



SLANT Efficacy Study Review



Third-Party, Expert ESSA Evidence Level Review
by Rachel Schechter, Ph.D., founder of LXD Research

Study Report Reviewed

Evaluation of the SLANT System® for Structured Language Training: A Multisensory Language Program for Delayed Readers.

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ESSA (Every Student Succeeds Act) Evidence Level

This study provides **Promising Evidence**, ESSA Level 3, for the SLANT System for Structured Language Training.

University Authors

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Study Summary

The SLANT System® training was selected by individual teachers or by individual schools as a reading intervention for students who were presenting reading delays. Reading achievement scores over four years were aggregated and analyzed for differences based on student grade level or disability. These results offer evidence that the SLANT System® demonstrated significant growth in the phonemic awareness and decoding abilities with the 251 students, with 131 teachers, across 20 schools. Results indicate that students made significant progress on individually administered achievement tests during the intervention year. This was supported by aimsweb and the Illinois statewide assessment results over multiple years by schools using SLANT with consistency. While a comparison group was not present to show comparative results or relative effect size of the findings, this study demonstrates a positive and significant correlation between SLANT and literacy scores to meet ESSA Level 3, Promising, criteria.



Product Description

The SLANT System® is a multi-sensory structured language (MSL) program incorporating research-based reading components in phonemic awareness, phonics, fluency, vocabulary, and comprehension. As an MSL program, instruction is systematic, sequential, and explicit. Instruction begins by emphasizing phonemic awareness and letter/sound relationships, and it builds to include instruction in vocabulary and comprehension strategies. Each highly structured, 50-minute daily lesson plan includes practice with the new concept in isolation as well as contextual activities.

The SLANT System® training includes a process for certification in the use of the program. This process includes 45 hours of coursework emphasizing phonology, morphology, and language structure (syllable and spelling rules, etc.). This coursework is presented in a 20-hour four-day Introductory Course followed by a school-year-long implementation program. During the implementation program, teachers are involved in 25 additional hours of coursework in eight three-hour monthly seminars.

Study Sample and Usage Description

Who was in the study?

The SLANT System® program was implemented in approximately 20 suburban schools surrounding Chicago. There were 131 teachers who participated in the pre- and posttests. Ninety-two percent of the teachers were special educators or reading specialists (121/131), and the remaining 10 teachers (8%) were general educators.

Most of the 251 students in the study were in grades 2-4, although the full range spanned from K-9. Most students (69%) were identified with a learning disability. The schools varied demographically, ranging from 47% African American to 59% white, and 95% Hispanic. Up to 85% of students in each school were low income.

How were they selected to be in the study?

In seven of these schools, the program was selected by instructional leaders through the establishment of a formal training contract which included all early intervention reading and special education teachers in the school. In the remaining schools, reading or special education teachers sought out the training individually.



Research Questions and Methods

What was this study trying to examine?

- Did the SLANT System support the development of student scores related to sight word and decoding skills over four years?
- Were there any trends in regard to different types of learners over four years?

What tests were used to measure student skills?

- Test of Word Reading Efficiency (TOWRE):
 - Sight Word Efficiency and Decoding Efficiency subtests
- Comprehensive Test of Phonological Processing (CTOPP)
- Tests were given at the start and end of each eight-month period of intervention, each year.

What did implementation look like?

- Students received a minimum of two 50-minute lessons each week.
- Teachers accrued at least 60 hours of contact time from October to May to achieve SLANT System certification (achieved by all teachers by the end of the study).
- SLANT Coaches visited teachers five times and provided feedback on teacher observations using a checklist that included feedback on the classroom environment, teacher instruction, and materials.

Research Findings

How did SLANT impact literacy scores?

- Students scores on the TOWRE subtests and CTOPP significantly improved over the four years.

How did SLANT impact different student groups?

- Students who were younger (4th grade and below) made larger gains than older students (5th grade and above), due to higher sight word efficiency.
- Students without disabilities made larger gains than students with disabilities.



What other outcomes did researchers notice?

- All kindergarten students performed above benchmark on aimsweb initial sound fluency subtest after implementing the SLANT intervention.
- The number of students referred for special education assessments decreased.
- The percentages of first graders who met benchmark expectations on aimsweb subtests increased as well.
- Third grade state test scores for these schools improved at a higher rate than the whole district's progress over two years.
- By the end of the second full year of SLANT implementation all third-grade students met or exceeded the reading benchmarks on the Illinois state test.

Expert Questions & Recommendations

What questions do our experts have for the authors?

- The study focused on a relatively small group of students in 20 schools. How did the program impact other students in the schools also taught by the SLANT trained teachers?
- What programs were used for core reading instruction and how might other products used by each teacher or school have contributed towards these results?
- What were the results of the standardized scores, pre-test and posttest for each year?
- What feedback did teachers have about the SLANT program and training?
- Were the students with disabilities also older students or was there a n interaction between disability status and grade level?
- How did student progress on the TOWRE and CTOPP align with expected growth for the same time period, for a comparison?

What recommendations do our experts have for the next research study?

- To best understand how SLANT contributed to the change in student growth, researchers should compare students who experienced SLANT with students who receive an alternative reading intervention. Ideally, these groups of students would be similar, and the amount of time provided to students for intervention would be comparable. When possible, students, teachers, or schools would be randomly assigned to the intervention program condition.
- When students are clustered in schools across a district, analysis should account for this clustering and account for school-level differences as well as student demographics.
- Assessments should not be given by the student's teacher but by an alternative tester.



LXD Research ESSA Evidence Review

Evaluation of the SLANT System: A Multisensory Language Program for Delayed Readers

LXD RESEARCH
ESSA
Level 3
Evidence

LXD Research determined that this study provides **Promising Evidence** for SLANT System for Structured Language Training according to Every Student Success Act (ESSA) levels of evidence provided by the U.S. Department of Education guidelines for the following reasons:

Criteria for Promising ESSA Level 3

- ✓ The study used a correlational design, students posttest scores were compared to their pretest scores. This study also covered multiple years.
- ✓ The study has at least 2 teachers and 30 students.
- ✓ Student pretest scores were used as a dependent variable in the analysis, to be a covariate, accounting for differences in student scores before the intervention begun.
- ✓ The study lasts at least 12 weeks, from program inception to posttest.
- ✓ At least one statistically significant, positive finding
- ✓ The study uses a form of a program that could, in principle, be replicated.

What would have been needed for What Works Clearinghouse to have approved this study with Promising evidence?

- A group of students who did not receive the intervention, within the same district, and were statistically similar to the studied students would serve as a comparison group to understand the impact of SLANT on student skill growth.
- Analysis of student growth would account for students being clustered in schools and student demographics.
- Student scores would be standardized across grades in the analysis.

LXD Research Expert Reviewers

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1

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Dr. Rachel Schechter founded Learning Experience Design (LXD) Research and an Edtech Trendsetter Award honoree for her contributions to the edtech industry. An international speaker and writer on literacy product efficacy, Dr. Schechter has published research for companies including Lexia, Houghton Mifflin Harcourt, Engage2Learn, School Specialty, Hatch Early Learning, Labster, and 95 Percent Group. Dr. Schechter has a Master's in Education from Harvard University and a Ph.D. in Child Development from Tufts University. Leading LXD Research, her team's guidance boosts the capacity for education leaders to buy research-proven products and edtech company leaders to measure, communicate, and accelerate learning outcomes for students of all abilities.

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2

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Nathaniel Hansford is a teacher of 11 years, with a specialist in reading and in special education. He is the author of *The Scientific Principles of Reading Instruction* and *The Scientific Principles of Teaching*. He is the lead writer and editor for the popular education websites: *Pedagogy Non Grata* and *Teaching by Science*. Nathaniel Hansford, has conducted almost three dozen case studies, and multiple large meta-analyses, including the largest meta-analysis on phonics instruction in the last 10 years and the only large-scale meta-analysis on reading comprehension that controlled for measurement type. He is passionate about making academic research accessible for teachers.



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