

Lindamood-Bell Learning Processes
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Mission

Lindamood-Bell believes that all students can be taught to read and comprehend to their potential through process-based instruction focused on developing the underlying sensory-cognitive processes necessary for language and literacy skills. Since 1986, Lindamood-Bell has worked with schools, educators, and students to implement programs and organizational processes that develop or remediate literacy skills. We are the only provider to offer research-validated, sensory-cognitive instruction as a basis for developing phonemic awareness, phonics, orthographic awareness, fluency, vocabulary and reading comprehension. Our partnerships with schools have succeeded in closing the achievement gap by providing explicit, cumulative and systematic instruction in this methodology. We have substantial evidence of effectiveness with turning around low-performing schools and increasing reading proficiency with struggling readers, including students with dyslexia and in special education.

Our organization supports:

- ✓ Effective Leaders
- ✓ Ambitious Instruction
- ✓ Collaborative Teachers
- ✓ Supportive Environment
- ✓ Involved Families

Approach

The Seeing Stars and Visualizing & Verbalizing programs teach reading and increase language comprehension. Partnerships begin with workshops to establish a foundational understanding of the programs. Instructional time, scheduling, lesson-planning, and strategies for differentiating within group instruction are all developed through the workshops. Participants receive a program kit, providing the instructional materials necessary for fidelity, and memberships to Lindamood-Bell's online community, which includes self-paced courses in advanced topics, discussion forums for peer-to-peer collaboration, and instructional resources/materials.

Job-embedded professional development and collaboration are critical in implementing a new intervention. Lindamood-Bell provides each partnership with a tiered, responsive system of support. A team of consultants participate directly, via videoconferencing, in lessons to model, co-teach, and provide written and verbal feedback to teachers. Feedback from teachers and consultants are used to form the content of structured monthly Professional Learning Community (PLC) meetings.

Lindamood-Bell builds sustainability by coordinating with district leadership to identify staff with the expertise sufficient to become instructional leaders. Instructional leaders develop the ability to provide job-embedded mentoring to teachers who have completed the workshops, building long-term sustainability with quality and fidelity. Instructional leaders develop the capacity to design and lead PLC meetings responsive to student and teacher needs, ultimately minimizing support directly from Lindamood-Bell. Through these components for professional development and support, Lindamood-Bell and partnering districts can implement a model of continuous program review and improvement.

Impact

Lindamood-Bell will establish a PLC that effectively identifies, prevents, and addresses reading and language comprehension deficits for all learners. Extensive evidence is available for various subgroups, including students with disabilities, English learners, economically disadvantaged students, and students identified with dyslexia and autism. Various measures were used in our fidelity analyses, including monitoring assessments that target the areas of reading specified by the National Reading Panel (phonemic awareness, phonics, fluency, comprehension, and vocabulary), as well as broader measures

including state achievement tests. A significant foundation for our evidence-based practice is grounded in major research collaborations with universities where neuroimaging, published in peer-reviewed journals, have demonstrated the efficacy of our program methodology for students with disabilities.

Seeing Stars and Visualizing & Verbalizing was selected by Pueblo City Schools (PCS) to address decoding and comprehension instruction. It was used for 10 years, ending with a peer-reviewed, independent impact evaluation study examining the effects of its usage with 3rd-5th grade students (Sadoski & Willson, 2006). The statewide comparison yielded statistically significant comparative results for Pueblo's grades 3-5, longitudinally tracking comparative statewide growth on the Colorado State Assessment Program (CSAP) as a dependent measure of success. This Title 1 urban district, with 32 elementary schools, went from the bottom of Colorado's Title 1 urban school districts to the top. The analysis included all SES, minority, and special education groups. The study exceeded the highest of evidence-based standards as it was not restricted based on sample size, nor randomized.

As an approved provider in collaboration with the Colorado Department of Education, the Seeing Stars and Visualizing & Verbalizing programs were used to address decoding and language comprehension needs of students at Haskin Elementary, as part of the Federal School Improvement Grant initiative. Over three years, Haskin Elementary was the only school in the state to progress from "turnaround" status (the lowest 5% in the state) to "performance" status, the highest accountability metric in the state. This is especially notable since Haskin was a Title 1 school (over 90% minority, with free and reduced lunch), and over 50% speaking English as a Second Language (Worthington & Welsh, In Progress).

Twenty years of neuroscientific, peer-reviewed research using the Seeing Stars program, examining the brain and reading behavior changes for dyslexic students, reveal statistically significant changes in reading as associated with Gray Volume Matter (GMV) increases (Krafnick, Flowers, Napoliello, & Eden, 2011), comparatively significant positive changes in reading and neuroplasticity for children in lower socioeconomic conditions (Romeo et al., 2017), and statistically significant brain white matter enhancement associated with remediation of dyslexics students (Huber, Donnelly, Rokem, & Yeatman, 2018). These peer-reviewed studies were conducted with Georgetown University, Massachusetts Institute of Technology, and the University of Washington.

A series of comparative randomized controlled neuroscientific studies, funded by the National Institutes of Health, selected Visualizing & Verbalizing as an intervention for autism spectrum disorder (ASD) students. Each of the studies (Murdaugh, Maximo, & Kana, 2015; Murdaugh, Deshpande, & Kana, 2017) document the correlated increased changes between brain white matter conductivity and increases in language comprehension. Being able to positively and significantly affect comprehension skills in severely disabled students added substantive evidence that the instructional artifacts of the Visualizing & Verbalizing program as being applicable for both developmental and remedial instruction toward teaching language comprehension skills, the most critical component of reading.

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