



Abnormal Vision Motion Processing Is Not A Cause of Dyslexia



Seeing Stars for Phonemic Awareness, Reading, and Spelling (SI)

PROFILE:

Number of Subjects: 22

Age: 7-12

Program Implemented:

- Seeing Stars®

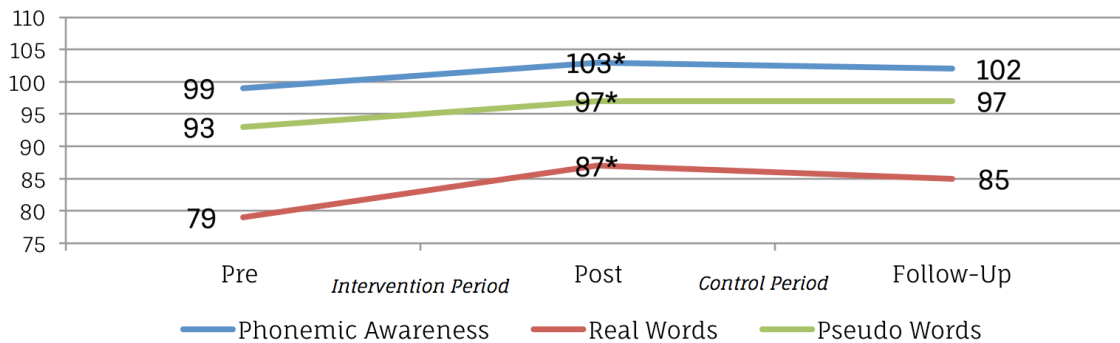
Outcome Measures:

- Lindamood Auditory Conceptualization Test-3rd
- Woodcock Johnson Tests of Achievement-3rd (word identification and word attack)
- Brain activity (fMRI)

BACKGROUND:

Georgetown University's Center for the Study of Learning in collaboration with Lindamood-Bell Learning Processes conducted an experiment involving children with dyslexia. This study investigated the efficacy of the Seeing Stars program, which develops symbol imagery for reading. Children were pretested on a battery of reading assessments, received approximately 120 hours of Seeing Stars instruction, and were posttested. Eight weeks later the children received follow-up testing. Brains scans were obtained using functional magnetic resonance imaging (fMRI) at the three points in time. Small-group instruction was delivered by specially trained Lindamood-Bell staff. Behavioral (i.e., reading assessment) and neuroimaging results during the intervention period were compared to results during the control period.

Mean Standard Scores



*Statistically significant (p ≤ .05)

RESULTS:

On average, pre- to posttest results were statistically significant on all three reading assessments and activity in the area of the brain associated with visual processing (right V5/MT) also increased significantly after the intervention. Post- to follow-up results (behavioral and neuroimaging) were not significant; demonstrating that the improvements were specific to the intervention. The results of this study illustrate that Lindamood-Bell instruction in the Seeing Stars program leads to increased brain activity and improved reading for children with dyslexia.

LOCATION:

Center for the Study of Learning, Georgetown University Medical Center, Washington, D.C. 20057