes and brain to work together more effectively.

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