



VISUAL MOTOR INTEGRATION

Katherine Claire Robinson, BA Interdisciplinary Studies
William Carleton, Ph.D. and Elda Martinez, Ed.D.

PURPOSE

The purpose of this study is to determine if there is a significant difference for children in the use of the *Beery-Buktenica Developmental Test of Visual- Motor Integration*. It is hoped that, through early screening with the *Berry VMI*, those children who may need extra help in their educational or other aspects of development will be identified and referred to appropriate professionals for further evaluation and help.” (Berry, 2004, p.16)

RATIONALE AND SIGNIFICANCE

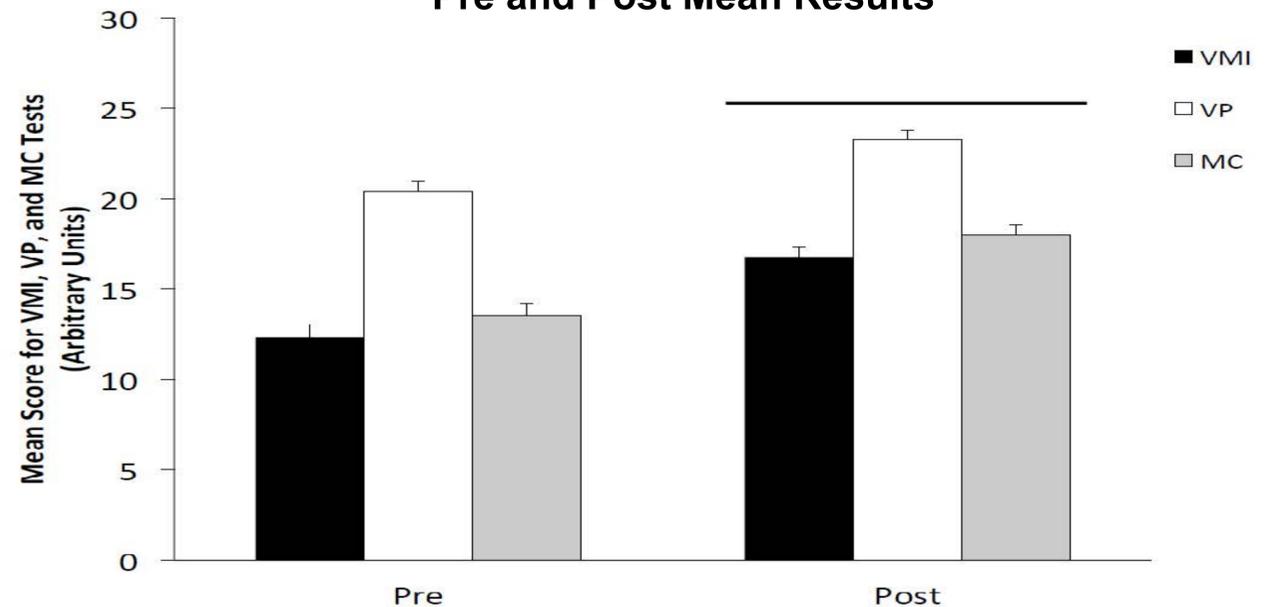
Movement is an integral and important aspect in the learning process. Unfortunately, physical education and recess have been eliminated from the curriculum in many schools (Bohn-Gettler, C. M., & Pellegrini, A., 2013). Children need to develop their fine and gross motor skills, and movement needs to be integrated into curriculum in the classroom because there is definite connection between motor skills and academics (Weikart, P. S., 2005). This study focuses on the importance of vision, motor skills, and visual motor integration, and the relationship between eye and hand coordination and its connection to learning.

METHODS AND RESULTS

Thirty-one children between the ages of five through eight years took the *Beery-Buktenica Developmental Test of Visual- Motor Integration (Beery VMI)*, then completed six weeks of an intervention program at San Antonio Busy Bodies; after completing the intervention program the children again took the Beery VMI. The *Berry-Buktenica Developmental Test of Visual-Motor Integration* “is a developmental sequence of geometric forms to be copied with paper and pencil” (Beery, 2004, p.1).

After paired t-Tests were performed on pre- and post-test results for Visual Motor Integration, Visual Perception, and Motor Coordination for thirty-one children who completed a six-week intervention program at San Antonio Busy Bodies, a significant difference of beyond .0001 was found. Based on the data used in this study, it reflects that the *Beery VMI* is not gender biased. Both female and male children’s mean scores improved, however, there is no significant difference found when comparing pre- and post-test results of male and female. Finally, after correlations were made, it was verified that when Visual Motor Integration test results increased, Motor Coordination test results also increased because there is a significant difference beyond .0001.

Pre and Post Mean Results



FINDINGS

This study provided evidence that there is a relationship between vision and motor development, and how the use of motor labs can be a beneficial teaching strategy for students with learning differences. A connection to academics and learning can be inferred because motor skills and hand-eye coordination are prerequisite skills for handwriting. In order for students to be successful and learn, they need to learn basic skills such as handwriting. Differentiated teaching strategies such as the use of motor labs, can aide in the process of teaching basic skills and should be used to teach children.

Future research could be conducted on ways to integrate motor lab components into the daily classroom and also if motor labs can be useful not solely to teach students with learning differences, but all students, to help increase their learning.