

## ABSTRACT

### **Colored Overlays and Symbol Identification in Pre-School Children with Disabilities**

by

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The purpose of this study was to determine if pre-school children, with and without disabilities, could identify symbols more accurately while looking at the symbols through colored overlays.

The LEA Playing Cards and the LEA Near Vision Test were used to assess the ability to point to a symbol. To screen for the preferred color overlay the Cerium Colour Overlays were used.

Eighteen children, aged 3 to 5 years participated. Nine were children with disabilities, nine were children without disabilities.

A screening determined if each child could match four common symbols by pointing. Three groups were formed. Each group included three children with disabilities and three children without disabilities.

A Pretest involved having each child point to four symbols on the LEA Near Vision Test first with the Test card was covered with a clear overlay, second with the preferred color overlay and, finally, with a randomly chosen non-preferred color overlay. The Intervention procedure was the same as the Pretest procedure with the exception that each group used a different type of overlay. Group I used a clear overlay, Group II used the preferred color overlay, and Group III used the randomly chosen, non-preferred color overlay.

The analyses included a one-way ANOVA with repeated measures between the Pretest scores and the Intervention scores, a one-way ANOVA comparing the Intervention scores between those with and without disabilities, a one-way ANOVA comparing the Intervention scores between the three groups, a two-way ANOVA comparing the interaction between the Intervention scores of the group factor and the disability factor, and a two-way ANOVA comparing the preferred color choices between the disability and overlay conditions.

The results showed no statistically significant differences between the Pretest and Intervention accuracy scores. The results of the one-way ANOVA with repeated measures between the Pretest scores and Intervention scores did approach statistical significance of  $p = .089$ . Interaction between the group and disability factors were not statistically significant. There was a trend in which the children with disabilities achieved higher Intervention mean scores when using colored overlays. No single color dominated preference.