Early Literacy Skills Builder

ELSB Research

for Students with Autism and Students with Severe Developmental Disabilities
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ELSBB is a research-based curriculum for students with significant developmental disabilities, including autism. Three years of ongoing research through the University of North Carolina Charlotte have shown ELSB a highly effective literacy program. The ELSB group had higher gain scores on all dependent variables. As a result, the Institute of Educational Sciences (funding agency) approved the discontinuation of the Edmark control group for the remaining two years of research.

Dr. Lynn Ahlgrim-Delzell,1 ELSB coauthor and statistician, recently completed a report that included only students with autism in both control (Edmark) and treatment (ELSB) groups during the first three years of research.2 The graph below shows the Cohen’s d measure of effect size for the treatment and control groups on three independent variables: Conventions of Reading, Phonics Skills, and Peabody Picture Vocabulary Test.

The treatment group received literacy instruction using both components of ELSB (Building with Stories and Building with Symbols). The control group used Edmark and one component of ELSB (Building with Stories). For each dependent measure, except the Peabody Picture Vocabulary Test, the improvement in literacy skills of the treatment group exceeded that of the control group. Cohen’s d, as a measure of the effect size, displays the amount of growth made by each group from pre- to post-test (see graph). Since both groups received Building with

1.5
1.0
0.5
0.0

Conventions of Reading
Phonic Skills
Peabody Picture Vocabulary Test

Cohen’s d (effect size)
0.0 - 0.2 weak
0.21 - 0.5 modest
0.51 - 1.0 moderate
>1.0 strong

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Stories, the effect size for the Conventions of Reading was solid, with a stronger effect for the treatment group (d = .96). Both groups also demonstrated large effects in the Peabody Picture Vocabulary Test (d = .89). This result was also expected since both groups received instruction in the identification of words and pictures (treatment group through ELSB and control group through Edmark). The greatest difference between the groups was in Phonics Skills. The effect size of the treatment group was very strong (d = 1.50); the effect size of the control group was moderate (d = .59). This result demonstrates that ELSB is a highly effective instructional program for teaching phonics skills to students with autism.

1 Lynn Ahlgrim-Delzell, Ph.D., University of North Carolina Charlotte, 9201 University City Blvd, Charlotte, NC 29223, 704-687-8636 (phone), 704-687-3493 (fax)

2 Principal Investigator, Diane Browder at the University of North Carolina Charlotte, in collaboration with the Charlotte-Mecklenburg School District