



# LINDAMOOD-BELL LEARNING PROCESSES

## RESEARCH

### Fort Smith Public Schools



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

#### PROFILE: Special Education

Number of Students: 446 Average Age: 10.5

Average Hours of Instruction: 56.7

Lindamood-Bell Programs Implemented: Seeing Stars®

Outcome Measures:

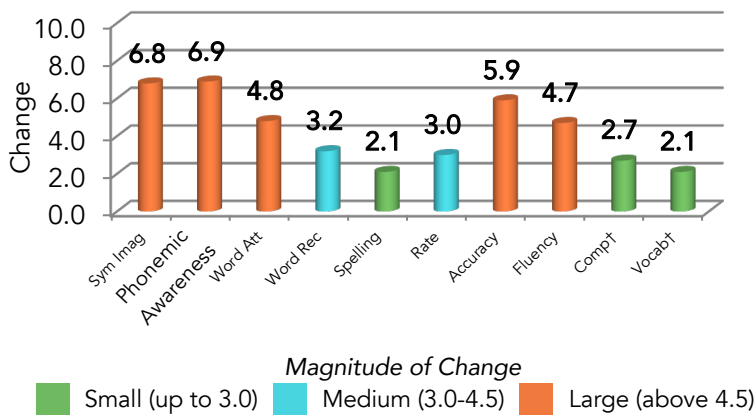
- Symbol Imagery Test
- Lindamood Phoneme Sequencing Test-3rd
- Woodcock Reading Mastery Test-3rd (word attack)
- Wide Range Achievement Test-4th (reading and spelling)
- Gray Oral Reading Tests-4th (rate, accuracy, fluency, and comprehension)
- Peabody Picture Vocabulary Test-5<sup>th</sup> (vocabulary)

Note: WRAT-4 and PPVT-4 scores were later compared to WRAT-5 and PPVT-5 scores, respectively.

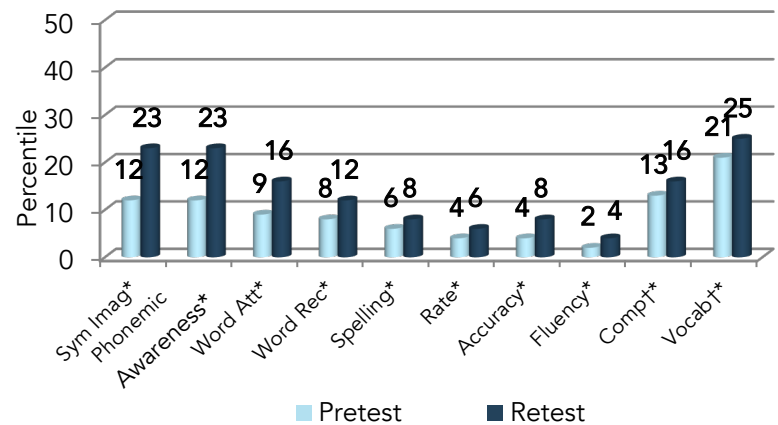
#### BACKGROUND:

Fort Smith Public Schools in Fort Smith, Arkansas, serves a large percentage of students who are at-risk of reading failure. During the 2020-21 school year, Fort Smith Public Schools implemented Lindamood-Bell® instruction to address the specific needs of this student population. 446 students received an average of 56.7 hours of primarily Seeing Stars instruction to develop symbol imagery for reading. Instruction was delivered by Fort Smith Public Schools' teachers who received professional development in the programs developed by Lindamood-Bell's founders. Student gains were measured with a battery of reading assessments.

#### Average Standard Score Changes



#### Pre- and Retest Percentiles



\*Statistically significant ( $p \leq .05$ ).

#### RESULTS:

On average, Seeing Stars students achieved significant improvements in reading. Their pre- to posttest results were statistically significant on all measures and they made large standard score changes on many measures. The results of this study illustrate that Lindamood-Bell instruction in the Seeing Stars program leads to improved reading, which is essential to achieving success with school curricula.